AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS RUC RECOMMENDATIONS FOR CPT 2013

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Physi	cian Time														
Octob	er 2012 (C	CPT 2013)													
OPT	Due Ocuries	Due Osmiss	Pre- Service Scrub												T - 4 - 1
CPI	Pre-Service	Pre-Service		Intra-	Immediate	00004	00004			00000		00040	00040	00044	Time
Code	Evaluation	Positioning	wait	Service	Post Service	99291	99231	99232	99233	99238	99239	99212	99213	99214	Time
32554	13	3	5	20	15										56
32555	15	3	6	20	15										59
32556	13	3	6	20	18										60
32557	15	3	6	30	15										69
52287	7	5	10	21	15										58
95924	15			30	15										60
99487				26											26
99488				60											60
99489				13											13
99495				40											40
99496				60											60

October 2012 (CPT 2013) RUC Submission Utilization Crosswalk

		New/ New/Revised				Spec				
CPT		Source 2011	Revised	Code Utilization		Source	Rec	RUC	New/ Revised	Total Source
Source	Deleted	est Utilization	Code	(reference 2011)	Percent	RVU	RVU	Tab	Total RVUs	RVUs
32551		62,136	32551	42,948	0.691	3.29	3.50	4	150,319	141,300
32551		62,136	32557	9,693	0.156	3.29	3.62	4	35.089	31.891
32551		62,136	32556	9,494	0.153	3.29	2.50	4	23.736	31.237
32420	D	372	32405	372	1.000	2.18	1.93	4	718	811
32405		62.663	32405	62.663	1.000	1.93	1.93	4	120.940	120.940
32421	D	91,497	32554	39.344	0.430	1.54	1.82	4	71.606	60.589
32421	D	91.497	32555	52,153	0.570	1.54	2.27	4	118.388	80.316
32422	D	133.021	32554	39,906	0.300	2.19	1.82	4	72.629	87,395
32422	D	133 021	32555	93 115	0 700	2 19	2 27	4	211 370	203 921
76942	2	1 506 222	Savings	145 268	0.096	0.67	0	4	0	97 330
76942		1,506,222	76942	1 360 954	0.000	0.07	0.67	4	911 839	911 839
75989		71.050	Savings	9,000,004	0.001	1 19	0.07	4	011,000	11 535
75080		71,000	75080	61 357	0.100	1.10	1 10	4	73 015	73 015
77002		246 763	Savings	1 /81	0.004	0.54	1.13	 Д	73,013	800
77002		246,763	77002	2/15 282	0.000	0.54	0.54	 Д	132 /53	132 /53
77012		240,703	Sovings	245,202	0.334	1 16	0.54		152,455	11 638
77012		204,756	77012	10,033	0.049	1.10	1 16	4	225.970	225 870
F2000		204,750	52297	194,723	0.901	0.00	2.20	4	223,079	225,679
53699		1,507	52207	470	0.300	0.00	3.20	5	1,504	0
05021		1,007	05001	1,097	0.700	0.00	0.00	5	16 692	16 692
90921		04,200	95921	10,000	0.220	0.90	0.90	0	10,002	10,002
90922		70,141	95922	1,324	0.020	0.96	0.90	0	1,403	1,403
95921		84,253	95924	19,716	0.234	0.90	1.73	6	34,109	17,744
95922		76,141	95924	22,080	0.290	0.96	1.73	6	38,198	21,197
95923		6,632	95923	6,632	1.000	0.90	0.90	6	5,969	5,969
95921		84,253	95943	46,002	0.546	0.90		6		41,402
95922		76,141	95943	52,537	0.690	0.96	CP	6		50,436
75896		15,153	75896	15,153	1.000	1.31	CP	/		19,850
75898		43,683	75898	43,683	1.000	1.65	CP	(/2,0//
99213		99,960,280	99495	346,675	0.003	0.97	2.11	8	731,484	336,275 ^
99213		99,960,280	99496	231,117	0.002	0.97	3.05	8	704,907	224,183
99213		99,960,280	99213	97,781,289	0.978	0.97	0.97	8	94,847,850	94,847,850
99214		81,311,416	99495	346,675	0.004	1.50	2.11	8	731,484	520,013
99214		81,311,416	99496	231,117	0.003	1.50	3.05	8	704,907	346,676
99214		81,311,416	99214	/9,132,425	0.973	1.50	1.50	8	118,698,638	118,698,638
99215		9,665,755	99495	346,675	0.036	2.11	2.11	8	731,484	731,484
99215		9,665,755	99496	231,117	0.024	2.11	3.05	8	704,907	487,657
99215		9,665,755	99215	7,486,764	0.775	2.11	2.11	8	15,797,072	15,797,072
NA			99495	260,006	1.000	0.00	2.11	8	548,613	0
NA			99496	173,338	1.000	0.00	3.05	8	528,681	0
99213		99,960,280	99487	333,583	1.000	0.97	1.00	9	333,583	323,576 *
99213		99,960,280	99488	1,243,355	1.000	0.97	2.50	9	3,108,388	1,206,054
99213		99,960,280	99489	24,261	1.000	0.97	0.50	9	12,131	23,533
99214		81,311,416	99487	333,583	1.000	1.50	1.00	9	333,583	500,375
99214		81,311,416	99488	1,243,355	1.000	1.50	2.50	9	3,108,388	1,865,033
99214		81,311,416	99489	24,261	1.000	1.50	0.50	9	12,131	36,392
99215		9,665,755	99487	333,583	1.000	2.11	1.00	9	333,583	703,860
99215		9,665,755	99488	1,243,355	1.000	2.11	2.50	9	3,108,388	2,623,479
99215		9,665,755	99489	24,261	1.000	2.11	0.50	9	12,131	51,191
NA			99487	4,002,996	1.000		1.00	9	4,002,996	0
NA			99489	291,127	1.000		0.50	9	145,564	0
77373		12670	77373	12670	1.000	0.00	0.00	23	0	0*
77418		1507480	77418	1507480	1.000	0.00	0.00	23	0	0*

251,486,795	241,793,044

Total Source RVUs	241,793,044
Total New/Revised RVUs	251,486,795
RVU Difference	-9,693,750
CF	34.0376
CF Redistribution	-\$329,951,987

*Notes:

Tabs 8 & 9

Utilization assumptions are based off specialty society estimates included in the recommendations Tab 23

Practice Expense only (no physician work)



American Medical Association 515 N. State Street Chicago, Illinois 60654

ama-assn.org 312.464.5000

October 10, 2012

Jonathan Blum Deputy Administrator and Director Center for Medicare Centers for Medicare and Medicaid Services 7500 Security Boulevard Baltimore, MD 21244-1850

Subject: Additional RUC Recommendations for Consideration for Final Rule on the 2013 Medicare Physician Payment Schedule

The American Medical Association (AMA)/Specialty Society RVS Update Committee (RUC) met October 4-6, 2012 to review specialty society data and develop relative value recommendations for individual physician services. A significant portion of the agenda was devoted to issues that relate to CPT 2014 or newly identified potentially misvalued services. These items will be submitted to CMS in the future. However, given the immediate urgency for items related to 2013, we submit these recommendations to you at this time. The RUC submission includes the following issues for consideration by the Centers for Medicare and Medicaid Services (CMS):

- Chest Tube Interventions (32554, 32555, 32556 and 32557)
- Bladder Chemodenervation (52287)
- Autonomic Function Testing (95924 and 95943)
- Bundle Thrombolysis (75896 and 75898)
- Radiation Treatment Delivery (77373 and 77418)
- Transitional Care Management Services (99495 and 99496)
- Complex Chronic Care Coordination Services (99487, 99488 and 99489)

The RUC appreciates the opportunity to provide comment and recommendations related to the 2013 Medicare Physician Payment Schedule. If you have any questions regarding this submission, I would welcome the opportunity to speak to you personally, in particular related to our continuing work on care coordination. Of course, your staff may also contact Sherry Smith at the AMA for clarification regarding these recommendations.

Sincerely,

Barbara Ferrino

Barbara S. Levy, MD

cc: RUC Participants

Attachments

AMA/Specialty Society RVS Update Committee Summary of Recommendations Harvard Valued – Utilization over 30,000

October 2012

Chest Tube Interventions

In September 2011, CPT Codes 32420 Pneumocentesis, puncture of lung for aspiration, 32421 Thoracentesis, puncture of pleural cavity for aspiration, initial or subsequent and 32422 Thoracentesis with insertion of tube, includes water seal (eg, for pneumothorax), when performed (separate procedure) were identified in the Harvard Valued-Utilization over 30,000 screen. At that time, the specialty societies requested, and the RUC agreed that these services should be referred to the CPT Editorial Panel to correctly describe current practice. In February 2012, the CPT Editorial Panel created 32554 Thoracentesis, needle or catheter, aspiration of the pleural space; without imaging guidance, 32555 Thoracentesis, needle or catheter, aspiration of the pleural space; with imaging guidance and 32557 Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance and 32557 Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance and 32557 Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance and 32557 Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance and 32557 Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance and 32557 Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance and 32557 Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance and deleted 32420-32422 to accurately describe these procedures.

The family of codes were initially reviewed by the RUC at the April 2012 meeting. The RUC noted that the specialty societies used a split survey process. Specifically, CPT codes 32554 and 32556 were surveyed primarily by pulmonologists and CPT codes 32555 and 32557 were surveyed by radiologists. The split survey process made it difficult to ascertain the appropriate increment of physician work within this family of services. The RUC recommended that the entire family of codes be resurveyed for the October 2012 RUC meeting. The RUC recommended that pulmonary medicine resurvey all four codes and radiology resurvey only the imaging codes (32555 & 32557). It was noted at the October 2012 meeting that the RUC recommended interim valuation in April 2012 based on incorrect utilization assumptions.

32554 Thoracentesis, needle or catheter, aspiration of the pleural space; without imaging guidance

The RUC initially reviewed this code and determined that this service was previously reported as 32421 *Thoracentesis, puncture of pleural cavity for aspiration, initial or subsequent* (work RVU=1.54) based on the CPT code description. However, after a robust discussion with the specialty societies, the RUC agreed that this service was actually reported using a blend of 32421 and 32422 *Thoracentesis with insertion of tube, includes water seal (eg, for pneumothorax), when performed (separate procedure)* (work RVU=2.19). Coding documents published over the past decade were discussed which supported this coding convention. The new service described by CPT code 32554 includes thoracentesis, needle <u>or</u> catheter as opposed to needle, which further supports that this service is a blend of the two previously reported services (32421 & 32422). The RUC crosswalked this service to CPT code 36569 *Insertion of peripherally inserted central venous catheter (PICC), without subcutaneous port or pump; age 5 years or older* (work RVU=1.82) because they both require the same physician work and 20 minutes of intra-service time. The RUC

agreed that a work RVU of 1.82 which is less than the 25th percentile appropriately accounts for the physician work. Furthermore, the RUC reviewed CPT codes 45315 *Proctosigmoidoscopy, rigid; with removal of multiple tumors, polyps, or other lesions by hot biopsy forceps, bipolar cautery or snare technique* (work RVU=1.80), 57456 *Colposcopy of the cervix including upper/adjacent vagina; with endocervical curettage* (work RVU=1.85) and 64416 *Injection, anesthetic agent; brachial plexus, continuous infusion by catheter (including catheter placement)* (work RVU=1.81) and agreed that these services were similar in physician work and intensity. The RUC also agreed that an additional 2 minutes for positioning is appropriate. **The RUC recommends a work RVU of 1.82, less than the 25th percentile for CPT code 32554.**

32555 Thoracentesis, needle or catheter, aspiration of the pleural space; with imaging

The RUC reviewed the survey results from 90 physicians for CPT code 32555. The RUC determined that a work increment to account for imaging in relation to CPT code 32554 was appropriate. It was reported by the specialty societies and confirmed by the RUC that CPT codes 32421 and 32422 were previously reported with 76942 *Ultrasonic guidance for needle placement (eg, biopsy, aspiration, injection, localization device), imaging supervision and interpretation* (work RVU=.67, intra time=30 minutes). However, the overall survey median intra service time was 20 minutes and therefore the RUC agreed that an increment of 0.45 work RVUs appropriately account for the imaging increment over code 32554. This service was compared to 57400 *Dilation of vagina under anesthesia (other than local)* (work RVU=2.27). The RUC also agreed that an adjustment of 2 minutes for pre-service evaluation and positioning appropriately account for the additional time prior to skin prep necessary for ultrasound localization of a suitable pocket of fluid. **The RUC recommends a work RVU of 2.27 for CPT code 32555 which is between the 25th percentile and median survey value.**

32556 Pleural drainage, percutaneous, with insertion of indwelling catheter; without imaging guidance

The RUC reviewed the survey results for CPT code 32556 and noted that this new service was previously reported as 32551 *Tube thoracostomy, includes water seal (eg, for abscess, hemothorax, empyema), when performed (separate procedure)* (work RVU=3.29). However, the members determined that a work RVU of 2.50 based on the survey 25th percentile is more appropriate. To support this value, the RUC reviewed CPT codes 57454 *Colposcopy of the cervix including upper/adjacent vagina; with biopsy(s) of the cervix and endocervical curettage* (work RVU=2.33), 90870 *Electroconvulsive therapy (includes necessary monitoring)* (work RVU=2.50) and 36555 *Insertion of non-tunneled centrally inserted central venous catheter; younger than 5 years of age* (work RVU=2.68). The RUC also agreed that an additional 2 minutes for positioning is appropriate. The RUC determined that the incremental increase across this family accurately captures the intensity and physician work. **The RUC recommends a work RVU of 2.50 for CPT code 32556.**

32557 Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance

The RUC reviewed the survey results from 74 diagnostic radiologists, interventional radiologists and pulmonologists. The RUC determined that a work increment in relation to CPT code 32556 to capture imaging is appropriate. The specialty societies noted and the RUC agreed that this

service was previously reported with 32551 and 75989 *Radiological guidance (ie, fluoroscopy, ultrasound, or computed tomography), for percutaneous drainage (eg, abscess, specimen collection), with placement of catheter, radiological supervision and interpretation (work RVU=1.19). The RUC determined that the survey median of 3.62 was appropriate to account for the physician work required to perform this service. The RUC noted and agreed that this service has evolved and is more complex. In the past, the procedure was based on anatomic landmarks, however, current practice suggests that imaging guidance is used prior to catheter placement to avoid injury to the lung and pleura, as well as periodic imaging to ensure optimal drainage of the pleural effusion. The RUC also agreed that an adjustment of 2 minutes for pre-service evaluation and positioning appropriately account for the additional time prior to skin prep necessary for ultrasound localization of a suitable pocket of fluid. The RUC recommends a work RVU of 3.62 for CPT code 32557.*

May 2012 RUC Recommendations:

The RUC recommendations for the codes in this family were considered by the RUC in April 2012 and submitted to CMS in May 2012. These recommendations are attached for informational purposes only.

Work Neutrality:

The RUC's recommendation for this family of codes will result in an overall work savings that should be redistributed back to the Medicare conversion factor.

Practice Expense:

Direct Practice expense inputs were approved by the RUC in April 2012 and were submitted to CMS in May 2012. Direct Practice expense is being resubmitted with this recommendation to reflect a modification to intraservice clinical staff time of two additional minutes for CPT code 32557, directly tied to physician intraservice time. The previous recommendatons are attached to this recommendation for informational purposes only.

CPT Code	Tracking	CPT Descriptor	Global	Work RVU
(•New)	Number		Period	Recommendation
•32554	DD1	Thoracentesis, needle or catheter, aspiration of the pleural space; without imaging guidance	000	1.82

•32555	DD2	with imaging guidance	000	2.27
•32556	DD3	Pleural drainage, percutaneous, with insertion of indwelling catheter; without imaging guidance	000	2.50
•32557	DD4	with imaging guidance (For insertion of indwelling tunneled pleural catheter with cuff, use 32550) (For open procedure, use 32551) (Do not report 32554-32557 in conjunction with 32550, 32551, 76942, 77002, 77012, 77021, 75989)	000	3.62
D32420		Pneumocentesis, puncture of lung for aspiration (32420 has been deleted. To report, use 32405)	000	N/A
D32421		Thoracentesis, puncture of the pleural cavity for aspiration, initial or subsequent (If imaging guidance is performed, see 76942, 77002, 77012)	000	N/A

D32422	Thoracentesis with insertion of tube, includes water seal (eg, for pneumothorax), when performed (separate procedure)	000	N/A
	(Do not report 32422 in conjunction with 19260, 19271, 19272, 32503, 32504)		
	(If imaging guidance is performed, see 76942, 77002, 77012)		
	(32421 and 32422 have been deleted. To report, see 32554, 32555)		

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:32554 Tracking Number DD1

Original Specialty Recommended RVU: 2.00 Presented Recommended RVU: 1.82 RUC Recommended RVU: 1.82

Global Period: 000

CPT Descriptor: Thoracentesis, needle or catheter, aspiration of the pleural space; without imaging guidance

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 74-year-old male patient presents short of breath with a chest x-ray showing a large left pleural effusion. Bedside aspiration is performed for diagnosis.

Percentage of Survey Respondents who found Vignette to be Typical: 93%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 8%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 3%

Description of Pre-Service Work: The physician reviews the records, laboratory data (particularly platelet count and coagulation studies) and imaging, and communicates with other professionals. The patient's medications are reviewed, specifically targeting antiplatelet and anticoagulation agents. The physician discusses the details of the procedure and risks with the patient and family /friend including pain control and recovery time in addition to alternatives to the thoracentesis. Informed consent is obtained. The physician ensures that all technical personnel are familiar with the equipment and the procedure. The physician ensures that the thoracentesis kit and necessary specimen containers are present. The physician positions the patient. The physician verifies the identity of the patient and the procedure to be performed ("surgical time-out") in accord with the Joint Commission regulations. The physician examines the chest and marks the location for the thoracentesis. The physician dresses in a disposable gown, mask and dons protective eyewear, if indicated.

Description of Intra-Service Work: Physician dons sterile gloves.

- Thoracentesis kit opened and apparatus assembled.
- Chest prepped and draped in a sterile fashion.
- 1% Lidocaine solution instilled for local anesthesia of all chest wall tissues from skin to pleura.
- Incision made in skin.
- Bleeding controlled.
- The needle/catheter/3-way stop cock/small syringe inserted into the pleural cavity.
- Needle withdrawn leaving the catheter in the pleural cavity.
- Large volume syringe attached to the 3-way stop cock attached to the catheter.
- Pleural fluid withdrawn and placed into the proper tubes and containers.
- Remaining pleural fluid collected in drainage bag attached to tubing.
- Catheter removed.
- Sterile drape removed.

Description of Post-Service Work: Pleural fluid specimens are labeled.

- Laboratory slips are filled out.
- Specimens and slips sent to the proper laboratories for analyses.
- Physician examines the patient to ascertain that no complications have occurred.
- Chest x-ray ordered and reviewed later.
- Findings from the procedure explained to the patient and /or family/friend.
- Physician reinforces the instructions about post-procedure complications providing contact information.
- Physician generates a detailed report of the procedure.

SURVEY DAT	ГА								
RUC Meeting Da	ate (mm/yyyy)	10/2012							
Presenter(s):	Alan Plumme MD, Alternate	Ian Plummer, MD, ATS Advisor, Burt Lesnick MD, ACCP Advisor; Kathrin Nicolacakis, ID, Alternate Advisor ATS and Robert DeMarco, MD, Alternate Advisor ACCP							
Specialty(s):	American The (ACCP)	American Thoracic Society (ATS) and the American College of Chest Physicians ACCP)							
CPT Code:	32554								
Sample Size:	₃₀₀ R	esp N:	40 Response: 13.3 %						
Description of Sample:	The ATS and interventional	The ATS and ACCP performed a random survey of chest physicians, including interventional pulmonologists and convened an expert panel to review survey data.							
	Low	25 th pctl	Median*	75th pctl	<u>High</u>				
Service Perform	nance Rate		0.00	4.75	10.00	21.25	125.00		
Survey RVW:			0.80	1.98	2.00	2.31	3.50		
Pre-Service Evalu	uation Time:				15.00				
Pre-Service Posit	ioning Time:				5.00				
Pre-Service Scrul	b, Dress, Wait Ti	me:			5.00				
Intra-Service Ti	me:		5.00	15.00	20.00	20.00	50.00		
Immediate Post	Service-Time:	<u>15.00</u>							
Post Operative	<u>Visits</u>	Total Min**	CPT Cod	e and Num	ber of Visit	S			
Critical Care tim	ne/visit(s):	<u>0.00</u>	99291x C	.00 99292	2x 0.00				
Other Hospital t	time/visit(s):	<u>0.00</u>	99231x 0	.00 99232	2x 0.00 9	9233x 0.00			
Discharge Day	Mgmt:	<u>0.00</u>	99238x C	.00 99239x	0.00	99217x 0.00			
Office time/visit	:(s):	0.00	99211x C	0.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00		
Prolonged Serv	ices:	0.00	99354x C).00 55x ().00 56x 0	0.00 57x 0.0	00		
Sub Obs Care:		0.00	99224x C	.00 99225	5x 0.00 9	9226x 0.00			

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: 1a-FAC Straightforw Pat/Procedure(no sedate/anesth

CPT Code:	32554	Recommended Physician Work RVU: 1.82					
		Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time			
Pre-Service Evaluation Ti	ime:	13.00	13.00	0.00			
Pre-Service Positioning 1	lime:	3.00	1.00	2.00			
Pre-Service Scrub, Dress	, Wait Time:	5.00	6.00	-1.00			
Intra-Service Time:		20.00					
Immediate Post Servic	e-Time: <u>15.00</u>						
Post Operative Visits	Total Min**	CPT Code and Num	ber of Visits				
Critical Care time/visit	(s): <u>0.00</u>	99291x 0.00 99292	x 0.00				
Other Hospital time/vis	sit(s): <u>0.00</u>	99231x 0.00 99232	x 0.00 99233x 0.0	0			
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0	.0 99217x 0.0	0			
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00) 13x 0.00 14x 0.00	15x 0.00			
Prolonged Services:	<u>0.00</u>	99354x 0.00 55x 0	.00 56x 0.00 57	× 0.00			
Sub Obs Care:	<u>0.00</u>	99224x 0.00 99225x 0.00 99226x 0.00					

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service: Is this new/revised procedure considered to be a new technology or service? No									
KEY REFERENCE SERV	VICE:								
<u>Key CPT Code</u> 49083	<u>Global</u> 000		<u>Work I</u> 2.00	<u>RVU</u>	Time Source RUC Time				
CPT Descriptor Abdominal	paracentesis	(diagnostic or there	apeutic); with imaging	guidance					
KEY MPC COMPARISO Compare the surveyed code appropriate that have relativ	N CODES: e to codes on re values high	the RUC's MPC er and lower than t	List. Reference codes he requested relative v	s from the values for the Mod	MPC list should b ne code under revie Most Recent	e chosen, if ew.			
MPC CPT Code T 64483	<u>Global</u>	$\frac{\text{WORK } \text{K } \text{V } \text{U}}{1.90}$	<u>Time Source</u> BUC Time	Med	853 500				
<u>CPT Descriptor 1</u> Injection, CT); lumbar or sacral, single	anesthetic ag e level	gent and/or steroid,	transforaminal epidura	al, with ima	aging guidance (flu	oroscopy or			
<u>MPC CPT Code 2</u> 52000	<u>Global</u> 000	Work RVU 2.23	Time Source RUC Time	Mec	dicare Utilization 925,004				
<u>CPT Descriptor 2</u> Cystourethroscopy (separate procedure)									
Other Reference CPT Code 36556	<u>Global</u> 000	Work R 2.50	VU <u>Time Sourc</u> RUC Time	e					

CPT Descriptor Insertion of nontunneled centrally inserted central venous catheter, age 5 years or older

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 18

% of respondents: 45.0 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 32554	Key Reference CPT Code: <u>49083</u>	Source of Time RUC Time
Median Pre-Service Time	19.00	25.00	
Median Intra-Service Time	20.00	25.00]
Median Immediate Post-service Time	15.00	10.00]
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	
Median Office Visit Time	0.0	0.00	
Prolonged Services Time	0.0	0.00	
Median Subsequent Observation Care Time	0.0	0.00	
Median Total Time	54.00	60.00	

Other time if appropriate	

INTENSITY/COMPLEXITY MEASURES (Mean) (of those that selected Key **Reference code**) Mental Effort and Judgment (Mean) The number of possible diagnosis and/or the number of 3.24 2.71 management options that must be considered The amount and/or complexity of medical records, diagnostic tests, 3.47 2.94 and/or other information that must be reviewed and analyzed Urgency of medical decision making 2.88 2.65 Technical Skill/Physical Effort (Mean) Technical skill required 2.88 2.71 Physical effort required 2.82 2.65 Psychological Stress (Mean) The risk of significant complications, morbidity and/or mortality 2.53 2.24 Outcome depends on the skill and judgment of physician 3.00 2.82 2.94 2.94 Estimated risk of malpractice suit with poor outcome **INTENSITY/COMPLEXITY MEASURES** CPT Code Reference Service 1 Time Segments (Mean) 2.41 Pre-Service intensity/complexity 2.29 Intra-Service intensity/complexity 2.94 2.82 Post-Service intensity/complexity 2.06 1.88

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.

The American Thoracic Society's Clinical Practice Committee and the American College of Chest Physician's Practice Management Committee reviewed the survey results of 40 members for 32554-32557, compared them to the last survey of 31 members for 32554, and 30 members for 32556 in April 2012, and are providing this consensus recommendation. Radiology has only surveyed the image guided codes 32555 and 32557.

Background:

CPT Code: 32554

CPT codes 32422 (*Thoracentesis with insertion of tube, includes water seal (eg, for pneumothorax), when performed (separate procedure))* and 32551 (*Tube thoracostomy, includes water seal (eg, for abscess, hemothorax, empyema), when performed (separate procedure)*), were identified by the RAW screen for Harvard valued codes with greater than 30,000 utilization. The specialty societies referred these two codes, as well as CPT codes 32420 (*Pneumocentesis, puncture of lung for aspiration*) and 32421 (*Thoracentesis, puncture of pleural cavity for aspiration, initial or subsequent*), to CPT for revision of the family to describe current practice better. As a result, four new codes were created, two for thoracentesis: non-image guided (32554) and image guided (32555) and two for pleural catheter (chest tube) placement: non-image-guided (32557).

Recommendation:

The ATS and ACCP performed a random survey of chest physicians, including interventional pulmonologists and convened a panel of experts to review the survey data. We are recommending the median survey RVU of 2.00 and the median intra-service time of 20 minutes and post-service time of 15 minutes.

Pre-Service Period:

The specialty societies recommend pre-service package 1a (Facility Straightforward Patient/Procedure (No sedation/anesthesia care) with the following adjustment: subtract 1 minute from scrub, dress, wait time compatible with our survey results. This pre-service recommendation, combined with the intra and post times above yields a total time of 54 minutes.

Key Reference Service:

The most commonly chosen key reference service [the same as 32555] was 49083 (*Abdominal paracentesis (diagnostic or therapeutic); with imaging guidance*), with 2.00 RVUs and 25 minutes of intra-service time. The second most commonly chosen reference service was 36556 (*Insertion of non-tunneled centrally inserted central venous catheter; age 5 years and older*), with 2.50 RVUs and 15 minutes of intra-service time, and total time of 50 minutes. 32554 compares favorably to both of these codes. The intraservice time for 32554 (20 minutes) is lower than 49083 (25 minutes) and higher than 36556 (15 minutes).

CPT Code	Short Descriptor	Work RVU	Pre- Service	Intra- Service	Post- Service	Total Time	IWPUT
32554	Thoracentesis, needle or catheter, w/o imaging	2.00	19	20	15	54	0.056
49083	Abdominal paracentesis, with imaging	2.00	25	25	10	60	0.052
36556	Insertion of Non-tunneled CV Catheter	2.50	25	15	10	50	0.119

MPC Recommendations:

Our recommendation of 2.00 RVUs for 32554 is bracketed by two MPC codes: 64483 (*Injection, anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); lumbar or sacral, single level*), with 1.90 RVUs, 15 minutes of intra time, and 49 minutes of total time, and 52000 (*Cystourethroscopy (separate procedure)*) with 2.23 RVUs, 15 minutes of intra time, and 42 minutes of total time.

CPT Code	Short Descriptor	Work RVU	Pre- Service	Intra- Service	Post- Service	Total Time	IWPUT
32554	Thoracentesis, needle or catheter, w/o imaging	2.00	19	20	15	54	0.056
64483	Injection Foramen Epidural, single level	1.90	24	15	10	49	0.082
52000	Cystourethroscopy (separate procedure)	2.23	17	15	10	42	0.113

Comparison within family

The societies feel the incremental increase in RVUs from 32554 to 32557 accurately represents the increased physician work across the family. The data is summarized in the attached table. Congruent with the increase in RVUs is an increase in total time. We do acknowledge that the intra-service times are the same from 32554 through 32556, but the increase in IWPUT across the family appropriately reflects the greater intensity in treating more complex patients requiring imaging guidance and the more complex collections typical of 32556 and 32557.

In conclusion, for 32554 we are **recommending 2.00 RVUs and total time of 56 minutes (21/20/15)**. We feel that our survey data (40 respondents) supports these recommendations.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 32421

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Pulmonary How often? Commonly								
Specialty Internal Medicine	How often? Con	mmonly						
Specialty	How often?							
Estimate the number of times this service might be provided nationally in a one-year period? 200000 If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate. based on slightly more than double Medicare data for existing code 32421								
Specialty Pulmonary	Frequency 180000	Percentage 90.00 %						

Specialty Interal Medieine		Frequency 20000	Percentage 10.00 %
Specialty	Frequency 0	Percentage 0.00 %	

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 90,000 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. based on existing code 32421

Specialty Pulmonary		ency 81000	Percentage 90.00 %				
Specialty Internal Medicine		Frequency 9000	Percentage 10.00 %				
Specialty	Frequency 0	Percentage	0.00 %				
Do many physicians perform this service across the United States? Yes							

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix will not change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 32421

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:32555 Tracking Number DD2

Original Specialty Recommended RVU: 2.45 Presented Recommended RVU: 2.27 RUC Recommended RVU: 2.27

Global Period: 000

CPT Descriptor: Thoracentesis, needle or catheter, aspiration of the pleural space; with imaging guidance

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 57-year-old male patient presents with pneumonia and persistent fever despite antibiotic therapy. Aspiration of his parapneumonic effusion is performed with real-time ultrasound guidance.

Percentage of Survey Respondents who found Vignette to be Typical: 97%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 12%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 6%

Description of Pre-Service Work:

- The patient's symptoms, history, and allergies are reviewed.
- Medications are reviewed, specifically potential antiplatelet or anticoagulation agents.
- Lab data is evaluated, particularly coagulation results and platelets.
- Available imaging is reviewed.
- Procedure details are discussed, including pain control and recovery time.
- Alternatives and risks are discussed with the patient and family, and informed consent is obtained.
- Confirm NPO status.
- Ensure imaging, appropriate specimen containers, and catheter devices are available.

• Ensure all technical personnel have been familiarized with the procedure and are fully familiar with all required devices.

• Perform surgical "time out".

Description of Intra-Service Work:

• Preliminary ultrasound is performed of the chest to localize the pleural fluid and target site for drainage. Images are recorded.

- The chest is prepped and draped in the usual sterile fashion.
- The skin and deeper tissues down to the parietal pleura are infiltrated with a local anesthetic under ultrasound guidance, taking care to avoid vessels.
- A small incision is made.

• A thoracentesis catheter is advanced into the pleural effusion under ultrasound guidance and secured in place temporarily.

• Through the catheter a variable amount of fluid is drained.

- The catheter is removed.
- The puncture site is dressed appropriately.
- A sample of fluid is sent to the laboratory for analysis.

Description of Post-Service Work:

- The patient is transferred to the recovery suite and a CXR is obtained (reported separately).
- Post-procedure vital signs are assessed.
- When stable for discharge, the findings are reviewed with patient and family.
- A report of the procedure is prepared for the medical record.

SURVEY DAT	ГА								
RUC Meeting Da	ate (mm/yyyy)	10/2012							
Presenter(s):	Zeke Silva, M Plummer, M.D and Burt Lesn	Zeke Silva, M.D. (ACR), Sean Tutton, M.D. (SIR), Michael Hall, M.D.(SIR), Alan lummer, M.D. (ATS), Kathrin Nicolacakis, M.D. (ATS), Robert DeMarco, M.D.(ACCP), nd Burt Lesnick, M.D. (ACCP)							
Specialty(s):	ACR, SIR, AC	ACR, SIR, ACCP, and ATS							
CPT Code:	32555								
Sample Size:	2120 R	esp N:	90	Respo	onse: 4.2 %				
Description of Sample:	The ACR, SIR, ATS and ACCP performed a random survey of diagnostic radiologists, interventional radiologists and chest physicians and convened a panel of experts to review the survey data.								
			Low	25 th pctl	Median*	75th pctl	High		
Service Perform	nance Rate		0.00	20.00	40.00	100.00	500.00		
Survey RVW:			1.00	2.03	2.45	2.75	5.00		
Pre-Service Evalu	uation Time:				15.00				
Pre-Service Posit	ioning Time:				10.00				
Pre-Service Scrul	b, Dress, Wait Tii	me:			10.00				
Intra-Service Ti	me:		5.00	15.00	20.00	30.00	50.00		
Immediate Post	Service-Time:	<u>15.00</u>			L				
Post Operative	Visits	Total Min**	CPT Cod	e and Num	ber of Visit	s			
Critical Care tim	ne/visit(s):	0.00	99291x C).00 99292	2x 0.00				
Other Hospital t	time/visit(s):	0.00	99231x 0.00 99232x 0.00 99233x 0.00						
Discharge Day I	Mgmt:	0.00	99238x 0.00 99239x 0.00 99217x 0.00						
Office time/visit	:(s):	0.00	99211x 0.00 12x 0.00 13x 0.00 14x 0.00 15x 0.00						
Prolonged Serv	ices:	0.00	99354x C	.00 55x 0).00 56x 0	.00 57x 0.0)0		
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00 9	99226x 0.00			

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: 1a-FAC Straightforw Pat/Procedure(no sedate/anesth

CPT Code: 3	32555	Recommended Phys	ician Work RVU: 2.2	27
		Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time
Pre-Service Evaluation Ti	me:	15.00	13.00	2.00
Pre-Service Positioning T	ime:	3.00	1.00	2.00
Pre-Service Scrub, Dress,	, Wait Time:	6.00	6.00	0.00
Intra-Service Time:		20.00		
Immediate Post Service	e-Time: <u>15.00</u>			
Post Operative Visits	Total Min**	CPT Code and Num	<u>ber of Visits</u>	
Critical Care time/visit(s): <u>0.00</u>	99291x 0.00 99292	x 0.00	
Other Hospital time/vis	it(s): <u>0.00</u>	99231x 0.00 99232	x 0.00 99233x 0.0	0
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0	.0 99217x 0.0)
Office time/visit(s):	0.00	99211x 0.00 12x 0.00) 13x 0.00 14x 0.00	15x 0.00
Prolonged Services:	0.00	99354x 0.00 55x 0	.00 56x 0.00 57	< 0.00

							CPT Code: 32555
Sub Obs Care:	<u>0.00</u>	99224x ().00 99)225x 0	.00	99226x	0.00
Modifier -51 Exempt Status s the recommended value for	or the new/revi	sed procedure	based o	n its moo	difier -	51 exem	pt status? No
New Technology/Service: s this new/revised procedure	e considered to	o be a new tec	hnology	or servic	e? No)	
KEY REFERENCE SERV	ICE:						
<u> Xey CPT Code</u> 19083	<u>Global</u> 000			7	<u>Vork I</u> 2.00	<u>RVU</u>	Time Source RUC Time
<u>CPT Descriptor</u> Abdominal p	aracentesis (di	agnostic or the	rapeutic)	; with im	aging	guidance	2
Compare the surveyed code appropriate that have relative <u>MPC CPT Code 1</u> 51500 <u>CPT Descriptor 1</u> Intubation, <u>MPC CPT Code 2</u> 51622	to codes on th values higher <u>Global</u> <u>W</u> 000 endotracheal, <u>Global</u> 000	e RUC's MPC and lower than <u>Vork RVU</u> 2.33 emergency pro <u>Work RVU</u> 2.78	List. R the requ <u>Time</u> cedure <u>Time</u> RU	eference ested rela <u>e Source</u> RUC Time <u>Source</u> C Time	codes ative v	s from th ralues for <u>Me</u> <u>M</u>	e MPC list should be chosen, the code under review. Most Recent 281,217 Most Recent <u>Iedicare Utilization</u> 83,622
<u>CPT Descriptor 2</u> Bronchosc vashing, when performed (se	opy, rigid or fl parate procedu	lexible, includi 1re)	ng fluorc	scopic g	guidanc	ce, when	performed; diagnostic, with co
Other Reference CPT Code 66556	<u>Global</u> 000	<u>Work F</u> 2.50	<u>RVU</u>	<u>Time</u> RUC	Sourc Time	<u>e</u>	
<u>CPT Descriptor</u> Insertion of r	non-tunneled co	entrally inserte	d central	venous c	cathete	r; age 5 y	years or older
RELATIONSHIP OF COD Compare the pre-, intra-, and	E BEING RE	EVIEWED TO time (by the mo	KEY R edian) an	EFERE d the int	NCE Stensity	SERVIC factors (E(S): (by the mean) of the service v

are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

% of respondents: 51.1 %

Key Reference **TIME ESTIMATES (Median)** Source of Time **CPT Code: CPT Code: RUC Time** 32555 <u>49083</u> Median Pre-Service Time 25.00 24.00 Median Intra-Service Time 20.00 25.00 Median Immediate Post-service Time 15.00 10.00 0.00 Median Critical Care Time 0.0 0.0 Median Other Hospital Visit Time 0.000.00 Median Discharge Day Management Time 0.0 Median Office Visit Time 0.0 0.00 0.00 Prolonged Services Time 0.0 Median Subsequent Observation Care Time 0.0 0.00

Number of respondents who choose Key Reference Code: 46

Median Total Time	59.00	60.00
Other time if appropriate		

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

<u>Mental Effort and Judgment (Mean)</u>		
The number of possible diagnosis and/or the number of	2.67	2.44
management options that must be considered		
The amount and/or complexity of medical records, diagnostic tests,	2.72	2.44
and/or other information that must be reviewed and analyzed		
Urgency of medical decision making	2.35	2.33
Technical Skill/Physical Effort (Mean)		
Technical skill required	2.98	2.64
Physical effort required	2.33	2.27
<u>Psychological Stress (Mean)</u>		
The risk of significant complications, morbidity and/or mortality	2.80	2.27
Outcome depends on the skill and judgment of physician	3.11	2.71
Estimated risk of malpractice suit with poor outcome	2.76	2.58
INTENSITY/COMPLEXITY MEASURES	CPT Code	Reference
		<u>Service 1</u>
Time Segments (Mean)		
Pre-Service intensity/complexity	2.30	2.36
Intra-Service intensity/complexity	2.76	2.56
Post-Service intensity/complexity	2 22	1.93
	2.22	1.75

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.

Background:

CPT codes 32422 (Thoracentesis with insertion of tube, includes water seal (eg, for pneumothorax), when performed (separate procedure)) and 32551 (Tube thoracostomy, includes water seal (eg, for abscess, hemothorax, empyema), when performed (separate procedure)), were identified by the RAW screen for Harvard valued codes with greater than 30,000

CPT Code: 32555

utilization. The specialty societies referred these two codes, as well as CPT codes 32420 (*Pneumocentesis, puncture of lung for aspiration*) and 32421 (*Thoracentesis, puncture of pleural cavity for aspiration, initial or subsequent*), to CPT for revision of the family to better describe current practice. As a result, four new codes were created, two for thoracentesis: non-image guided (32554) and image guided (32555) and two for pleural catheter placement: non-image guided (32556) and image guided (32557). The specialty societies surveyed the family of codes and presented recommendations to the RUC at the April 2012 meeting. However, the RUC noted that the split survey process used made it difficult to ascertain the appropriate increment of physician work across the family of codes. As such, interim values were recommended by the RUC and a re-survey recommended.

Recommendation:

The ACR, SIR, ATS, and ACCP performed a random survey of diagnostic radiologists, interventional radiologists, and chest physicians, and convened a panel of experts to review the survey data. We are recommending the median survey RVU of 2.45 and the median intra-service time and post-service times of 20 and 15 minutes, respectively.

Pre-Service Period:

The specialty societies recommend pre-service package 1a (Facility Straightforward Patient/Procedure (No sedation/anesthesia care)) with the following adjustments: (1) increase the pre-service evaluation time by 2 minutes, and (2) increase the positioning time by 2 minutes, both compatible with our survey results. These adjustments account for the additional time prior to skin prep necessary for ultrasound localization of a suitable pocket of fluid. Based on the survey data, it is reasonable to conclude respondents would consider imaging work prior to skin prep to be pre-service work. These modifications to the pre-service times are also compatible with several recently reviewed interventional radiology codes, including paracentesis with imaging guidance (49083 (Abdominal paracentesis (diagnostic or therapeutic); with imaging guidance)).

Key Reference Service:

The most commonly chosen key reference service was 49083 (*Abdominal paracentesis (diagnostic or therapeutic); with imaging guidance*), with 2.00 RVUs and 25 minutes of intra-service time which was chosen by the majority of survey respondents. The second most commonly chosen reference service was 36556 (*Insertion of non-tunneled centrally inserted central venous catheter; age 5 years or older*), with 2.50 RVUs and 15 minutes of intra-service time, also on the MPC list. 32555 compares favorably to both of these codes. The intra-service time for 32555 (20 minutes) is lower than 49083 (25 minutes), but the higher RVU is justified by the greater intensity of removing fluid from the pleural space compared to the peritoneal space. This is also supported by 10 of the 11 complexity measures being higher for 32555 than key reference service code 49083. 32555 is valued lower than 36556 but it has a higher intra-service time so relativity is maintained here also.

CPT Code	Short Descriptor	Work RVU	Pre- Service	Intra- Service	Post- Service	Total Time	IWPUT
32555	Thoracentesis, needle or catheter, with imaging	2.45	24	20	15	59	0.083
49083	Abdominal paracentesis, with imaging	2.00	25	25	10	60	0.052
36556	Insertion of Non-tunneled CV Catheter	2.50	25	15	10	50	0.119

MPC Recommendations:

Our recommendation of 2.45 RVUs for 32555 is bracketed favorably by two MPC codes: 31500 (*Intubation, endotracheal, emergency procedure*), with 2.33 RVUs and 5 minutes of intra time, and 31622 (*Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; diagnostic, with cell washing, when performed (separate procedure*)), with 2.78 RVUs and 30 minutes of intra time.

CPT Code	Short Descriptor	Work RVU	Pre- Service	Intra- Service	Post- Service	Total Time	IWPUT
32555	Thoracentesis, needle or	2.45	24	20	15	59	0.083

CPT Code: 32555

	catheter, with imaging						
31500	Intubation, endotracheal, Emergency proc	2.33	4	5	10	19	0.406
31622	Diagnostic Bronchoscopy/Wash	2.78	20	30	15	65	0.069

Building block methodology:

It should be noted that this is a new CPT code describing a new service with changes in dominant provider and service description, so a direct comparison to previously reported codes 32422 and its typical imaging pair, 76942, is not appropriate. As the description of work for the surveyed code suggests, the imaging guidance prior to catheter placement to avoid injury to the lung and pleura, as well as periodic imaging during drainage to ensure optimal drainage of the pleural effusion is distinctly different than in the past, when the procedure was performed based on anatomic landmarks. Drainage is more complete and, as the vignette suggests, performed in a more difficult patient with infection and pleural effusion.

However, as a point of reference for the Panel we provide the following information: 32422 (2.19) RVUs + 76942 (0.67) RVUs = 2.86 RVUs

Accordingly, our recommendation results in a decrease in RVUs.

Comparison within family

The societies feel the incremental increase in RVUs from 32554 to 32557 accurately represents the increased physician work across the family. The data is summarized in the attached table. Congruent with the increase in RVUs is an increase in total time. We do acknowledge that the intra-service times are the same from 32554 through 32556 but the increase in IWPUT across the family appropriately reflects the greater intensity in treating more complex patients requiring imaging guidance and the more complex collections typical of 32556 and 32557.

In conclusion, for 32555 we are recommending 2.45 RVUs, total time of 59 minutes (24/20/15). We feel that our survey data (90 respondents) supports these recommendations.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.



Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 32421/32422, 76942

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Radiology	How often? Commonly
Specialty pulmonary	How often? Commonly
Specialty Interventional Radiology	How often? Commonly

Estimate the number of times this service might be provided nationally in a one-year period? 0 If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate. An estimate for the number of times this service is performed nationally in a oneyear period is unknown.

Specialty	Frequency 0	Percentage 0.00 %
Specialty	Frequency 0	Percentage 0.00 %
Specialty	Frequency 0	Percentage 0.00 %

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 224,518 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. The estimated frequency for Medicare is 224,518, which is the 2011 Medicare utilization frequency for codes 32421 plus 32422. Based on past frequency data, we estimated the percent performed by Radiology to be about 53%, by Pulmonary 22%, and by Interventional Radionolgy about 5.50%.

Specialty Radiology	Frequency 1189	95 Percenta	age 53.00 %
Specialty Pulmonary	Frequency 4939	4 Percenta	age 22.00 %
Specialty Interventional Radiolog	gy	Frequency 12348	Percentage 5.49 %

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix will not change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 32422

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:32556 Tracking Number DD3

Original Specialty Recommended RVU: **3.00** Presented Recommended RVU: **2.50** RUC Recommended RVU: **2.50**

Global Period: 000

CPT Descriptor: Pleural drainage, percutaneous, with insertion of indwelling catheter; without imaging guidance

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 72-year-old male patient presents with acute shortness of breath. Chest x-ray shows a right pneumothorax. Bedside chest tube placement is performed.

Percentage of Survey Respondents who found Vignette to be Typical: 98%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 63%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 8%

Description of Pre-Service Work: The physician reviews the records, laboratory data (particularly platelet count and coagulation studies) and imaging, and communicates with other professionals. The patient's medications are reviewed, specifically targeting antiplatelet and anticoagulation agents. The physician discusses the details of the procedure and risks with the patient and family /friend including pain control and recovery time in addition to alternatives to the chest tube insertion. Informed consent is obtained. The physician ensures that all technical personnel are familiar with the equipment and the procedure. The physician ensures that the chest tube tray and necessary specimen containers are present. The physician positions the patient. The physician verifies the identity of the patient and the procedure to be performed ("surgical time-out") in accord with the Joint Commission regulations. The physician examines the chest and marks the location for the chest tube insertion. A chest tube drainage system is assembled. The physician dresses in a disposable gown, mask and dons protective eyewear, if indicated.

Description of Intra-Service Work: Physician dons sterile gloves.

- Chest tube tray opened and apparatus assembled.
- Chest prepped and draped in a sterile fashion.
- 1% Lidocaine solution instilled for local anesthesia of all chest wall tissues from skin to pleura.
- Incision made in the skin and subcutaneous tissues.
- Bleeding controlled.
- Chest tube over a trocar inserted into the pleural cavity.
- Trocar removed.
- Chest tube attached to chest tube drainage system.
- Suction turned on.
- Chest tube sutured in place.
- Sterile drape removed.

Description of Post-Service Work: Pleural fluid specimens labeled.

- Laboratory slips filled out.
- Physician examines the patient to determine that no complications have occurred.
- Chest x-ray ordered and reviewed later.
- Specimens and slips sent to the proper laboratories for analyses.
- Findings from the procedure explained to the patient and /or family/friend.
- Physician reinforces the instructions about post-procedure complications providing contact information.
- Physician generates a detailed report of the procedure.
- Physician communicates the results to the referring physician.

SURVEY DAT	ГА						
RUC Meeting Da	ate (mm/yyyy)	10/2012					
Presenter(s):	Alan Plummer MD, Alternate	, MD, ATS Ad Advisory, ATS	lvisor, Burt S and Rob	Lesnick MD ert DeMarco	, ACCP Adv , MD, Altern	visor; Kathrin ate Advisor, <i>I</i>	Nicolacakis, ACCP
Specialty(s):	American Tho (ACCP)	racic Society	(ATS) and	the America	in College of	f Chest Physi	cians
CPT Code:	32556						
Sample Size:	300 Resp N: 40 Response: 13.3 %						
Description of Sample:	The pulmonar pulmonary inte	The pulmonary societies performed a random survey of pulmonary physicians, including pulmonary interventionalists and convened a panel of experts to review the survey data.					ns, including survey data.
			Low	25 th pctl	Median*	75th pctl	<u>High</u>
Service Performance Rate			0.00	5.00	11.00	20.00	175.00
Survey RVW:			1.50	2.50	3.00	3.85	5.00
Pre-Service Evalu	uation Time:				15.00		
Pre-Service Posit	ioning Time:				10.00		
Pre-Service Scrul	b, Dress, Wait Ti	me:			10.00		
Intra-Service Ti	me:		5.00	15.00	20.00	30.00	60.00
Immediate Post	Service-Time:	<u>18.00</u>					
Post Operative	<u>Visits</u>	Total Min**	CPT Cod	e and Num	ber of Visit	S	
Critical Care tim	ne/visit(s):	<u>0.00</u>	99291x 0	. 00 99292	2x 0.00		
Other Hospital time/visit(s): <u>0.00</u>			99231x 0	. 00 99232	2x 0.00 9	9233x 0.00	
Discharge Day Mgmt: <u>0.00</u>			99238x 0	. 00 99239x	0.00	99217x 0.00	
Office time/visit(s): <u>0.00</u>			99211x 0	.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00
Prolonged Services: 0.00			99354x 0	.00 55x C).00 56x 0	0.00 57x 0 .	00
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00 9	9226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: 1a-FAC Straightforw Pat/Procedure(no sedate/anesth

CPT Code:	32556	Recommended Phys	ician Work RVU: 2.	50		
		Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time		
Pre-Service Evaluation Ti	me:	13.00	13.00	0.00		
Pre-Service Positioning T	ime:	3.00	1.00	2.00		
Pre-Service Scrub, Dress	, Wait Time:	6.00	6.00	0.00		
Intra-Service Time:		20.00				
Immediate Post Service	e-Time: <u>18.00</u>					
Post Operative Visits	Total Min**	CPT Code and Number of Visits				
Critical Care time/visit(s): <u>0.00</u>	99291x 0.00 99292	x 0.00			
Other Hospital time/vis	it(s): <u>0.00</u>	99231x 0.00 99232	x 0.00 99233x 0.0	0		
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0.0 99217x 0.00				
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00) 13x 0.00 14x 0.00	15x 0.00		
Prolonged Services:	<u>0.00</u>	99354x 0.00 55x 0	.00 56x 0.00 57	< 0.00		
Sub Obs Care:	<u>0.00</u>	99224x 0.00 99225	x 0.00 99226x 0 .	00		

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? No

KEY REFERENCE SERVICE:								
Key CPT Code 93503	<u>Global</u> 000		<u>7</u>	<u>Work RVU</u> 2.91	Time Source RUC Time			
CPT Descriptor Insertion and placement of flow directed catheter (eg, Swan-Ganz) for monitoring purposes								
KEY MPC COMPARIS Compare the surveyed co appropriate that have relat	ON CODES: de to codes on ive values high	the RUC's MPC and lower than t	List. Reference he requested rela	codes from the ative values for the	MPC list should be chosen, if ne code under review. Most Recent			
<u>MPC CPT Code 1</u> 31622 <u>CPT Descriptor 1</u> Bronch washing, when performed	<u>Global</u> 000 oscopy, rigid o (separate proc	<u>Work RVU</u> 2.78 or flexible, includin edure)	<u>Time Source</u> RUC Time g fluoroscopic g	<u>Medi</u> guidance, when po	icare <u>Utilization</u> 83,622 erformed; diagnostic, with cell			
<u>MPC CPT Code 2</u> 15002	<u>Global</u> 000	Work RVU 3.65	Time Source RUC Time	Mec	Most Recent <u>licare Utilization</u> 15,981			
<u>CPT Descriptor 2</u> Surgic (including subcutaneous t area of infants and childre	al preparation issues), or incis n	or creation of rec sional release of sc	ipient site by en ar contracture, tr	xcision of open runk, arms, legs;	wounds, burn eschar, or scar first 100 sq cm or 1% of body			

Other Reference CPT Code	<u>Global</u>	Work RVU	Time Source
36556	000	2.50	RUC Time

CPT Descriptor Insertion of nontunneled centrally inserted central venous catheter, age 5 years or older

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 8 % of respondents: 20.0 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 32556	Key Reference CPT Code: <u>93503</u>	Source of Time RUC Time
Median Pre-Service Time	20.00	12.00	
Median Intra-Service Time	20.00	15.00	
Median Immediate Post-service Time	18.00	10.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	
Median Office Visit Time	0.0	0.00	
Prolonged Services Time	0.0	0.00	

Median Subsequent Observation Care Time	0.0	0.00
Median Total Time	58.00	37.00
Other time if appropriate		

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

Mental Effort and Judgment (Mean)		
The number of possible diagnosis and/or the number of	4.00	4.14
management options that must be considered		
The amount and/or complexity of medical records, diagnostic tests,	4.14	4.14
and/or other information that must be reviewed and analyzed		
Urgency of medical decision making	5.00	5.00
Technical Skill/Physical Effort (Mean)		
Technical skill required	4.71	4.67
Physical effort required	4.29	4.14
Psychological Stress (Mean)		
The risk of significant complications, morbidity and/or mortality	4.71	4.57
Outcome depends on the skill and judgment of physician	4.71	4.57
Estimated risk of malpractice suit with poor outcome	4.29	4.43
INTENSITY/COMPLEXITY MEASURES	CPT Code	Reference
		Service 1
Time Segments (Mean)		
Pre-Service intensity/complexity	3.29	3.29
Intra-Service intensity/complexity	4.00	3.86
Post-Service intensity/complexity	3.43	3.00

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

The American Thoracic Society's Clinical Practice Committee and the American College of Chest Physician's Practice Management Committee reviewed the survey results of 40 members for 32554-32557, compared them to the last survey of

31 members for 32554, and 30 members for 32556 in April 2012, and are providing this consensus recommendation. Radiology has only surveyed the image guided codes 32555 and 32557.

Background:

CPT codes 32422 (*Thoracentesis with insertion of tube, includes water seal (eg, for pneumothorax), when performed (separate procedure))* and 32551 (*Tube thoracostomy, includes water seal (eg, for abscess, hemothorax, empyema), when performed (separate procedure)*), were identified by the RAW screen for Harvard valued codes with greater than 30,000 utilization. The specialty societies referred these two codes, as well as CPT codes 32420 (*Pneumocentesis, puncture of lung for aspiration*) and 32421 (*Thoracentesis, puncture of pleural cavity for aspiration, initial or subsequent*), to CPT for revision of the family to better describe current practice. As a result, four new codes were created, two for thoracentesis: non-image guided (32554) and image guided (32555), and two for pleural catheter (chest tube) placement: non-image guided (32557).

Recommendation:

The pulmonary societies performed a random survey of pulmonary physicians, including pulmonary interventionalists and convened a panel of experts to review the survey data. We are recommending the median survey RVU of 3.00 RVUs and the median intra-service and post-service times of 20 and 18 minutes, respectively.

Pre-Service Period:

The specialty societies recommend pre-service package 1a (Straightforward Patient/ Procedure (No sedation/anesthesia care)) for a total of 20 minutes instead of the 35 minutes found by the survey.

Key Reference Service:

The most commonly chosen key reference service was 93503 (*Insertion and placement of flow directed catheter (eg, Swan-Ganz) for monitoring purposes*), with 2.91 RVUs and 15 minutes of intra-service time. The second most commonly chosen reference service was 36556 (*Insertion of non-tunneled centrally inserted central venous catheter; age 5 years or older*), with 2.50 RVUs and 15 minutes of intra-service time, and total time of 50 minutes. 32556 compares favorably to both of these codes. The intraservice time for 32556 (20 minutes) is longer than both codes, 93503 (15 minutes) and 36556 (15 minutes). The total time for 32556 is 58 minutes and is valued higher than 36556 with a total time of 50 minutes.

CPT Code	Short Descriptor	Work RVU	Pre- Service	Intra- Service	Post- Service	Total Time	IWPUT
32556	Pleural drainage, w/o imaging	3.00	20	20	18	58	0.112
93503	Insert/Place Heart Catheter	2.91	12	15	10	37	0.166
36556	Insertion of Non-tunneled CV Catheter	2.50	25	15	10	50	0.119

MPC Recommendations:

Our recommendation of 3.00 RVUs for 32556 is bracketed favorably by two MPC codes: 31622 (*Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; diagnostic, with cell washing, when performed (separate procedure)*), with 2.78 RVUs and 30 minutes of intra time, and 65 minutes total time and 15002 (*Surgical preparation or creation of recipient site by excision of open wounds, burn eschar, or scar (including subcutaneous tissues), or incisional release of scar contracture, trunk, arms, legs; first 100 sq cm or 1% of body area of infants and children*), with 3.65 RVUs, 20 minutes of intra time, and 115 minutes of total time.

CPT Code	Short Descriptor	Work RVU	Pre- Service	Intra- Service	Post- Service	Total Time	IWPUT
32556	Pleural drainage, w/o imaging	3.00	20	20	18	58	0.112
31622	Diagnostic Bronchoscopy/	2.78	20	30	15	65	0.069

CPT Code: 32556

	Wash						
15002	Wound Preparation, trunk, arms, and legs	3.65	75	20	20	115	0.087

Comparison within family

The societies feel the incremental increase in RVUs from 32554 to 32557 accurately represents the increased physician work across the family. The data is summarized in the attached table. Congruent with the increase in RVUs is an increase in total time. We do acknowledge that the intra-service times are the same from 32554 through 32556 but the increase in IWPUT across the family appropriately reflects the greater intensity in treating more complex patients requiring imaging guidance and the more complex collections typical of 32556 and 32557.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included. Multiple codes are used to maintain consistency with similar codes.



Other reason (please explain)

Historical precedents.

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 32422

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Pulmonary How often? Commonly

Specialty Internal Medicine

How often? Commonly

Specialty How often?

Estimate the number of times this service might be provided nationally in a one-year period? 300000 If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate. more than double the Medicare data for existing code 32422

Specialty Pulmonary Freq		r 270000	CPT Code: 32556 Percentage 90.00 %				
Specialty Internal Medicine		equency 30000	Percentage 10.00 %				
Specialty	Frequency 0	Percentage 0.0	00 %				
Estimate the number of ti 140,000 If this is a recom- Please explain the rational	imes this service m nmendation from n ale for this estimate	ight be provided to N nultiple specialties ple c. compared to existing	Medicare patients nationally in a one-year period? ease estimate frequency <u>and percentage</u> for each specialty. g code 32422				
Specialty Pulmonary	Frequency	126000	Percentage 90.00 %				
Specialty Internal Medici	ine Fr	requency 14000	Percentage 10.00 %				
Specialty	Frequency 0	Percentage 0.0	00 %				
Do many physicians perform this service across the United States? Yes							

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix <u>will not</u> change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 32422

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:32557 Tracking Number DD4

Original Specialty Recommended RVU: **3.62** Presented Recommended RVU: **3.62** RUC Recommended RVU: **3.62**

Global Period: 000

CPT Descriptor: Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 60-year-old male patient presents with fever and shortness of breath. CT scan shows a complex parapneumonic effusion. Concern is for an empyema. Image-guided pleural drainage tube placement is performed.

Percentage of Survey Respondents who found Vignette to be Typical: 94%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 69%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 48%

Description of Pre-Service Work:

- The patient's symptoms, history, and allergies are reviewed.
- Medications are reviewed, specifically potential antiplatelet or anticoagulation agents.
- Lab data is evaluated, particularly coagulation results and platelets.
- Available imaging is reviewed.
- Procedure details are discussed, including pain control, and recovery time.
- Alternatives and risks are discussed with the patient and family, and informed consent is obtained.
- Confirm NPO status.
- Ensure imaging, appropriate specimen containers, and catheter devices are available.
- Ensure all technical personnel have been familiarized with the procedure and are fully familiar with all required devices.
- Perform surgical "time out".

Description of Intra-Service Work:

• Preliminary CT is performed of the chest to confirm the presence of a pleural fluid collection (empyema) and target the site for drainage. Images are recorded.

• The chest is prepped and draped in the usual sterile fashion.

• The skin and deeper tissues down to the parietal pleura are infiltrated with a local anesthetic under CT guidance, taking care to avoid vessels.

• A small incision is made.

• A needle is advanced into the pleural collection under CT guidance and a guide wire is then advanced through the needle.

• Tract to the pleural space dilated using a series of fascial dilators.

• A multiside hole drainage catheter is advanced into the pleural collection under CT guidance and secured in place temporarily.

- The catheter is secured in place and connected to suction drainage.
- Post procedure CT images may be obtained (included in procedure code).
- The puncture site is dressed appropriately.
- A sample of fluid is sent to the laboratory for analysis.

Description of Post-Service Work:

- The patient is transferred to the recovery suite and a CXR is obtained (reported separately).
- Post-procedure vital signs are assessed.
- When stable for discharge, the findings are reviewed with patient and family.
- A report of the procedure is prepared for the medical record.

SURVEY DA	ГА						
RUC Meeting Da	ate (mm/yyyy)	10/2012					
Presenter(s):	Zeke Silva, M Plummer, M.I and Burt Lesi	Zeke Silva, M.D. (ACR), Sean Tutton, M.D. (SIR), Michael Hall, M.D.(SIR), Alan Plummer, M.D.(ATS), Kathrin Nicolacakis, M.D.(ATS), Robert DeMarco, M.D. (ACCP), and Burt Lesnick, M.D. (ACCP)					
Specialty(s):	ACR, SIR, AT	S, and ACCP					
CPT Code:	32557						
Sample Size:	2120 F	esp N:	81	Respo	onse: 3.8 %		
Description of Sample:	Random						
			Low	25 th pctl	Median*	75th pctl	High
Service Perform	nance Rate		0.00	7.00	20.00	40.00	300.00
Survey RVW:			2.00	2.95	3.62	4.00	6.00
Pre-Service Eval	uation Time:				15.00		
Pre-Service Posit	tioning Time:				10.00		
Pre-Service Scru	b, Dress, Wait Ti	me:			10.00		
Intra-Service Ti	me:		5.00	20.00	30.00	35.00	75.00
Immediate Post	t Service-Time:	<u>15.00</u>			•	I I	
Post Operative	Visits	Total Min**	CPT Cod	e and Num	nber of Visi	ts_	
Critical Care tin	ne/visit(s):	<u>0.00</u>	99291x 0	. 00 99292	2x 0.00		
Other Hospital	time/visit(s):	0.00	99231x 0	.00 99232	2x 0.00 9	9233x 0.00	
Discharge Day Mgmt: <u>0.00</u>			99238x 0	. 00 99239x	0.00	99217x 0.00	
Office time/visit(s): <u>0.00</u>			99211x 0	.00 12x 0.0	0 13x 0.00 ²	14x 0.00 15x	0.00
Prolonged Serv	vices:	<u>0.00</u>	99354x 0	. 00 55x ().00 56x ().00 57x 0.0	00
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00	99226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: 1a-FAC Straightforw Pat/Procedure(no sedate/anesth

CPT Code:	32557	Recommended Physician Work RVU: 3.62				
		Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time		
Pre-Service Evaluation Ti	me:	15.00	13.00	2.00		
Pre-Service Positioning T	ime:	3.00	1.00	2.00		
Pre-Service Scrub, Dress	, Wait Time:	6.00	6.00	0.00		
Intra-Service Time:		30.00				
Immediate Post Service	e-Time: <u>15.00</u>					
Post Operative Visits	Total Min**	CPT Code and Num	ber of Visits			
Critical Care time/visit(s): <u>0.00</u>	99291x 0.00 99292	× 0.00			
Other Hospital time/vis	sit(s): <u>0.00</u>	99231x 0.00 99232	x 0.00 99233x 0.0	0		
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0	.0 99217x 0.0	0		
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00	13x 0.00 14x 0.00	15x 0.00		
Prolonged Services:	<u>0.00</u>	99354x 0.00 55x 0	.00 56x 0.00 57	× 0.00		
					CPT Code: 32557	
--	---	--	---	---	--	
Sub Obs Care:	<u>0.00</u>	99224x 0 .	00 99225x 0.00	99226	× 0.00	
Iodifier -51 Exempt Status s the recommended value fo	or the new/revis	sed procedure b	ased on its modifi	er -51 exer	npt status? No	
New Technology/Service: s this new/revised procedure	e considered to	be a new tech	nology or service?	No		
KEY REFERENCE SERV	ICE:					
<u>Key CPT Code</u> 32550	<u>Global</u> 000		<u>Wo</u> 4.	<u>rk RVU</u> 17	Time Source RUC Time	
<u>CPT Descriptor</u> Insertion of i	ndwelling tunn	eled pleural cath	neter with cuff			
Compare the surveyed code appropriate that have relative MPC CPT Code 1 51102	to codes on the values higher a <u>Global</u> <u>W</u> 000	e RUC's MPC I and lower than th <u>ork RVU</u> 2.70	List. Reference co ne requested relativ <u>Time Source</u> RUC Time	odes from t ve values fo <u>M</u>	he MPC list should be chosen, or the code under review. Most Recent <u>Iedicare Utilization</u> 14.057	
<u>CPT Descriptor 1</u> Aspiration	of bladder; wit	h insertion of su	prapubic catheter		Most Pacent	
<u>MPC CPT Code 2</u> 31628	<u>Global</u> 000	Work RVU 3.80	Time Source RUC Time	N	Medicare Utilization 39,047	
<u>CPT Descriptor 2</u> Bronchosc lung biopsy(s), single lobe	opy, rigid or f	lexible, includin	g fluoroscopic gui	dance, whe	en performed; with transbronch	
<u> Other Reference CPT Code</u> 49418	<u>Global</u> 000	<u>Work RV</u> 4.21	<u>/U</u> <u>Time So</u> RUC Tir	<u>urce</u> ne		
<u>CPT Descriptor</u> Insertion of management of ascites), cor	f tunneled intinplete procedu	raperitoneal cat	heter (eg, dialysis naging guidance.	s, intraperit catheter pla	toneal chemotherapy instillati acement, contrast injection wl	

performed, and radiological supervision and interpretation, percutaneous

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S): Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. **Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.**

Number of respondents who choose Key Reference Code: 20 % of respondents: 24.6 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 32557	Key Reference CPT Code: <u>32550</u>	Source of Time RUC Time
Median Pre-Service Time	24.00	40.00	
Median Intra-Service Time	30.00	30.00]
Median Immediate Post-service Time	15.00	20.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	
Median Office Visit Time	0.0	0.00	

Prolonged Services Time	0.0	0.00
Median Subsequent Observation Care Time	0.0	0.00
Median Total Time	69.00	90.00
Other time if appropriate		

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

<u>Mental Effort and Judgment (Mean)</u>		
The number of possible diagnosis and/or the number of	3.21	3.35
management options that must be considered		
The amount and/or complexity of medical records, diagnostic tests,	3.50	3.50
and/or other information that must be reviewed and analyzed		
Urgency of medical decision making	3.40	3.30
Technical Skill/Physical Effort (Mean)		
Technical skill required	3.65	3.60
·		
Physical effort required	3 15	3 35
	5.15	5.55
Psychological Stress (IVICAII)		
The risk of significant complications, morbidity and/or mortality	3.55	3.45
Outcome depends on the skill and judgment of physician	3.85	3.90
Estimated risk of malpractice suit with poor outcome	3.45	3.40
· · · · · · · · · · · · · · · · · · ·	<u> </u>	
INTENSITV/COMPLEXITY MEASURES	CPT Code	Roforonco
INTENSII I/COMI LEXIT I MEASURES		Service 1
		<u></u>
Time Segments (Mean)		
Pre-Service intensity/complexity	2.80	2.95
Intra-Service intensity/complexity	3.70	3.85
Post-Service intensity/complexity	3.10	3.20

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

Background:

CPT Code: 32557

CPT codes 32422 (*Thoracentesis with insertion of tube, includes water seal (eg, for pneumothorax), when performed (separate procedure))* and 32551 (*Tube thoracostomy, includes water seal (eg, for abscess, hemothorax, empyema), when performed (separate procedure)*), were identified by the RAW screen for Harvard valued codes with greater than 30,000 utilization. The specialty societies referred these two codes, as well as CPT codes 32420 (*Pneumocentesis, puncture of lung for aspiration*) and 32421(*Thoracentesis, puncture of pleural cavity for aspiration, initial or subsequent*), to CPT for revision of the family to better describe current practice. As a result, four new codes were created, two for thoracentesis: non-image guided (32554) and image guided (32555), and two for pleural catheter placement: non-image guided (32556) and image guided (32557). The specialty societies surveyed the family of codes and presented recommendations to the RUC at the April 2012 meeting. However, the RUC noted that the split survey process used made it difficult to ascertain the appropriate increment of physician work across the family of codes. As such, interim values were recommended by the RUC and a re-survey recommended.

Recommendation:

The ACR, SIR, ATS, and ACCP performed a random survey of diagnostic radiologists, interventional radiologists, and chest physicians, and convened a panel of experts to review the survey data. We are recommending the median survey RVU of 3.62 and the median intra-service time and post-service times of 30 and 15 minutes, respectively.

Pre-Service Period:

The specialty societies recommend pre-service package 1a (Facility Straightforward Patient/Procedure (No sedation/anesthesia care)) with the following adjustment: (1) increase the positioning time by 2 minutes, compatible with our survey results and (2) increase the positioning time by 2 minutes. These adjustments account for the additional time prior to skin prep necessary for CT localization of a suitable pocket of fluid. Based on the survey data, it is reasonable to conclude respondents would consider imaging work prior to skin prep to be pre-service work. These modifications to the pre-service times are also compatible with several recently reviewed interventional radiology codes, including paracentesis with imaging guidance (49083 (*Abdominal paracentesis (diagnostic or therapeutic); with imaging guidance*)).

Key Reference Service:

The most commonly chosen key reference service was 32550 (*Insertion of indwelling tunneled pleural catheter with cuff*), with 4.17 RVUs and 30 minutes of intra-service time. 32557 compares favorably to this key reference service: the intra-service time is equal, the RVUs slightly lower and the IWPUT nearly identical. This favorable comparison is supported by the complexity measures, which were similar but lower for the surveyed code on 6 of the 11 complexity measures suggesting respondents found the surveyed code only slightly less complex. Further, both the surveyed code and reference code involve interventions related to the management of thoracic fluid collections.

CPT Code	Short Descriptor	Work RVU	Pre- Service	Intra- Service	Post- Service	Total Time	IWPUT
32557	Pleural drainage, with imaging	3.62	24	30	15	69	0.094
32550	Insertion of pleural catheter	4.17	40	30	20	90	0.099

MPC Recommendations:

Our recommendation of 3.62 RVUs for 32557 is bracketed favorably by two MPC codes: 51102 (Aspiration of bladder; with insertion of suprapubic catheter), with 2.70 RVUs and 20 minutes of intra time, and 31628 (*Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with transbronchial lung biopsy(s), single lobe*), with 3.80 RVUs and 40 minutes of intra time.

CPT Code	Short Descriptor	Work RVU	Pre- Service	Intra- Service	Post- Service	Total Time	IWPUT
32557	Pleural drainage, with imaging	3.62	24	30	15	69	0.094
51102	Drain bladder with catheter insertion	2.70	25	20	15	60	0.094
31628	Bronchoscopy/Lung biopsy,	3.80	30	40	20	90	0.071

CPT Code: 32557

each			- · · · ·	
	each			

Building block methodology:

It should be noted that this is a new CPT code describing a new service with change in dominant provider and service description, so a direct comparison to previously reported codes 32551 and its typical imaging pair, 75989, is not appropriate. As the description of work for the surveyed code suggests, the imaging guidance prior to catheter placement to avoid injury to the lung and pleura, as well as periodic imaging during drainage to ensure optimal placement of the catheter into the collection are distinctly different than in the past, when the procedure was performed based on anatomic landmarks. Drainage is more complete and, as the vignette suggests performed in a more difficult patient with infection and pleural effusion.

However, as a point of reference for the Panel, we provide the following information: 32551(3.29) RVUs + 75989(1.19) RVUs = 4.48 RVUs

Accordingly, our recommendation results in a decrease in RVUs.

Comparison within family

The societies feel the incremental increase in RVUs from 32554 to 32557 accurately represents the increased physician work across the family. The data is summarized in the attached table. Congruent with the increase in RVUs is an increase in total time. We do acknowledge that the intra-service times are the same from 32554 through 32556 but the increase in IWPUT across the family appropriately reflects the greater intensity in treating more complex patients requiring imaging guidance and the more complex collections typical of 32556 and 32557.

In conclusion, for 32557 we are recommending 3.62 RVUs and total time of 69 minutes (24/30/15). We feel that our survey data (81 respondents) supports these recommendations.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)



The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.



Multiple codes allow flexibility to describe exactly what components the procedure included.

- Multiple codes are used to maintain consistency with similar codes.
- Historical precedents.
- Other reason (please explain)
- 2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 32551, 75989

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Radiology	Но	w often? Comn	nonly	
Specialty Pulmonary	Но	w often? Comn	nonly	
Specialty Interventional	Radiology	Но	ow often? Co	Commonly
Estimate the number of the recommendation is explain the rationale for year period is unknown.	times this service mig s from multiple speci this estimate. An est	ght be provided alties, please pro- timate for the nu	nationally in ovide the free unber of time	a one-year period? 0 equency and <u>percentage</u> for each specialty. Please es this service is performed nationally in a one-
Specialty	Frequency 0	Percentage	e 0.00 %	
Specialty	Frequency 0	Percentage	e 0.00 %	
Specialty	Frequency 0	Percentage	e 0.00 %	
Estimate the number of t 62,136 If this is a recom- Please explain the ration utilization frequency for be about 30%, by Pulme	times this service mig mendation from mu ale for this estimate. code 32251. Based mary about 17%, and	ght be provided Itiple specialties The estimated f on past frequence I by Interveniona	to Medicar please estim requency for cy data, we e al Radiology	re patients nationally in a one-year period? nate frequency <u>and percentage</u> for each specialty. r Medicare is 62,136, which is the 2011 Medicare estimated the percent performed by Radiology to y about 5%
Specialty Radiology	Frequency	18641	Percen	ntage 30.00 %
Specialty Pulmonary	Frequency	7593 Pe	ercentage 12.	2.21 %
Specialty Interventional	Radiology	Frequency	3063	Percentage 4.92 %

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix will not change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 32551

SS Rec Summary

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12	ISSUE:	Chest 1	Tube Interventions 32554, 32	2556	ATS/AC	CP;	3255	5, 32	557 A	TS/A	CCP,	ACR,	SIR							
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16	REF	49083	Abdominal paracentesis (diagno	18	0.052			2.00			60	15	5	5			25			10
17	CURRENT	32421	Thoracentesis, puncture of pleu	ral cav	0.039			1.54			48	10					28			10
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18	371	32334	Thoracentesis, needle or cathete	40	0.059	0.00	1.90	2.00	2.31	3.50	60	15	5	Э	Э	15	20	20	50	15
19	REC	32554			0.054			1.82			56	13	3	5			20			15
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00	REF	49083	Abdominal paracentesis (diagnosti	46	0.052			2.00			60	15	5	5			25			10
26		32422+			0.002															
27	CURRENT	76942	Thoracentesis with ultrasound in	nagin	#DIV/0!			2.86			0									
20	SVY	32555	Thoracentesis, needle or cathete	90	0.074	1.00	2.03	2.45	2.75	5.00	70	15	10	10	5	15	20	30	50	15
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29	REC	32555			0.074			2.27			59	15	3	6			20			15
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35	Source	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th	MAX	Time	EVAL	POSIT	SDW	MIN	25th	MED	75th	MAX	POST
36	REF	93503	Insertion and placement of flow	8	0.166			2.91			37	5	2	5			15			10
50																				
37	CURRENT	32422	I noracentesis with insertion of t	ube, ii	0.039			2.19			75	15	15				31			14
28	SVY	32556	Pleural drainage, percutaneous,	40	0.098	1.50	2.50	3.00	3.85	5.00	73	15	10	10	5	15	20	30	60	18
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45	Source	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th	MAX	Time	EVAL	POSIT	SDW	MIN	25th	MED	75th	MAX	POST
46	REF	32550	Insertion of indwelling tunneled	20	0.099			4.17			90	15	15	10			30			20
.0	CURRENT	32551 +			#D0//01			4.40			0									
47	CURRENT	75989	Chest tube insertion with imagin	g	#DIV/0!			4.48			U									
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48	SVY	32557	Pleural drainage, percutaneous,	81	0.088	2.00 2.95	3.62	4.00 6	6.00	80	15	10	10	5	20	30	35	75	15
49	REC	32557			0.094		3.62			69	15	3	6			30			15

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Non Facility Direct Inputs

CPT Long Descriptor:

32554 Thoracentesis, needle or catheter, aspiration of the pleural space, without imaging guidance32556 Pleural drainage, percutaneous, with insertion of indwelling catheter, without imaging guidance

Global Period: 000 Meeting Date: April 2012

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee:

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale: These two codes are revised codes 32421, 32422. Code 32421 does not have individual data for pre-service, intra-service and post-service so 32422 was used as the comparison code. 32421 showed clinical staff as an RN. 32422 showed clinical staff as an RT. Currently, we indicate RN/RT as clinical staff.

Please describe in detail the clinical activities of your staff:

Pre-Service Clinical Labor Activities:

- Complete pre-service diagnostic and referral forms
- Coordinate pre-surgery services
- Provide pre-service education/obtain consent
- Follow-up phone calls and prescriptions

Service Clinical Labor Activities:

- Greet patient, provide gowning, ensure appropriate medical records are available
- Obtain vital signs
- Prepare room, equipment and supplies
- Prepare and position patient, monitor patient, set up IV
- Assist physician in performing the procedure
- Monitor patient following service, check tubes, monitors, drains
- Clean room and equipment
- Complete diagnostic forms, lab and x-ray requisitions
- Check dressings and wound, home care instructions provided, coordinate office visits and prescriptions

Post-Service Clinical Labor Activities:

• Conduct phone calls and call-in prescriptions

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Non Facility Direct Inputs

CPT Long Descriptor:

32555 - Thoracentesis, needle or catheter, aspiration of the pleural space; with imaging guidance 32557 - Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance

Global Period: 000 Meeting Date: 04/2012

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee:

The ACR and SIR convened a consensus panel to review and finalize the practice expense data for codes 32555 and 32557.

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale: The existing codes, 32421, 32422, and 32551, are being replaced by the new chest tube placement codes, 32555 and 32557, and the practice expense inputs for these codes are similar to the practice expense inputs for the new codes.

Please describe in detail the clinical activities of your staff:

Pre-Service Clinical Labor Activities:

- Complete pre-service diagnostic & referral forms
- Coordinate pre-surgery services
- Provide pre-service education/obtain consent
- Follow-up phone calls & prescriptions
- Retrieve prior images for comparison

Service Clinical Labor Activities:

- Review charts
- Greet patient and provide gowning
- Obtain vital signs
- Prepare room, equipment, supplies
- Prepare and position patient/ monitor patient/ set up IV
- Acquire Image
- Assist physician in performing procedure
- Monitor pt. following service/check tubes, monitors, drains
- Clean room/equipment by physician staff
- Complete diagnostic forms, lab & X-ray requisitions
- Check dressings & wound/ home care instructions /coordinate office visits /prescriptions
- Process images, complete data sheet, present images and data to the interpreting physician

Post-Service Clinical Labor Activities:

• Conduct phone calls/call in prescriptions

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Facility Direct Inputs

CPT Long Descriptor:

32555 - Thoracentesis, needle or catheter, aspiration of the pleural space; with imaging guidance 32557 - Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance

Global Period: <u>000</u> Meeting Date: <u>04/2012</u>

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee:

The ACR and SIR convened a consensus panel to review and finalize the practice expense data for codes 32555 and 32557.

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale:

The existing codes, 32421, 32422, and 32551, are being replaced by the new chest tube placement codes, 32555 and 32557, and the practice expense inputs for these codes are similar to the practice expense inputs for the new codes.

Please describe in detail the clinical activities of your staff:

Pre-Service Clinical Labor Activities:

- Complete pre-service diagnostic & referral forms
- Coordinate pre-surgery services
- Schedule space and equipment in facility
- Provide pre-service education/obtain consent
- Follow-up phone calls & prescriptions

Service Clinical Labor Activities:

Post-Service Clinical Labor Activities:

• Conduct phone calls/call in prescriptions

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1	Tab 11: Revised 4/26/12																															
2	Note: 32002 was replaced by 32422 32020 was replaced by 32551 76360 was replaced by 77012			22554			22555			2	0556			2254	-7			22002	(22422)	22/	100			76042			4006	1			76260 (7	7012)
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	Meeting Date: April 2012 Tab: 11 Specialty: ACR: SIR			or catheter, aspiration of the pleural space; without imaging guidance (April 2012)	CODE for 32555	STAFF TYPE fo 32555	or catheter, aspiration of t pleural space; y imaging guida (April 2012)	he with nce		percutar inser indwellin withou gui (Apri	neous, with rtion of ng catheter; t imaging dance il 2012)			percutaned insertion of i catheter; wit guida (Oct 20	ous, with indwelling h imaging nce 012)			insertio cathete without v (PEAC A Jan	n of tube r with or water seal pproved - 2004)	with inse tube, in water sea pneumo when pe (sepa proce	ertion of ncludes al (eg, for othorax), erformed arate edure) nt RUC			for needle placement (eg biopsy, aspiratio injection, localization devic imaging supervision and interpretation	on, :e), d		retroperitonea percutan (PEAC Appro 2004	il abscess; eous oved - Jan)			tomogra guidano needle b radiolo supervisi interpre (PEAC Ap Jan 2(aphic e for lopsy, gical on and tation proved 004)
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3	LOCATION	32554	32554	Non Facility			Non Faci	32 ility	32556 32556	Non	Facility	32557	32557	Non Facility	Facility	32422	32422	Non	Facility	Non	Facility	76942	76942	Non Facili	49061 ty	49061	Non Facility	Facility	77012	77012	Non Facility	Facility
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7	-				L051B	RDMS	5.0			0.0		L051B L051A	RDMS RN	5.0 15.0											L041B	RT RN	55.0 77.0					
9												L041B		0.0																		
11	PRE-SERVICE		_									LUSTD		0.0																		
12	Start: Following visit when decision for surgery or procedure made	10070							0070 00// 00//			10404				10445	DT															
13	forms		TA	5	L041B	RI	5		.037D RN/LPN/ MTA	5		L046A	Cliech	5		L041B	RI	5	5	5	5											1
14	Coordinate pre-surgery services	L037D F	RN/LPN/M TA	3	L041B	RT	3	L	.037D RN/LPN/ MTA	3		L046A	CT Tech	3		L041B	RT	3	10	3	10											1
15	Schedule space and equipment in facility	L037D F	RN/LPN/M TA		L041B	RT		L	.037D RN/LPN/ MTA			L046A	CT Tech			L041B	RT	0	5		5											1
16	Provide pre-service education/obtain consent	L037D F	RN/LPN/M TA	5	L041B	RT	5	L	.037D RN/LPN/ MTA	5		L046A	CT Tech	5		L041B	RT	5	5	5	5											
17	 Follow-up phone calls & prescriptions Other Clinical Activity (please specify): 	L037D F	RN/LPN/M	3	L041B L041B	RT RT	3 3	L	.037D RN/LPN/	3		L046A L046A	CT Tech CT Tech	<u>3</u> 6		L041B	RT	3	3	3	3	L051B	RDMS	3					L037D	RN/LPN/	6	
18 19	Retrieve prior images for comparison End:When patient enters office/facility for surgery/procedure																								_					MTA		
20	SERVICE PERIOD Start: When patient enters office/facility for																															
22	Pre-service services															10440	DT	0		2												
23	Greet patient and provide gowning	L037D F	RN/LPN/M	3	L041B	RT	3	L	.047C RN/RT	3		L046A	CT Tech	3		L041B L041B	RT	3		3												
24	Obtain vital signs	L037D F	RN/LPN/M	5	L041B	RT	5	L	.037D RN/LPN/	5		L046A	CT Tech	5		L041B	RT	5		5											0	
20	Provide pre-service education/obtain consent							L	.037D RN/LPN/																		5 (RN/LPN/MTA)					
20	Prepare room, equipment, supplies	L037D F	RN/LPN/M	2	L041B	RT	4	L	.037D RN/LPN/	2		L046A	CT Tech	4		L041B	RT	2		2		L051B	RDMS	2			3 (RT)		L037D	RN/LPN/	1	
28	Setup scope (non facility setting only)		- 10					L	.037D RN/LPN/																					MIA		
29	Prepare and position patient/ monitor patient/	L037D F	RN/LPN/M TA	2	L041B	RT	3	L	.037D RN/LPN/ MTA	2		L046A	CT Tech	3		L041B	RT	2		2		L051B	RDMS	3			2 (RT)		L037D	RN/LPN/ MTA	2	
30	Sedate/apply anesthesia	 +										L051A	RN	0													2 (RN)			WI 1/3		
32	Acquire Image			20	L051B	RDMS	5			20		L051B	RDMS	5		1.041B	DT	21		21		L 051P	PDMS	45							10	
33		LUSID F	TA	20	LU41D		20		MTA	20				30		LU41D		21		21		LUDID	KDIVI3	40			40 (KT)		L037D	MTA	10	
34	<pre>Assist physician - conscious sedation = physician time Assist with fluoresesses//images</pre>													0																		
35	-Assist with fluoroscopy/image acquisition (75%)											L041B		0																		
36	-Circulating throughout the procedure (25%)											L037D		0					ļ													
37	Monitor pt. following service/check tubes,	L037D F	RN/LPN/M	5	L041B	RT	15	L	.037D RN/LPN/	15		L051A	RN	15		L041B	RT	15		15							60 (RN) @80% 15 (RN)					
38	Imonitors, drains Clean room/equipment by physician staff	L037D F	TA RN/LPN/M	3	L041B	RT	3	L	.037D RN/LPN/	3		L046A	CT Tech	3		L041B	RT	3		3		L051B	RDMS	3			2 (RT)		L037D	RN/LPN/	3	
39 40	Clean Ultrasound		IA				3		MTA																					MTA		
41	Clean Surgical Instrument Package Complete diagnostic forms, lab & X-ray	L037D F	RN/LPN/M	2	L041B	RT	2	L	.037D RN/LPN/	2		L046A	CT Tech	3		L041B	RT	2		2							3 (RN/LPN/MTA)					
42 43	Review/read X-ray, lab, and pathology reports		ТА						MTA																							

	В			F	G	Тц	1 1	1 1	Г к		м	N	0	Þ		P	S	Гт	T 11	V	\M/	x	V	7 ΔΔ	ΔB			۸F	ΔF	AG	ΔН	
Note: 32002 was replaced by 32422		0				- 11		<u> </u>			101		0	1		IX.	5	1		v	~~		1	2 74						70		
32020 was replaced by 32551																																
2 76360 was replaced by 77012			32554			32	2555			32556	6			325	57			32002	(32422)	324	422			76942			49061				76360 (770	012)
			Thoracentesis, need	le CMS	CMS	Thoracen	tesis, needle	<u>)</u>		Pleural dra	<mark>ainage,</mark>			Pleural dr	rainage,			Thoracer	ntesis with	Thorac	entesis			Ultrasonic guidance	e		Drainage o	of			Compute	ed
			or catheter,	CODE	STAFF	or ca	theter,			percutaneou	us, with			percutaneo	ous, with			insertio	n of tube	with ins	ertion of			for needle			retroperitoneal at	bscess;			tomograp	ohic
			aspiration of the	for	TYPE for	r <mark>aspirat</mark>	ion of the			insertior	n of			insertion of	indwelling			cathete	r with or	tube, ir	ncludes			placement (eg,			percutaneou	us			guidance	for
			pleural space;	32555	32555	pleural s	space; with			indwelling ca	atheter;			catheter; Wit	in imaging			without	water seal	water sea	al (eg, for			biopsy, aspiration	,			d - Jan			needle blog	psy,
			without imaging			Imaging	guidance			without im				guida	ince				nnroved -	when ne	orformed			Injection,	3			u - Jan			supervision	cai n and
Monting Date: April 2012			guiuance			(Apr	il 2012)			guiuan	ice i			(Oct 2	012)			, Ian	2004)	(sen	arate			imaging	<i>,</i> ,		2004)				interpretat	tion
Tab: 11			(April 2012)			(Apr	11 2012)			(April 20)12)			(0012				Juli	2004)	proce	edure)			supervision and							interpretat	
Specialty: ACR: SIR			(1-1-1-)							(1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	,)													interpretation							(PEAC Appr	roved
																				(Curre	nt RUC			•							Jan 2004	/ 4)
																				Data	base)			(PEAC Approved	-							
	CMS	CMS						CMS	CMS			CMS	CMS			CMS	CMS					CMS	CMS	Feb 2005)	CMS	CMS			CMS	CMS		
	CODE	STAFF						CODE	STAFF			CODE	STAFF			CODE	STAFF					CODE	STAFF		CODE	STAFF			CODE	STAFF		
	for	TYPE for						for	TYPE for			for	TYPE for			for	TYPE for					for T	YPE for		for	TYPE for			for	TYPE for		
3	32554	32554						32556	32556			32557	32557			32422	32422					76942	76942		49061	49061			77012	77012		
			Non Facility			Non	Facility			Non F	Facility			Non Facility	Facility			Non	Facility	Non	Facility			Non Facility	,		Non Facility F	Facility			Non Facility F	acility
Check dressings & wound/ home care	1037D	RN/I PN/M	Facility 5	1.041B	RT	Facility 5		1.037D	RN/I PN/	Facility 5		1.0464	CT Tech	3		L 041B	RT	Facility 5		Facility 5				Facility			3 (RN/LPN/MTA)					
instructions /coordinate office visits	LUUID	TA	Ŭ	LUTID		Ŭ		20072	MTA	Ŭ			0110011	Ū		LUTID		Ŭ		Ŭ							, ,					
44 /prescriptions																																
Discharge day management 9923812																																
45 minutes 9923915 minutes																																
46 Other Clinical Activity (please specify)						_		-				10404										10540	DDMO		_				10070			
Process images, complete data sheet, present				L041B	R I	5						L046A	Cliech	2								L051B	RDMS	5					L037D	RN/LPN/	2	
48 End: Patient leaves office																														INITA		
49 POST-SERVICE Period																																
50 Start: Patient leaves office/facility																																
Conduct phone calls/call in prescriptions	L037D	RN/LPN/M	3	L041B	RT	3		L037D	RN/LPN/	3		L046A	CT Tech	3		L041B	RT	3	3	3	3											
51		TA							MTA																_							
Drice Visits: Greet patient, escort to room;																																
and chart: assemble previous test																																
reports/results:assist physician during exam:																																
assist with dressings, wound care, suture																																
removal; prepare dx test, prescription forms;																																
post service education, instruction, counseling;																																
52 clean room/equin_check supplies: coordinate								-											-							+						
54 99211 16 minutes																																
55 99212 27 minutes																																
56 99213 36 minutes																																
57 99214 53 minutes																																
58 99215 63 minutes								-																								
61 Total Office Visit Time														0	0			0	0	0	0						0	0				
62 Other Activity (please specify)																																
64 MEDICAL SUPPLIES	CODE	UNIT		CODE	UNIT			CODE	UNIT			CODE	UNIT			CODE	UNIT					CODE	UNIT		CODE	UNIT			CODE	UNIT		
65 PEAC multispecialty supply package	04040	neal		04040	neel			SA040	neel			SA040	nosli	4		CA040	naali	1			├	SA040	pool		04040	neal			84040	nach		
67 kit thoracentesis (invoice provided)	3AU48	pack kit	1	SA048	pack trav	1		3AU48	pack kit			3AU48	pack trav			SA048	pack trav	1		1	<u>├</u>	SA048	trav		SA048	pack trav			SA040	pack trav		
68 kit, pleural catheter insertion	SA077	kit		SA077	kit			SA077	kit	1		SA077	kit			SA077	kit		1			SA077	kit		SA077	kit	<u>├</u>	 	SA077	kit		
69 tray, shave prep	SA067	tray		SA067	tray	1		SA067	tray			SA067	tray	1		SA067	tray	1		1		SA067	tray		SA067	tray	1		SA067	tray		
70 mask, surgical, with face shield	SB034	item		SB034	item	2		SB034	item			SB034	item	2		SB034	item	2		2		SB034	item		SB034	item	2		SB034	item		
71 gloves, sterile	SB024	pair	1	SB024	pair	2		SB024	pair	1		SB024	pair	2		SB024	pair	2		2	├ ─── │	SB024	pair	├ ───	SB024	pair	1		SB024	pair		
72 gauze, sterile 4in x 4in	SG055	item	1	SG055	item			SG055	item	1		SG055 SB027	item			SG055	item	2		2		SG055	item		SG055	item	6		SG055	item		
74 needle, 19-25a, butterfly	SC030	item		SC030	item			SC030	item			SC030	item			SC030	item		+		<u>├</u>	SC030	item		SC030	item			SC030	item		
75 gauze, sterile 4in x 4in (10 pack uou)	SG056	item	1	SG056	item			SG056	item	1		SG056	item			SG056	item		1			SG056	item		SG056	item		†	SG056	item		
76 gown, patient	SB026	item		SB026	item			SB026	item			SB026	item			SB026	item					SB026	item		SB026	item			SB026	item		
77 drape, non-sterile, sheet 40in x 60in	SB006	item	1	SB006	item			SB006	item	1		SB006	item			SB006	item		<u> </u>	Į		SB006	item		SB006	item	ļ		SB006	item		
78 gloves, non-sterile	SB022	pair		SB022	pair			SB022	pair			SB022	pair			SB022	pair				├	SB022	pair		SB022	pair			SB022	pair		
1/3 ISyringe 5-6MI 80 Japan Ayam table	SC057	item ft		SC05/	item ft			SC05/	item #			SB036	ITEM			5005/ SR026	item		+		├	SB036	item ft		SC057 SR026	item #	├ ───		5005/ SB036	item		
81 cover, thermometer probe	SB030	item		SB030	item			SB004	item			SB004	item			SB004	item		+	1	<u>├</u>	SB004	item		SB030	item	<u>├</u>		SB004	item		
82 swab-pad, alcohol	SJ053	item		<u>S</u> J053	item			<u>SJ</u> 053	item			SJ053	item			<u>SJ053</u>	item					SJ053	item		<u>S</u> J053	item			SJ053	item		
83 disinfectant spray (Transeptic)	SM012	ml		SM012	ml	10		SM012	ml			SM012	ml			SM012	ml					SM012	ml	10	SM012	ml			SM012	ml		
84 x-ray envelope	SK091	item		SK091	item			SK091	item			SK091	item			SK091	item			 		SK091	item		SK091	item	ļ		SK091	item	1	
85 film, x-ray 14in x 17in	SK034	item		SK034	item	3		SK034	item			SK034	item			SK034	item					SK034	item	3	SK034	item			SK034	item		
1 °° IIIITI, OITIXTUITI (UILTASUUND, IVIKT)	30022	nem		36022	l liem	2		30022	l liem			snuzz I	nem			3NU22	item	1	1	1	1 1	SNUZZ	nem		34022	l liem		1	JNUZZ	nem	I	

A	В	С	D	E	F	G	Н	I I	J	к	LM	N	0	P Q	R	S	Т	U	V W	Х	Y	Z AA	AB	AC	AD	AE	AF	AG	AH AI
Note: 32002 was replaced by 32422																													
32020 was replaced by 32551			20				22	555			22556			22557			22002	(22422)	22422			76040			40004				76260 (77042)
			32 Thoracent	2004 tesis needle	CMS	CMS	32 Thoracent	tesis needle			32330 Pleural drainage			32007 Pleural drainage			32002 Thoracer	(32422) ntesis with	32422 Thoracentesis			76942 Illtrasonic quidance			49061 Drainage	of			Computed
			or ca	theter,	CODE	STAFF	or ca	theter,			percutaneous, with			percutaneous, with			insertio	on of tube	with insertion of			for needle			retroperitoneal	abscess;			tomographic
			aspirati	ion of the	for	TYPE for	aspirati	ion of the			insertion of			insertion of indwelling			cathete	er with or	tube, includes			placement (eg,			percutane	eous			guidance for
			without	ai space; t imaging	32000	32333	imaging	guidance			without imaging			guidance			without	water sear	pneumothorax),			injection,			(PEAC Approv	ved - Jan			radiological
			guio	dance			88	9			guidance			J			(PEAC A	pproved -	when performed			localization device),			2004)				supervision and
Meeting Date: April 2012			()	9 2012)			(Apri	il 2012)			(Amel 2012)			(Oct 2012)			Jan	2004)	(separate			imaging							interpretation
I ab: 11 Specialty: ACR: SIR			(Аргі	ll 2012)							(April 2012)								procedurej			interpretation							(PEAC Approved
Specially. ACIV. SIX																			(Current RUC			•							Jan 2004)
																			Database)			(PEAC Approved -							
		STAFF								STAFF			CMS STAFF								STAFF	160 2003)		CMS STAFF			CMS	CMS STAFF	
	for	TYPE for							for	TYPE for		for	TYPE for		for	TYPE for				for	TYPE for		for	TYPE for			for 1	TYPE for	
3	32554	32554						_	32556	32556		32557	32557		32422	32422				76942	76942		49061	49061			77012	77012	
			Non Facility	Facility			Non Facility	Facility			Non Facility Facility			Non Facility Facility			Non Facility	Facility	Non Facility Facility			Non Facility Facility			Non Facility	Facility			Non Facility Facility
87 sanitizing cloth-wipe (patient)	SM021	item			SM021	item	2		SM021	item		SM021	item		SM021	item				SM021	item	2	SM021	item			SM021	item	
88 pillow case	SB037	item			SB037	item	1		SB037	item		SB037	item		SB037	item				SB037	item	1	SB037	item			SB037	item	
90 cover-condom, transducer or ultrasound probe	SB005	item			SR009 SB005	item	1		SR009 SB005	item		SB005	item		SB005	item				SB005	item	1	SB005	item			SB005	item	
91 lubricating jelly (Surgilube)	SJ033	OZ			SJ033	OZ	3		SJ033	OZ		SJ033	oz		SJ033	OZ				SJ033	oz	30	SJ033	OZ			SJ033	oz	
92 computer media, dvd	SK013 SB036	item ft			SK013 SB036	item ft			SK013 SB036	item ft		SK013 SB036	item ft	1	SK013 SB036	item ft				SK013 SB036	item ft		SK013 SB036	item ft			SK013 SB036	item	1 7 feet
94 cap, surgical	SB000	item			SB000	item			SB000	item		SB000	item	2	SB000	item				SB000	item		SB000	item	1		SB000	item	7 1001
95 shoe covers, surgical	SB039	pair			SB039	pair			SB039	pair		SB039	pair	2	SB039	pair				SB039	pair		SB039	pair	2		SB039	pair	
96 drape, sterile, three-quarter sheet 97 drape-towel, sterile 18in x 26in	SB014 SB019	item			SB014 SB019	item			SB014 SB019	item		SB014 SB019	item	1 	SB014 SB019	item				SB014 SB019	item		SB014 SB019	item	1 4		SB014 SB019	item	
98 drape, sterile, fenestrated 16in x 29in	SB011	item			SB011	item			SB011	item		SB011	item	1	SB011	item				SB011	item		SB011	item	1		SB011	item	
99 underpad 2ft x 3ft (Chux)	SB044	item			SB044	item			SB044	item		SB044	item	1	SB044	item				SB044	item		SB044	item	1		SB044	item	
100 povidone soin (Betadine) 101 applicator, sponge-tipped	SJ041 SG009	item			SG009	item			SG009	item		SG009	item	4	SJ041 SG009	item				SJ041 SG009	item		SG009	item	60 4		SG009	item	
102 lidocaine 1%-2% inj (Xylocaine)	SH047	ml			SH047	ml			SH047	ml		SH047	ml	10	SH047	ml				SH047	ml		SH047	ml	10		SH047	ml	
syringe w-needle, OSHA compliant	SC058	item			SC058	item			SC058	item		SC058	item	2	SC058	item				SC058	item		SC058	item	2		SC058	item	
104 blade, surgical (Bard-Parker)	SF007	item			SF007	item			SF007	item		SF007	item	1	SF007	item				SF007	item		SF007	item	1		SF007	item	
105 stop cock, 3-way	SC049	item			SC049	item			SC049	item		SC049	item	1	SC049	item				SC049	item		SC049	item	1		SC049	item	
sodium chloride 0.9% irrigation (500-1000ml	SC056 SH069	item			SC056 SH069	item			SC056 SH069	item		SC056 SH069	item	2	SH069	item				SC056 SH069	item		SH069	item	2		SH069	item	
107 uou)	011000	Nom			Chicoc				0.1000	itoini		011000			011000	Rom					nom		011000				Chicoc	Rom	
108 cup, sterile, 8 oz	SL157	item			SL157	item			SL157	item		SL157	item	1	SL157	item				SL157	item		SL157	item	1		SL157	item	
110 cup, sterile, 12-16 62	SL156 SL036	item			SL156 SL036	item			SL036	item		SL036	item	1	SL136	item				SL156 SL036	item		SL156 SL036	item	1		SL036	item	
kit, AccuStick II Introducer System with RO	SA071	kit			SA071	kit			SA071	kit		SA071	kit	1	SA071	kit				SA071	kit		SA071	kit	1		SA071	kit	
111 Marker	SC010	itam			SC010	itom			SC010	itom		SC010	itom	1	SC010	itom				SC010	itom		SC010	itom	1		80010	itom	
113 sodium chloride 0.9% flush syringe	SH065	item			SH065	item			SH065	item		SH065	item	1	SH065	item				SH065	item		SH065	item	1		SH065	item	
114 guidewire	SD088	item			SD088	item			SD088	item		SD088	item	1	SD088	item				SD088	item		SD088	item	1		SD088	item	
115 dilator, vessel, angiographic	SD043	item			SD043	item			SD043	item		SD043	item	1	SD043	item		-		SD043	item		SD043	item	1		SD043	item	
117 catheter percutaneous fastener (Percu-Stay)	SD101	item			SD101 SD146	item			SD101 SD146	item		SD146	item	1	SD101 SD146	item				SD101 SD146	item		SD101 SD146	item	1		SD101 SD146	item	
118 drainage pouch, nephrostomy-biliary	SD163	item			SD163	item			SD163	item		SD163	item	1	SD163	item				SD163	item		SD163	item	1		SD163	item	
119 tape, surgical paper 1in (Micropore)	SG079	IN nack			SG079 SA044	n nack			SG079 SA044	in pack		SG079 SA044	n nack	12	SG079	IN nack				SG079	in nack		SG079	in nack	12		SG079 SA044	in nack	
121 gown, surgical, sterile	SB028	item			SB028	item			SB028	item		SB028	item	1	SB028	item				SB028	item		SB028	item	1		SB028	item	
122 film, x-ray, laser print	SK098	item	45		SK098	item			SK098	item	05	SK098	item	1	SK098	item				SK098	item		SK098	item			SK098	item	1
123 tape, surgical occlusive 1 inch (Blenderm) 124 Equipment	SG078	IN	15		SG078	in			SG078	in	25	SG078	in		SG078	IN				SG078	IN		SG078	IN			SG078	IN	
125 Exam table	EF023		66		EF023				EF023		76	EF023			EF023		1		60	EF023			EF023				EF023		
126 Ultrasound room	EL015				EL015		33		EL015			EL015		50	EL015					EL015		X	EL015			└───	EL015		
128 Laser printer	ER029	1			ED024 ER029		58		ED024 ER029			ER029		58	ER029		<u> </u>	1		ED024 ER029		58	ER029				ER029		1
129 CT room	EL007				EL007				EL007			EL007		45	EL007					EL007			EL007		60		EL007		22
130 ECG, 3 channel	EL007				EL007				EL007			EL007		0	EL007			+	 	EL007			EL007		X V	├ ── 	EL007		
132 light, exam	EQ168				EQ168				EQ168			EQ168		60	EQ168					EQ168			EQ168		<u> </u>		EQ168		
133 stretcher chair	EF019				EF019		15		EF019			EF019		15	EF019					EF019			EF019		X		EF019		
134 oxygen system, portable	EQ192 FQ211				EQ192 EQ211				EQ192 FQ211		E	Q192			EQ192 FQ211					EQ192 FQ211			EQ192 FQ211		X X		EQ192		
						1						~~ ' '						1						1	~ ~				

A	В	C	D	E	F	G	Н		J	K	L	М	N	0	P Q	R	S	Т	U	V	W	Х	Y	Z AA	AB	AC	AD	AE	AF /	٩G	AH	AI
1 Tab 11: Revised 4/26/12 Note: 32002 was replaced by 32422 22020 was replaced by 32551																																
2 76360 was replaced by 77012			32	554			32	2555			3	2556			32557			32002	2 (32422)	32	422			76942			4906 [,]	1			76360 (7701)	2)
Meeting Date: April 2012 Tab: 11			Thoracent or cat aspiration pleural without guid	esis, needle theter, on of the l space; imaging lance l 2012)	CMS CODE for 32555	CMS STAFF TYPE for 32555	Thoracent or ca aspirat pleural s imaging (Apri	tesis, needle theter, ion of the pace; with guidance 1 2012)	e		Pleura percuta inse indwelli withou gu (Apr	l drainage, ineous, with ertion of ng catheter; it imaging idance ril 2012)			Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance (Oct 2012)			Thorace insertio cathete without (PEAC A Jan	ntesis with on of tube er with or water seal Approved - 2004)	n Thorac with ins tube, in water se pneumo when po (sep proce	centesis ertion of ncludes al (eg, for othorax), erformed arate edure)			Ultrasonic guidance for needle placement (eg, biopsy, aspiration, injection, localization device) imaging supervision and	;		Drainag retroperitonea percutan (PEAC Appro 2004	e of l abscess; eous ved - Jan)			Computed tomographi guidance fo needle biops radiologica supervision a interpretatio	ic >r sy, al and on
Speciality: ACR: SIR	CMS CODE for 32554	CMS STAFF TYPE for 32554	r						CMS CODE for 32556	CMS STAFF TYPE for 32556			CMS CODE for 32557	CMS STAFF TYPE for 32557		CMS CODE for 32422	CMS STAFF TYPE for 32422			(Curre Data	nt RUC base)	CMS CODE for 76942	CMS STAFF TYPE for 76942	(PEAC Approved - Feb 2005)	CMS CODE for 49061	CMS STAFF TYPE for 49061			CMS C CODE ST for TYP 77012 77	MS AFF E for 012	Jan 2004)	reu
			Non	Facility			Non	Facility			Non	Facility			Non Facility Facility			Non	Facility	Non	Facility			Non Facility			Non Facility	Facility		No	on Facility Fac	cility
5 GLOBAL PERIOD				000			Facility 000	000	L		Facility 000	000			000 000			Facility 000	000	Facility 000	000			Facility XXX			000	000			XXX X	XX
6 TOTAL TIME	L037D	RN/LPN/M	64.0	0.0	L041B	RT	80.0	0.0	L037D	RN/LPN/ MTA	69.0	0.0			96.0	L041B	RT	79.0	31.0	79.0	31.0	L051B	RDMS	61.0 0.0	L037D	RN/LPN/	11.0	0.0	L037D RN/	LPN/ TA	32.0 0).0
7 PRE-SERVICE PERIOD TOTAL 8 SERVICE PERIOD TOTAL	L037D	RN/LPN/M	9.0 52.0		L041B	RT RT	12.0 65.0		L037D	RN/LPN/	9.0 54.0		L037D	RN/LPN/ CT Tech	15.0 58.0										L041B	RT RN	55.0 77.0					
9					LOTID				L047C	RN/RT	3.0		L051A	RN	15.0																	
10 11 POST-SERVICE PERIOD	L037D	RN/LPN/M	1 3.0		L041B	RT	3.0		L037D	RN/LPN/	3.0		L051B L046A	RDMS CT Tech	5.0 3.0																	
																																_
Start: Following visit when decision for surgery or procedure made																																
Complete pre-service diagnostic & referral forms	L037D	RN/LPN/M	1 0		L041B	RT	0		L037D	RN/LPN/ MTA	0		L037D	RN/LPN/ MTA	0	L041B	RT	5	5	5	5											
Coordinate pre-surgery services	L037D	RN/LPN/M	1 1		L041B	RT	1		L037D	RN/LPN/	1		L037D	RN/LPN/	1	L041B	RT	3	10	3	10											
Schedule space and equipment in facility	L037D	TA RN/LPN/M	1		L041B	RT			L037D	MTA RN/LPN/			L046A	MTA CT Tech		L041B	RT	0	5		5											
17 Provide pre-service education/obtain consent	L037D	TA RN/LPN/M	1 5		L041B	RT	5		L037D	MTA RN/LPN/	5		L046A	CT Tech	5	L041B	RT	5	5	5	5											
18 19 Follow-up phone calls & prescriptions	L037D	TA RN/LPN/M	1 3		L041B	RT	3		L037D	MTA RN/LPN/	3		L046A	CT Tech	3	L041B	RT	3	3	3	3		DDMC									
20 Retrieve prior images for comparison					L041B	RI	3		_				L046A	CITECN	6							L051B	RDMS	3					L037D RN/ N	LPN/ ITA	6	
21 surgery/procedure																																
22 SERVICE PERIOD Start: When patient enters office/facility for 23 surgery/procedure																																
24 Pre-service services 25 Review charts																L041B	RT	2		2												
Greet patient and provide gowning	L037D	RN/LPN/M	1 3		L041B	RT	3		L047C	RN/RT	3		L046A	CT Tech	3	L041B	RT	3		3												
Obtain vital signs	L037D	RN/LPN/W	1 5		L041B	RT	5		L037D	RN/LPN/	5		L046A	CT Tech	5	L041B	RT	5		5											0	
Provide pre-service education/obtain consent									L037D	RN/LPN/																	5 (RN/LPN/MTA)					
Prepare room, equipment, supplies	L037D	RN/LPN/W	1 2		L041B	RT	4		L037D	RN/LPN/	2		L046A	CT Tech	4	L041B	RT	2		2		L051B	RDMS	2			3 (RT)		L037D RN	LPN/	1	
Setup scope (non facility setting only)									L037D	RN/LPN/																			IV			
Prepare and position patient/ monitor patient/	L037D	RN/LPN/M	1 2		L041B	RT	3		L037D	RN/LPN/	2		L046A	CT Tech	3	L041B	RT	2		2		L051B	RDMS	3	1		2 (RT)		L037D RN	LPN/	2	
31 set up IV 32 Sedate/apply anesthesia		TA								MTA			L051A	RN	0												2 (RN)		N	TA		
33 Intra-service 34 Acquire Image					L051B	RDMS	5						L051B	RDMS	5																	
Assist physician in performing procedure	L037D	RN/LPN/M TA	1 20		L041B	RT	20		L037D	RN/LPN/ MTA	20		L046A	CT Tech	30	L041B	RT	21		21		L051B	RDMS	45			48 (RT)		L037D RN	'LPN/ ITA	18	
36 physician time													L051A	RN																		
-Assist with fluoroscopy/image 37 acquisition (75%)									L				L041B		0																	
38 procedure (25%)									L				20070	TA						 												
Monitor pt. following service/check tubes,	L037D	RN/LPN/M	1 10		L041B	RT	10		L037D	RN/LPN/	15		L051A	RN	15	L041B	RT	15		15							<u>אט (אוא) @80%</u> 15 (RN)					
40 monitors, drains Clean room/equipment by physician staff	L037D	TA RN/LPN/M	1 3		L041B	RT	3		L037D	MTA RN/LPN/	3		L046A	CT Tech	3	L041B	RT	3		3		L051B	RDMS	3			2 (RT)		L037D RN	LPN/	3	
41 42 Clean Ultrasound		TA					3			MTA																			N	TA		
43 Clean Surgical Instrument Package	ם בצט ו		1 2			тq	2		10270		2		10464	CT Tooh	3		τg	2									3 (RN/LPN/MTA)					
 44 requisitions 45 Review/read X-ray, lab, and pathology reports 			2				2		10370	MTA			LOHON																			

	В	C		F	G	Ц	Гі		ĸ	1	м	N	0	Þ		R	S	Тт		V	W/	x	v	7 ΔΔ	ΔB	AC			AG	АН	<u></u>
Note: 32002 was replaced by 32422	D			Г	6			J	K	L	IVI	IN	0	F		<u> </u>	3			v	VV		T	2 AA	AD	AC	AD AE		AG	АП	AI
32020 was replaced by 32551																															
2 76360 was replaced by 77012			32554			32	2555			32	556			325	557			32002	(32422)	324	422			76942			49061			76360 (770 ⁻	/12)
			Thoracentesis, needle	CMS	CMS	Thoracent	tesis, needle	,		Pleural	drainage,			Pleural d	rainage,			Thoracer	ntesis with	Thorac	entesis			Ultrasonic guidance	•		Drainage of			Compute	Jed
			or catheter,	CODE	STAFF	or ca	theter,			percutan	eous, with			percutane	ous, with			insertio	n of tube	with ins	ertion of			for needle			retroperitoneal abscess;			tomograph	hic
			aspiration of the	for	TYPE for	aspirati	ion of the			inser	tion of			insertion of	indwelling			cathete	er with or	tube, ir	ncludes			placement (eg,			percutaneous			guidance f	for
			pleural space;	32555	32555	pleural s	pace; with			indwelling	g catheter;			catheter; w	th imaging			without	water seal	water sea	al (eg, for			biopsy, aspiration,						needle biop	ວsy,
			without imaging			imaging	guidance			without	imaging			guid	ance					pneumo	othorax),			injection,			(PEAC Approved - Jan			radiologic	;al
			guidance							guid	lance							(PEAC A	pproved -	when pe	erformed			localization device)			2004)			supervision	and
Meeting Date: April 2012						(Apri	il 2012)							(Oct 2	2012)			Jan	2004)	(sep	arate			imaging						interpretati	ion
Tab: 11			(April 2012)							(Apri	2012)									proce	edure)			supervision and							
Specialty: ACR: SIR																				(0)				interpretation						(PEAC Appro	JVed
																				(Curre				(DEAC Approved						Jan 2004)
	0140	0110						0.140	0110			0.140	0140			0140	0.110			Data	basej	0.140		(FLAC Approved -	0.40	0140		0.110	0.140		
																								1 05 2003)							
	for	TVDE for							JIAFF			for	JIAFF			for	TVDE for				\`		DIAFF		for	JIAFF		for	TVDE for		
	32554	32554						32556	32556			32557	32557			32/22	32/22					760/2	760/2		101	/0061		77012	77012		
	32334	52554	Non Essility			Non	Eccility	32330	32330	Non	Eccility	52557	32337	Non Essilit	Contraction	JZ422	JZ422	Non	Facility	Non	Facility	10342	10342	Non Essility	43001	43001	Non Essility Essility	77012	11012	Non Facility Fa	
4			Facility			Facility	raciiity			Facility	Tacinty			Non racinty	Tacinty			Facility	Tacinty	Facility	Гасти			Facility							Jenny
Check dressings & wound/ home care	L037D	RN/LPN/M	5	L041B	RT	5		L037D	RN/LPN/	5		L046A	CT Tech	5		L041B	RT	5		5							3 (RN/LPN/MTA)				
instructions /coordinate office visits		TA							MTA																						
46 /prescriptions															_																
47 minutos 00220 15 minutos																															
48 Other Clinical Activity (please specify)																															
Process images, complete data sheet, present				L041B	RT	2						L046A	CT Tech	2							l l	_051B F	RDMS	5				L037D	RN/LPN/	2	
49 images and data to the interpreting physician																													MTA		
50 End: Patient leaves office																															
51 POST-SERVICE Period																															
Conduct phone calls/call in prescriptions	1.037D	RN/I PN/M	3	1 041B	RT	3		1.037D	RN/I PN/	3		1.046A	CT Tech	3		1 041B	RT	3	3	3	3										
	2007.0	TA	ů –	20112		Ű			MTA	Ũ		2010/1		Ŭ		Lond		Ű	Ů	Ŭ	Ű										
Office visits: Greet patient, escort to room;																															
provide gowning; interval history & vital signs																															
and chart; assemble previous test																															
reports/results;assist physician during exam;																															
removal: prepare dy test, prescription forms:																															
post service education instruction counseling																															
54 clean room/equin_check supplies: coordinate	,																														
55 List Number and Level of Office Visits																															
56 99211 16 minutes																															
58 99212 27 minutes																															
59 99214 53 minutes																															
60 99215 63 minutes																															
61 Other																															
62 63 Total Office Visit Time														0	0			0	0	0	0						0 0				
64 Other Activity (please specify)														0	0			0	0	0	0						0 0				
66 MEDICAL SUPPLIES	CODE	UNIT		CODE	UNIT			CODE	UNIT			CODE	UNIT			CODE	UNIT					CODE	UNIT		CODE	UNIT		CODE	UNIT		
67 PEAC multispecialty supply package																		1													
68 pack, minimum multi-specialty visit	SA048	pack	1	SA048	pack	1		SA048	pack	1		SA048	pack	1		SA048	pack			1		SA048	pack		SA048	pack		SA048	pack		
os Ikit, thoracentesis (invoice provided) 70 kit, pleural cathotor incortion	SV077	Kit kit	1	SA070	tray	1		\$4077	Kit kit	1		SV077	tray	1		SA070	tray	1				SAU70	tray kit		SA070	tray	┠────┤────	SA070	tray	├ ──┤─	
71 tray shave prep	SA077 SA067	trav	1	SA077	trav	1		SA077	trav	1		SA077	trav	1		SA077	trav	1		1		SA067	κιι trav		SA077	trav	1	SA077	trav		
72 mask, surgical, with face shield	SB034	item	2	SB034	item	2		SB034	item	2		SB034	item	2		SB034	item	2		2		SB034	item		SB034	item	2	SB034	item		
73 gloves, sterile	SB024	pair	2	SB024	pair	2		SB024	pair	1		SB024	pair	1		SB024	pair	2		2		SB024	pair		SB024	pair	1	SB024	pair		
74 gauze, sterile 4in x 4in	SG055	item		SG055	item			SG055	item			SG055	item		_	SG055	item	2		2	5	G055	item		SG055	item	6	SG055	item		
75 gown, staff, impervious	SB027	item	1	SB027	item	1		SB027	item	1		SB027	item	1		SB027	item					SB027	item		SB027	item		SB027	item		
77 gauze sterile 4in x 4in (10 pack you)	SG056	item	1	50030 SG056	item			SG056	item	0		SG056	item			50030 SG056	item					SG056	item		SG056	item		50030 50056	item	<u>├</u>	
78 gown, patient	SB026	item	•	SB026	item			SB026	item	0		SB026	item			SB026	item			1		SB026	item		SB026	item		SB026	item		
79 drape, non-sterile, sheet 40in x 60in	SB006	item	0	SB006	item			SB006	item	0		SB006	item			SB006	item					SB006	item		SB006	item		SB006	item		
80 gloves, non-sterile	SB022	pair		SB022	pair			SB022	pair			SB022	pair			SB022	pair					SB022	pair	1	SB022	pair		SB022	pair		
81 syringe 5-6ml	SC057	item		SC057	item			SC057	item			SC057	item			SC057	item					SC057	item		SC057	item		SC057	item		
83 cover thermometer probe	SB004	IT. jtem		SB004	π item			SB004	π item			SB004	II. item			SB004	IT. item					SB004	item		SB004	II. item		SB004	item		
84 swab-pad, alcohol	SJ053	item		SJ053	item			SJ053	item			SJ053	item			SJ053	item					SJ053	item		SJ053	item		SJ053	item		
85 disinfectant spray (Transeptic)	SM012	ml		SM012	ml	0		SM012	ml			SM012	ml			SM012	ml				S	SM012	ml	10	SM012	ml		SM012	ml		
86 x-ray envelope	SK091	item		SK091	item			SK091	item			SK091	item			SK091	item		<u> </u>	Į		SK091	item	1	SK091	item		SK091	item	1	
87 Ifilm, x-ray 14in x 17in	SK034	item		SK034	item	3		SK034	item			SK034	item			SK034	item					SK034	item	3	SK034	item		SK034	item		
	3NU22	nem		3NU22	liem	2		31022	item			3NU22	litem			3NU22	liem	1	1				nem	۷ ا	SNU22	liem		SNU22	liem		

A	В	С	D	E	F	G	Н	I	J	к	L M	N	0	Р	Q	R	S	т	U	V W	X	Y	Z AA	AB	AC	AD	AE	AF	AG	AH AI
Note: 32002 was replaced by 32422																		I					ŀ							
32020 was replaced by 32551																														
2 76360 was replaced by 77012			32	2554			32	555			32556			3255	57			32002 ((32422)	32422			76942			4906	1			76360 (77012)
			Thoracent	tesis, needle thotor		CMS	Thoracent	tesis, needle			Pleural drainage,			Pleural dra	ainage,			Thoracent	tesis with	Thoracentesis with insertion of			Ultrasonic guidan	ce		Drainag	e of Labscoss:			Computed
			aspirati	ion of the	for	TYPE for	aspirati	on of the			insertion of			insertion of i	ndwelling			catheter	with or	tube, includes			placement (eg,			percutan	eous			guidance for
			pleura	al space;	32555	32555	pleural s	pace; with			indwelling catheter;			catheter; with	h imaging			without w	ater seal	water seal (eg, for			biopsy, aspiration	n,						needle biopsy,
			without	t imaging			imaging	guidance			without imaging			guidar	nce					pneumothorax),			injection,			(PEAC Appro	ved - Jan			radiological
			guio	dance			()	12012)			guidance			(Det 20	12)			(PEAC Ap	oproved -	when performed			localization device	e),		2004)			supervision and
Meeting Date: April 2012			(Apri	1 2012)			(Apri	1 2012)			(April 2012)			(Oct 20	J12)			Jan 2	2004)	(separate			Imaging supervision and							Interpretation
Tab: 11 Specialty: ACP: SIP			(Apri	1 2012)							(April 2012)									procedure			interpretation							(PEAC Approved
Specially. ACR. SIR																				(Current RUC										Jan 2004)
																				Database)			(PEAC Approved	-						
	CMS	CMS							CMS	CMS		CMS	CMS			CMS	CMS				CMS	CMS	Feb 2005)	CMS	CMS			CMS	CMS	
	CODE	STAFF							CODE	STAFF		CODE	STAFF			CODE	STAFF				CODE	STAFF		CODE	STAFF			CODE	STAFF	
2	tor 32554	1 YPE TOP 32554							tor 32556	32556		tor 32557	1 YPE TOF 32557			10r 32422	32422				tor 76942	76942		10r 49061	1 YPE for 49061			TOF 1	77012	
	02004	02004	Non	Facility			Non	Facility	02000	02000	Non Facility	02007	02001	Non Facility	Facility	JEAL	JLALL	Non	Facility	Non Facility	70342	10342	Non Facility	43001	40001	Non Facility	Facility	11012	11012	Non Facility Facility
4			Facility				Facility				Facility							Facility		Facility			Facility							
89 sanitizing cloth-wipe (patient)	SM021	item			SM021	item	0		SM021	item		SM021	item			SM021	item				SM021	item	2	SM021	item			SM021	item	
90 pillow case 91 x-ray developer solution	SK089	07			SK089	07	1		SK089	07		SK089	07			SK089	07				SK089	07	1	SK089	07			SK089	07	
92 cover-condom, transducer or ultrasound probe	SB005	item			SB005	item	1		SB005	item		SB005	item			SB005	item				SB005	item	1	SB005	item			SB005	item	
93 lubricating jelly (Surgilube)	SJ033	OZ			SJ033	ΟZ	3		SJ033	OZ		SJ033	OZ			SJ033	ΟZ				SJ033	ΟZ	30	SJ033	OZ			SJ033	OZ	
94 computer media, dvd	SK013	item			SK013	item			SK013	item		SK013	item	1		SK013	item				SK013	item		SK013	item			SK013	item	1
95 paper, examitable	SB036 SB001	π item	2		SB036 SB001	π item			SB036 SB001	π item	2	SB036 SB001	π item	3		SB036 SB001	π item				SB036 SB001	π item		SB036 SB001	π item	1		SB036 SB001	π item	7 ieet
97 shoe covers, surgical	SB039	pair	2		SB039	pair	3		SB039	pair	2	SB039	pair	3		SB039	pair				SB039	pair		SB039	pair	2		SB039	pair	
98 drape, sterile, three-quarter sheet	SB014	item			SB014	item			SB014	item		SB014	item	0		SB014	item				SB014	item		SB014	item	1		SB014	item	
99 drape-towel, sterile 18in x 26in	SB019	item			SB019	item	2		SB019	item		SB019	item	0		SB019	item				SB019	item		SB019	item	4		SB019	item	
100 drape, sterile, refestrated Toin x 29in 101 underpad 2ft x 3ft (Chux)	SB011 SB044	item	1		SB011	item	<u> </u>		SB011 SB044	item	1	SB044	item	1		SB044	item				SB011 SB044	item		SB044	item	1		SB044	item	
102 povidone soln (Betadine)	SJ041	ml			SJ041	ml	· ·		SJ041	ml		SJ041	ml	0		SJ041	ml				SJ041	ml		SJ041	ml	60		SJ041	ml	
103 applicator, sponge-tipped	SG009	item			SG009	item			SG009	item		SG009	item	0		SG009	item				SG009	item		SG009	item	4		SG009	item	
104 lidocaine 1%-2% inj (Xylocaine)	SH047	ml itom			SH047	ml itom			SH047	ml itom		SH047	ml itom	0		SH047	ml itom				SH047	ml		SH047	itom	10		SH047	ml	
105 (SafetyGlide)	50050	item			50050	item			50050	item		50050	item	U		50050	nem				50050	item		00000	item	2		50050	item	
106 blade, surgical (Bard-Parker)	SF007	item			SF007	item			SF007	item		SF007	item	0		SF007	item				SF007	item		SF007	item	1		SF007	item	
107 stop cock, 3-way	SC049	item			SC049	item			SC049	item		SC049	item	0		SC049	item				SC049	item		SC049	item	1		SC049	item	
sodium chloride 0.9% irrigation (500-1000ml	SC056 SH069	item			SC056 SH069	item			SC056 SH069	item	1	SC056 SH069	item	0		SH069	item				SC056 SH069	item		SC056 SH069	item	2		SC056 SH069	item	
109 uou)	011003	item			011003	nom			011003	item		011003	nom	l l			nom				011003	nom		011003		1		011003	nom	
110 cup, sterile, 8 oz	SL157	item			SL157	item			SL157	item	1	SL157	item	1		SL157	item				SL157	item		SL157	item	1		SL157	item	
111 cup, sterile, 12-16 oz	SL156	item			SL156	item			SL156	item		SL156	item	0		SL156	item				SL156	item		SL156	item	1		SL156	item	
kit. AccuStick II Introducer System with RO	SL036 SA071	item kit			SL036	kit			SA071	kit		SA071	kit	0		SA071	kit				SA071	kit		SA071	kit	1		SA071	item kit	
113 Marker	0/10/1	int							0/10/1			0/10/1		•			int				0,1011							0,1011		
114 closed flush system, angiography	SC010	item			SC010	item			SC010	item	1	SC010	item	1		SC010	item				SC010	item		SC010	item	1		SC010	item	
115 sodium chloride 0.9% flush syringe	SH065	item			SH065	item			SH065	item	1	SH065	item	1		SH065	item				SH065	item		SH065	item	1		SH065	item	
117 dilator, vessel, angiographic	SD000	item			SD000 SD043	item			SD088 SD043	item		SD000 SD043	item	0		SD088	item				SD000 SD043	item		SD000	item	1		SD088 SD043	item	
118 drainage catheter, all purpose	SD161	item			SD161	item			SD161	item		SD161	item	0		SD161	item				SD161	item		SD161	item	1		SD161	item	
119 catheter percutaneous fastener (Percu-Stay)	SD146	item			SD146	item			SD146	item		SD146	item	0		SD146	item				SD146	item		SD146	item	1		SD146	item	
120 drainage pouch, nephrostomy-billary	SD163 SG079	in			SD163 SG079	item			SD163 SG079	item		SG079	item in	<u> </u>		SG079	item				SD163 SG079	item		SG079	item	1		SG079	item	
122 pack, moderate sedation	SA044	pack			SA044	pack			SA044	pack	1	SA044	pack	1		SA044	pack				SA044	pack		SA044	pack	1		SA044	pack	
123 gown, surgical, sterile	SB028	item			SB028	item			SB028	item		SB028	item	1		SB028	item				SB028	item		SB028	item	1		SB028	item	
124 film, x-ray, laser print	SK098	item	45		SK098	item	45		SK098	item	05	SK098	item	1		SK098	item				SK098	item		SK098	item			SK098	item	1
125 tape, surgical occlusive 1 inch (Bienderm) 126 kit scissors and clamp	SG078 SA027	In	15		SG078	In	15		SG078	In	25	SG078	IN	25		<u>SG078</u>	IN				SG078	In		<u>SG078</u>	In			<u>SG078</u>	IN	
127 Equipment	5, 1021																													
128 Exam table	EF023		52		EF023				EF023		76	EF023				EF023		1		60	EF023			EF023				EF023		
129 Ultrasound room	EL015				EL015		35		EL015			EL015		7		EL015					EL015		X	EL015			├	EL015		
131 film alternator (motorized film viewbox)	ED024 ER029				ED024 ER029		7		ED024 ER029			ED024 ER029		7		ER029					ED024 ER029		58	ED024 FR029			<u> </u>	ER029		1
132 CT room	EL007				EL007				EL007			EL007		40		EL007					EL007			EL007		60		EL007		22
133 ECG, 3 channel	EL007				EL007				EL007			EL007		0		EL007					EL007			EL007		X	<u>↓ </u>	EL007		
134 IV tusion pump 135 light_exam	EQ032				EQ032				EQ032			EQ032		0		EQ032					EQ032			EQ032		X		EQ032		
136 stretcher chair	EF019				EF019		10		EF019			EF019		10		EF019					EF019			EF019		X		EF019		
137 oxygen system, portable	EQ192				EQ192				EQ192			EQ192			E	Q192					EQ192			EQ192		X		EQ192		
138 pulse oximeter w-printer	EQ211				EQ211				EQ211			EQ211			E	Q211					EQ211			EQ211		Х		EQ211		

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:32554 Tracking Number DD1

Original Specialty Recommended RVU: **1.83** Presented Recommended RVU: **1.83** RUC Recommended RVU: **1.54**

Global Period: 000

CPT Descriptor: Thoracentesis, needle or catheter, aspiration of the pleural space; without imaging guidance

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 74-year-old male patient presents short of breath with a chest x-ray showing a large left pleural effusion. Bedside aspiration is performed for diagnosis.

Percentage of Survey Respondents who found Vignette to be Typical: 97%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 10%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 6%

Description of Pre-Service Work: Preprocedural work-up, review of records and communication with patient. Obtain informed consent. The physician and staff dress in disposable gown, sterile gloves, and protective eyewear before the procedure. Prepare and position the patient and equipment. The physician examines the patient to verify that the patient can undergo the procedure. The physician verifies the identity of the patient and the procedure to be performed in accord with JCAHO regulation.

Description of Intra-Service Work:

- Chest prepped and draped in sterile fashion.
- 1% subcutaneous Lidocaine solution instilled as local anesthetic
- Needle aspiration of fluid
- Puncture site sterilely dressed
- Fluid sent for appropriate laboratory analysis

Description of Post-Service Work: The physician examines the patient post-thoracentesis to ascertain that no complications have occured. The findings from the procedure are explained to the patient and/or family/friend. The physician again reinforces previous instructions about post-procedure complications. The physician generates a detailed report of the procedure. The physician communicates results to the referring physician.

SURVEY DA	ГА						
RUC Meeting D	ate (mm/yyyy)	04/2012					
Presenter(s):	Alan Plummer FCCP, Alterna	, MD, ATS, Bute Advisor AC	urt Lesnick CCP and A	MD, FCCP, TS	ACCP; Kat	hrin Nicolacał	kis, MD,
Specialty(s):	American Coll (ATS)	ege of Chest	Physicians	(ACCP) and	d the Americ	an Thoracic S	Society
CPT Code:	32554						
Sample Size:	300 R	esp N:	31	Respo	onse: 10.3 %	, 0	
Description of Sample:	A survey was	sent to 300 ra	ndomly se	lected meml	bers of ACC	P and ATS	
			Low	25 th pctl	Median*	75th pctl	<u>High</u>
Service Perform	nance Rate		5.00	16.25	40.00	50.00	120.00
Survey RVW:			1.20	1.83	2.30	2.84	6.00
Pre-Service Eval	uation Time:				10.00		
Pre-Service Posi	tioning Time:				5.00		
Pre-Service Scru	b, Dress, Wait Tir	ne:			5.00		
Intra-Service Ti	me:		0.00	15.00	20.00	25.00	45.00
Immediate Post	t Service-Time:	<u>10.00</u>					
Post Operative	<u>Visits</u>	Total Min**	CPT Cod	e and Num	ber of Visit	S	
Critical Care tin	ne/visit(s):	<u>0.00</u>	99291x 0	. 00 99292	2x 0.00		
Other Hospital	time/visit(s):	<u>0.00</u>	99231x 0	. 00 99232	2x 0.00 9	9233x 0.00	
Discharge Day	Mgmt:	0.00	99238x 0	. 00 99239x	0.00	99217x 0.00	
Office time/visi	t(s):	0.00	99211x 0	.00 12x 0.0	0 13x 0.0 0 1	4x 0.00 15x	0.00
Prolonged Serv	vices:	<u>0.00</u>	99354x 0	. 00 55x ().00 56x 0	.00 57x 0.0	00
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00 9	9226x 0.00	

 **Physician standard total minutes per E/M visit:
 99291 (70);
 99292 (30);
 99231 (20);
 99232 (40);
 99233 (55);
 99238(38);
 99239 (55);
 99217 (38);
 99211 (7);
 99213 (23);
 99214 (40);
 99215 (55);
 99224 (20);
 99225 (40);
 99226 (55);
 99355 (30);
 99356 (60);
 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: 1a-FAC Straightforw Pat/Procedure(no sedate/anesth

CPT Code:	32554	Recommended Phys	ician Work RVU: 1.	54
		Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time
Pre-Service Evaluation Ti	ime:	13.00	13.00	0.00
Pre-Service Positioning 1	Time:	1.00	1.00	0.00
Pre-Service Scrub, Dress	, Wait Time:	6.00	6.00	0.00
Intra-Service Time:		20.00		
Immediate Post Servic	e-Time: <u>10.00</u>			
Post Operative Visits	Total Min**	CPT Code and Num	ber of Visits	
Critical Care time/visit	(s): <u>0.00</u>	99291x 0.00 99292	x 0.00	
Other Hospital time/vis	sit(s): <u>0.00</u>	99231x 0.00 99232	x 0.00 99233x 0.0	D
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0	.0 99217x 0.0	0
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00) 13x 0.00 14x 0.00	15x 0.00
Prolonged Services:	0.00	99354x 0.00 55x 0	.00 56x 0.00 57	× 0.00
Sub Obs Care:	<u>0.00</u>	99224x 0.00 99225	x 0.00 99226x 0 .	00

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service: Is this new/revised procedure considered to be a new technology or service? No **KEY REFERENCE SERVICE:** Key CPT Code Global Time Source Work RVU 000 36556 2.50 **RUC Time** CPT Descriptor Insertion of non-tunneled centrally inserted central venous catheter; age 5 years or older **KEY MPC COMPARISON CODES:** Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review. Most Recent MPC CPT Code 1 Global Work RVU Time Source Medicare Utilization 31500 000 274,961 2.33 **RUC Time** CPT Descriptor 1 Intubation, endotracheal, emergency procedure Most Recent MPC CPT Code 2 Global Work RVU Time Source Medicare Utilization 31622 000 2.78 **RUC** Time 84,807 CPT Descriptor 2 Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; diagnostic, with cell washing, when performed (separate procedure)

Other Reference CPT Code	<u>Global</u>	Work RVU	Time Source
36555	000	2.68	RUC Time

<u>CPT Descriptor</u> Insertion of nontunneled centrally inserted central venous catheter, younger than 5

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 11 % of respondents: 0.0 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 32554	Key Reference CPT Code: <u>36556</u>	Source of Time RUC Time
Median Pre-Service Time	20.00	25.00	
Median Intra-Service Time	20.00	15.00	
Median Immediate Post-service Time	10.00	10.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	
Median Office Visit Time	0.0	0.00	
Prolonged Services Time	0.0	0.00	
Median Subsequent Observation Care Time	0.0	0.00	
Median Total Time	50.00	50.00	

Other time if appropriate	

<u>INTENSITY/COMPLEXITY MEASURES (Mean)</u>	(of those th Refere	at selected Key ence code)
Mental Effort and Judgment (Mean)		
The number of possible diagnosis and/or the number of management options that must be considered	3.91	2.82
The amount and/or complexity of medical records, diagnostic tests, and/or other information that must be reviewed and analyzed	3.91	3.27
Urgency of medical decision making	3.00	3.36
Technical Skill/Physical Effort (Mean)		
Technical skill required	3.45	3.82
Physical effort required	3.36	3.64
Psychological Stress (Mean)		
The risk of significant complications, morbidity and/or mortality	3.55	3.82
Outcome depends on the skill and judgment of physician	4.09	4.18
Estimated risk of malpractice suit with poor outcome	3.55	4.00
INTENSITY/COMPLEXITY MEASURES	<u>CPT Code</u>	<u>Reference</u> Service 1
Time Segments (Mean)		
Pre-Service intensity/complexity	2.64	2.55
Intra-Service intensity/complexity	3.45	3.36
Post-Service intensity/complexity	2.73	2.91

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included.

- Multiple codes are used to maintain consistency with similar codes.
- Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 32421

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Pulmonary	How often? C	ommonly			
Specialty Internal Medici	ne How c	often? Commonly			
Specialty	How often?				
Estimate the number of ti If the recommendation is explain the rationale for the estimating that Medicare	mes this service might be provi from multiple specialties, pleas his estimate. Rationale based o is 50%.	ded nationally in a one-y e provide the frequency a n review of Medicare uti	ear perio and <u>perce</u> lization o	od? 200000 <u>entage</u> for ead data for 3242	ch specialty. Please 1, 32422, and
Specialty Pulmonary	Frequency 100000	Percentage	%		
Specialty Internal Medici	ne Frequency 500	00 Percer	ntage	%	
Specialty	Frequency	Percentage %			

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 100,000 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. Based on review of existing codes 32421, 32422.

Specialty Pulmonary	Freque	ncy 50000	Percentage	%
Specialty Internal Medie	cine	Frequency 25000	Percenta	ge %
Specialty	Frequency	Percen	tage %	

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix <u>will not</u> change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 32421

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:32555 Tracking Number DD2

Original Specialty Recommended RVU: 2.40 Presented Recommended RVU: 2.40 RUC Recommended RVU: 2.21

Global Period: 000

CPT Descriptor: Thoracentesis, needle or catheter, aspiration of the pleural space; with imaging guidance

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 57-year-old male patient presents with pneumonia and persistent fever despite antibiotic therapy. Aspiration of his parapneumonic effusion is performed with real-time ultrasound guidance.

Percentage of Survey Respondents who found Vignette to be Typical: 86%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 14%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 4%

Description of Pre-Service Work:

- The patient's symptoms, history, and allergies are reviewed.
- Medications are reviewed, specifically potential antiplatelet or anticoagulation agents.
- Lab data is evaluated, particularly coagulation results and platelets.
- Available imaging is reviewed.
- Procedure details are discussed, including pain control and recovery time.
- Alternatives and risks are discussed with the patient and family, and informed consent is reviewed.
- Confirm NPO status.
- Ensure imaging, appropriate specimen containers, and catheter devices are available.

• Ensure all technical personnel have been familiarized with the procedure and are fully familiar with all required devices.

• Perform surgical "time out".

Description of Intra-Service Work:

• Preliminary ultrasound is performed of the chest to localize the pleural fluid and target site for drainage. Images are recorded.

• The chest is prepped and draped in the usual sterile fashion.

• The skin and deeper tissues down to the parietal pleura are infiltrated with a local anesthetic under ultrasound guidance, taking care to avoid vessels.

• A thoracentesis catheter is advanced into the pleural effusion under ultrasound guidance and secured in place temporarily.

- Through the catheter a variable amount of fluid is drained.
- The catheter is removed.

- The puncture site is dressed appropriately.
- A sample of fluid is sent to the laboratory for analysis.

Description of Post-Service Work:

- The patient is transferred to the recovery suite and a CXR is obtained (reported separately).
- Post-procedure vital signs are assessed.
- The findings are reviewed with patient and family.
- A report of the procedure is prepared for the medical record.

SURVEY DAT	ГА						
RUC Meeting Da	ate (mm/yyyy)	04/2012					
Presenter(s):	Geraldine Mc Robert L Voge	Ginty, M.D., Zo Izang, M.D., a	eke Silva, I and Gerald	M.D., Sean ⁻ A. Niedzwie	Tutton, M.D. ecki, M.D.	, Michael Hal	I, M.D.,
Specialty(s):	ACR and SIR						
CPT Code:	32555						
Sample Size:	1465 R	esp N:	81	Respo	onse: 5.5 %		
Description of Sample:	The specialty interventional review the sur	societies perfo radiologists ai vey data.	ormed a rai nd chest pł	ndom surve nysicians, ar	y of diagnos nd convened	tic radiologists a panel of ex	s, (perts to
l l			Low	25 th pctl	Median*	75th pctl	<u>High</u>
Service Perform	nance Rate		10.00	30.00	60.00	140.00	500.00
Survey RVW:			1.35	2.00	2.40	2.80	5.50
Pre-Service Evalu	ation Time:				15.00		
Pre-Service Posit	ioning Time:				5.00		
Pre-Service Scrul	b, Dress, Wait Tir	ne:			5.00		
Intra-Service Ti	me:		3.00	15.00	20.00	30.00	45.00
Immediate Post	Service-Time:	<u>10.00</u>					
Post Operative	<u>Visits</u>	Total Min**	CPT Code	e and Num	ber of Visit	ts_	
Critical Care tim	ne/visit(s):	<u>0.00</u>	99291x 0	. 00 99292	2x 0.00		
Other Hospital t	time/visit(s):	<u>0.00</u>	99231x 0	. 00 99232	2x 0.00 9	9233x 0.00	
Discharge Day	Mgmt:	<u>0.00</u>	99238x 0	. 00 99239x	0.00	99217x 0.00	
Office time/visit	(s):	0.00	99211x 0	.00 12x 0.0	0 13x 0.00 1	14x 0.00 15x	0.00
Prolonged Serv	ices:	0.00	99354x 0	.00 55x ().00 56x ().00 57x 0.0)0
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00 9	99226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: 1a-FAC Straightforw Pat/Procedure(no sedate/anesth

CPT Code:	32555	Recommended Physic	ician Work RVU: 2.2	21
/		Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time
Pre-Service Evaluation Ti	me:	13.00	13.00	0.00
Pre-Service Positioning T	ïme:	1.00	1.00	0.00
Pre-Service Scrub, Dress	, Wait Time:	5.00	6.00	-1.00
Intra-Service Time:		25.00		
Immediate Post Service	e-Time: <u>10.00</u>			
Post Operative Visits	Total Min**	CPT Code and Num	ber of Visits	
Critical Care time/visit(s): <u>0.00</u>	99291x 0.00 99292	x 0.00	
Other Hospital time/vis	it(s): <u>0.00</u>	99231x 0.00 99232	x 0.00 99233x 0.0	0
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0	.0 99217x 0.0	0
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00	13x 0.00 14x 0.00	15x 0.00
Prolonged Services:	<u>0.00</u>	99354x 0.00 55x 0	.00 56x 0.00 57	× 0.00

						CPT Code: 32555
Sub Obs Care:	<u>0.00</u>	99224x 0 .	00 99225x	0.00	99226x	0.00
Modifier -51 Exempt Status s the recommended value fo	or the new/revis	sed procedure l	based on its r	nodifier	-51 exem	pt status? No
New Technology/Service: s this new/revised procedure	e considered to	be a new tech	nology or ser	vice? N	No	
KEY REFERENCE SERV	ICE:					
<u>Key CPT Code</u> 49083	<u>Global</u> 000			<u>Work</u> 2.00	<u>: RVU</u>)	Time Source RUC Time
<u>CPT Descriptor</u> Abdominal p	aracentesis (dia	agnostic or there	apeutic); with	imagin	g guidance	2
KEY MPC COMPARISON Compare the surveyed code appropriate that have relative <u>MPC CPT Code 1</u> 31500 <u>CPT Descriptor 1</u> Intubation,	to codes on the values higher a <u>Global</u> <u>W</u> 000 endotracheal, e	e RUC's MPC and lower than t <u>ork RVU</u> 2.33 emergency proc	List. Referent the requested to <u>Time Sour</u> RUC T edure	nce cod relative r <u>ce</u> ime	es from th values for <u>Me</u>	ne MPC list should be chosen, i the code under review. Most Recent <u>edicare Utilization</u> 274,961 Most Recent
<u>MPC CPT Code 2</u> 31622	<u>Global</u> 000	<u>Work RVU</u> 2.78	<u>Time Sourc</u> RUC Time	<u>e</u>	<u>M</u>	ledicare Utilization 84807
<u>CPT Descriptor 2</u> Bronchosc washing, when performed (se	opy, rigid or fl parate procedu	exible, includin re)	g fluoroscopi	c guida	nce, when	performed; diagnostic, with ce
Other Reference CPT Code 36556	<u>Global</u> 000	<u>Work R</u> 2.50	<u>VU</u> <u>Tir</u> RU	<u>ne Sour</u> JC Time	rce	
<u>CPT Descriptor</u> Insertion of r	ion-tunneled ce	entrally inserted	central venou	is cathe	ter; age 5 y	years or older
RELATIONSHIP OF COD Compare the pre-, intra-, and	E BEING RE post-service ti	VIEWED TO	KEY REFER	RENCE intensit	SERVIC	EE(S): (by the mean) of the service yo

are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

% of respondents: 60.4 %

TIME ESTIMATES (Median) Key Reference Source of Time **CPT Code: CPT Code: RUC Time** 32555 <u>49083</u> Median Pre-Service Time 25.00 24.00 Median Intra-Service Time 20.00 25.00 Median Immediate Post-service Time 10.00 10.00 Median Critical Care Time 0.0 0.00 Median Other Hospital Visit Time 0.00.000.00 Median Discharge Day Management Time 0.0 Median Office Visit Time 0.0 0.00 0.00 Prolonged Services Time 0.0 0.00 Median Subsequent Observation Care Time 0.0

Number of respondents who choose Key Reference Code: 49

Median Total Time	54.00	60.00
Other time if appropriate		

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

Mental Effort and Judgment (Mean)		
The number of possible diagnosis and/or the number of management actions that must be appaided	2.22	2.12
management options that must be considered		
The amount and/or complexity of medical records, diagnostic tests,	2.33	2.16
and/or other information that must be reviewed and analyzed		
Urgency of medical decision making	2.24	2.14
<u>Technical Skill/Physical Effort (Mean)</u>		
Technical skill required	2.65	2.22
Physical effort required	2.12	1.98
Psychological Stress (Mean)		
The risk of significant complications, morbidity and/or mortality	2.67	2.37
Outcome depends on the skill and judgment of physician	2.57	2.29
Estimated risk of malpractice suit with poor outcome	2.22	2.14
INTENSITY/COMPLEXITY MEASURES	CPT Code	Reference
		Service 1
Time Segments (Mean)		
Pre-Service intensity/complexity	2.02	2.16
Intra-Service intensity/complexity	2.45	2.29
Post-Service intensity/complexity	2.20	1.92

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.

Background:

CPT codes 32422 (*Thoracentesis with insertion of tube, includes water seal (eg, for pneumothorax), when performed (separate procedure))* and 32551 (*Tube thoracostomy, includes water seal (eg, for abscess, hemothorax, empyema), when performed (separate procedure)*), were identified by the RAW screen for Harvard valued codes with greater than 30,000

CPT Code: 32555

utilization. The specialty societies referred these two codes, as well as CPT codes 32420 (*Pneumocentesis, puncture of lung for aspiration*) and 32421 (*Thoracentesis, puncture of pleural cavity for aspiration, initial or subsequent*), to CPT for revision of the family to better describe current practice. As a result, four new codes were created, two for thoracentesis: non-image guided (32554) and image guided (32555,) and two for pleural catheter placement: non-image guided (32556) and image guided (32557).

Recommendation:

The specialty societies performed a random survey of diagnostic radiologists, interventional radiologists, and chest physicians, and convened a panel of experts to review the survey data. We are recommending the median survey RVU of 2.40 RVUs and the median intra-service time and post-service times of 20 and 10 minutes, respectively.

Pre-Service Period:

The specialty societies recommend pre-service package 1a (Straightforward Patient/Straightforward Procedure (No sedation/anesthesia care)) with the following adjustments: (1) increase the pre-service evaluation time by 2 minutes, and (2) increase the positioning time by 2 minutes, both compatible with our survey results. These adjustments account for the additional time prior to skin prep necessary for ultrasound localization of a suitable pocket of fluid. Based on the survey data, it is reasonable to conclude respondents would consider imaging work prior to skin prep to be pre-service work. These modifications to the pre-service times are also compatible with several recently reviewed interventional radiology codes, including paracentesis with imaging guidance (49083).

Key Reference Service:

The most commonly chosen key reference service was 49083 (*Abdominal paracentesis (diagnostic or therapeutic); with imaging guidance*), with 2.00 RVUs and 25 minutes of intra-service time. The second most commonly chosen reference service was 36556 (*Insertion of non-tunneled centrally inserted central venous catheter; age 5 years or older*), with 2.50 RVUs and 15 minutes of intra-service time. 32555 compares favorably to both of these codes. The intraservice time for 32555 (20 minutes) is lower than 49083 (25 minutes), but the higher RVU is justified by the greater intensity of removing fluid from the pleural space compared to the peritoneal space; This is also supported by 10 of the 11 complexity measures being higher for 32555 than KRS 49083. 32555 is valued lower than 36556 but it has a higher intra-service time so relativity is maintained here also.

Building block methodology:

It should be noted that this is a new CPT code describing a new service with change in dominant provider and service description, so a direct comparison to previously reported codes 32422 and its typical imaging pair, 76942, is not appropriate. As the DOW for the surveyed code suggests, the imaging guidance prior to catheter placement to avoid injury to the lung and pleura, as well as periodic imaging during drainage to ensure optimal drainage of the pleural effusion is distinctly different than in the past, when the procedure was performed based on anatomic landmarks. Drainage is more complete and, as the vignette suggests, performed in a more difficult patient with infection and pleural effusion.

However, as a point of reference for the Panel we provide the following information: 32422(2.19) + 76942(0.67) = 2.86

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)



The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 32421/32422, 76942

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Radiology	How often? Sometimes
Specialty	How often?
Specialty	How often?

Estimate the number of times this service might be provided nationally in a one-year period? 0 If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate. An estimate for the number of times this service is performed nationally in a oneyear period is unknown.

Specialty	Frequency 0	Percentage 0.00 %
Specialty	Frequency 0	Percentage 0.00 %
Specialty	Frequency 0	Percentage 0.00 %

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 224,310 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. The estimated frequency for Medicare is 224,310, which is the 2010 Medicare utilization frequency for codes 32421 plus 32422. Based on past frequency data, we estimated the percent performed by Radiology to be about 2.98%.

Specialty Radiology	Frequency 6694	ŀ	Percentage	2.98 %
Specialty	Frequency 0	Percentage (0.00 %	
Specialty	Frequency 0	Percentage (0.00 %	

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix <u>will not</u> change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 32422

CPT Code: 32555

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:32556 Tracking Number DD3

Original Specialty Recommended RVU: 2.50 Presented Recommended RVU: 2.50 RUC Recommended RVU: 2.19

Global Period: 000

CPT Descriptor: Pleural drainage, percutaneous, with insertion of indwelling catheter; without imaging guidance

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 72-year-old male patient presents with acute shortness of breath. Chest x-ray shows a right pneumothorax. Bedside chest tube placement is performed.

Percentage of Survey Respondents who found Vignette to be Typical: 93%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? Yes Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 67%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 7%

Description of Pre-Service Work: Preprocedural work-up, review of records, communication with patient. Obtain informed consent. The physician and staff dress in disposable gown, sterile gloves, and protective eyewear before the procedure. Prepare and position the patient and equipment. The physician examines the patient to verify that the patient can undergo the procedure. The physician verifies the identity of the patient and the procedure to be performed in accord with JCAHO regulation.

Description of Intra-Service Work:

- Chest prepped and draped in sterile fashion.
- 1% subcutaneous Lidocaine solution instilled as local anesthetic
- Catheter placed through intercostal space
- Catheter secured in place and connected to suction drainage
- Puncture site sterilely dressed

Description of Post-Service Work: The physician examines the patient post-thoracentesis to ascertain that no complications have occured. The findings from the procedure are explained to the patient and/or family/friend. The physician again reinforces previous instructions about post-procedure complications. The physician generates a detailed report of the procedure. The physician communicates results to the referring physician.

						-	
SURVEY DAT	ГА						
RUC Meeting Da	ate (mm/yyyy)	04/2012					
Presenter(s):	Alan Plummer MD, FCCP, Al	, MD, FCCP, ternate Adviso	ATS Burt I ory, ACCP	Lesnick MD, and ATS	FCCP, ACC	P; Kathrin Nic	colacakis,
Specialty(s):	American Coll (ATS)	ege of Chest	Physicians	s (ACCP) and	d the Americ	an Thoracic S	Society
CPT Code:	32556						
Sample Size:	300 R	esp N:	30	Respo	onse: 10.0 %	, 0	
Description of Sample:	A survey was	sent to 300 ra	ndomly se	lected ACCI	P and ATS n	nembers	
			Low	25 th pctl	Median*	75th pctl	<u>High</u>
Service Perforn	nance Rate		1.00	15.00	20.00	30.00	100.00
Survey RVW:			1.30	2.50	2.78	4.00	6.00
Pre-Service Evalu	uation Time:				15.00		
Pre-Service Posit	tioning Time:				10.00		
Pre-Service Scru	b, Dress, Wait Tir	ne:			10.00		
Intra-Service Ti	me:		5.00	15.00	20.00	30.00	45.00
Immediate Post	t Service-Time:	<u>15.00</u>					
Post Operative	<u>Visits</u>	Total Min**	CPT Cod	e and Num	ber of Visit	S	
Critical Care tin	ne/visit(s):	<u>0.00</u>	99291x ().00 99292	2x 0.00		
Other Hospital	time/visit(s):	0.00	99231x ().00 99232	2x 0.00 9	9233x 0.00	
Discharge Day	Mgmt:	0.00	99238x ().00 99239x	0.00	99217x 0.00	
Office time/visit	t(s):	0.00	99211x (0.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00
Prolonged Serv	vices:	<u>0.00</u>	99354x ().00 55x ().00 56x 0	0.00 57x 0.0)0
Sub Obs Care:		0.00	99224x ().00 99225	5x 0.00 9	9226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: 1b-FAC Straightforw Pat Procedure(w sedate/anes)

CPT Code:	32556	Recommended Phys	ician Work RVU: 2.	19
		Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time
Pre-Service Evaluation Ti	ime:	19.00	19.00	0.00
Pre-Service Positioning 1	lime:	1.00	1.00	0.00
Pre-Service Scrub, Dress	, Wait Time:	5.00	5.00	0.00
Intra-Service Time:		20.00		
Immediate Post Servic	e-Time: <u>15.00</u>			
Post Operative Visits	Total Min**	CPT Code and Num	ber of Visits	
Critical Care time/visit	(s): <u>0.00</u>	99291x 0.00 99292	x 0.00	
Other Hospital time/vis	sit(s): <u>0.00</u>	99231x 0.00 99232	x 0.00 99233x 0.0	0
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0	.0 99217x 0.0)
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00) 13x 0.00 14x 0.00	15x 0.00
Prolonged Services:	<u>0.00</u>	99354x 0.00 55x 0	.00 56x 0.00 57	< 0.00
Sub Obs Care:	<u>0.00</u>	99224x 0.00 99225	x 0.00 99226x 0 .	00

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service: Is this new/revised procedure considered to be a new technology or service? No **KEY REFERENCE SERVICE:** Key CPT Code Global Time Source Work RVU 000 36556 2.50 **RUC Time** CPT Descriptor Insertion of non-tunneled centrally inserted central venous catheter; age 5 years or older **KEY MPC COMPARISON CODES:** Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review. Most Recent MPC CPT Code 1 Global Work RVU Time Source Medicare Utilization 31500 000 274,961 2.33 **RUC Time** CPT Descriptor 1 Intubation, endotracheal, emergency procedure Most Recent MPC CPT Code 2 Global Work RVU Time Source Medicare Utilization 31622 000 2.78 **RUC** Time 84,807

<u>CPT Descriptor 2</u> Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with revision of tracheal or bronchial stent inserted at previous session (includes tracheal/bronchial dilation as required)

Other Reference CPT Code	Global	Work RVU	Time Source
36555	000	2.68	RUC Time

CPT Descriptor Insertion of nontunneled centrally inserted central venous catheter, younger than 5

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 10 % o

% of respondents: 33.3 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 32556	Key Reference CPT Code: <u>36556</u>	Source of Time
Median Pre-Service Time	25.00	25.00	
Median Intra-Service Time	20.00	15.00	
Median Immediate Post-service Time	15.00	10.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	
Median Office Visit Time	0.0	0.00	
Prolonged Services Time	0.0	0.00	
Median Subsequent Observation Care Time	0.0	0.00	
Median Total Time	60.00	50.00	

Other time if appropriate	

INTENSITY/COMPLEXITY MEASURES (Mean) (of those that selected Key **Reference code**) Mental Effort and Judgment (Mean) 3.56 2.89 The number of possible diagnosis and/or the number of management options that must be considered The amount and/or complexity of medical records, diagnostic tests, 3.67 3.33 and/or other information that must be reviewed and analyzed Urgency of medical decision making 4.22 4.00 Technical Skill/Physical Effort (Mean) 3.78 Technical skill required 4.22 Physical effort required 3.89 3.56 Psychological Stress (Mean) The risk of significant complications, morbidity and/or mortality 4.22 3.67 Outcome depends on the skill and judgment of physician 4.00 3.56 3.78 3.89 Estimated risk of malpractice suit with poor outcome **INTENSITY/COMPLEXITY MEASURES** CPT Code **Reference** Service 1 Time Segments (Mean) Pre-Service intensity/complexity 3.00 3.10 Intra-Service intensity/complexity 3.90 3.70 Post-Service intensity/complexity 3.40 3.30

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included.

- Multiple codes are used to maintain consistency with similar codes.
- Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 32422

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Pulmonary	How often? Commo	only			
Specialty Internal Medicine	How often?	Commonly			
Specialty	How often?				
Estimate the number of times the first of the recommendation is from explain the rationale for this est the new codes with imaging.	his service might be provided n multiple specialties, please prov imate. ACCP/ATS believes th	ationally in a one-year period? 200000 vide the frequency and <u>percentage</u> for each at ACR listed as the most frequent provide	specialty. Please r will migrate to		
Specialty Pulmonary	Frequency 100000	Percentage 50.00 %			
Specialty Internal Medicine	Frequency 50000	Percentage 25.00 %			
Specialty Freque	ency Pero	centage %			
Estimate the number of times this service might be provided to Medicare patients nationally in a one-year period? 100,000 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. Reviewed RUC Database for 32421, 32422					
Specialty Pulmonary	Frequency 50000	Percentage 50.00 %			
Specialty Internal Medicine	Frequency 25000	Percentage 25.00 %			
Specialty Freque	ency 0 Percentage	0.00 %			
Do many physicians perform th	is service across the United Sta	ates? Yes			

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix <u>will not</u> change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 32422

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:32557 Tracking Number DD4

Original Specialty Recommended RVU: **3.37** Presented Recommended RVU: **3.37** RUC Recommended RVU: **3.35**

Global Period: 000

CPT Descriptor: Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 60-year-old male patient presents with fever and shortness of breath. CT scan shows a complex parapneumonic effusion. Concern is for an empyema. Image-guided pleural drainage tube placement is performed.

Percentage of Survey Respondents who found Vignette to be Typical: 100%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? Yes Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 78%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 16%

Description of Pre-Service Work:

- The patient's symptoms, history, and allergies are reviewed.
- Medications are reviewed, specifically potential antiplatelet or anticoagulation agents.
- Lab data is evaluated, particularly coagulation results and platelets.
- Available imaging is reviewed.
- Procedure details are discussed, including pain control, and recovery time
- Alternatives and risks are discussed with the patient and family, and informed consent is reviewed.
- Confirm NPO status.
- Ensure imaging, appropriate specimen containers, and catheter devices are available.
- Ensure all technical personnel have been familiarized with the procedure and are fully familiar with all required devices.
- Perform surgical "time out".

Description of Intra-Service Work:

• Moderate sedation is administered.

• Preliminary CT is performed of the chest to confirm the presence of a pleural fluid collection (empyema) and target the site for drainage. Images are recorded.

• The chest is prepped and draped in the usual sterile fashion.

• The skin and deeper tissues down to the parietal pleura are infiltrated with a local anesthetic under CT guidance, taking care to avoid vessels.

• A needle is advanced into the pleural collection under CT guidance and a guide wire is then advanced through the needle.
• Tract to the pleural space dilated using a series of fascial dilators.

• A multiside hole drainage catheter is advanced into the pleural collection under CT guidance and secured in place temporarily.

- The catheter is secured in place and connected to suction drainage.
- Post procedure CT images may be obtained (included in procedure code).
- The puncture site is dressed appropriately.
- A sample of fluid is sent to the laboratory for analysis.

Description of Post-Service Work:

- The patient is transferred to the recovery suite and a CXR is obtained (reported separately).
- Post-procedure vital signs are assessed.
- The findings are reviewed with patient and family.
- A report of the procedure is prepared for the medical record.

SURVEY DAT	ΓΑ						
RUC Meeting Da	ate (mm/yyyy)	04/2012					
Presenter(s):	Geraldine Mc Robert L Voge	Ginty, M.D., Zo Izang, M.D., a	eke Silva, l and Gerald	M.D., Sean ⁻ I A. Niedzwie	Tutton, M.D. ecki, M.D.	., Michael Hal	I, M.D.,
Specialty(s):	ACR and SIR						
CPT Code:	32557						
Sample Size:	1465 R	esp N:	74	Respo	onse: 5.0 %		
Description of Sample:	The specialty interventional review the sur	The specialty societies performed a random survey of diagnostic radiologists, nterventional radiologists and chest physicians, and convened a panel of experts to review the survey data.					
			Low	25 th pctl	Median*	75th pctl	<u>High</u>
Service Perform	nance Rate		2.00	15.00	25.00	50.00	250.00
Survey RVW:			1.90	3.37	3.75	4.00	7.50
Pre-Service Evalu	ation Time:				30.00		
Pre-Service Posit	ioning Time:				10.00		
Pre-Service Scrul	b, Dress, Wait Ti	me:			10.00		
Intra-Service Ti	me:		7.00	20.00	28.00	30.00	60.00
Immediate Post	Service-Time:	<u>15.00</u>				· · ·	
Post Operative	<u>Visits</u>	Total Min**	CPT Cod	e and Num	ber of Visi	<u>ts</u>	
Critical Care tim	ne/visit(s):	<u>0.00</u>	99291x 0	. 00 99292	2x 0.00		
Other Hospital t	ime/visit(s):	<u>0.00</u>	99231x 0	. 00 99232	2x 0.00 9	9233x 0.00	
Discharge Day I	Mgmt:	<u>0.00</u>	99238x 0	. 00 99239x	0.00	99217x 0.00	
Office time/visit	(s):	0.00	99211x 0	.00 12x 0.0	0 13x 0.00 ²	14x 0.00 15x	0.00
Prolonged Serv	ices:	0.00	99354x 0	. 00 55x 0).00 56x (0.00 57x 0.0)0
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00	99226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: 1b-FAC Straightforw Pat Procedure(w sedate/anes)

CPT Code:	32557	Recommended Physician Work RVU: 3.35				
		Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time		
Pre-Service Evaluation Ti	me:	21.00	19.00	2.00		
Pre-Service Positioning T	ïme:	3.00	1.00	2.00		
Pre-Service Scrub, Dress, Wait Time:		5.00	5.00	0.00		
Intra-Service Time:		28.00				
Immediate Post Service	e-Time: <u>15.00</u>					
Post Operative Visits	Total Min**	CPT Code and Num	ber of Visits			
Critical Care time/visit(s): <u>0.00</u>	99291x 0.00 99292	× 0.00			
Other Hospital time/vis	it(s): <u>0.00</u>	99231x 0.00 99232	x 0.00 99233x 0.0)		
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0	.0 99217x 0.0)		
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00	13x 0.00 14x 0.00	15x 0.00		
Prolonged Services:	0.00	99354x 0.00 55x 0	.00 56x 0.00 57	< 0.00		

				CPT Code: 32557
Sub Obs Care:	<u>0.00</u>	99224x 0.00	99225x 0.00	99226x 0.00

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? No

KEY REFERENCE S	ERVICE:			
<u>Key CPT Code</u>	<u>Global</u>	Work RVU	Time Source	
49021	000	3.37	RUC Time	

CPT Descriptor Drainage of peritoneal abscess or localized peritonitis, exclusive of appendiceal abscess; percutaneous

KEY MPC COMPARISON CODES:

Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review.

	-		_	Most Recent
MPC CPT Code 1	<u>Global</u>	<u>Work RVU</u>	Time Source	Medicare Utilization
52276	000	4.99	RUC Time	11,473
CPT Descriptor 1 Cystour	ethroscopy with	n direct vision inter	rnal urethrotomy	
				Most Recent
MPC CPT Code 2	<u>Global</u>	Work RVU	Time Source	Medicare Utilization
99223	XXX	3.86	RUC Time	11,496,707

<u>CPT Descriptor 2</u> Initial hospital care, per day, for the evaluation and management of a patient, which requires these 3 key components: A comprehensive history; A comprehensive examination; and Medical decision making of high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the problem(s) requiring admission are of high severity. Physicians typically spend 70 minutes at the bedside and on the patient's hospital floor or unit.

Other Reference CPT Code	<u>Global</u>	Work RVU	Time Source
49041	000	3.99	RUC Time

CPT Descriptor Drainage of subdiaphragmatic or subphrenic abscess; percutaneous

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 34

% of respondents: 45.9 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 32557	Key Reference CPT Code: <u>49021</u>	Source of Time RUC Time
Median Pre-Service Time	29.00	38.00	
Median Intra-Service Time	28.00	60.00	
Median Immediate Post-service Time	15.00	26.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	

Other time if appropriate		
Median Total Time	72.00	124.00
Median Subsequent Observation Care Time	0.0	0.00
Prolonged Services Time	0.0	0.00
Median Office Visit Time	0.0	0.00

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

3.00

3.12

3.00

3.12

2.85

2.94

3.24

2.97

Mental Effort and Judgment (Mean) 2.85 The number of possible diagnosis and/or the number of management options that must be considered The amount and/or complexity of medical records, diagnostic tests, 3.03 and/or other information that must be reviewed and analyzed Urgency of medical decision making 3.06 Technical Skill/Physical Effort (Mean) Technical skill required 3.29 Physical effort required 3.00 Psychological Stress (Mean) The risk of significant complications, morbidity and/or mortality 3.00 Outcome depends on the skill and judgment of physician 3.06 Estimated risk of malpractice suit with poor outcome 3.03

INTENSITY/COMPLEXITY MEASURES CPT Code Service 1

Time Segments (Mean) Pre-Service intensity/complexity 2.62 2.85 Intra-Service intensity/complexity 3.15 3.26 Post-Service intensity/complexity 2.82 2.65

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.

Background:

CPT codes 32422 (*Thoracentesis with insertion of tube, includes water seal (eg, for pneumothorax), when performed (separate procedure))* and 32551 (*Tube thoracostomy, includes water seal (eg, for abscess, hemothorax, empyema), when performed (separate procedure)*), were identified by the RAW screen for Harvard valued codes with greater than 30,000 utilization. The specialty societies referred these two codes, as well as CPT codes 32420 (*Pneumocentesis, puncture of lung for aspiration*) and 32421 (*Thoracentesis, puncture of pleural cavity for aspiration, initial or subsequent*), to CPT for revision of the family to better describe current practice. As a result, four new codes were created, two for thoracentesis: non-image guided (32554) and image guided (32555), and two for pleural catheter placement: non-image guided (32556) and image guided (32557).

Recommendation:

The specialty societies performed a random survey of diagnostic radiologists, interventional radiologists, and chest physicians, and convened a panel of experts to review the survey data. We are recommending the 25th percentile survey RVU of 3.37 RVUs and the median intra-service time and post-service times of 28 and 15 minutes, respectively.

Pre-Service Period:

The specialty societies recommend pre-service package 1b (Straightforward Patient/Straightforward Procedure (With sedation/anesthesia care)) with the following adjustments: (1) increase the pre-service evaluation time by 2 minutes, and (2) increase the positioning time by 2 minutes, both compatible with our survey results. These adjustments account for the additional time prior to skin prep necessary for ultrasound localization of a suitable pocket of fluid. Based on the survey data, it is reasonable to conclude respondents would consider imaging work prior to skin prep to be pre-service work. These modifications to the pre-service times are also compatible with several recently reviewed interventional radiology codes, including paracentesis with imaging guidance (49083 (*Abdominal paracentesis (diagnostic or therapeutic); with imaging guidance*)).

Key Reference Service:

The most commonly chosen key reference service was 49021 (*Drainage of peritoneal abscess or localized peritonitis, exclusive of appendiceal abscess; percutaneous*), with 3.37 RVUs and 60 minutes of intra-service time. The second most commonly chosen reference service was 49041 (*Drainage of subdiaphragmatic or subphrenic abscess; percutaneous*), with 3.99 RVUs and 60 minutes of intra-service time. The expert panel recognizes that the intraservice time for 32557 (29 minutes) is lower than 49021 (60 minutes) but working in the chest is more intense than the abdomen as supported by the greater urgency of decision making, technical skill, physical effort and risk of malpractice indicated by survey respondents.

Building block methodology:

It should be noted that this is a new CPT code describing a new service with change in dominant provider and service description, so a direct comparison to previously reported codes 32551 and its typical imaging pair, 75989, is not appropriate. As the DOW for the surveyed code suggests, the imaging guidance prior to catheter placement to avoid injury to the lung and pleura, as well as periodic imaging during drainage to ensure optimal drainage of the pleural effusion is distinctly different than in the past, when the procedure was performed based on anatomic landmarks. Drainage is more complete and, as the vignette suggests performed in a more difficult patient with infection and pleural effusion.

However, as a point of reference for the Panel, we provide the following information: 32551(3.29) + 75989(1.19) = 4.48

Comparison to other abscess catheter codes:

The expert panels recommendation compares favorably to the entire family of abscess drainage catheter codes as demonstrated in the below table. To reduce the RVU of 32557 lower than 3.37 alters rank order within the family, a circumstance which is made more significant considering that imaging is now included in 32557.

Code	Descriptor	Work RVW	Pre	Intra	Post	Total time	IWPUT
	Drainage of peritoneal abscess or localized peritonitis, exclusive of						
49021	appendiceal abscess; percutaneous	3.37	38	60	26	124	0.0323

44901	Incision and drainage of appendiceal abscess; percutaneous	3.37	38	60	20	118	0.0345
50021	Drainage of perirenal or renal abscess; percutaneous	3.37	38	68	25	131	0.0288
32557	Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance	3.35	29	28	15	72	0.0877
47011	Hepatotomy; for percutaneous drainage of abscess or cyst, 1 or 2 stages	3.69	38	60	25	123	0.0380
49061	Drainage of retroperitoneal abscess; percutaneous	3.69	38	60	28	126	0.0369
32201	Pneumonostomy; with percutaneous drainage of abscess or cyst	3.99	38	60	24	122	0.0434
49041	Drainage of subdiaphragmatic or subphrenic abscess; percutaneous	3.99	38	60	30	128	0.0411
48511	External drainage, pseudocyst of pancreas; percutaneous	3.99	40	62	25	127	0.0409

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents. Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 32551, 75989

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Radiology

How often? Commonly

Specialty

How often?

Specialty

Estimate the number of times this service might be provided nationally in a one-year period? 0 If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate. An estimate for the number of times this service is performed nationally in a oneyear period is unknown.

Specialty	Frequency 0	Percentage 0.00 %
Specialty	Frequency 0	Percentage 0.00 %
Specialty	Frequency 0	Percentage 0.00 %

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 63,483 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. The estimated frequency for Medicare is 63,483, which is the 2010 Medicare utilization frequency for code 32251. Based on past frequency data, we estimated the percent performed by Radiology to be about 1.55%.

Specialty Radiology	Frequency 986	Percentage	1.55 %
Specialty	Frequency 0	Percentage 0.00 %	
Specialty	Frequency 0	Percentage 0.00 %	

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix will not change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 32551

	00		anniary																	
	A	В	C	D	E	F	G	Н	Ι	J	Κ	L	М	Ν	0	Р	Q	R	S	Т
3	INSTRUC	TIONS	d data into all applicable calls averat IM/DUT and TOTAL T			• ••• ! !! •		-4 :	h. aala											
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6	RFF = Kev	Reference	code data																	
7		= Current	data (Harvard or RUC) for code being surveyed. If this is a	a new c	ode. this	row wi	ill be l	blank.												
8	SVY = Surv	yey data - a	as it appears on the Summary of Recommendation form.		,	-														
9	REC = Spe	cialty Soci	ety recommended data as it appears on the Summary of R	ecomn	nendatior	n form.														
10																				
11																				
12	1550E:	Cnest I	ube interventions																	
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14								RVW			Total	Pl	RE-TIN	1E		INT	RA-T	IME		IMMD
15	Source	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th	MAX	Time	EVAL	POSIT	SDW	MIN	25th	MED	75th	мах	POST
16	REF	49083	Abdominal paracentesis (diagnostic or therapeutic); with imaging guidance	49	0.052			2.00			60	15	5	5			25			10
17	CURRENT	32421	Thoracentesis, puncture of pleural cavity for aspiration, initial or subsequent		0.039			1.54			48	10					28			10
18	CURRENT	32422	Thoracentesis with insertion of tube, includes water seal (eg, for pneumothorax), when performed (separate procedure)		0.039			2.19			75	15	15				31			14
19	CURRENT	76942	Ultrasonic guidance for needle placement (eg, biopsy, aspiration, injection, localization device), imaging supervision and interpretation		0.022			0.67			30						30			
20	SVY	32555	Thoracentesis, needle or catheter, aspiration of the pleural space; with imaging guidance	81	0.084	1.35	2.00	2.40	2.80	5.50	55	15	5	5	3	15	20	30	45	10
21	REC	32555	Thoracentesis, needle or catheter, aspiration of the pleural space; with imaging guidance		0.077			2.21			54	15	3	6			20			10
22																				
23																				
25								RVW	1		Total	PI	RE-TIN	1E		INT	RA-T	IME		IMMD
26	Source	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th	мах	Time	EVAL	POSIT	SDW	MIN	25th	MED	75th	мах	POST
			Drainage of peritoneal abscess or localized peritonitis																	
27	REF	49021	exclusive of appendiceal abscess; percutaneous	34	0.032			3.37			124	38					60			26
28	CURRENT	32551	Tube thoracostomy, includes water seal (eg, for abscess, hemothorax, empyema), when performed (separate procedure)		0.075			3.29			95	14	25	7			24			25
29	CURRENT	75989	Radiological guidance (ie, fluoroscopy, ultrasound, or computed tomography), for percutaneous drainage (eg, abscess, specimen collection), with placement of catheter, radiological supervision and interpretation		#DIV/0!			1.19			23									
30	SVY	32557	Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance	74	0.087	1.90	3.37	3.75	4.00	7.50	93	30	10	10	7	20	28	30	60	15
31	REC	32557	Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance		0.087			3.35			72	21	3	5			28			15

SS Rec Summary

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	A		C	D	E	F	G	Н		J	K	L	M	N	0	Р	Q	R	S	l
3	INSTRUC	TIONS	-																	
4	Insert infor	mation a	and data into a	ll appli	cable cel	ls <u>exc</u>	<u>cept</u> IV	VPUT	and T	OTAL	TIME.	These	cells w	ill auto	omatio	cally c	alcula	ate.		
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6	<u>REF</u> = Key	Referen	ce code data																	
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8	<u>SVY</u> = Surv	vey data	- as it appears	on the	Summar	y of F	Recom	nmend	ation	form.										
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12	ISSUE:	Chest	Tube Interve	ention	s 32554	, 32	556 A	CCP	/ATS											
12	TAB:	11																		
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15	Source	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th	МАХ	Time	EVAL	POSIT	SDW	MIN	25th	MED	75th	MAX	POST
16	REF	36556	Insertion of no	on-tuni	0.112			2.50			55	20	5	5			15			10
17	CURRENT	32421	Thoracentesis	s, punc	0.039			1.54			48	10					28			10
18	SVY	32554	Thoracentesis	31	0.086	1.20	1.83	2.30	2.84	6.00	50	13	1	6	0	15	20	25	45	10
19	REC	32554	Thoracentesis		0.048			1.54			50	13	1	6			20			10
20			-																	
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24	Source	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th	МАХ	Time	EVAL	POSIT	SDW	MIN	25th	MED	75th	MAX	POST
25	REF	36556	Insertion of no	on-tuni	0.112			2.50			55	20	5	5			15			10
26	CURRENT	32422	Thoracentesis	s with i	0.039			2.19			75	15	15				31			14
27	SVY	32556	Pleural draina	30	0.098	1.30	2.50	2.78	4.00	6.00	60	19	1	5	5	15	20	30	45	15
28	REC	32556	Pleural draina		0.068			2.19			60	19	1	5			20			15

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Non Facility Direct Inputs

CPT Long Descriptor:

32554 Thoracentesis, needle or catheter, aspiration of the pleural space, without imaging guidance32556 Pleural drainage, percutaneous, with insertion of indwelling catheter, without imaging guidance

Global Period: 000 Meeting Date: April 2012

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee:

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale: These two codes are revised codes 32421, 32422. Code 32421 does not have individual data for pre-service, intra-service and post-service so 32422 was used as the comparison code. 32421 showed clinical staff as an RN. 32422 showed clinical staff as an RT. Currently, we indicate RN/RT as clinical staff.

Please describe in detail the clinical activities of your staff:

Pre-Service Clinical Labor Activities:

- Complete pre-service diagnostic and referral forms
- Coordinate pre-surgery services
- Provide pre-service education/obtain consent
- Follow-up phone calls and prescriptions

Service Clinical Labor Activities:

- Greet patient, provide gowning, ensure appropriate medical records are available
- Obtain vital signs
- Prepare room, equipment and supplies
- Prepare and position patient, monitor patient, set up IV
- Assist physician in performing the procedure
- Monitor patient following service, check tubes, monitors, drains
- Clean room and equipment
- Complete diagnostic forms, lab and x-ray requisitions
- Check dressings and wound, home care instructions provided, coordinate office visits and prescriptions

Post-Service Clinical Labor Activities:

• Conduct phone calls and call-in prescriptions

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Non Facility Direct Inputs

CPT Long Descriptor:

32555 - Thoracentesis, needle or catheter, aspiration of the pleural space; with imaging guidance 32557 - Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance

Global Period: 000 Meeting Date: 04/2012

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee:

The ACR and SIR convened a consensus panel to review and finalize the practice expense data for codes 32555 and 32557.

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale: The existing codes, 32421, 32422, and 32551, are being replaced by the new chest tube placement codes, 32555 and 32557, and the practice expense inputs for these codes are similar to the practice expense inputs for the new codes.

Please describe in detail the clinical activities of your staff:

Pre-Service Clinical Labor Activities:

- Complete pre-service diagnostic & referral forms
- Coordinate pre-surgery services
- Provide pre-service education/obtain consent
- Follow-up phone calls & prescriptions
- Retrieve prior images for comparison

Service Clinical Labor Activities:

- Review charts
- Greet patient and provide gowning
- Obtain vital signs
- Prepare room, equipment, supplies
- Prepare and position patient/ monitor patient/ set up IV
- Acquire Image
- Assist physician in performing procedure
- Monitor pt. following service/check tubes, monitors, drains
- Clean room/equipment by physician staff
- Complete diagnostic forms, lab & X-ray requisitions
- Check dressings & wound/ home care instructions /coordinate office visits /prescriptions
- Process images, complete data sheet, present images and data to the interpreting physician

Post-Service Clinical Labor Activities:

• Conduct phone calls/call in prescriptions

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Facility Direct Inputs

CPT Long Descriptor:

32555 - Thoracentesis, needle or catheter, aspiration of the pleural space; with imaging guidance 32557 - Pleural drainage, percutaneous, with insertion of indwelling catheter; with imaging guidance

Global Period: <u>000</u> Meeting Date: <u>04/2012</u>

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee:

The ACR and SIR convened a consensus panel to review and finalize the practice expense data for codes 32555 and 32557.

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale:

The existing codes, 32421, 32422, and 32551, are being replaced by the new chest tube placement codes, 32555 and 32557, and the practice expense inputs for these codes are similar to the practice expense inputs for the new codes.

Please describe in detail the clinical activities of your staff:

Pre-Service Clinical Labor Activities:

- Complete pre-service diagnostic & referral forms
- Coordinate pre-surgery services
- Schedule space and equipment in facility
- Provide pre-service education/obtain consent
- Follow-up phone calls & prescriptions

Service Clinical Labor Activities:

Post-Service Clinical Labor Activities:

• Conduct phone calls/call in prescriptions

	A	В	С	D	E	F	G	H I	J	к	L	M	N	0	Р	Q	R	S	Т	U	V	W	Х	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
1	Tab 11: Revised 4/26/12																																	
	Note: 32002 was replaced by 32422 32020 was replaced by 32551																	2																
2	76360 was replaced by 77012			3255	4			32555			32	2556			32557	,			32002	(32422)	324	422			7694	2			49061				76360 (7	7012)
				Thoracentesi or cathe	is, needle eter,	CMS CODE	CMS STAFF	Thoracentesis, needle or catheter,	e		Pleural percutan	drainage, ieous, with			Pleural dra percutaneou	inage, is, with			Thoracen insertio	itesis with n of tube	Thorac with inse	entesis ertion of			Ultrasonic g for nee	guidance edle			Drainage retroperitoneal	e of abscess;			Compu tomogra	ated aphic
				aspiration	of the	for 32555	TYPE for	aspiration of the			inser	rtion of g catheter:			insertion of in	dwelling			cathete	r with or water seal	tube, in water sea	ncludes			placemei bionsy asi	nt (eg, piration			percutane	eous			guidanc	e for
				without in	naging	52555	52555	imaging guidance			without	t imaging			guidan	ce			without v	vater sear	pneumo	othorax),			injecti	on,			(PEAC Approv	ved - Jan			radiolog	jical
	Meeting Date: April 2012			guidan	ice			(April 2012)			guio	dance			(April 20	12)			(PEAC A Jan	pproved - 2004)	when pe (sepa	arate			localization imagi	device), ng			2004)				supervisio interpret	on and ation
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3		32554	32554	- N	F 111				32556	32556			32557	32557			32422	32422					76942	76942			49061	49061		7	77012	77012		
4				Non Facility	Facility			Non Facility Facility			Non Facility	Facility			Non Facility	Facility			Non Facility	Facility	Non Facility	Facility			Non Facility	Facility			Non Facility	Facility		r	Non Facility	
5	TOTAL TIME	L037D	RN/LPN/M	66.0	0.0	L041B	RT	90.0 0.0	L037D R	RN/LPN/	000 76.0	0.0	L046A	CT Tech	000 79.0	000	L041B	RT	79.0	31.0	79.0	31.0	L051B	RDMS	61.0	0.0	L037D	RN/LPN/	11.0	000 0.0 L	L037D F	RN/LPN/	32.0	0.0
6 7			TA			L051B	RDMS	5.0		MTA	0.0		L051B	RDMS	5.0												L041B	MTA RT	55.0			MTA		
8													L051A	RN	15.0												L051A	RN	77.0					
9 10													L041B L037D	RN/LPN/	0.0																			<u> </u>
11	PRE-SERVICE Start: Following visit when decision for																																	
12	2 surgery or procedure made Complete pre-service diagnostic & referral	L037D	RN/LPN/M	5		L041B	RT	5	L037D R	RN/LPN/	5		L046A	CT Tech	5		L041B	RT	5	5	5	5												
13	forms		TA			-				MTA	-				-						_	-												
14	Coordinate pre-surgery services	L037D	RN/LPN/M TA	3		L041B	RT	3	L037D R	RN/LPN/ MTA	3		L046A	CT Tech	3		L041B	RT	3	10	3	10												
15	Schedule space and equipment in facility	L037D	RN/LPN/M TA			L041B	RT		L037D R	RN/LPN/ MTA			L046A	CT Tech			L041B	RT	0	5		5												
16	Provide pre-service education/obtain consent	L037D	RN/LPN/M	5		L041B	RT	5	L037D R	RN/LPN/ MTA	5		L046A	CT Tech	5		L041B	RT	5	5	5	5												
17	7 Follow-up phone calls & prescriptions	L037D	RN/LPN/M	3		L041B	RT RT	3	L037D R	RN/LPN/	3		L046A	CT Tech	3		L041B	RT	3	3	3	3	1.051B	RDMS	3						037D		6	
18	Retrieve prior images for comparison					LOTID			$ \rightarrow $				2040/1		0								LUGID									MTA	0	
19	9 surgery/procedure																																	
20	Start: When patient enters office/facility for																																	
21 22	1 surgery/procedure 2 Pre-service services																																	
23	3 Review charts Greet patient and provide gowning	L037D	RN/LPN/M	3		L041B	RT	3	L047C	RN/RT	3		L046A	CT Tech	3		L041B L041B	RT RT	2		23													
24	4 Obtain vital signs	1037D		5		1 041B	RT	5		RN/I PN/	5		1.046A	CT Tech	5		1.041B	RT	5		5												0	
25	Dravida pro convice education/obtain concent	20072	TA			20112				MTA			2010/1		•		20112																0	
26		10075								MTA				077									10515											
27	Prepare room, equipment, supplies	L037D	RN/LPN/M TA	2		L041B	RI	4	L037D R	RN/LPN/ MTA	2		L046A	CIlech	4		L041B	RI	2		2		L051B	RDMS	2				3 (RT)	L	LO37D H	RN/LPN/ MTA	1	
28	Setup scope (non facility setting only)								L037D R	RN/LPN/ MTA																								
29	Prepare and position patient/ monitor patient/	L037D	RN/LPN/M TA	2		L041B	RT	3	L037D F	RN/LPN/ MTA	2		L046A	CT Tech	3		L041B	RT	2		2		L051B	RDMS	3				2 (RT)		L037D	RN/LPN/ MTA	2	
30 31	Sedate/apply anesthesia												L051A	RN	0														2 (RN)					
32	2 Acquire Image			20		L051B	RDMS	5			20		L051B	RDMS	5		1.0/1B	PT	21		21		1.051B	PDMS	45				18 (PT)		037D		18	
33		20070	TA	20				20		MTA	20				20						<u> </u>		LUUID	NUNDO								MTA	10	
34	Assist physician - conscious sedation =	8											LU51A	κN	0																			
35	-Assist with fluoroscopy/image												L041B	RT	0																			
36	-Circulating throughout the												L037D	RNLPN/M TA	0																			
37	7 Post-Service Monitor pt_following service/check tubes	1037D		5		041R	RT	15		RN/I PN/	15		1.051.0	RN			0/1 R	RT	15		15								60 (RN) @80%					
38	3 monitors, drains										- 0				15						0									.				
39		LU37D	TA	3		LU41B	КI	3		MTA	3		LU46A	CITECN	3		LU41B	κı	3		3		LUDIR	KUIVIS	3				2 (KI)			MTA	3	
40 41	Clean Ultrasound Clean Surgical Instrument Package							3																										
42	Complete diagnostic forms, lab & X-ray 2 requisitions	L037D	RN/LPN/M TA	2		L041B	RT	2	L037D R	RN/LPN/ MTA	2		L046A	CT Tech	3		L041B	RT	2		2								3 (RN/LPN/MTA)					
43	Review/read X-ray, lab, and pathology reports																																	

Δ	в	C	DE	F	G	Гн			Γ κ		М	N	0	P		R	S	Гт		V	W	x	V	7 ΔΔ	ΔB	AC		ΔF	ΔF	AG	ΔН	
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32020 was replaced by 32551																																
2 76360 was replaced by 77012			32554			32	2555			32556	6			32	557			32002	(32422)	32	422			76942			49061				76360 (77	012)
			Thoracentesis, needle	CMS	CMS	Thoracent	tesis, needle	<u>)</u>		Pleural drai	inage,			Pleural o	Irainage,			Thoracer	ntesis with	Thorac	entesis			Ultrasonic guidanc	е		Drainage of	f			Comput	دed،
			or catheter,	CODE	STAFF	or ca	theter,			percutaneou	is, with			percutane	ous, with			insertio	on of tube	with ins	ertion of			for needle			retroperitoneal ab	oscess;			tomogra	phic
			aspiration of the	for	TYPE for	aspirati	ion of the			insertion	1 of			insertion of	indwelling			cathete	er with or	tube, ir	ncludes			placement (eg,			percutaneou	IS			guidance	≠ for
			pleural space;	32555	32555	pleural s	pace; with			indwelling ca	atheter;			catneter; w	ith imaging			without	water seal	water sea	al (eg, for			biopsy, aspiration	,		(DEAC Approved	l - Ian			needle bio	psy,
			without imaging guidance			imaging	guidance			without ima guidance				guiu	ance				nnroved -	when ne	orformed			Injection,			(PEAC Approved 2004)	I - Jali			supervisio	ical in and
Meeting Date: April 2012			guiuance			(Anri	il 2012)			guiuan				(April	2012)			, LAC A	2004)	(sen	arate			imaging	,		2004)				interpreta	ation
Tab: 11			(Anril 2012)			(ripii	1 2012)			(April 20	12)			(April	2012)			- Cull	2004)	proce	edure)			supervision and							interprete	
Specialty: ACR: SIR			((()										,			interpretation							(PEAC App	roved
opeolary. Aore one																				(Curre	nt RUC			-							Jan 200	J4)
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	CMS	CMS						CMS	CMS			CMS	CMS			CMS	CMS					CMS	CMS	Feb 2005)	CMS	CMS			CMS	CMS		
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	for	TYPE for						for	TYPE for			for	TYPE for			for	TYPE for					for 1	TYPE for		for	TYPE for			for	TYPE for		
3	32554	32554						32556	32556		:	32557	32557			32422	32422		-			76942	76942		49061	49061			77012	77012		
			Non Facility			Non Eacility	Facility			Non F	Facility			Non Facility	/ Facility			Non	Facility	Non	Facility			Non Facility			Non Facility F	acility			Non Facility	Facility
Check dressings & wound/ home care	L037D	RN/LPN/M	5	L041B	RT	5		L037D	RN/LPN/	5	L	L046A	CT Tech	3		L041B	RT	5		5							3 (RN/LPN/MTA)					
instructions /coordinate office visits		TA							MTA																							
44 /prescriptions																																
Discharge day management 9923812																				1												
45 minutes 99239 15 minutes				-				-																								
Process images complete data sheet present				1.041B	RT	5		-				046A	CT Tech	2								L051B	RDMS	5					1.037D	RN/I PN/	2	
47 limages and data to the interpreting physician						Ŭ								-								20012	1 Bino	Ŭ					2007.2	MTA	-	
48 End: Patient leaves office																																
49 POST-SERVICE Period																																
50 Start: Patient leaves office/facility	10070				DT	0		1.007D				0404	OTTuk				DT	0							-							
Conduct phone calls/call in prescriptions	L037D	RN/LPN/M	3	L041B	RI	3		L037D	RN/LPN/	3	L	L046A	Cilech	3		L041B	RI	3	3	3	3											
Office visits: Greet patient.escort to room:																																
provide gowning; interval history & vital signs																																
and chart; assemble previous test																																
reports/results;assist physician during exam;																																
assist with dressings, wound care, suture																																
removal; prepare dx test, prescription forms;																																
post service education, instruction, counseling;																																
53 List Number and Level of Office Visits																																
54 99211 16 minutes																																
55 99212 27 minutes				-				-											-						-							
57 99213 36 MINUTES				-				-																								
58 99215 63 minutes																																
59 Other																																
60				L	-			_																								
61 I otal Uttice Visit Time														0	0			0	0	0	0			├ ───			0	0				
64 MEDICAL SUPPLIES	CODE	UNIT		CODE	LINIT			CODE	UNIT			CODE	UNIT			CODE	UNIT					CODE	UNIT		CODE	LINIT			CODE	UNIT		
65 PEAC multispecialty supply package													5.111					1					<u>Srift</u>							0.111		
66 pack, minimum multi-specialty visit	SA048	pack		SA048	pack	1		SA048	pack		5	SA048	pack	1		SA048	pack			1		SA048	pack		SA048	pack			SA048	pack		
67 kit, thoracentesis (invoice provided)		kit	1	SA070	tray	1			kit				tray			SA070	tray	1		1	└──── ┃	SA070	tray	ļ	SA070	tray	ļ	[SA070	tray		
68 Ikit, pleural catheter insertion	SA077	kit		SA077	kit	1		SA077	kit trou	1		SA077	kit	4		SA077	kit	4		1	├───┠	SA077	kit	├ ───┤────	SA077	kit			SA077	kit		
70 mask, surgical with face shield	SR034	item		SR034	item	2		SR034	item			SB034	item	2		SR034	item	2		2	├	SR007 SB034	item		SR034	item			SR007 SB034	item		
71 gloves, sterile	SB024	pair	1	SB024	pair	2		SB024	pair	1		SB024	pair	2		SB024	pair	2		2		SB024	pair		SB024	pair	1		SB024	pair		
72 gauze, sterile 4in x 4in	SG055	item		SG055	item			SG055	item		S	SG055	item			SG055	item	2		2		SG055	item		SG055	item	6		SG055	item		
73 gown, staff, impervious	SB027	item	1	SB027	item			SB027	item	1	5	SB027	item			SB027	item					SB027	item		SB027	item			SB027	item		
74 Ineedle, 19-25g, butterfly	SC030	item	1	SC030	item			SC030	item	1			item			SC030	item				├	SC030	item	├ ───	SC030	item	┠────┼─		SC030	item		
76 gown, patient	SB026	item		SB026	item			SB026	item			SB026	item			SB026	item			1	├	SB026	item		SB026	item	├ ───┼─		SB026	item		
77 drape, non-sterile, sheet 40in x 60in	SB006	item	1	<u>S</u> B006	item			<u>SB006</u>	item	1		SB006	item			<u>SB</u> 006	item			1		<u>SB006</u>	item		<u>SB006</u>	item			<u>SB</u> 006	item		
78 gloves, non-sterile	SB022	pair		SB022	pair			SB022	pair		S	SB022	pair			SB022	pair					SB022	pair	1	SB022	pair			SB022	pair		
79 syringe 5-6ml	SC057	item		SC057	item			SC057	item		S	SC057	item			SC057	item			<u> </u>	└────	SC057	item	↓	SC057	item	┨─────┤──		SC057	item		
80 paper, exam table	SB036	itara		SB036	ft itom			SB036	itom			SB036	itom			SB036	itarr				├───┠	SB036	tt item	├ ───┤────	SB036	ft itom	┨────┤─		SB036	tt item		
82 Iswab-pad, alcohol	SJ053	item		SJ053	item			SJ053	item			SJ053	item			SJ053	item			1	├	SJ053	item		SJ053	item	<u>├</u>		SJ053	item		
83 disinfectant spray (Transeptic)	<u>SM</u> 012	ml		<u>SM</u> 012	ml	10		<u>SM</u> 012	ml		5	SM012	ml			<u>SM</u> 012	ml					<u>SM0</u> 12	ml	10	<u>SM012</u>	ml			SM012	ml		
84 x-ray envelope	SK091	item		SK091	item			SK091	item		e e	SK091	item			SK091	item					SK091	item	1	SK091	item			SK091	item	1	
85 film, x-ray 14in x 17in	SK034	item		SK034	item	3		SK034	item		e e e e e e e e e e e e e e e e e e e	SK034	item			SK034	item			↓	T	SK034	item	3	SK034	item	ļ	T	SK034	item		
86 Jfilm, 8inx10in (ultrasound, MRI)	SK022	item		SK022	item	2		SK022	item		5	SK022	item			SK022	item			1	I I	SK022	item	2	SK022	item			SK022	item		

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Note: 32002 was replaced by 32422					•	<u> </u>	'	<u> </u>	U	, K							· ·					2 700	7.0	////	ne -	, . <u> </u>	74	///	
32020 was replaced by 32551																													
2 76360 was replaced by 77012			325	554			32	2555			32556			32557			3200)2 (32422)	32422			76942			49061				76360 (77012)
			Thoracente	esis, needle	CMS	CMS	Thoracen	tesis, needle			Pleural drainage,			Pleural drainage,			Thorac	entesis with	Thoracentesis			Ultrasonic guidance			Drainage	of			Computed
			or cat	theter,	CODE	STAFF	or ca	atheter,			percutaneous, with			percutaneous, with			inserti	ion of tube	with insertion of			for needle			retroperitoneal a	abscess;			tomographic
			aspiratio	on of the	for	TYPE for	aspirat	ion of the			insertion of			insertion of indwelling			cathe	ter with or	tube, includes			placement (eg,			percutaneo	ous			guidance for
			pleural	l space;	32555	32555	pleural s	space; with			indwelling catheter;			catheter; with imaging			withou	t water seal	water seal (eg, for			biopsy, aspiration,							needle biopsy,
			without	imaging			imaging	g guidance			without imaging			guidance				Ammend	pneumothorax),			Injection,			(PEAC Approve	ed - Jan			radiological
Masting Datas, April 0040			guid	lance			()	÷I 2012)			guidance			(April 2012)			(PEAC	Approved -	when performed			incalization device),			2004)				supervision and
Meeting Date: April 2012			(A pril	2012)			(Apr	11 2012)			(April 2012)			(April 2012)			Ja	n 2004)	(separate			imaging supervision and							Interpretation
			(April	(2012)							(April 2012)								procedure)			interpretation							(PEAC Approved
Specialty: ACR: SIR																			(Current RUC			interpretation							.lan 2004)
																			Database)			(PEAC Approved -							oun 200 i,
	CMS	CMS							CMS	CMS		CMS	CMS		CMS	CMS			í í	CMS	CMS	Feb 2005)	CMS	CMS			CMS	CMS	
	CODE	STAFF							CODE	STAFF		CODE	STAFF		CODE	STAFF				CODE	STAFF		CODE	STAFF			CODE	STAFF	
	for	TYPE for							for	TYPE for		for	TYPE for		for	TYPE for	r			for	TYPE for		for	TYPE for			for T	YPE for	
3	32554	32554							32556	32556		32557	32557		32422	32422				76942	76942		49061	49061			77012	77012	
LOCATION			Non	Facility			Non	Facility			Non Facility			Non Facility Facility			Non	Facility	Non Facility			Non Facility			Non Facility	Facility		1	Non Facility Facility
4	0		Facility				Facility				Facility				0 11001		Facility	v	Facility			Facility							
87 sanitizing cloth-wipe (patient)	SM021	item			SM021	item	2		SM021	item		SM021	item		SM021	item				SM021	item	2	SM021	item			SM021	item	
88 pillow case	SK080	Item			SK080		1		SK080			SK080	Item		SK080					SK080		1	SK080				SK080		
90 cover-condom, transducer or ultrasound probe	SB005	item			SB005	item	1		SB005	item		SB005	item		SB005	item				SR009	item	1	SB005	item			SB005	item	
91 lubricating jelly (Surgilube)	SJ033	OZ			SJ033	OZ	3		SJ033	0Z		SJ033	0Z		SJ033	OZ				SJ033	0Z	30	SJ033	OZ			SJ033	OZ	
92 computer media, dvd	SK013	item			SK013	item			SK013	item		SK013	item	1	SK013	item				SK013	item		SK013	item			SK013	item	1
93 paper, exam table	SB036	ft			SB036	ft			SB036	ft		SB036	ft		SB036	ft				SB036	ft		SB036	ft			SB036	ft	7 feet
94 cap, surgical	SB001	item			SB001	item			SB001	item		SB001	item	2	SB001	item				SB001	item		SB001	item	1		SB001	item	
95 Shoe covers, surgical	SB039	pair			SB039 SB014	pair itom			SB039 SB014	pair itom		SB039	pair itom	2	SB039	pair itom	1			SB039 SB014	pair itom		SB039	pair itom	2		SB039 SB014	pair itom	
97 drape-towel, sterile 18in x 26in	SB014	item			SB014	item			SB014	item		SB014	item	4	SB014	item				SB014	item		SB014	item	4		SB014	item	
98 drape, sterile, fenestrated 16in x 29in	SB011	item			SB011	item			SB011	item		SB011	item	1	SB011	item				SB011	item		SB011	item	1		SB011	item	
99 underpad 2ft x 3ft (Chux)	SB044	item			SB044	item			SB044	item		SB044	item	1	SB044	item				SB044	item		SB044	item	1		SB044	item	
100 povidone soln (Betadine)	SJ041	ml			SJ041	ml			SJ041	ml		SJ041	ml	60	SJ041	ml				SJ041	ml		SJ041	ml	60		SJ041	ml	
101 applicator, sponge-tipped	SG009	item			SG009	item			SG009	item		SG009	item	4	SG009	item				SG009	Item		SG009	item	4		SG009	item	
svringe w-needle OSHA compliant	SC058	item			SC058	item			SC058	item		SC058	item	2	SC058	item				SC058	item		SC058	item	2		SC058	item	
103 (SafetyGlide)	00000	Rom			00000	nom			00000	nom		00000	Rom	2	00000	nom				00000	Rom		00000	nom	2		00000	nom	
104 blade, surgical (Bard-Parker)	SF007	item			SF007	item			SF007	item		SF007	item	1	SF007	item				SF007	item		SF007	item	1		SF007	item	
105 stop cock, 3-way	SC049	item			SC049	item			SC049	item		SC049	item	1	SC049	item				SC049	item		SC049	item	1		SC049	item	
106 syringe 50-60ml	SC056	item			SC056	item			SC056	item		SC056	item	2	SC056	item				SC056	item		SC056	item	2		SC056	item	
sodium chloride 0.9% irrigation (500-1000mi	SH069	item			SH069	item			SH069	item		SH069	item	1	SH069	item				SH069	item		SH069	item	1		SH069	item	
108 cup sterile 8 oz	SI 157	item			SI 157	item			SI 157	item		SI 157	item	1	SI 157	item				SI 157	item		SI 157	item	1		SI 157	item	
109 cup, sterile, 12-16 oz	SL156	item			SL156	item			SL156	item		SL156	item	1	SL156	item				SL156	item		SL156	item	1		SL156	item	
110 cup, biopsy-specimen sterile 4oz	SL036	item			SL036	item			SL036	item		SL036	item	1	SL036	item				SL036	item		SL036	item	1		SL036	item	
kit, AccuStick II Introducer System with RO	SA071	kit			SA071	kit			SA071	kit		SA071	kit	1	SA071	kit				SA071	kit		SA071	kit	1		SA071	kit	
111 Marker	00040	it a rea			00040	:4 a rea			00040	:4 a ma		00010	it a rea	4	00040	:t o .ro				00040	:t.ee.		00040	it a rea	4		00040	:t a	
112 closed liush system, anglography	SH065	item			SH065	item			SH065	item		SH065	item	1	SH065	item				SH065	item		SH065	item	1		SH065	item	
114 guidewire	SD088	item			SD088	item			SD088	item		SD088	item	1	SD088	item				SD088	item		SD088	item	1		SD088	item	
115 dilator, vessel, angiographic	SD043	item			SD043	item			SD043	item		SD043	item	1	SD043	item				SD043	item		SD043	item	1		SD043	item	
116 drainage catheter, all purpose	SD161	item			SD161	item			SD161	item		SD161	item	1	SD161	item				SD161	item		SD161	item	1		SD161	item	
117 catheter percutaneous fastener (Percu-Stay)	SD146	item			SD146	item			SD146	item		SD146	item	1	SD146	item	-			SD146	item		SD146	item	1		SD146	item	
118 drainage pouch, nephrostomy-billary	SD163 SC070	item			SD163	item		+	SD163 SC070	item		SD163	item	1	SD163 SC070	item				SD163	item		SD163	item	1		SD163 SC070	in	
120 pack, moderate sedation	SA044	pack			SA044	pack			SA044	pack		SA044	pack	0	SA044	pack				SA044	pack		SA044	pack	1		SA044	pack	
121 gown, surgical, sterile	SB028	item			SB028	item			SB028	item		SB028	item	1	SB028	item				SB028	item		SB028	item	1		SB028	item	
122 film, x-ray, laser print	SK098	item			SK098	item			SK098	item		SK098	item	1	SK098	item				SK098	item		SK098	item			SK098	item	1
123 tape, surgical occlusive 1 inch (Blenderm)	SG078	in	15		SG078	in			SG078	in	25	SG078	in		SG078	in				SG078	in		SG078	in			SG078	in	
124 Equipment	F 5000				55000				FF000		70	FF000			F 5000					FF000							FF000		
129 EXAM TADIE	EF023		66		EF023		33		EF023		76	EF023			EF023				00	EF023		X	EF023				EF023		
127 Film Alternator	ED024				ED024		58		ED024			ED024		58	ED024		1		1 1	ED024		58	ED024				ED024		1
128 Laser printer	ER029				ER029		58		ER029			ER029		58	ER029					ER029		58	ER029			†	ER029		1
129 CT room	EL007				EL007				EL007			EL007		43	EL007					EL007			EL007		60		EL007		22
130 ECG, 3 channel	EL007				EL007				EL007			EL007		0	EL007		I		 	EL007			EL007		X		EL007		
131 IV tusion pump	EQ032				EQ032				EQ032			EQ032		0	EQ032				├ ──┤───	EQ032			EQ032		X		EQ032		
133 stretcher chair							15							15			+								× ×	 			
134 oxygen system. portable	EQ192				EQ192		15		EQ192		F	EQ192			EQ192	L	1		1 1	EQ192			EQ192		X	F	EQ192		
135 pulse oximeter w-printer	EQ211				EQ211				EQ211		E	EQ211			EQ211					EQ211			EQ211		<u>X</u>	E	EQ211		

AMA/Specialty Society RVS Update Committee Summary of Recommendations

October 2012

Bladder Chemodenervation

In February 2012, the CPT Panel created a new code, 52287 *Cystourethroscopy, with injection(s) for chemodenervation of the bladder* to report physician work related to chemodenervation of the bladder. This procedure was previously reported using an unlisted code.

In April 2012, the RUC reviewed the survey results from 59 urologists and determined the survey respondents overestimated the physician work to perform this service. Additionally, there was consensus among the RUC that the survey median intra service time of 20 minutes was insufficient for a basic cystourethroscopy, which includes the work of CPT code 52000 (work RVU=2.23, intra service time=15 minutes) plus 30 injections. The RUC also agreed that this work was completely different than other chemodenervation treatments (e.g., migraine). The risks, including paralytic bladder, bleeding, perforation and urosepsis are significantly greater. The RUC reviewed 52007 *Cystourethroscopy, with ureteral catheterization, with or without irrigation, instillation, or ureteropyelography, exclusive of radiologic service; with brush biopsy of ureter and/or renal pelvis* (work RVU=3.02) and determined that the physician work and intensity were similar. However, the RUC recommended that 52287 be resurveyed for the October 2012 to validate the intra service time and recommended an interim work RVU of 3.02, a direct crosswalk to CPT code 52007 for CPT code 52287.

In October 2012, the RUC reviewed the survey results from 125 urologists and noted that intra service time increased to 21 minutes, an increase in one minute from the previous survey results. When combined with the April 2012 survey results, the RUC determined that six additional minutes for the injections as described by CPT code 52287 was sufficient. Therefore, the RUC determined that an intra service time total of 21 minutes is appropriate for this service. The RUC also agreed that an additional five minutes of positioning time is required to place the patient in the dorsal lithotomy position, and ten minutes to account for scrub, dress and wait time is appropriate considering that the local anesthesia instilled in the bladder prior to the injections requires at least ten minutes to numb the bladder. There was consensus among the RUC that this service is more intense and complex than CPT code 52007 and should be valued higher. However, the RUC determined that the survey median of 5.18 and the 25th percentile work RVU of 4.18 overestimates the physician work.

The RUC reviewed CPT code 43250 Upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps or bipolar cautery (work RVU=3.20) and agreed that the physician work, with identical intra-service times, and intensity between the surveyed code and the reference code were analogous. Therefore RUC agreed that a work value of 3.20 accurately accounts for the physician work involved in code 52287. To justify this value further, the RUC reviewed CPT code 16035 *Escharotomy; initial incision* (work RVU=3.74) and noted that while both codes have almost identical intra-service times, code 16035 has greater total time compared to the surveyed code, 70 minutes and 58 minutes, respectively. Finally, the RUC reviewed CPT

code 15273 Application of skin substitute graft to trunk, arms, legs, total wound surface area greater than or equal to 100 sq cm; first 100 sq cm wound surface area, or 1% of body area of infants and children (work RVU=3.50) and noted that both the reference service and surveyed code have almost identical intra-service times and should be valued similarly. With these comparisons, the RUC agreed that a work RVU of 3.20 accurately values this service relative to other similar services across the RBRVS. The RUC recommends a work RVU of 3.20 for CPT code 52287.

May 2012 RUC Recommendations:

The RUC recommendation for this code was considered by the RUC in April 2012 and submitted to CMS in May 2012. This recommendation is attached for informational purposes only.

Practice Expense:

Direct Practice expense inputs were approved by the RUC in April 2012 and were submitted to CMS in May 2012. Direct Practice expense is being resubmitted with this recommendation to reflect a modification to intraservice clinical staff time of one additional minute, directly tied to physician intraservice time. The previous recommendations are attached to this recommendation for informational purposes only.

CPT Code (•New)	Tracking Number	CPT Descriptor	Global Period	Work RVU Recommenda- tion
Surgery				
Urinary Syste	m			
Bladder				
Transurethra	l Surgery			
●52287	JJ1	Cystourethroscopy, with injection(s) for chemodenervation of the bladder (report supply separately)	000	3.20
		(The supply of the chemodenervation agent is reported separately)		

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:52287 Tracking Number JJ1

Original Specialty Recommended RVU: **3.73** Presented Recommended RVU: **3.20** RUC Recommended RVU: **3.20**

Global Period: 000

CPT Descriptor: Cystourethroscopy, with injection(s) for chemodenervation of the bladder (Report supply separately)

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 46 year old female has failed conservative (drug therapy) for urinary urgency and urge urinary incontinence secondary to neurogenic detrusor overactivity. After discussion she elects treatment by cystourethroscopy, with chemodenervation of the bladder by multiple intravesical injections of bladder muscle.

Percentage of Survey Respondents who found Vignette to be Typical: 79%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 46%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 16%

Description of Pre-Service Work:

- Obtain and review records and previous history, laboratory studies and all imaging studies before the procedure;
- Surgical time-out is done identifying the patient, procedure to be done, and appropriate equipment and supplies are in the room
- Place patient on cystoscopy table in dorsal-lithotomy position
- Prep and drape the perineum
- Connect irrigation tubing and light source to cystoscope
- Drain bladder using straight catheter
- Instill 50 ml of 2% Xylocaine into bladder
- Wait 10 minutes for Xylocaine to take effect and numb bladder
- Attach camera and "white balance"; check video equipment

• Prepare drug - vacuum-dried, purified onabotulinumtoxinA (100 U per vial) is reconstituted in 10 mL of sterile 0.9% non-preserved saline solution and mixed gently to yield a 10unit/1cc saline dilution. The reconstituted drug is drawn into a sterile 10mL syringe onto the surgical field from the vial of reconstituted drug. This one 10 mL syringe of reconstituted onabotulinumtoxinA with a dilution of 10units/1cc saline. Up to 3 vials of onabotulinumtoxinA may be used, requiring 3 vials be reconstituted and a total dose of 300U drug delivered.

CPT Code: 52287

• Prior to injection, the syringe containing the reconstituted drug is attached to the cystoscopic injection needle which is then primed with approximately 1ml diluted drug to remove any air.

- On the sterile field, the cystoscopic injection needle is loaded into the working channel of the cystoscope.
- The cystoscope is inserted through the patient's urethra into the bladder under direct visualization.
- · Document procedure with still photographs from video unit and transfer images to medical record

• The urinary bladder is distended to near capacity with approximately 300cc cystoscopic irrigant using sterile normal saline.

• Under direct vision, the surgeon places the cystoscopic needle at 2-4mm of depth into the bladder detrussor muscle assuring the needle depth has not perforated the bladder. The surgeon holds steady positioning of the needle in the bladder muscle. The surgeon directs the assistant to press 1/2 to 1 cc of drug from the syringe as the observes the injection bleb of drug delivered to the bladder muscle. (ie, this is a 4-handed maneuver assistant, the surgeon cannot watch the bladder and the syringe at the same time - thus requiring an assistant.) This injection maneuver is repeated 10-60 times, spacing injections 1cm apart and dispersing throughout the bladder muscle taking care to avoid critical landmarks and vascular structures. For the final injection, approximately 1 mL of sterile saline is injected so the full dose is delivered.

• At the end of the injection procedure, the bladder is drained, and the cystoscope is reinserted to refill the bladder and observe for any bleeding and assure no perforations or injuries have occurred. The bladder is redrained at the end of the procedure.

• The surgeon checks for efflux of urine from both ureteral orifices into the bladder.

Description of Post-Service Work:

- Remove drapes
- Bring patient's legs out of dorsal-lithotomy position
- Move patient off of table and take to recovery area
- Monitor vital signs as appropriate
- Discuss findings with patient and family as appropriate
- Give post operative instruction sheet
- Write prescriptions
- Schedule follow-up appointment
- Dictate operative report
- Contact referring physician or primary care physician as appropriate

SURVEY DAT	ľA						
RUC Meeting Da	ate (mm/yyyy)	10/2012					
Presenter(s):	Thomas Coop MD, Stephani	er, MD; Christ e Klieb, MD	topher Gor	nzalez, MD; I	Norman Sm	ith, MD; Thom	ias Turk,
Specialty(s):	Urology						
CPT Code:	52287						
Sample Size:	198 R	esp N:	125	Respo	onse: 63.1 %	, D	
Description of Sample:	AUA requeste membership o as well as sub and the Amer	ed a random sa latabase who ospecialty men ican Urogynec	ample of ap indicated the ologic Soc	oproximately heir practice e Society for iety.	4000 urolog interest of f Urodynami	gists from gen emal urinary i cs and Femal	eral ncontinence e Urology
1			Low	25 th pctl	Median*	75th pctl	<u>High</u>
Service Perform	nance Rate		1.00	5.00	10.00	15.00	100.00
Survey RVW:			2.71	4.25	5.18	5.80	8.58
Pre-Service Evalu	ation Time:				15.00		
Pre-Service Posit	ioning Time:				10.00		
Pre-Service Scrul	b, Dress, Wait Ti	me:			10.00		
Intra-Service Ti	me:		10.00	15.00	21.00	30.00	60.00
Immediate Post	Service-Time:	<u>15.00</u>				11	
Post Operative	Visits	Total Min**	CPT Code	e and Num	ber of Visit	S	
Critical Care tim	ne/visit(s):	0.00	99291x 0	.00 99292	2x 0.00		
Other Hospital t	time/visit(s):	0.00	99231x 0	.00 99232	2x 0.00 9	9233x 0.00	
Discharge Day I	Mgmt:	0.00	99238x 0	. 00 99239x	0.00	99217x 0.00	
Office time/visit	(s):	0.00	99211x 0	.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00
Prolonged Serv	ices:	0.00	99354x 0	.00 55x C	.00 56x 0	.00 57x 0.0)0
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00 9	9226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: 5 - NF Procedure without sedation/anesthesia care

CPT Code: 5	52287	Recommended Phys	ician Work RVU: 3.2	20
		Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time
Pre-Service Evaluation Ti	me:	7.00	7.00	0.00
Pre-Service Positioning T	ïme:	5.00	0.00	5.00
Pre-Service Scrub, Dress,	, Wait Time:	10.00	0.00	10.00
Intra-Service Time:		21.00		
Immediate Post Service	e-Time: <u>15.00</u>			
Post Operative Visits	Total Min**	CPT Code and Num	<u>ber of Visits</u>	
Critical Care time/visit(s): <u>0.00</u>	99291x 0.00 99292	x 0.00	
Other Hospital time/vis	it(s): <u>0.00</u>	99231x 0.00 99232	x 0.00 99233x 0.0	0
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0	.0 99217x 0.0)
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00) 13x 0.00 14x 0.00	15x 0.00
Prolonged Services:	0.00	99354x 0.00 55x 0	.00 56x 0.00 57	< 0.00

					CPT Code: 52287
Sub Obs Care:	<u>0.00</u>	99224x 0.00	99225x 0.00	99226	6x 0.00
Modifier -51 Exempt Status Is the recommended value for the	ne new/revised	procedure bas	ed on its modifi	er -51 exe	mpt status? No
New Technology/Service: Is this new/revised procedure co	onsidered to be	a new technol	ogy or service?	No	
KEY REFERENCE SERVICE	E:				
<u>Key CPT Code</u> <u>6</u> 52327	<u> 310bal</u> 000		<u>Wo</u> 5.	<u>rk RVU</u> 18	<u>Time Source</u> RUC Time
<u>CPT Descriptor</u> Cystourethrosco	py (including u	reteral catheter	ization); with su	lbureteric i	injection of implant material
KEY MPC COMPARISON C Compare the surveyed code to a appropriate that have relative val <u>MPC CPT Code 1</u> 31622 <u>CPT Descriptor 1</u> Broncoscopy, washing, when performed (separ	ODES: codes on the RU lues higher and <u>Global</u> <u>Work</u> 000 rigid or flexibl rate procedure)	UC's MPC Lis lower than the <u>RVU</u> 2.78 le, including fl	t. Reference co requested relativ <u>Time Source</u> RUC Time uoroscopic guid	odes from ve values f <u>N</u> ance, whe	the MPC list should be chosen, if for the code under review. Most Recent <u>Medicare Utilization</u> 83,622 en performed; diagnostic, with cell
<u>MPC CPT Code 2</u> <u>G1</u> 15002	<u>obal</u> <u>V</u> 000	<u>Vork RVU</u> <u>T</u> 3.65	<u>ime Source</u> RUC Time		Most Recent <u>Medicare Utilization</u> 15,981
<u>CPT Descriptor 2</u> Surgical prej (including subcutaneous tissues) area of infants and children.	paration or creation or creation or incisional r	ation of recipi elease of scar of	ent site by exci contracture, trun	sion of o _l k, arms, le	pen wounds, burn eschar, or scar egs, first 100 sq cm or 1% of body
Other Reference CPT Code 16035	<u>Global</u> 000	<u>Work RVU</u> 3.74	<u>Time So</u> RUC Tin	<u>ource</u> ne	
<u>CPT Descriptor</u> Escharotomy; in	iitial incision				
RELATIONSHIP OF CODE I Compare the pre-, intra-, and po are rating to the key reference s available, Harvard if no RUC	BEING REVIE ost-service time ervices listed al time available)	WED TO KE (by the median bove. Make c for the refere	CY REFERENC n) and the intens ertain that you nce code listed	CE SERVI sity factors are inclu below.	ICE(S): s (by the mean) of the service you ading existing time data (RUC if
Number of respondents who cl	noose Key Refe	erence Code:	51 % of r	espondent	ts: 40.8 %
TIME ESTIMATES (Median)			Kev R	eference	Source of Time

<u>TIME ESTIMATES (Median)</u>	CPT Code: 52287	CPT Code: <u>52327</u>	RUC Time
Median Pre-Service Time	22.00	45.00	
Median Intra-Service Time	21.00	60.00	
Median Immediate Post-service Time	15.00	30.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	
Median Office Visit Time	0.0	0.00	

Prolonged Services Time	0.0	0.00
Median Subsequent Observation Care Time	0.0	0.00
Median Total Time	58.00	135.00
Other time if appropriate		

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

<u>Mental Effort and Judgment (Mean)</u>		
The number of possible diagnosis and/or the number of	3.88	3.27
management options that must be considered		
The amount and/or complexity of medical records, diagnostic tests,	4.08	3.41
and/or other information that must be reviewed and analyzed		
Urgency of medical decision making	2.60	2.80
orgency of medical decision making	2.07	2.00
Technical Skill/Physical Effort (Mean)		
Technical skill required	3.63	3.41
Physical effort required	3.10	2.84
Psychological Stress (Mean)		
The risk of significant complications, morbidity and/or mortality	3.55	3.10
Outcome depends on the skill and judgment of physician	3.65	3.53
Estimated risk of malpractice suit with poor outcome	3.06	2.98
INTENSITY/COMPLEXITY MEASURES	<u>CPT Code</u>	<u>Reference</u> Service 1
Time Segments (Mean)		
Pre-Service intensity/complexity	3.33	3.22
Intra-Service intensity/complexity	3.45	3.14
Post-Service intensity/complexity	2.94	2.86

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

CPT Code: 52287 This survey was administered according to AMA/Specialty Society Instructions for Specialty Societies Developing Work Value Recommendations and the following explains our process and summarizes our recommendations:

The American Urological Association requested a random sample of approximately 4000 urologists from our general membership database who indicated their practice interest of female urinary incontinence as well as subspecialty members of the Society for Urodynamics and Female Urology (SUFU) and the American Urogynecologic Society (AUGS). These individuals represented subspecialization in urology, practice circumstances, practice settings and geographic areas. An email from the Chair of our Health Policy Council was sent to these individuals to determine if they perform the procedure being reviewed and if they would be willing to complete the AMA/Specialty Society Relative Value Scale Update Committee physician work survey. The individuals who indicated they performed the procedure and would be willing to participate in the survey were sent a link to the online RUC survey and were given a specific deadline to complete the survey. Of the 198 urologists who agreed to participate, 125 completed the survey for a 63.1% response rate.

At the April 2012 RUC meeting, the AUA survey results were presented for this newly established CPT code. The RUC members believed there were some inconsistencies in the survey data. The RUC crosswalked CPT code 52287 to 52007 *Cystourethroscopy, with ureteral catheterization, with or without irrigation, instillation, or ureteropyelography, exclusive or radiologic service; with brush biopsy of ureter and/or renal pelvis.* This code was assigned an interim value of 3.02 because the RUC felt that this physician work and intensity were similar. The RUC requested that the AUA resurvey this procedure for the October 2012 RUC meeting to validate the intra-service time.

The AUA expert panel reviewed the new survey material. There was an increase in participation and the intra-service time increased to a total 21 minutes of physician work, an increase in one minute from the previous survey results. It is important to note that there was an almost 50/50 selection of two CPT codes on the Key Reference Service List. Unfortunately, the SOR only allows the entry of one of the codes. CPT code *52327 Cystourethroscopy (including ureteral catheterization); with subureteric injection of implant material* (5.18 RVU) was chosen by our survey respondents 51 times and CPT code *51715 Endoscopic injection of implant material into the submuscosal tissues of the urethra and/or bladder neck* (3.73 RVU) was chosen 50 times. This is significant in the determination of the recommended RVU. The survey results show a median RVU of 5.18, the same value as the first key reference service code, and a 25th percentile of 4.25. The AUA expert panel believes that both of these codes are too high and recommends a 3.73 RVU, the same value as the second key reference service code, which is actually the 5th percentile determined by our survey respondents.

This procedure is complex in that the bladder is 5 mm thick and injecting the bladder with medication in specific locations in order to stop bladder contractions is very intense and dangerous. The bladder is tissue thin, especially in the older female patient. There are complications if the injections are not performed correctly such as bladder perforation and injection of the medication into the peritoneal cavity. As shown by the survey results, the intensity and complexity of 52287 is higher than key reference service code CPT 52327 and in reviewing other urologic procedures, the AUA expert panel believes that the 3.73 work RVU is more appropriate.

This procedure can be performed without anesthesia in an office setting so a pre-service time package of 5 NF Procedure without sedation/anesthesia care was chosen by the AUA expert panel. The panel also believes that five minutes of positioning time is required for the patient to be placed in the dorsal lithotomy position. The additional time has been established since 2010 and continues to be standard of care for positioning of patients during urologic procedures in the dorsal lithotomy position.

The AUA also requests ten minutes for the dress, scrub and wait time, given that the local anesthesia instilled in the bladder prior to the injections requires at least ten minutes to numb the bladder. This does not include any additional time for the dress and scrub time.

The AUA expert panel has reviewed several CPT codes for comparison and given the times of the codes believes that these comparisons support the recommended physician work RVU of 3.73.

Code	Descriptor	Pre	Intra	Post	Total	IWPUT	RVU	RUC Reviewed
67221	Destruction of localized lesion of choroid (eg, choroidal neovascularization); photodynamic therapy (includes intravenous infusion)	10	15	5	30	0.2076	3.45	8/05
52007	Cystourethroscopy, with ureteral catheterization, with or without irrigation,	29	32.5	20	81.5	0.0613	3.02	10/10

		_	-	-	_	CPT Cod	e: 52287	_
	instillation, or ureteropyelography, exclusive or radiologic service; with brush biopsy of ureter and/or renal pelvis							
16035	Escharotomy; initial incision	30	20	20	70	0.1310	3.74	4/00
31628	Broncoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with transbronchial lung biopsy(s), single lobe	30	40	20	90	0.0706	3.80	4/03
52327	52327 Cystourethroscopy (including ureteral catheterization); with subureteric injection of implant material	45	60	30	135	0.0583	5.18	5/94
51715	51715 Endoscopic injection of implant material into the submuscosal tissues of the urethra and/or bladder neck	30	45	60	135	0.0381	3.73	4/93

The AUA expert panel believes the survey results are strong and that the times are consistent with 22 minutes pre-service, 21 minutes intra-service and 15 minutes post-service. The AUA recommends 3.73 for the work RVU for this procedure, which is well below the 25th percentile of 4.25.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

The surveyed code is an add-on code or a base code expected to be reported with an add-on code.

Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 53899

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Urology	How often? Commonly
Specialty	How often?
Specialty	How often?

Estimate the number of times this service might be provided nationally in a one-year period? 40000

If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate. The information is based on coverage data from the National Ambulatory Care and National Hospital Ambulatory Care payer surveys.

Specialty Urology	Frequer	ncy 35000	Percentage	87.50 %
Specialty Urogynecolog	у	Frequency 5000	Percentage	12.50 %
Specialty	Frequency 0	Percentage 0.00) %	

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 16,800 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. The information is based on coverage data from the National Ambulatory Care and National Hospital Ambulatory Care payer surveys.

Specialty Urology	Frequer	ncy 11000	Percentage	65.47 %
Specialty Urogynecology	у	Frequency 4800	Percentage	28.57 %
Specialty	Frequency 0	Percentage 0.00)%	

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix will not change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 51715

SS Rec Summary

	001		annnary																	
	А	В	С	D	E	F	G	Н		J	Κ	L	Μ	Ν	0	Р	Q	R	S	Т
10																				
11																				
12	ISSUE:	Bladde	er Chemodenervation																	
	TAR	5																		
13	IAD.	5																		
14								RVW			Total	PF	RE-TIN	1E		INT	RA-T	IME		IMMD
15	Source	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th	MAX	Time	EVAL	POSIT	SDW	MIN	25th	MED	75th	МАХ	POST
16	REF	52327	Cystourethroscopy (including ureteral catheterization); with subureteric injection of implant material		0.058			5.18			135	45					60			30
17	INTERIM (RUC Rec- April 2012)	52007	Cystourethroscopy, with ureteral catheterization, with or without irrigation, instillation, or ureteropyelography, exclusive of radiologic service; with brush biopsy of ureter and/or renal pelvis		0.061			3.02			81.5	19	5	5			32.5			20
18	SVY	52287	Cystourethroscopy, with injection(s) for chemodenervation of the bladder (Report supply separately)	125	0.200	2.71	4.25	5.18	5.80	8.58	71	15	10	10	10	15	21	30	60	15
19	REC	52287	Cystourethroscopy, with injection(s) for chemodenervation of the bladder (Report supply separately)		0.120			3.20			58	7	5	10			21			15

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Non Facility Direct Inputs

CPT Long Descriptor: Cystourethroscopy, with injection(s) for chemodenervation of the bladder

Global Period: 000

Meeting Date: April 2012

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee:

The AUA expert panel consists of ten urologists who represent urological practices, both academic and private settings, from across the United States. They represent the states of Washington, Illinois, New York, Kentucky, Florida and Tennessee. The information was also reviewed by a member of the American Urogynecologic Society. The panel reviews current RUC practice expense information, requests input for supplies and equipment from several urology practices, reviews the information, makes recommendations and submits them to the AMA.

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale: We used the key reference code 51715 Endoscopic injection of implant material into the submucosal tissues of the urethra and/or bladder neck as a comparison code for practice expense inputs.

Please describe in detail the clinical activities of your staff:

Pre-Service Clinical Labor Activities:

- Chart is reviewed by clinical staff to verify that correct procedure is ordered for the patient.
- Room is prepared and exam table is covered with paper.
- Patient is greeted and a gown is provided.
- Patient education and consent is obtained.
- Review with patient each step of the treatment and answer patient questions.
- Obtain vitals
- Set up the equipment (cystoscope, video, etc.) and sets up the supplies needed for the procedure.
- Assist the physician with positioning and padding of patient in the dorsal lithotomy position.
- Assist the physician with the preparation and draping of the patient.
- Assist the physician with the local anesthesia prior to the procedure.

Service Clinical Labor Activities:

- Performs a time-out with physician to make sure proper procedure and proper patient is being treated.
- Clinical staff person hands supplies and equipment to the physician during procedure.
- Assist the physician with removing padding and repositioning patient after procedure.

Post-Service Clinical Labor Activities:

- Clean the room and disinfect cystoscope in proper sterilizing equipment and according to sterilization protocols.
- Provide follow up information to patient.
- Discuss any adverse reaction at insertion site.
- Confers with the MD verbally for any last minute instructions for patient.
- Next appointment is set up for patient while checking out.

	Δ	R	<u> </u>	П	F	F	G	
1		Б	0	DECEDE			0	
2				CPT Co	de # 51/15	CPIC	ode # 52287	
				CPT CODE	DESCRIPTOR:	CPT COD	DE DESCRIPTOR:	
				Endoscop	pic injection of	Cystou	rethroscopy with	
	Meeting Date: April 2012			implant m	aterial into the	inje	ection(s) for	
	Tab. 40			submucosa	al tissues of the	chemodenervation of the		
	Tab: 19			urethra and	or bladder neck	0	bladder	
	Specialty: American Urological Association							
3		CMS Code	Staff Type					
1			ΒΝ/Ι ΡΝ/ΜΤΔ	Non Eac	Facility	Non Eac	Facility	
4		LUGTE		Non i ac	raomty	Hom Fac	raomy	
5	GLOBAL PERIOD: 000	L037D	RN/LPN/MTA					
6	TOTAL CLINICAL LABOR TIME	L037D	RN/LPN/MTA	81.0	25.0	82.0	18.0	
		20012		0110	20.0	02.0	10.0	
7	TOTAL PRE-SERV CLINICAL LABOR TIME	L037D	RN/LPN/MTA	18.0	22.0	0.0	15.0	
				<u> </u>	0.0	70.0	0.0	
8	TOTAL SERVICE PERIOD CLINICAL LABOR TIME	L037D		0.00	0.0	79.0	0.0	
g	TOTAL POST-SERV CLINICAL LABOR TIME	L037D	RN/LPN/MTA	3.0	3.0	3.0	3.0	
5				010	010	010	010	
10	PRE-SERVICE							
11	Start: Following visit when decision for surgery or procedu	ire made						
12	Complete pre-service diagnostic & referral forms		RN/Ι ΡΝ/ΜΤΔ	5	5		3	
12				5	5		5	
13	Coordinate pre-surgery services	L037D	KN/LPN/MTA	3	5		3	
14	Schedule space and equipment in facility	L037D	RN/LPN/MTA		5		3	
15	Provide pre-service education/obtain consent		RN/Ι ΡΝ/ΜΤΔ	7	7		3	
15							5	
16	Follow-up phone calls & prescriptions	L037D	KN/LPN/MTA	3			3	
17	Other Clinical Activity - specify:							
18	End: When patient enters office/facility for surgery/procedu	re						
10								
19								
20	Start: When patient enters office/facility for surgery/proced	ure:						
	Greet patient, provide gowning, ensure appropriate medical							
21	records are available	L037D	RN/LPN/MTA	3		3		
21		10070		•		-		
22	Obtain vital signs	L037D	RN/LPN/WITA	3		3		
23	Provide pre-service education/obtain consent	L037D	RN/LPN/MTA			3		
24	Prepare room equipment supplies	1.037D	RN/I PN/MTA	2		2		
				-				
25	Setup scope (non facility setting only)	L037D	RN/LPN/WITA	Э		ວ		
26	Prepare and position patient/ monitor patient	L037D	RN/LPN/MTA	2		2		
27	Sedate/apply anesthesia							
20								
20								
29	Assist physician in performing procedure	L037D	RN/LPN/MTA	30		21		
30	Post-Service							
31	Monitor pt. following service/recheck vitals	L037D	RN/LPN/MTA	2		2		
51								
32	Clean room/equipment by physician staff	L037D	RN/LPN/MTA	3		3		
33	Clean Scope	L037D	RN/LPN/MTA	10		30		
34	Clean Surgical Instrument Package							
04								
35	Complete diagnostic forms, iab & X-ray requisitions							
36	Review/read X-ray, lab, and pathology reports							
						-		
37	Home care instructions /coordinate office visits /prescriptions	L037D	KN/LPN/MTA			5		
20	Other Clinical Activity - specific							
30								
39	Dischrg mgmt same day (0.5 x 99238) (enter 6 min)			n/a		n/a		
40	Dischrg mgmt (1.0 x 99238) (enter 12 min)			n/a		n/a		
41	Dischra mamt (1.0 x 99239) (enter 15 min)			n/a		n/a		
40	End: Dationt loaves office							
42								
43	POST-SERVICE Period							
44	Start: Patient leaves office/facility							
15	Conduct phone calls/call in prescriptions	1 037D		3	2	2	2	
-+5					J	у	J	
46	Office Visits: List Number and Level of Office Visits			# visits	# visits	# visits	# visits	
47	99211 16 minutes		16					
<u> 1</u> 8	99212 27 minutes		27					
40	00212 26 minutes		20					
49	33213 SO MINULES		30					
50	99214 53 minutes		53					
51	99215 63 minutes		63					
50	Total Office Visit Time			0.0	0.0	0.0	0.0	
52				0.0	0.0	0.0	0.0	
53	Other Clinical Activity - specify:							
54	End: with last office visit before end of global period							

AMA Specialty Society Recommendation

	A	В	С	D	E	F	G	
1	REVISED 4/26/2012			REFERE	NCE CODE			
2				CPT Co	de # 51715	CPT (Code # 52287	
				CPT CODE	DESCRIPTOR:	CPT COD	DE DESCRIPTOR:	
				Endoscop	oic injection of	Cystou	rethroscopy with	
	Meeting Date: April 2012			submucos	atenal into the	Injection(s) for chemodenervation of the		
	1ab: 19			urethra and	or bladder neck	bladder		
	Specialty: American Urological Association							
3		CMS Code	Staff Type					
4	LOCATION	L037D	RN/LPN/MTA	Non Fac	Facility	Non Fac	Facility	
5	GLOBAL PERIOD: 000	L037D	RN/LPN/MTA					
55	MEDICAL SUPPLIES	CODE	UNIT					
56	water, sterile for irrigation (250-1000ml uou)	SH074	item	1		1		
57	pack, cleaning and disinfecting, endoscope	SA042	pack	1		1		
58	pack, urology cystoscopy visit	SA058	pack	1		1		
59	pack, minimum multi-specialty visit	SA048	pack	1		1		
60	catheter, Foley	SD024	item	1				
61	needle, 18-26g 1.5-3.5in, spinal	SC028	item	1				
62	catheter, straight	SD030	item			1		
63	lidocaine, 2% jelly topical (Xylocaine)	SH048	ml			10		
64	gloves, sterile	SB024	pair			4		
65	syringe, Toomey	SC062	item			1		
66	injection needle for cystoscope (see invoice)	New	item			1		
67	drape, sterile, for Mayo stand	SB012	item			1		
68	lubricating jelly (K-Y)(5 gm uou)	SJ032	item			1		
69	scissors	SA027	item			1		
70	syringe, 50-60 ml	SC056	item			1		
71	needle, 30 g	SC031	item			2		
72	Sanitizing cloth-wipe (surface, instruments, equipment)	SM022	item			4		
73	10 cc syringe	SC051	item			4		
74	lidocaine 1%-2% inj (Xylocaine)	SH047	ml			50		
75	sodium chloride, 0.9% inj (10 ml uou)	SH066	ml			3		
76	EQUIPMENT	CODE						
77	endoscope, rigid, cystoscopy	ES008		1				
78	light, fiberoptic headlight w-source	EQ170		1				
79	table, power	EF031		1				
80								
81	cystoscope, flexible, Fiberscope	ES018				78		
	Video system, endoscopy (processor, digital capture, monitor,					78		
82	printer, cart)	ES031						
83	light, fiberoptic headlight w source	EQ170				78		
84	table, power	EF031				78		
85	mobile back table with wheels	EF027				78		

AMA Specialty Society Recommendation

AMA/Specialty Society RVS Update Committee Summary of Recommendations

April 2012

Bladder Chemodenervation

In February 2012, the CPT Panel created a new code, 52287 *Cystourethroscopy, with injection(s) for chemodenervation of the bladder* to report physician work related to chemodenervation of the bladder. This procedure was previously reported using an unlisted code.

The RUC reviewed the survey results from 59 urologists and determined the survey respondents overestimated the physician work to perform this service. Additionally, there was consensus among the RUC that the survey median intra service time of 20 minutes was insufficient for a basic cystourethroscopy, which includes the work of CPT code 52000 (work RVU=2.23, intra service time=15 minutes) plus 30 injections. The RUC also agreed that this work was completely different than other chemodenervation treatments (e.g., migraine). The risks, including paralytic bladder, bleeding, perforation and urosepsis are significantly greater.

The RUC attempted to identify CPT codes with similar physician time and intensity. The RUC reviewed 52281 *Cystourethroscopy, with calibration and/or dilation of urethral stricture or stenosis, with or without meatotomy, with or without injection procedure for cystography, male or female* (work RVU=2.75) and 49452 *Replacement of gastro-jejunostomy tube, percutaneous, under fluoroscopic guidance including contrast injection(s), image documentation and report* (work RVU=2.86) and agreed that although theses procedures have the same intra-service time of 20 minutes, the intensity of 52287 is higher. The RUC reviewed 52007 *Cystourethroscopy, with ureteral catheterization, with or without irrigation, instillation, or ureteropyelography, exclusive of radiologic service; with brush biopsy of ureter and/or renal pelvis* (work RVU=3.02) and determined that the physician work and intensity were similar. **The RUC recommends that 52287 be resurveyed in October 2012 to validate the intra service time. In the interim, the RUC recommends a work RVU of 3.02, a direct crosswalk to CPT code 52007, for CPT code 52287.**

Practice Expense:

The RUC approved the practice expense inputs as modified and submitted by the Practice Expense Subcommittee.

CPT five-digit codes, two-digit modifiers, and descriptions only are copyright by the American Medical Association.

CPT Code (•New)	Tracking Number	CPT Descriptor	Global Period	Work RVU Recommenda- tion
Surgery Urinary Syste Bladder Transurethra	em I Surgery			
●52287	JJ1	Cystourethroscopy, with injection(s) for chemodenervation of the bladder (report supply separately) (The supply of the chemodenervation agent is reported separately)	000	3.02 (Interim) Re-survey for October 2012

are

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:52287 Tracking Number JJ1

Original Specialty Recommended RVU: **3.95** Presented Recommended RVU: **3.74** RUC Recommended RVU: **3.02**

Global Period: 000

CPT Descriptor: CYSTOURETHROSCOPY, WITH INJECTION(S) FOR CHEMODENERVATION OF THE BLADDER

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 46 year old female presents with urinary incontinence due to neurogenic detrusor overactivity. The patient is experiencing urinary urgency, frequency and urgency incontinence several times daily. Prior evaluation has consisted of a negative urine culture and cytology, diagnostic cystoscopy that was consistent with evidence of detrusor hyperactivity, and urodynamics that demonstrated uninhibited detrusor contractions in the absence of anatomical obstruction. The patient has failed oral anticholinergic/antimuscarinic medications and is scheduled for treatment with chemodenervation of the bladder by intravesical injection of a neurotoxic agent.

Percentage of Survey Respondents who found Vignette to be Typical: 83%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 40%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 11%

Description of Pre-Service Work:

• Obtain and review records and previous history, laboratory studies and all imaging studies before the procedure; •Surgical time-out is done identifying the patient, procedure to be done, and appropriate equipment and supplies in the room

- •Place patient on cystoscopy table in dorsal-lithotomy position
- •Prep and drape the perineum
- •Connect irrigation tubing and light source to flexible cystoscope
- •Drain bladder using straight catheter
- •Instill 50 ml of 2% Xylocaine into bladder

•Wait 10 minutes for Xylocaine to take effect and numb bladder

•Connect laser and insert through working channel of flexible cystoscope

•Attach camera and "white balance"; check video equipment

•Prepare drug - vacuum-dried, purified onabotulinumtoxinA (100 U per vial) is reconstituted in 10 mL of sterile 0.9% non-preserved saline solution and mixed gently to yield a 10unit/1cc saline dilution. The reconstituted drug is drawn into a sterile 10mL syringe onto the surgical field from the vial of reconstituted drug. This one 10 mL syringe of reconstituted onabotulinumtoxinA with a dilution of 10units/1cc saline. Up to 3

delivered.

Description of Intra-Service Work:

•Prior to injection, the syringe containing the reconstituted drug is attached to the cystoscopic injection needle which is then primed with approximately 1ml diluted drug to remove any air.

•On the sterile field, the cystoscopic injection needle is loaded into the working channel of the cystoscope.

•The cystoscope is inserted through the patient's urethra into the bladder under direct visualization.

•Document procedure with still photographs from video unit and transfer images to medical record

•The urinary bladder is distended to near capacity with approximately 300cc cystoscopic irrigant using sterile normal saline.

•Under direct vision, the surgeon places the cystoscopic needle at 2-4mm of depth into the bladder detrussor muscle assuring the needle depth has not perforated the bladder. The surgeon holds steady positioning of the needle in the bladder muscle. The surgeon directs the assistant to press 1/2 to 1 cc of drug from the syringe as the observes the injection bleb of drug delivered to the bladder muscle. (ie, this is a 4-handed maneuver assistant, the surgeon cannot watch the bladder and the syringe at the same time - thus requiring an assistant.) This injection maneuver is repeated 10-60 times, spacing injections 1cm apart and dispersing throughout the bladder muscle taking care to avoid critical landmarks and vascular structures. For the final injection, approximately 1 mL of sterile saline is injected so the full dose is delivered.

•At the end of the injection procedure, the bladder is drained, and the cystoscope is reinserted to refill the bladder and the end observe for any bleeding and assure no perforations or injuries have occurred. The bladder is redrained at the end of the procedure.

Description of Post-Service Work:

•Remove drapes

- •Bring patient's legs out of dorsal-lithotomy position
- •Move patient off of table and take to recovery area
- •Monitor vital signs as appropriate
- •Discuss findings with patient and family as appropriate
- •Give post operative instruction sheet
- •Write prescriptions
- •Schedule follow-up appointment
- •Dictate operative report
- •Contact referring physician or primary care physician as appropriate

SURVEY DAT	ΓΑ								
RUC Meeting Da	ate (mm/yyyy)	04/2012							
Presenter(s):	Thomas Coop MD;	per, MD; Chris	topher Gor	nzalez, MD;	Thomas Tur	k, MD, Stepha	anie Klieb,		
Specialty(s):	Urology								
CPT Code:	52287								
Sample Size:	129 R	esp N:	59	Respo	onse: 45.7 %	6	, 0		
Description of Sample:	The specialty interest in a s 59 responses	society sent a urvey. Of thos	n email to e 2,000 uro	a random 2, blogist, 129 d	000 of 8,000 expressed ir) urologists to nterest in parti	solicit cipating with		
			Low	25 th pctl	Median*	75th pctl	<u>High</u>		
Service Performance Rate			1.00	4.00	8.00	12.00	50.00		
Survey RVW:			2.60	3.95	5.20	6.25	12.00		
Pre-Service Evaluation Time:					15.00				
Pre-Service Posit	ioning Time:				10.00				
Pre-Service Scrul	o, Dress, Wait Ti	me:			15.00				
Intra-Service Ti	ne:		15.00	20.00	20.00	30.00	60.00		
Immediate Post	Service-Time:	<u>20.00</u>							
Post Operative	Visits	Total Min**	CPT Cod	e and Num	ber of Visit	ts			
Critical Care tim	ne/visit(s):	<u>0.00</u>	99291x 0	. 00 99292	2x 0.00				
Other Hospital t	ime/visit(s):	<u>0.00</u>	99231x 0	.00 99232	2x 0.00 9	9233x 0.00			
Discharge Day I	Ngmt:	<u>0.00</u>	99238x 0	. 00 99239x	0.00	99217x 0.00			
Office time/visit	(s):	<u>0.00</u>	99211x 0	.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00		
Prolonged Serv	ices:	<u>0.00</u>	99354x 0	. 00 55x ().00 56x ().00 57x 0.0	10		
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00	99226x 0.00			

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: 5 - NF Procedure without sedation/anesthesia care

CPT Code:	52287	Recommended Phys	Recommended Physician Work RVU: 3.02						
		Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time					
Pre-Service Evaluation Ti	me:	7.00	7.00	0.00					
Pre-Service Positioning T	ime:	5.00	0.00	5.00					
Pre-Service Scrub, Dress	, Wait Time:	10.00	0.00	10.00					
Intra-Service Time:		20.00							
Immediate Post Service	e-Time: <u>20.00</u>								
Post Operative Visits	Total Min**	CPT Code and Num	ber of Visits						
Critical Care time/visit(s): <u>0.00</u>	99291x 0.00 99292	x 0.00						
Other Hospital time/vis	it(s): <u>0.00</u>	99231x 0.00 99232	x 0.00 99233x 0.0	0					
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0	.0 99217x 0.0	D					
Office time/visit(s):	0.00	99211x 0.00 12x 0.00) 13x 0.00 14x 0.00	15x 0.00					
Prolonged Services:	0.00	99354x 0.00 55x 0	.00 56x 0.00 57	× 0.00					

					CPT Code: 52287
Sub Obs Care:	<u>0.0</u>	<u>0</u> 99224x 0.	00 99225x 0.00	99226x	0.00
Modifier -51 Exempt S Is the recommended va	Status alue for the new/re	vised procedure I	pased on its modifie	r -51 exem	pt status? No
New Technology/Servi Is this new/revised proc	ice: cedure considered	to be a new tech	nology or service?	No	
KEY REFERENCE S	ERVICE:				
<u>Key CPT Code</u> 51715	<u>Global</u> 000		<u>Worl</u> 3.7	<u>k RVU</u> 3	Time Source RUC Time
<u>CPT Descriptor</u> ENDC THE URETHRA AND	SCOPIC INJECT //OR BLADDER N	ION OF IMPLA NECK	NT MATERIAL IN	NTO THE	SUBMUCOSAL TISSUES OF
KEY MPC COMPAR	ISON CODES:				
Compare the surveyed appropriate that have re	code to codes on a lative values highe	the RUC's MPC r and lower than t	List. Reference coo he requested relative	les from the values for	e MPC list should be chosen, 1 the code under review. Most Recent
MPC CPT Code 1	Global	Work RVU	Time Source	Me	edicare Utilization
51102	000	2.70	RUC Time		13,936
CPT Descriptor 1 Aspir	ation of bladder; w	vith insertion of su	prapubic catheter		
					Most Recent
MPC CPT Code 2	Global	Work RVU	Time Source	<u>M</u>	edicare Utilization
52276	000	4.99	RUC Time		11,473

CPT Descriptor 2 Cystourethroscopy with direct vision internal urethrotomy

|--|

CPT Descriptor

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference C	% of respondents: 37.2 %		
<u>TIME ESTIMATES (Median)</u>	CPT Code: 52287	Key Reference CPT Code: <u>51715</u>	Source of Time RUC Time
Median Pre-Service Time	22.00	30.00	
Median Intra-Service Time	20.00	45.00	
Median Immediate Post-service Time	20.00	60.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	
Median Office Visit Time	0.0	0.00	
Prolonged Services Time	0.0	0.00	
Median Subsequent Observation Care Time	0.0	0.00	
Median Total Time	62.00	135.00	
---------------------------	-------	--------	
Other time if appropriate			

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

<u>Mental Effort and Judgment (Mean)</u>		
The number of possible diagnosis and/or the number of	4.05	3.23
management options that must be considered		·
The amount and/or complexity of medical records, diagnostic tests,	4.05	3.64
and/or other information that must be reviewed and analyzed		· · · · · · · · · · · · · · · · · · ·
Urgency of medical decision making	2.82	2.59
Technical Skill/Physical Effort (Mean)		
Technical skill required	3.55	3.59
Physical effort required	3.09	2.86
Psychological Stress (Mean)		
The risk of significant complications, morbidity and/or mortality	3.32	2.86
Outcome depends on the skill and judgment of physician	3.82	3.82
Estimated risk of malpractice suit with poor outcome	2.95	2.82
INTENSITY/COMPLEXITY MEASURES	CPT Code	<u>Reference</u> Service 1
		<u></u>
Time Segments (Mean)		
Pre-Service intensity/complexity	3.55	3.15
Intra-Service intensity/complexity	3.55	3.09
Post-Service intensity/complexity	2.86	2.86

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)



The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 53899

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Urology	How often? Commonly
Specialty	How often?
Specialty	How often?

Estimate the number of times this service might be provided nationally in a one-year period? 40000 If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate. The information is based on coverage data from the National Ambulatory Care and National Hospital Ambulatory Care payer surveys.

Specialty Urolog	y Frequ	ency 35000	Percentage	87.50 %
Specialty Urogyn	ecology	Frequency 5000	Percentage	12.50 %
Specialty	Frequency 0	Percentage	0.00 %	

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 16,800 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. The information is based on coverage data from the National Ambulatory Care and National Hospital Ambulatory Care payer surveys.

Specialty Urology	Frequ	ency 11000	Percentage 65.47 %
Specialty Urogyne	ecology	Frequency 4800	Percentage 28.57 %
Specialty	Frequency 0	Percentage	0.00 %

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix <u>will not</u> change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 51715

SS Rec Summary

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
12	ISSUE:	Bladde	er Chemodenervation																	
13	TAB:	19																		
14								RVW			Total	PF	RE-TIM	IE		INT	RA-T	IME		IMMD
15	Source	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th	MAX	Time	EVAL	POSIT	SDW	MIN	25th	MED	75th	MAX	POST
16	REF	51715	Endoscopic injection of implant material into the submucosal tissues of the urethra and/or bladder neck		0.0381			3.73			135	30					45			60
17	CURRENT	52287	Cystourethroscopy, with injection(s) for chemodenervation of the bladder				N	EW COI	DE											
18	SVY	52287	Cystourethroscopy, with injection(s) for chemodenervation of the bladder	59	0.2035	2.60	3.95	5.20	6.25	12.00	80	15	10	15	15	20	20	30	60	20
19	REC	52287	Cystourethroscopy, with injection(s) for chemodenervation of the bladder		0.1111			3.02			62	7	5	10			20			20
20																				
21																				
22																				
23																				
24																				

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Non Facility Direct Inputs

CPT Long Descriptor: Cystourethroscopy, with injection(s) for chemodenervation of the bladder

Global Period: 000

Meeting Date: April 2012

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee:

The AUA expert panel consists of ten urologists who represent urological practices, both academic and private settings, from across the United States. They represent the states of Washington, Illinois, New York, Kentucky, Florida and Tennessee. The information was also reviewed by a member of the American Urogynecologic Society. The panel reviews current RUC practice expense information, requests input for supplies and equipment from several urology practices, reviews the information, makes recommendations and submits them to the AMA.

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale: We used the key reference code 51715 Endoscopic injection of implant material into the submucosal tissues of the urethra and/or bladder neck as a comparison code for practice expense inputs.

Please describe in detail the clinical activities of your staff:

Pre-Service Clinical Labor Activities:

- Chart is reviewed by clinical staff to verify that correct procedure is ordered for the patient.
- Room is prepared and exam table is covered with paper.
- Patient is greeted and a gown is provided.
- Patient education and consent is obtained.
- Review with patient each step of the treatment and answer patient questions.
- Obtain vitals
- Set up the equipment (cystoscope, video, etc.) and sets up the supplies needed for the procedure.
- Assist the physician with positioning and padding of patient in the dorsal lithotomy position.
- Assist the physician with the preparation and draping of the patient.
- Assist the physician with the local anesthesia prior to the procedure.

Service Clinical Labor Activities:

- Performs a time-out with physician to make sure proper procedure and proper patient is being treated.
- Clinical staff person hands supplies and equipment to the physician during procedure.
- Assist the physician with removing padding and repositioning patient after procedure.

Post-Service Clinical Labor Activities:

- Clean the room and disinfect cystoscope in proper sterilizing equipment and according to sterilization protocols.
- Provide follow up information to patient.
- Discuss any adverse reaction at insertion site.
- Confers with the MD verbally for any last minute instructions for patient.
- Next appointment is set up for patient while checking out.

	Δ	R	<u> </u>	П	F	F	G
1		Б	0	DECEDE			0
2				CPT Co	de # 51/15	CPIC	ode # 52287
				CPT CODE	DESCRIPTOR:	CPT COD	DE DESCRIPTOR:
				Endoscop	pic injection of	Cystou	rethroscopy with
	Meeting Date: April 2012			implant m	aterial into the	inje	ection(s) for
	Tab. 40			submucosa	al tissues of the	chemod	enervation of the
	Tab: 19			urethra and	or bladder neck		bladder
	Specialty: American Urological Association						
3		CMS Code	Staff Type				
1			ΒΝ/Ι ΡΝ/ΜΤΔ	Non Eac	Facility	Non Eac	Facility
4		LUGTE		Non i ac	raomty	Hom Fac	raomy
5	GLOBAL PERIOD: 000	L037D	RN/LPN/MTA				
6	TOTAL CLINICAL LABOR TIME	L037D	RN/LPN/MTA	81.0	25.0	82.0	18.0
		20012		0110	20.0	02.0	10.0
7	TOTAL PRE-SERV CLINICAL LABOR TIME	L037D	RN/LPN/MTA	18.0	22.0	0.0	15.0
				<u> </u>	0.0	70.0	0.0
8	TOTAL SERVICE PERIOD CLINICAL LABOR TIME	L037D		0.00	0.0	79.0	0.0
g	TOTAL POST-SERV CLINICAL LABOR TIME	L037D	RN/LPN/MTA	3.0	3.0	3.0	3.0
5				010	010	010	010
10	PRE-SERVICE						
11	Start: Following visit when decision for surgery or procedu	ire made					
12	Complete pre-service diagnostic & referral forms		RN/Ι ΡΝ/ΜΤΔ	5	5		3
12				5	5		5
13	Coordinate pre-surgery services	L037D	KN/LPN/MTA	3	5		3
14	Schedule space and equipment in facility	L037D	RN/LPN/MTA		5		3
15	Provide pre-service education/obtain consent		RN/Ι ΡΝ/ΜΤΔ	7	7		3
15							5
16	Follow-up phone calls & prescriptions	L037D	KN/LPN/MTA	3			3
17	Other Clinical Activity - specify:						
18	End: When patient enters office/facility for surgery/procedu	re					
10							
19							
20	Start: When patient enters office/facility for surgery/proced	ure:					
	Greet patient, provide gowning, ensure appropriate medical						
21	records are available	L037D	RN/LPN/MTA	3		3	
21		1.0070		•		-	
22	Obtain vital signs	L037D	RN/LPN/WITA	3		3	
23	Provide pre-service education/obtain consent	L037D	RN/LPN/MTA			3	
24	Prepare room equipment supplies	1.037D	RN/I PN/MTA	2		2	
				-			
25	Setup scope (non facility setting only)	L037D	RN/LPN/WITA	ວ		ວ	
26	Prepare and position patient/ monitor patient	L037D	RN/LPN/MTA	2		2	
27	Sedate/apply anesthesia						
20							
20							
29	Assist physician in performing procedure	L037D	RN/LPN/MTA	30		21	
30	Post-Service						
31	Monitor pt. following service/recheck vitals	L037D	RN/LPN/MTA	2		2	
51							
32	Clean room/equipment by physician staff	L037D	RN/LPN/MTA	3		3	
33	Clean Scope	L037D	RN/LPN/MTA	10		30	
34	Clean Surgical Instrument Package						
35	Complete diagnostic forms, iab & X-ray requisitions						
36	Review/read X-ray, lab, and pathology reports						
						-	
37	Home care instructions /coordinate office visits /prescriptions	L037D	KN/LPN/MTA			5	
20	Other Clinical Activity - specific						
30							
39	Dischrg mgmt same day (0.5 x 99238) (enter 6 min)			n/a		n/a	
40	Dischrg mgmt (1.0 x 99238) (enter 12 min)			n/a		n/a	
41	Dischra mamt (1.0 x 99239) (enter 15 min)			n/a		n/a	
40	End: Dationt loaves office						
42							
43	POST-SERVICE Period						
44	Start: Patient leaves office/facility						
15	Conduct phone calls/call in prescriptions	10370		3	2	2	2
-+5					J	у	J
46	Office Visits: List Number and Level of Office Visits			# visits	# visits	# visits	# visits
47	99211 16 minutes		16				
<u> 1</u> 8	99212 27 minutes		27				
40	00212 26 minutes		20				
49	33213 SO MINULES		30				
50	99214 53 minutes		53				
51	99215 63 minutes		63				
50	Total Office Visit Time			0.0	0.0	0.0	0.0
52				0.0	0.0	0.0	0.0
53	Other Clinical Activity - specify:						
54	End: with last office visit before end of global period						

AMA Specialty Society Recommendation

	A	В	С	D	E	F	G	
1	REVISED 4/26/2012			REFERE	NCE CODE			
2				CPT Co	de # 51715	CPT Code # 52287		
				CPT CODE	DESCRIPTOR:	CPT COD	DE DESCRIPTOR:	
				Endoscop	oic injection of	Cystourethroscopy with		
	Meeting Date: April 2012			submucos	atenal into the	chemod	ection(s) for lenervation of the	
	1ab: 19			urethra and	or bladder neck	onemou	bladder	
	Specialty: American Urological Association							
3		CMS Code	Staff Type					
4	LOCATION	L037D	RN/LPN/MTA	Non Fac	Facility	Non Fac	Facility	
5	GLOBAL PERIOD: 000	L037D	RN/LPN/MTA					
55	MEDICAL SUPPLIES	CODE	UNIT					
56	water, sterile for irrigation (250-1000ml uou)	SH074	item	1		1		
57	pack, cleaning and disinfecting, endoscope	SA042	pack	1		1		
58	pack, urology cystoscopy visit	SA058	pack	1		1		
59	pack, minimum multi-specialty visit	SA048	pack	1		1		
60	catheter, Foley	SD024	item	1				
61	needle, 18-26g 1.5-3.5in, spinal	SC028	item	1				
62	catheter, straight	SD030	item			1		
63	lidocaine, 2% jelly topical (Xylocaine)	SH048	ml			10		
64	gloves, sterile	SB024	pair			4		
65	syringe, Toomey	SC062	item			1		
66	injection needle for cystoscope (see invoice)	New	item			1		
67	drape, sterile, for Mayo stand	SB012	item			1		
68	lubricating jelly (K-Y)(5 gm uou)	SJ032	item			1		
69	scissors	SA027	item			1		
70	syringe, 50-60 ml	SC056	item			1		
71	needle, 30 g	SC031	item			2		
72	Sanitizing cloth-wipe (surface, instruments, equipment)	SM022	item			4		
73	10 cc syringe	SC051	item			4		
74	lidocaine 1%-2% inj (Xylocaine)	SH047	ml			50		
75	sodium chloride, 0.9% inj (10 ml uou)	SH066	ml			3		
76	EQUIPMENT	CODE						
77	endoscope, rigid, cystoscopy	ES008		1				
78	light, fiberoptic headlight w-source	EQ170		1				
79	table, power	EF031		1				
80								
81	cystoscope, flexible, Fiberscope	ES018				78		
	Video system, endoscopy (processor, digital capture, monitor,					78		
82	printer, cart)	ES031						
83	light, fiberoptic headlight w source	EQ170				78		
84	table, power	EF031				78		
85	mobile back table with wheels	EF027				78		

AMA Specialty Society Recommendation

AMA/Specialty Society RVS Update Committee Summary of Recommendations Codes Reported Together 75% or More

Different Performing Specialty from Survey

October 2012

Autonomic Function Testing

CPT codes 95921 and 95922 were identified through the Codes Reported Together 75% or More screen as well as the Different Performing Specialty from the Survey screen. In February 2012, the CPT Editorial Panel created a new code 95924 which combines the procedures currently described in 95921 and 95922 as these are currently reported together more than 75% of the time. Additionally, the utilization for 95921 and 95922 has dramatically increased from 2008 to 2009 and continues to rise, which the specialties attribute to incorrect reporting of these services for the use of a device for an automated nervous system test. Therefore, the CPT Editorial Panel created CPT 95943 to describe the automated nervous system test, in which providers do not use a tilt table during autonomic testing. In April 2012, the RUC reviewed the specialty recommendations for the five CPT codes and recommended work RVUs for three (95921, 95922 and 95923). The following two codes 95924 and 95943 were delayed to the October 2012 RUC meeting to ensure that adequate data was obtained to properly value these services.

95924 Testing of autonomic nervous system function; combined parasympathetic and sympathetic adrenergic function testing with at least 5 minutes of passive tilt

The RUC reviewed the survey results from 44 practicing physicians and agreed with the specialty societies that the survey median times of 15 minutes pre-service, 30 minutes intra-service and 15 minutes post-service accurately portray the physician time to perform the service. The RUC noted that CPT code 95924 bundles the work of two services: 95921 *Testing of autonomic nervous system function; cardiovagal innervation (parasympathetic function), including 2 or more of the following: heart rate response to deep breathing with recorded R-R interval, Valsalva ratio, and 30:15 ratio (work RVU= 0.90, RUC recommended April 2012) and 95922 Testing of autonomic nervous system function; vasomotor adrenergic innervation (sympathetic adrenergic function), including beat-to-beat blood pressure and R-R interval changes during Valsalva maneuver and at least 5 minutes of passive tilt (work RVU= 0.96, RUC recommended April 2012). Therefore, the RUC determined that a work RVU of 1.86, the combination of the two previous services, is inappropriate because it does not account for any efficiencies gained when the services are reported on the same day by the same physician.*

To determine an appropriate work RVU, the RUC reviewed the survey's 25th percentile work RVU of 1.45 and determined that this work value was too low considering that the typical patient is more complicated and the bundled service is more intense when performed on the same date compared to when the two component services are performed alone. Therefore, the RUC reviewed CPT code 95813 *Electroencephalogram (EEG) extended monitoring; greater than 1 hour* (work RVU= 1.73) and agreed that with identical intra-service and total times, the two services should be valued identically. To justify this value, the RUC compared the surveyed code to CPT code 78452 *Myocardial perfusion imaging, tomographic*

(SPECT) (including attenuation correction, qualitative or quantitative wall motion, ejection fraction by first pass or gated technique, additional quantification, when performed); multiple studies, at rest and/or stress (exercise or pharmacologic) and/or redistribution and/or rest reinjection (work RVU= 1.62) and agreed that since the reference code has less intra-service time compared to 95924, 20 minutes compared to 30 minutes, a work value of 1.73 appropriately values the surveyed code. Finally, the RUC compared the intensity for the services included in this bundled code to the two reference codes and determined that the recommended work value appropriately ranks this service compared to similar services. The RUC recommends a work RVU of 1.73 for CPT code 95924.

95943 Simultaneous, independent, quantitative measures of both parasympathetic function and sympathetic function, based on time-frequency analysis of heart rate variability concurrent with time-frequency analysis of continuous respiratory activity, with mean heart rate and blood pressure measures, during rest, paced (deep) breathing, Valsalva maneuvers, and head-up postural change

In order to identify physicians who were performing this service the specialty societies, the American College of Physicians and the American Academy of Family Physicians, worked to obtain the equipment vendor's customer list as a way to identify physicians who could accurately value this service. ACP and AAFP also obtained random samples of physicians among their respective specialties. The specialties collected a total sample of 750 physicians and received approval from the Research Subcommittee to conduct a survey. However, only three partial responses were received, with no respondents indicating familiarity with the service. **Given this lack of data, the RUC continues to recommend carrier pricing for CPT code 95943.**

May 2012 RUC Recommendations:

The April 2012 RUC recommendations for CPT codes 95921, 95922 and 95923, submitted to CMS in May 2012, are attached to this recommendation for informational purposes only.

Practice Expense:

Direct Practice expense inputs were approved by the RUC in April 2012 and were submitted to CMS in May 2012. The previous recommendations are attached to this recommendation for informational purposes only.

CPT Code (•New)	Tracking Number	CPT Descriptor	Global Period	Work RVU Recommendation					
The purpose of autonomic nervous system function testing is to determine the presence of autonomic dysfunction, the site of autonomic dysfunction, and the various autonomic subsystems that may be disordered.									
Code 95921 sho waves in the ele performed in the the following co	Code 95921 should be reported only when electrocardiographic monitoring of heart rate derived from the time elapsing between two consecutive R waves in the electrocardiogram, or the R-R interval, is displayed on a monitor and stored for subsequent analysis of waveforms. Testing is typically performed in the prone position. A tilt table may be used, but is not required equipment for testing of the parasympathetic function. At least two of the following components need to be included in testing:								
1. <u>Heart r</u> per mir	ate response nute.	to deep breathing derived from a visual quantitative analysis of recordings with subje	ct breathing a	at a rate of 5-6 breaths					
2. <u>Valsalv</u> pressur pressur while t	va ratio detern e (blowing in e has been re he subsequer	mined by dividing the maximum heart rate by the lowest heart rate. The initial heart not a tube with an open glottis) consist of tachycardia followed by a bradycardia at 15 cleased. A minimum of two Valsalva maneuvers are to be performed. The initial cardio at tachycardia and bradycardia are baroreflex-mediated.	ate responses -45 seconds a bacceleration	s to sustained oral after the Valsalva is an exercise reflex					
$3. \underline{A \ 30:1}$	5 ratio (R-R	interval at beat 30)/(R-R interval at beat 15) used as an index of cardiovascular function to a state of the following components are included in testing:	<u>on</u>						
1. <u>Continuan accu</u>	uous recordir irate quantita	ng of beat-to-beat BP and heart rate. The heart rate needs to be derived from an electro tive graphical measurement of the R-R interval is obtained;	cardiogram (ECG) unit such that					
2. <u>A perio</u>	od of supine 1	est of at least 20 minutes prior to testing;							
3. <u>The per</u> 4. <u>The per</u> <u>minute</u>	rformance an rformance of s, followed b	d recording of beat-to-beat blood pressure and heart rate during a minimum of two (2 passive head-up tilt with continuous recording of beat-to-beat blood pressure and heary passive tilt-back to the supine position. This must be performed using a tilt table.) Valsalva ma rt rate for a n	<u>aneuvers;</u> ninimum of five					
Code 95924 sh a tilt table.	ould be repo	rted only when both the parasympathetic function and the adrerenergic function a	re tested tog	ether with the use of					
(To report auto	nomic funct	ion testing that does not include beat to beat recording or for testing without use of	f a tilt table,	use 95943)					

CPT Code (•New)	Tracking Number	CPT Descriptor	Global Period	Work RVU Recommendation
95921	BB1	Testing of autonomic nervous system function; cardiovagal innervation (parasympathetic function), including 2 or more of the following: heart rate response to deep breathing with recorded R-R interval, Valsalva ratio, and 30:15 ratio	XXX	0.90 (RUC Recommendation May 2012)
95922	BB2	vasomotor adrenergic innervation (sympathetic adrenergic function), including beat-to-beat blood pressure and R-R interval changes during Valsalva maneuver and at least 5 minutes of passive tilt (Do not report 95922 in conjunction with 95921)	XXX	0.96 (RUC Recommendation May 2012)
•95924	BB3	combined parasympathetic and sympathetic adrenergic function testing with at least 5 minutes of passive tilt (Do not report 95924 in conjunction with 95921 or 95922)	XXX	1.73
95923	BB4	sudomotor, including 1 or more of the following: quantitative sudomotor axon reflex test (QSART), silastic sweat imprint, thermoregulatory sweat test, and changes in sympathetic skin potential	XXX	0.90 (RUC Recommendation May 2012)

•95943	BB5	Simultaneous, independent, quantitative measures of both parasympathetic function and sympathetic function, based on time-frequency analysis of heart rate variability concurrent with time-frequency analysis of continuous respiratory activity, with mean heart rate and blood pressure measures, during rest, paced (deep) breathing, Valsalva maneuvers, and head-up postural change	XXX	RUC Recommends Carrier Price
		(Do not report 95943 in conjunction with 93040, 95921, 95922, 95924)		

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:95924 Tracking Number BB1

Original Specialty Recommended RVU: **1.86** Presented Recommended RVU: **1.86** RUC Recommended RVU: **1.73**

Global Period: XXX

CPT Descriptor: Testing of autonomic nervous system function; combined parasympathetic and sympathetic adrenergic function testing with at least 5 minutes of passive tilt (Do not report 95924 in conjunction with 95921 or 95922)

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A patient presents with repeated, unexplained episodes of fainting. Tests of cardiovascular function indicate severe cardiovagal impairment. Testing of the autonomic nervous system, specifically of parasympathetic function and vasomotor adrenergic function using at least a 5-minute tilt with a passive tilt table, is recommended.

Percentage of Survey Respondents who found Vignette to be Typical: 82%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 0%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 0%

Description of Pre-Service Work: Pre-service work includes review of the patient's records regarding the indication for the test and the clinical question.

Description of Intra-Service Work: Intra-service work includes supervision of patient preparation and performance of the test by the technician. The patient lays on a tilt table in a flat position. The patient is connected to an EKG machine and electrodes are attached to the chest, legs and arms. If needed, an IV line is placed in the arm. A blood pressure (BP) monitor and the heart rate (HR) and BP are constantly monitored during the procedure.

Blood pressure and heart rate are monitored while lying still. Deep breathing and a series of Valsalva maneuvers are performed until reproducible arterial responses are obtained. Electrocardiographic monitoring of heart rate derived from R-R interval is displayed on a monitor and stored for analysis. Heart response to deep breathing is derived from an analysis of recordings with subject breathing at a rate of 5-6 breaths per minute. This is a measure of cardiovagal or parasympathetic testing. Continuous beat-to-beat recording of blood pressure and heart rate in response to the Valsalva maneuver are captured and at least five minutes of passive tilt-up and tilt-back are performed. A series of Valsalva maneuvers are performed until reproducible arterial responses are obtained. These blood pressure responses are analyzed in order to assess cardiac and vascular adrenergic function. Valsalva ratio is determined by dividing the maximum heart rate by the lowest heart rate. This is another measure of cardiovagal or parasympathetic function. The initial heart rate responses to standing consist of tachycardia at 3 and then 12-15 seconds followed by a bradycardia at 20 seconds. The initial cardioacceleration is an exercise reflex while the subsequent tachycardia and bradycardia are baroreflex-medicated. The 30:15 ratio (R-R interval at beat 30)/(R-R interval at beat 15) is used as index of cardiovascular function. The physician reviews and analyzes this data.

CPT Code: 95924

After obtaining a baseline HR and BP, safety straps are applied across the chest and legs to hold the patient in place. The patient is raised to the upright and lowered to the supine position several times. The duration of time spent in the supine and upright position can vary from 5 to 30 minutes. Medication may be administered and adjusted during the testing to increase the heart rate and blood pressure. After completing the test, the patient remains flat or supine until the HR and BP return to normal. The patient is observed for 10 to 20 minutes and then disconnected from the equipment. The results of these measures are reviewed, data is interpreted, and a clinical correlation of the findings is done based on the patient's history.

Description of Post-Service Work: Post-service work includes generating, reviewing, and signing the study report based on the findings of the tests. Findings are discussed with the referring physician as appropriate.

SURVEY DAT	ГА							
RUC Meeting Da	ate (mm/yyyy)	10/2012						
Presenter(s):	Kevin Kerber,	MD; Thomas	Chelimsky	, MD				
Specialty(s):	American Aca Electrodiagno	demy of Neur stic Medicine	ology, Am	erican Assoc	iation of Ne	uromuscular	and	
CPT Code:	95924							
Sample Size:	44	Respo	onse: 18.7 %	, D				
Description of Sample:	A combination Society and n	A combination of names from the AAN's Autonomic Section, the American Autonomic Society and names supplied by a manufacturer.						
			Low	25 th pctl	Median*	75th pctl	<u>High</u>	
Service Perform	nance Rate		0.00	5.75	70.00	150.00	900.00	
Survey RVW:			0.90	1.45	1.91	2.41	6.00	
Pre-Service Evalu	ation Time:				15.00			
Pre-Service Posit	ioning Time:				0.00			
Pre-Service Scrul	b, Dress, Wait Ti	me:			0.00			
Intra-Service Ti	me:		0.00	20.00	30.00	45.00	120.00	
Immediate Post	Service-Time:	<u>15.00</u>						
Post Operative	<u>Visits</u>	Total Min**	CPT Cod	e and Num	ber of Visit	S		
Critical Care tim	ne/visit(s):	<u>0.00</u>	99291x 0	. 00 99292	2x 0.00			
Other Hospital t	time/visit(s):	<u>0.00</u>	99231x 0	. 00 99232	2x 0.00 9	9233x 0.00		
Discharge Day I	Mgmt:	<u>0.00</u>	99238x 0	. 00 99239x	0.00	99217x 0.00		
Office time/visit	(s):	0.00	99211x 0	0.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00	
Prolonged Serv	ices:	0.00	99354x 0	.00 55x ().00 56x 0	.00 57x 0.	00	
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00 9	9226x 0.00		

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: XXX Global Code

CPT Code:	95924		Recommende	d Phys	cian Work RVU: 1.	73
I			Specialt Recommende Service Ti	y ed Pre- me	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time
Pre-Service Evaluation Time:		15.00		0.00	15.00	
Pre-Service Positioning Time:		0.00		0.00	0.00	
Pre-Service Scrub, Dress, Wait Time:		0.00		0.00	0.00	
Intra-Service Time:		30.00				
Immediate Post Servic	e-Time:	<u>15.00</u>				
Post Operative Visits		Total Min**	CPT Code an	d Num	ber of Visits	
Critical Care time/visit	(s):	<u>0.00</u>	99291x 0.00	99292	× 0.00	
Other Hospital time/vis	sit(s):	<u>0.00</u>	99231x 0.00	99232	x 0.00 99233x 0.0)
Discharge Day Mgmt:		<u>0.00</u>	99238x 0.0 99	9239x 0	.0 99217x 0.0	0
Office time/visit(s):		<u>0.00</u>	99211x 0.00 1	2x 0.00	13x 0.00 14x 0.00	15x 0.00
Prolonged Services:		<u>0.00</u>	99354x 0.00	55x 0	.00 56x 0.00 57	< 0.00
Sub Obs Care:		<u>0.00</u>	99224x 0.00	99225	x 0.00 99226x 0 .	00

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? No

KEY REFERENCE S	ERVICE:					
<u>Key CPT Code</u> 95922	<u>Global</u> XXX		$\frac{\text{Work}}{0.96}$	<u>a RVU</u> 6	Time Source RUC Time	
<u>CPT Descriptor</u> Testing function), including bea of passive tilt	g of autonomic nerv t-to-beat blood pres	rous system functssure and R-R in	tion; vasomotor adre terval changes during	nergic inner g Valsalva m	vation (sympathetic aneuver and at leas	adrenergic t 5 minutes
KEY MPC COMPAR Compare the surveyed appropriate that have re	ISON CODES: code to codes on the lative values higher	ne RUC's MPC and lower than t	List. Reference cod he requested relative	es from the values for th	MPC list should be ne code under reviev	e chosen, if w.
<u>MPC CPT Code 1</u> 99318	<u>Global</u> <u>V</u> XXX	<u>Vork RVU</u> 1.71	<u>Time Source</u> RUC Time	Med	icare Utilization 139.131	
<u>CPT Descriptor 1</u> Evalu these 3 key components low to moderate comp consistent with the na recovering, or improvin	ation and managen A detailed intervation A detailed intervation A detailed intervation A detailed interval A detailed interval	nent of a patient l history; A comp and/or coordin m(s) and the pa ally spend 30 min	involving an annual prehensive examinat ation of care with atient's and/or famil nutes at the bedside a	nursing facil ion; and Mec other provid y's needs. U nd on the pa	ity assessment, whi lical decision makin lers or agencies ar Jsually, the patien tient's facility floor Most Recent	ch requires ng that is of e provided t is stable, or unit.
MPC CPT Code 2	<u>Global</u> XXX	Work RVU	Time Source	Med	licare Utilization	
<u>CPT Descriptor 2</u> Hosp	ital discharge day m	nanagement; mor	re than 30 minutes		5,750,150	

Other Reference CPT Code	<u>Global</u>	Work RVU	Time Source	
		0.00		

CPT Descriptor

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 17

% of respondents: 38.6 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 95924	Key Reference CPT Code: <u>95922</u>	Source of Time RUC Time
Median Pre-Service Time	15.00	10.00	
Median Intra-Service Time	30.00	20.00	
Median Immediate Post-service Time	15.00	10.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	

Other time if appropriate		
Median Total Time	60.00	0.00
Median Subsequent Observation Care Time	0.0	0.00
Prolonged Services Time	0.0	0.00
Median Office Visit Time	0.0	0.00

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

Mental Effort and Judgment (Mean)

The number of possible diagnosis and/or the number of	4.29	3.94
management options that must be considered		
The amount and/or complexity of medical records, diagnostic tests,	4.29	3.94
and/or other information that must be reviewed and analyzed		
Urgency of medical decision making	3.71	3.59
Technical Skill/Physical Effort (Mean)		
Technical skill required	4.29	4.18
Physical effort required	3.62	3.59
Psychological Stress (Mean)		
The risk of significant complications, morbidity and/or mortality	3.76	3.71
Outcome depends on the skill and judgment of physician	4.41	4.29
Estimated risk of malpractice suit with poor outcome	3.35	3.29
INTENSITY/COMPLEXITY MEASURES	CPT Code	Reference
		Service 1
Time Segments (Mean)		
Time Segments (Mean) Pre-Service intensity/complexity	3.71	3.53
Time Segments (Mean) Pre-Service intensity/complexity	3.71	3.53
Time Segments (Mean) Pre-Service intensity/complexity Intra-Service intensity/complexity	3.71	3.53
Time Segments (Mean) Pre-Service intensity/complexity Intra-Service intensity/complexity	3.71 4.06	3.53

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

The AAN and AANEM surveyed this code along with 95921 and 95922 for the April 2012 RUC meeting. Since there were only 26 respondents to the survey for 95924, the RUC asked the societies to resurvey the code for the October meeting. The RUC approved an interim value of 1.89 RVU and times of 10 pre, 35 intra, and 15 post-service minutes. This code describes the work of 95921 and 95922 performed on the same day.

Data Comparisons

Many of the names provided by the manufacturer were also on lists from the AAN's Autonomics section and from the American Autonomics Society. Of the 44 survey responses, 7 came from names provided solely by the manufacturer. (An additional 14 responses were on the manufacturer list as well as AAN or AAS lists.) We compared the RVU and time data from the 7 names to all other names.

Median Times:

	Pre	Intra	Post
Manufacturer	10	30	15
All Other	15	30	15

RVUs:

	Low	25 th	Median	75 th	High
Manufacturer	0.90	1.56	2.2	2.33	3.7
All Other	0.90	1.50	1.86	2.45	6.00

Recommendations

The societies do not see compelling evidence to support the median survey RVU of 1.91. The societies recommend maintaining the interim RVU of 1.86 with the survey times of 15/30/15.

	Pre	Intra	Post	RVU
95921	8	15	10	0.90
95922	10	20	10	0.96
95924	15	30	15	1.86

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

C	
L	

The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 95921 and 95922

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Neurology	How often? Sometimes
Specialty	How often?
Specialty	How often?

Estimate the number of times this service might be provided nationally in a one-year period? If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate.

Specialty	Frequency	Percentage	%
Specialty	Frequency	Percentage	%
Specialty	Frequency	Percentage	%

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 64,581 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. We analyzed the times that 95921 and 95922 were reported together. Of that total, approximately 30% will go to this code. (70% will go to code 95943)

Specialty Neurology	Frequency 25833	Percent	tage 40.00 %
Specialty	Frequency	Percentage	%
Specialty	Frequency	Percentage	%

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix <u>will not</u> change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 95923

_	SS R	ec Su	mmary																	
	А	В	С	D	E	F	G	Н		J	K	L	М	Ν	0	Р	Q	R	S	Т
12	ISSUE:	Autono	mic Function Testing																	
13	TAB:																			
14								RVW			Total	PF	RE-TIM	IE		INT	RA-T	IME		IMMD
15	Source	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th	МАХ	Time	EVAL	POSIT	SDW	MIN	25th	MED	75th	MAX	POST
16		95921	Testing of autonomic nervous system function;		0.033			0.90			33	8					15			10
17	REF	95922	Testing of autonomic nervous system function;	17	0.026			0.96			40	10					20			10
18	CURRENT	95924	Testing of autonomic nervous system function;		0.037			1.86			60	10					35			15
19	SVY	95924	Testing of autonomic nervous system function;	44	0.041	0.90	1.45	1.91	2.41	6.00	60	15			0	20	30	45	120	15
20	REC	95924	Testing of autonomic nervous system function;		0.035			1.73			60	15					30			15
21																				

SS Rec Summary

	А	В	С	D	E	F	G	Н	Ι	J	K	L	М	Ν	0	Р	Q	R	S	Т	U	VW	X	1	Z AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK A	LA	M AN
5	ISSUE: Excision of bone																																				
6	TAB: 84																																				
7								RVW	1		Total		PRE				NTR	Α		IMMD		FAC-in	pt/sam	e d	ay		FAC-	obs			0	ffice	•		Pr	olong	jed
8	source	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th	МАХ	Time	EVAL	POSIT	SDW	MIN	25th	MED	75th	MAX	POST	91	92 33	32 3	1	38 39	26	25	24	17	15	14	13	12	11	54 {	555	6 57
9	REF	11111	xyz	30	0.029			4.25			131	5	5	5			30			5			1		1.0							1					
10	HVD	55555	abc		0.053			5.00			133	17					27			8			1	•	1.0							1					
11	SVY	55555	abc		0.045	2.00	3.00	5.00	7.00	8.00	146	10	5	10	15	20	30	35	40	10			1		1.0							1					
12	REC	55555	abc		0.020			4.25			142	17	1	3			30			10								1	1.0			1					
13 14																																					
15																																					
16 17																																					
18																																					

AMA/Specialty Society RVS Update Committee Summary of Recommendations Codes Reported Together 75% or More Different Performing Specialty from Survey

April 2012

Autonomic Function Testing

CPT codes 95921 and 95922 were identified through the Codes Reported Together 75% or More screen as well as the Different Performing Specialty from the Survey screen. In February 2012, the CPT Editorial Panel created a new code 95924 which combines the procedures currently described in 95921 and 95922 as these are currently reported together more than 75% of the time. Additionally, the dominant specialties now performing these services are Family Medicine and Internal Medicine, specialties that were not part of the 1996 survey. Lastly, the utilization for 95921 and 95922 has dramatically increased and from 2008 to 2009 and continue to rise, which the specialties attribute to incorrect reporting of these services for the use of a device for an automated nervous system test. Therefore, the CPT Editorial Panel created CPT 95943 to describe the automated nervous system test, in which providers do not use a tilt table during autonomic testing.

95921 Testing of autonomic nervous system function; cardiovagal innervation (parasympathetic function), including 2 or more of the following: heart rate response to deep breathing with recorded R-R interval, Valsalva ratio, and 30:15 ratio

The RUC reviewed the survey results from 33 neurologists, neuromuscular and electrodiagnostic medicine physicians and determined that the current work RVU of 0.90 appropriately accounts for the work required to perform this service. The RUC agreed with the median survey results of 8 minutes pre-service time, 15 minutes intra-service time and 10 minute immediate post-service time. The specialties indicated and the RUC agreed that the key reference service 95925 *Short-latency somatosensory evoked potential study, stimulation of any/all peripheral nerves or skin sites, recording from the central nervous system; in upper limbs* (work RVU = 0.54) is not an appropriate comparison for this service because the physician is not present during the test, it is much less intense and there is very little risk compared 95921 in which the physician is present and patients are fainting and have arrhythmias. The RUC compared the surveyed code to MPC codes 99202 *Office or other outpatient visit for the evaluation and management of a new patient* (work RVU = 0.93 and 15 minutes intra-service time) and determined that these services required similar physician work and the same intra-service time to perform. For additional support, the RUC compared the surveyed code to the secondary key reference service 95819 *Electroencephalogram (EEG); including recording awake and asleep* (work RVU = 1.08 and 15 minutes intra-service time) and determined 95921 requires slightly less physician work to perform and MPC code 20551 *Injection(s); single tendon origin/insertion* (work RVU = 0.75 and 20 minutes total time) and determined that 95921 requires more physician work and time to perform. **The RUC recommends a work RVU of 0.90 for CPT code 95921**.

95922 Testing of autonomic nervous system function; vasomotor adrenergic innervation (sympathetic adrenergic function), including beat-to-beat blood pressure and R-R interval changes during Valsalva maneuver and at least 5 minutes of passive tilt The specialty societies indicated that 20 minutes of tilt is the new standard to perform this service; abnormalities may go undetected in less time. However, depending on the specific conditions of the patient the tilt table time may be less than 20 minutes. The RUC indicated that once physicians are practicing the new standard for this service and 20 minutes of tilt table is typical, at their discretion, the specialties may go to CPT to change the descriptor to "at least 20 minutes".

The RUC reviewed the survey results from neurologists, neuromuscular and electrodiagnostic medicine physicians and determined that the current work RVU of 0.96 appropriately accounts for the work required to perform this service. The RUC agreed with the median survey results of 10 minutes pre-service time, 20 minutes intra-service time and 10 minute immediate post-service time. The RUC compared the surveyed code to MPC codes 95805 *Multiple sleep latency or maintenance of wakefulness testing, recording, analysis and interpretation of physiological measurements of sleep during multiple trials to assess sleepiness* (work RVU = 1.20 and 20 minutes intra-service time) and determined that 95805 services requires slightly more physician work to perform. For additional support, the RUC compared the surveyed code to MPC code 99213 *Office or other outpatient visit for the evaluation and management of an established patient* (work RVU = 0.97 and 23 minutes total time) and determined that 95922 requires similar physician work to perform. The RUC recommends a work RVU of 0.96 for CPT code 95922.

95924 Testing of autonomic nervous system function; combined parasympathetic and sympathetic adrenergic function testing with at least 5 minutes of passive tilt

The specialty societies indicated that 20 minutes of tilt is the new standard to perform this service; abnormalities may go undetected in less time. However, depending on the specific conditions of the patient the tilt table time may be less than 20 minutes. The RUC indicated that once physicians are practicing the new standard for this service and 20 minutes of tilt table is typical, at their discretion, the specialties may go to CPT to change the descriptor to "at least 20 minutes".

The specialty societies indicated that 95924 combines the services currently described in 95921 and 95922. The typical patient that will receive the combined tests 95924 is more complex and the testing is more intense than the patient that will just have one test (95921 or 95922). The RUC reviewed the survey results for 95924 and determined that the survey response rate was too low (26 responses). There was also confusion about what is described in 95943 which may have resulted in invalid physician time for this service. As an interim recommendation, the RUC recommends that the physician work and intra-service time for 95921 and 95922 be added together to account for the physician work and time required to perform this service (0.90 + 0.96 = 1.86 and 15 minutes + 20 minutes = 35 minutes intra-service time). The RUC recommends interim pre-service time of 10 minutes, intra-service time of 35 minutes and post-service time of 15 minutes. The RUC recommends an interim work RVU of 1.86 for CPT code 95924 until this service is resurveyed for the October 2012 RUC meeting.

95923 Testing of autonomic nervous system function; sudomotor, including 1 or more of the following: quantitative sudomotor axon reflex test (QSART), silastic sweat imprint, thermoregulatory sweat test, and changes in sympathetic skin potential The RUC reviewed the survey results from neurologists, neuromuscular and electrodiagnostic medicine physicians and determined that the current work RVU of 0.90 appropriately accounts for the work required to perform this service. The RUC agreed with the survey 5 minutes pre-service time, 15 minutes intra-service time and 10 minute immediate post-service time, which are the current times. The RUC compared the surveyed code to key reference code 99213 *Office or other outpatient visit for the evaluation and management of an established patient* (work RVU = 0.97 and 23 minutes total time) and determined that 95923 requires similar physician work and intensity and complexity to perform. The RUC also compared 95923 to 95921 and determined that the physician work and intra-service time is the same for these services. **The RUC recommends a work RVU of 0.90 for CPT code 95923**.

95943 Simultaneous, independent, quantitative measures of both parasympathetic function and sympathetic function, based on timefrequency analysis of heart rate variability concurrent with time-frequency analysis of continuous respiratory activity, with mean heart rate and blood pressure measures, during rest, paced (deep) breathing, Valsalva maneuvers, and head-up postural change The American College of Physicians will survey 95943 once the physicians that use this "small box" technology are identified and matched as members of these societies in order to survey. AMA staff will also provide Medicare claims data by state to the specialty societies to indicate that 40% of the volume for code 95921 is from Florida and Texas. This code is scheduled for the October 2012 RUC meeting.

Practice Expense

The RUC reviewed and approved the direct practice expense inputs with minor modifications as recommended by the Practice Expense Subcommittee.

CPT Code (•New)	Tracking Number	CPT Descriptor	Global Period	Work RVU Recommendation							
The purpose of and the various	autonomic n autonomic s	ervous system function testing is to determine the presence of autonomic dysfunction absystems that may be disordered.	, the site of at	utonomic dysfunction,							
Code 95921 sho waves in the ele performed in the the following co	Code 95921 should be reported only when electrocardiographic monitoring of heart rate derived from the time elapsing between two consecutive R waves in the electrocardiogram, or the R-R interval, is displayed on a monitor and stored for subsequent analysis of waveforms. Testing is typically performed in the prone position. A tilt table may be used, but is not required equipment for testing of the parasympathetic function. At least two of the following components need to be included in testing:										
1. <u>Heart r</u> per mir	1. <u>Heart rate response to deep breathing derived from a visual quantitative analysis of recordings with subject breathing at a rate of 5-6 breaths per minute.</u>										
2. <u>Valsalv</u> pressur pressur while t	 Valsalva ratio determined by dividing the maximum heart rate by the lowest heart rate. The initial heart rate responses to sustained oral pressure (blowing into a tube with an open glottis) consist of tachycardia followed by a bradycardia at 15-45 seconds after the Valsalva pressure has been released. A minimum of two Valsalva maneuvers are to be performed. The initial cardioacceleration is an exercise reflex while the subsequent tachycardia and bradycardia are baroreflex-mediated. 										
3. <u>A 30:1</u>	<u>5 ratio (R-R)</u>	interval at beat 30)/(R-R interval at beat 15) used as an index of cardiovascular function	on								
1. <u>Continuan accu</u>	uous recordin urate quantita	ted only when all of the following components are included in testing: ng of beat-to-beat BP and heart rate. The heart rate needs to be derived from an electro tive graphical measurement of the R-R interval is obtained;	cardiogram (I	ECG) unit such that							
2. <u>A perio</u>	od of supine 1	rest of at least 20 minutes prior to testing;									
3. <u>The per</u> 4. <u>The per</u> <u>minute</u>	<u>rformance an</u> rformance of s, followed b	d recording of beat-to-beat blood pressure and heart rate during a minimum of two (2 passive head-up tilt with continuous recording of beat-to-beat blood pressure and heary y passive tilt-back to the supine position. This must be performed using a tilt table.	<u>) Valsalva ma</u> urt rate for a n	<u>aneuvers;</u> ninimum of five							
Code 95924 sh a tilt table.	ould be repo	rted only when both the parasympathetic function and the adrerenergic function a	re tested tog	ether with the use of							
(To report auto	nomic funct	ion testing that does not include beat to beat recording or for testing without use of	of a tilt table,	use 95943)							

CPT Code (•New)	Tracking Number	CPT Descriptor	Global Period	Work RVU Recommendation
95921	BB1	Testing of autonomic nervous system function; cardiovagal innervation (parasympathetic function), including 2 or more of the following: heart rate response to deep breathing with recorded R-R interval, Valsalva ratio, and 30:15 ratio	XXX	0.90 (No Change)
95922	BB2	vasomotor adrenergic innervation (sympathetic adrenergic function), including beat-to-beat blood pressure and R-R interval changes during Valsalva maneuver and at least 5 minutes of passive tilt (Do not report 95922 in conjunction with 95921)	XXX	0.96
•95924	BB3	combined parasympathetic and sympathetic adrenergic function testing with at least 5 minutes of passive tilt (Do not report 95924 in conjunction with 95921 or 95922)	XXX	1.86 (Interim) (Resurvey for October 2012 RUC Meeting)
95923	BB4	sudomotor, including 1 or more of the following: quantitative sudomotor axon reflex test (QSART), silastic sweat imprint, thermoregulatory sweat test, and changes in sympathetic skin potential	XXX	0.90 (No Change)

•95943	BB5	Simultaneous, independent, quantitative measures of both parasympathetic function and sympathetic function, based on time-frequency analysis of heart rate variability concurrent with time-frequency analysis of continuous respiratory activity, with mean heart rate and blood pressure measures, during rest, paced (deep) breathing, Valsalva maneuvers, and head-up postural change	XXX	Specialty Societies Requests Postponement to October 2012 RUC Meeting
		(Do not report 95943 in conjunction with 93040, 95921, 95922, 95924)		

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:95921 Tracking Number BB1

Original Specialty Recommended RVU: **0.90** Presented Recommended RVU: **0.90** RUC Recommended RVU: **0.90**

Global Period: XXX

CPT Descriptor: Testing of autonomic nervous system function; cardiovagal innervation (parasympathetic function), including 2 or more of the following: heart rate response to deep breathing with recorded R-R interval, Valsalva ratio, and 30:15 ratio

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A patient who has diabetes and numbress of her feet presents because of frequent lightheadedness which is interfering with her ability to function normally. The general exam is unremarkable. Testing of the autonomic nervous system, specifically the parasympathetic function, is recommended.

Percentage of Survey Respondents who found Vignette to be Typical: 76%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 3%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 3%

Description of Pre-Service Work: Pre-service work includes review of the patient's records regarding the indication for the test and the clinical question. A tilt table may be used to perform this test.

Description of Intra-Service Work: Intra-service work involves supervision of patient preparation and performance of the test by the technician. Electrocardiographic monitoring of heart rate is derived from R-R interval displayed on a monitor and stored for analysis. Heart response to deep breathing is derived from an analysis of recordings with subject breathing at a rate of 5-6 breaths per minute. Valsalva ratio is determined by dividing the maximum heart rate by the lowest heart rate. The initial heart rate responses to standing consist of tachycardia at 3 and then 12-15 seconds followed by a bradycardia at 20 seconds. The initial cardioacceleration is an exercise reflex while the subsequent tachycardia and bradycardia are baroreflex-medicated. The 30:15 ratio (R-R interval at beat 30)/(R-R interval at beat 15) is used as an index of cardiovascular function. The results of these measures are reviewed, data is interpreted, and a clinical correlation of the findings is done based on the patient's history.

Description of Post-Service Work: Post-service work includes generating, reviewing, and signing the study report based on the findings of the tests. Findings are discussed with the referring physician as appropriate.

SURVEY DA	ГА						
RUC Meeting Da	ate (mm/yyyy)	04/2012					
Presenter(s):	Kevin Kerber	MD (AAN); A	ndrea Boo	n, MD (AAN	EM)		
Specialty(s):	AAN, AANEM						
CPT Code:	95921						
Sample Size:	esp N:	33	33 Response: 25.7 %				
Description of Sample:	Random - me	mbers who inc	dicated the	y perform th	e services		
			Low	25 th pctl	Median*	75th pctl	<u>High</u>
Service Perform	nance Rate		5.00	50.00	100.00	150.00	800.00
Survey RVW:			0.50	0.86	1.00	1.88	6.00
Pre-Service Eval	uation Time:				8.00		
Pre-Service Posi	tioning Time:				0.00		
Pre-Service Scru	b, Dress, Wait Ti	me:			0.00		
Intra-Service Ti	me:		5.00	10.00	15.00	20.00	75.00
Immediate Post	t Service-Time:	<u>10.00</u>					
Post Operative	<u>Visits</u>	Total Min**	CPT Cod	e and Num	ber of Visit	S	
Critical Care tin	ne/visit(s):	<u>0.00</u>	99291x (.00 99292	2x 0.00		
Other Hospital	time/visit(s):	<u>0.00</u>	99231x C	.00 99232	2x 0.00 9	9233x 0.00	
Discharge Day	Mgmt:	<u>0.00</u>	99238x (.00 99239x	0.00	99217x 0.00	
Office time/visi	t(s):	0.00	99211x C	0.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00
Prolonged Serv	vices:	0.00	99354x (.00 55x ().00 56x 0	.00 57x 0.0	00
Sub Obs Care:		0.00	99224x (.00 9922	5x 0.00 9	9226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: XXX Global Code

CPT Code:	95921		Recommended	Recommended Physician Work RVU: 0.90						
			Specialty Recommende Service Tir	/ d Pre- ne	Specialty Recommende Pre Time Packa	d Ige	ustments/Recommended Pre-Service Time			
Pre-Service Evaluation Ti	8.00		0.00	-	8.00					
Pre-Service Positioning Time:			0.00		0.00		0.00			
Pre-Service Scrub, Dress	0.00		0.00		0.00					
Intra-Service Time:			15.00							
Immediate Post Service	e-Time:	<u>10.00</u>								
Post Operative Visits		Total Min**	CPT Code and	l Num	per of Visits					
Critical Care time/visit(s):	<u>0.00</u>	99291x 0.00	99292	× 0.00					
Other Hospital time/vis	it(s):	<u>0.00</u>	99231x 0.00	99232	x 0.00 99233x	0.00				
Discharge Day Mgmt:		<u>0.00</u>	99238x 0.0 99	239x 0 .	0 99217x	0.00				
Office time/visit(s):		<u>0.00</u>	99211x 0.00 12	2x 0.00	13x 0.00 14x ().00 15x	0.00			
Prolonged Services:		0.00	99354x 0.00	55x 0	00 56x 0.00	57x 0.00)			
Sub Obs Care:		<u>0.00</u>	99224x 0.00	99225	x 0.00 99226	< 0.00				

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? No

KEY REFERENCE SERVICE: Key CPT Code Global Work RVU Time Source 95925 XXX 0.54 RUC Time

<u>CPT Descriptor</u> Short-latency somatosensory evoked potential study, stimulation of any/all peripheral nerves or skin sites, recording from the central nervous system; in upper limbs

KEY MPC COMPARISON CODES:

Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review.

				Most Recent
MPC CPT Code 1	<u>Global</u>	Work RVU	Time Source	Medicare Utilization
20551	000	0.75	RUC Time	152,826
CPT Descriptor 1 Inject	ion(s); single tendo	on origin/insertior	1	
	., -	-		Most Recent
MPC CPT Code 2	Global	Work RVU	Time Source	Medicare Utilization
99202	XXX	0.93	RUC Time	3.074.347

<u>CPT Descriptor 2</u> Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: An expanded problem focused history; An expanded problem focused examination; Straightforward medical decision making. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of low to moderate severity. Physicians typically spend 20 minutes face-to-face with the patient and/or family.

Other Reference CPT Code	<u>Global</u>	<u>Work RVU</u> 0.00	Time Source
		0.00	

CPT Descriptor

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 7 % of respondents: 21.21 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 95921	Key Reference CPT Code: <u>95925</u>	Source of Time RUC Time
Median Pre-Service Time	8.00	6.50	
Median Intra-Service Time	15.00	15.00	
Median Immediate Post-service Time	10.00	10.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	
Median Office Visit Time	0.0	0.00	
Prolonged Services Time	0.0	0.00	

Median Subsequent Observation Care Time	0.0	0.00
Median Total Time	33.00	31.50
Other time if appropriate		

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

Mental Effort and Judgment (Mean)		
The number of possible diagnosis and/or the number of	2.86	2.71
management options that must be considered		
	,	
The amount and/or complexity of medical records, diagnostic tests, and/or other information that must be reviewed and analyzed	2.86	2.86
and/of other information that must be reviewed and analyzed]	
Urgency of medical decision making	2.14	2.29
<u>Technical Skill/Physical Effort (Mean)</u>		
Technical skill required	3.71	3.86
Physical effort required	2.29	2.14
Psychological Stress (Mean)		
The risk of significant complications morbidity and/or mortality	2 00	2 14
The first of organization completion of, increasing and of increasing	2.00	
Outcome depends on the skill and judgment of physician	3 20	3 20
Outcome depends on the skin and Judgment of physician	0.20	0.20
Estimated risk of malanastics with rear outcome	1 96	2.00
Estimated risk of maipractice suit with poor outcome	1.00	2.00
INTENCITY/COMDI EVITY MEASUDES	CDT Codo	Deferrence
INTENSITI/COMPLEXITY MEASURES		Service 1
Time Segments (Mean)		
Pre-Service intensity/complexity	2.29	2.29
- · · ·		
Intra-Service intensity/complexity	3.00	3.00
		2.00
Post-Service intensity/complexity	2 43	2 43

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

The Autonomic Function Testing family includes 5 services. Two new services were created, and three existing services were surveyed as part of the family. The Relativity Assessment Workgroup and the CPT Editorial Panel requested

CPT Code: 95921 creation of a combined code for those times when both types of autonomic function are performed together (95921 and 95922 = 9592XX) and to ensure those providers who do not use tilt table during automatic testing report an appropriate code (95922X). Existing service 95923 was also surveyed as part of the family.

Much of the current utilization for 95921 and 95922 will shift to the new codes 9592XX and 95922X. The specialty mix will also change, with Neurology and Cardiology being the dominant providers. Data that shows an E/M billed on the same day reflect the improper usage of these codes. An E/M service typically would not be billed on the same day.

While 76% of respondents found the vignette to be typical, there are many indications for this service, which account for the remaining respondents who did not find it typical.

The key reference service was 95925, which has similar times and a much lower RVW. The societies recommend that the current RVW of 0.90 be maintained.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)



The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 95921

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Neurology	How often? Sometimes
Specialty	How often?
Specialty	How often?

Estimate the number of times this service might be provided nationally in a one-year period? 68612 If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate. We estimate national utilization at 4 times the Medicare rate.

Specialty Neurology

Frequency 27445

Percentage 40.00 %

Specialty	Frequency 0	Percentage 0.00 %	5921			
Specialty	Frequency 0	Percentage 0.00 %				
Estimate the number of times this service might be provided to Medicare patients nationally in a one-year period? 17,153 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. Much of the utilization for this code will shift to new codes 9592XX and 95922X.						

Specialty Neurology	Frequency 6862	,	Percentage 40.00 %
Specialty	Frequency 0	Percentage 0.0	0 %
Specialty	Frequency 0	Percentage 0.0	0 %

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix will not change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 95923

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:95922 Tracking Number BB2

Original Specialty Recommended RVU: 1.10 Presented Recommended RVU: 1.10 RUC Recommended RVU: 0.96

Global Period: XXX

CPT Descriptor: Testing of autonomic nervous system function; vasomotor adrenergic innervation (sympathetic adrenergic function), including beat-to-beat blood pressure and R-R interval changes during Valsalva maneuver and at least 5 minutes of passive tilt

(Do not report 95922 in conjunction with 95921)

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A patient has frequent syncopal episodes which have impaired his ability to function normally. Prolonged tilt study confirmed syncope and a diagnosis of neurocardiogenic syncope was made, but treatment for this did not result in meaningful improvement. Because of this, testing of his autonomic nervous system, specifically of the vasomotor adrenergic innervation, is recommended.

Percentage of Survey Respondents who found Vignette to be Typical: 82%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 0%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 0%

Description of Pre-Service Work: Pre-service work includes review of the patient's records regarding the indication for the test and the clinical question.

Description of Intra-Service Work: Intra-service work includes supervision of patient preparation and performance of the test by the technician. Continuous beat-to-beat recording of blood pressure and heart rate in response to the Valsalva maneuver is performed. Patient is positioned on tilt table and after period of rest, undergoes at least five minutes of passive tilt-up and tilt-back. A series of Valsalva maneuvers are performed until reproducible arterial responses are obtained. The results of these measures are reviewed, data is interpreted, and a clinical correlation of the findings is done based on the patient's history.

Description of Post-Service Work: Post-service work includes generating, reviewing, and signing the study report based on the findings of the tests. Findings are discussed with the referring physician as appropriate.

SURVEY DAT	`A						
RUC Meeting Date (mm/yyyy) 04/2012							
Presenter(s):	Kevin Kerber	Kevin Kerber, MD (AAN); Andrea Boon, MD (AANEM)					
Specialty(s):	AAN, AANEN	1					
CPT Code:	95922						
Sample Size:	127 F	Resp N:	29	Respo	Response: 22.8 %		
Description of Sample:	Random - me	Random - members who indicated they perform the services					
			Low	25 th pctl	Median*	75th pctl	<u>High</u>
Service Performance Rate			12.00	90.00	110.00	180.00	800.00
Survey RVW:			0.50	1.08	1.50	2.45	4.00
Pre-Service Evaluation Time:				10.00			
Pre-Service Positioning Time:				0.00			
Pre-Service Scrut	, Dress, Wait T	ime:			0.00		
Intra-Service Tir	ne:		5.00	10.00	20.00	30.00	75.00
Immediate Post	mmediate Post Service-Time: <u>10.00</u>						
Post Operative Visits Total Min**			CPT Code and Number of Visits				
Critical Care tim	e/visit(s):	<u>0.00</u>	99291x 0.00 99292x 0.00				
Other Hospital t	ime/visit(s):	<u>0.00</u>	99231x 0.00 99232x 0.00 99233x 0.00				
Discharge Day Mgmt: 0.00 99238			99238x 0	99238x 0.00 99239x 0.00 99217x 0.00			
Office time/visit	(s):	<u>0.00</u>	99211x 0.00 12x 0.00 13x 0.00 14x 0.00 15x 0.00			0.00	
Prolonged Servi	ces:	<u>0.00</u>	99354x 0	.00 55x C).00 56x 0	.00 57x 0.0	00
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00 9	9226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: XXX Global Code

CPT Code:	95922		Recommended Physician Work RVU: 0.96				
			Specialty Recommended Pre- Service Time		Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time	
Pre-Service Evaluation Time:		10.00		0.00	10.00		
Pre-Service Positioning Time:		0.00		0.00	0.00		
Pre-Service Scrub, Dress, Wait Time:		0.00		0.00	0.00		
Intra-Service Time:		20.00					
Immediate Post Service	e-Time:	<u>10.00</u>					
Post Operative Visits		Total Min**	CPT Code an	d Num	ber of Visits		
Critical Care time/visit(s):	<u>0.00</u>	99291x 0.00	99292	× 0.00		
Other Hospital time/vis	it(s):	<u>0.00</u>	99231x 0.00	99232	x 0.00 99233x 0.0	0	
Discharge Day Mgmt:		<u>0.00</u>	99238x 0.0 9	9239x 0	.0 99217x 0.0	0	
Office time/visit(s):		<u>0.00</u>	99211x 0.00 1	2x 0.00	13x 0.00 14x 0.00) 15x 0.00	
Prolonged Services:		<u>0.00</u>	99354x 0.00	55x 0	.00 56x 0.00 57	x 0.00	
Sub Obs Care:		<u>0.00</u>	99224x 0.00	99225	x 0.00 99226x 0	.00	
Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? No

·····						
KEY REFERENCE SERV	ICE:					
<u>Key CPT Code</u> 95805	<u>Global</u> XXX		<u>Wa</u> 1	ork RVU .20	Time Source RUC Time	
<u>CPT Descriptor</u> Multiple sle physiological measurements	eep latency of sleep dur	or maintenance of ing multiple trials t	wakefulness testi o assess sleepiness	ng, recording, a	analysis and interpret	ation of
KEY MPC COMPARISON Compare the surveyed code appropriate that have relative	N CODES: to codes on values high	the RUC's MPC are and lower than t	List. Reference c he requested relati	odes from the N ve values for th	MPC list should be ch e code under review. Most Recent	iosen, if
MPC CPT Code 1 36510 CPT Descriptor 1 Catheteriza	<u>Global</u> 000 ation of umb	<u>Work RVU</u> 1.09 bilical vein for diag	<u>Time Source</u> Harvard Tin nosis or therapy, n	<u>Media</u> ne ewborn	<u>care Utilization</u> 5	
<u>MPC CPT Code 2</u> 56605	<u>Global</u> 000	<u>Work RVU</u> 1.10	Time Source RUC Time	Med	Most Recent icare Utilization 27,933	
<u>CPT Descriptor 2</u> Biopsy of	vulva or per	ineum (separate pro	ocedure); 1 lesion			
Other Reference CPT Code	<u>Global</u>	<u>Work R</u> 0.00	<u>VU</u> <u>Time Se</u>	ource		
CPT Descriptor						

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 5 % of respondents: 17.2 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 95922	Key Reference CPT Code: <u>95805</u>	Source of Time RUC Time
Median Pre-Service Time	10.00	15.00	
Median Intra-Service Time	20.00	20.00]
Median Immediate Post-service Time	10.00	15.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	
Median Office Visit Time	0.0	0.00	
Prolonged Services Time	0.0	0.00	
Median Subsequent Observation Care Time	0.0	0.00	
Median Total Time	40.00	50.00	
Other time if appropriate			

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

The number of possible diagnosis and/or the number of management options that must be considered 4.00 3.40 The amount and/or complexity of medical records, diagnostic tests, and/or other information that must be reviewed and analyzed 3.80 3.40 Urgency of medical decision making 3.20 2.80 Technical Skill/Physical Effort (Mean) 4.20 3.40 Technical skill required 4.20 3.40 Physical effort required 2.80 2.20 Psychological Stress (Mean) 3.20 2.60 The risk of significant complications, morbidity and/or mortality 3.20 2.60 Outcome depends on the skill and judgment of physician 4.00 3.60 Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service I Time Segments (Mean) 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 3.20	<u>Mental Effort and Judgment (Mean)</u>		
management options that must be considered Imagement options that must be considered The amount and/or complexity of medical records, diagnostic tests, and/or other information that must be reviewed and analyzed 3.80 3.40 Urgency of medical decision making 3.20 2.80 Technical Skill/Physical Effort (Mean) Imagement options that must be reviewed and analyzed 3.20 2.80 Technical Skill/Physical Effort (Mean) Imagement options 4.20 3.40 Physical effort required 2.80 2.20 2.80 Psychological Stress (Mean) Imagement options, morbidity and/or mortality 3.20 2.60 Outcome depends on the skill and judgment of physician 4.00 3.60 3.60 Estimated risk of malpractice suit with poor outcome 2.40 2.00 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Service I Service I Time Segments (Mean) 3.20 3.00 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80	The number of possible diagnosis and/or the number of	4.00	3.40
The amount and/or complexity of medical records, diagnostic tests, and/or other information that must be reviewed and analyzed 3.80 3.40 Urgency of medical decision making 3.20 2.80 Technical Skill/Physical Effort (Mean) Technical skill required 4.20 3.40 Physical effort required 2.80 2.20 Sychological Stress (Mean) The risk of significant complications, morbidity and/or mortality 3.20 2.60 Outcome depends on the skill and judgment of physician 4.00 3.60 Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service 1 Service 1 Time Segments (Mean) 3.20 3.00 3.20 Intra-Service intensity/complexity 3.80 3.20 3.20	management options that must be considered		
The amount and/or complexity of medical records, diagnostic tests, and/or other information that must be reviewed and analyzed 3.80 3.40 Urgency of medical decision making 3.20 2.80 Technical Skill/Physical Effort (Mean) Technical skill required 4.20 3.40 Physical effort required 2.80 2.20 Psychological Stress (Mean) The risk of significant complications, morbidity and/or mortality 3.20 2.60 Outcome depends on the skill and judgment of physician 4.00 3.60 Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service I Time Segments (Mean) 3.20 3.00 Pre-Service intensity/complexity 3.20 3.20			
and/or other information that must be reviewed and analyzed	The amount and/or complexity of medical records, diagnostic tests,	3.80	3.40
Urgency of medical decision making 3.20 2.80 Technical Skill/Physical Effort (Mean) Technical Skill/Physical Effort (Mean) 4.20 3.40 Physical effort required 4.20 3.40 Physical effort required 2.80 2.20 Psychological Stress (Mean) 2.80 2.20 The risk of significant complications, morbidity and/or mortality 3.20 2.60 Outcome depends on the skill and judgment of physician 4.00 3.60 Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service intensity/complexity 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80	and/or other information that must be reviewed and analyzed		
Urgency of medical decision making 3.20 2.80 Technical Skill/Physical Effort (Mean) Technical skill required 4.20 3.40 Physical effort required 2.80 2.20 Psychological Stress (Mean) 2.80 2.20 The risk of significant complications, morbidity and/or mortality 3.20 2.60 Outcome depends on the skill and judgment of physician 4.00 3.60 Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service 1 Time Segments (Mean) 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 3.20			· · · · · · · · · · · · · · · · · · ·
Technical Skill/Physical Effort (Mean) Technical skill required 4.20 3.40 Physical effort required 2.80 2.20 Psychological Stress (Mean) 7 The risk of significant complications, morbidity and/or mortality 3.20 2.60 Outcome depends on the skill and judgment of physician 4.00 3.60 Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service 1 Time Segments (Mean) 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80	Urgency of medical decision making	3.20	2.80
Technical Skill/Physical Effort (Mean) Technical skill required 4.20 3.40 Physical effort required 2.80 2.20 Psychological Stress (Mean) 7 The risk of significant complications, morbidity and/or mortality 3.20 2.60 Outcome depends on the skill and judgment of physician 4.00 3.60 Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service 1 Pre-Service intensity/complexity 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80			
Technical skill required4.203.40Physical effort required2.802.20Psychological Stress (Mean)2.802.20The risk of significant complications, morbidity and/or mortality3.202.60Outcome depends on the skill and judgment of physician4.003.60Estimated risk of malpractice suit with poor outcome2.402.00INTENSITY/COMPLEXITY MEASURESCPT CodeReference Service 1Time Segments (Mean)3.203.00Intra-Service intensity/complexity3.803.20Post-Service intensity/complexity3.002.80	Technical Skill/Physical Effort (Mean)		
Physical effort required 2.80 2.20 Psychological Stress (Mean)	Technical skill required	4.20	3.40
Physical effort required 2.80 2.20 Psychological Stress (Mean)	*		
Prysical error required 2.60 2.20 Psychological Stress (Mean) The risk of significant complications, morbidity and/or mortality 3.20 2.60 Outcome depends on the skill and judgment of physician 4.00 3.60 Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service 1 Time Segments (Mean) 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80	Division offset required	2.80	2.20
Psychological Stress (Mean) The risk of significant complications, morbidity and/or mortality 3.20 2.60 Outcome depends on the skill and judgment of physician 4.00 3.60 Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service 1 Time Segments (Mean) 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80		2.00	2.20
The risk of significant complications, morbidity and/or mortality 3.20 2.60 Outcome depends on the skill and judgment of physician 4.00 3.60 Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service 1 Time Segments (Mean) 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80	<u>Psychological Stress (Mean)</u>		
Outcome depends on the skill and judgment of physician 4.00 3.60 Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service 1 Time Segments (Mean) 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80	The risk of significant complications, morbidity and/or mortality	3.20	2.60
Outcome depends on the skill and judgment of physician 4.00 3.60 Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service 1 Time Segments (Mean) 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80			
Outcome depends on the skill and judgment of physician 4.00 3.00 Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service 1 Service 1 Time Segments (Mean) 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80		4.00	2.00
Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service 1 Service 1 Time Segments (Mean) 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80	Outcome depends on the skill and judgment of physician	4.00	3.60
Estimated risk of malpractice suit with poor outcome 2.40 2.00 INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service 1 Service 1 Time Segments (Mean) 3.20 3.00 Pre-Service intensity/complexity 3.80 3.20 Intra-Service intensity/complexity 3.00 2.80			
INTENSITY/COMPLEXITY MEASURES CPT Code Reference Service 1 Time Segments (Mean) Pre-Service intensity/complexity 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80	Estimated risk of malpractice suit with poor outcome	2.40	2.00
INTENSITY/COMPLEXITY MEASURESCPT CodeReference Service 1Time Segments (Mean)			
INTENSITIVEOMILEATITIMEASURES CITCODE Reference Service 1 Service 1 Time Segments (Mean) 3.20 3.00 Pre-Service intensity/complexity 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80	INTENSITY/COMDI EVITY MEASUDES	CPT Codo	Doforonao
Time Segments (Mean) Pre-Service intensity/complexity 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80	INTENSITI/COMILEATIT MEASURES		Service 1
Time Segments (Mean) Pre-Service intensity/complexity 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80			Strifter
Time Segments (Mean) Pre-Service intensity/complexity 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80			
Pre-Service intensity/complexity 3.20 3.00 Intra-Service intensity/complexity 3.80 3.20 Post-Service intensity/complexity 3.00 2.80	<u>Time Segments (Mean)</u>		
Intra-Service intensity/complexity3.803.20Post-Service intensity/complexity3.002.80	Pre-Service intensity/complexity	3.20	3.00
Intra-Service intensity/complexity3.803.20Post-Service intensity/complexity3.002.80			
Post-Service intensity/complexity 3.00 2.80	Intra-Service intensity/complexity	3.80	3 20
Post-Service intensity/complexity 3.00 2.80	maa oo vee mensity/complexity	5.00	0.20
Post-Service intensity/complexity 3.00 2.80			
	Post-Service intensity/complexity	3.00	2.80

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

The existing RVW of 0.96 is based on a 1996 RUC survey. The expert panel believes that this code meets the compelling evidence standards for an increased RVW. There have been changes in physician work due to:

- Technique
- Change in patient population
- Physician time

Since the inception of tilt table testing, the patients tested have gradually shifted from a preponderance of orthostatic hypotension (requiring a 5 minute tilt) to postural tachycardia syndrome (requiring a 20 minute tilt) who now dominate the referral reason for tilt by about 3 to 1. In addition indeterminate dizziness is a frequent referral symptom which may require 30 minutes, or until that symptom is reproduced. The physician must be in the room during the upright period of time for patient safety. Finally, even the diagnosis of orthostatic hypotension itself has evolved. The paper by Gibbons and Freeman clearly demonstrates the presence of a clinically significant new diagnosis of delayed orthostatic hypotension that may be associated with syncope and falls. This diagnosis also requires 30 to 40 minutes of tilt (see attachment). Thus, a real change in the population and in our approach to the diagnosis has increased the intensiveness of 95922. This has been a gradual change and all respondents may not have been aware of the new standard of care. There is often a lag between what is published in the literature and when most practices catch up to it. Patients being evaluated for Postural Orthostatic Tachycardia Syndrome will remain in upright tilt for typically 20 minutes. Patients being evaluated for delayed Orthostatic Hypotension will remain in upright tilt for 30 minutes.

СРТ	Descriptor	Global	Work	Pre	Intra	Post	Total	IWPUT
			RVU	Time	Time	Time	Time	
95875	Ischemic limb exercise test with serial	XXX	1.10	10	30	10	50	0.0217
	<pre>specimen(s) acquisition for muscle(s)</pre>							
	metabolite(s)							

Although the RVW would increase 15%, the Medicare utilization for this code is expected to drop dramatically, from about 67,000 to about 1,343.

The key reference service of 95805 has the same total time but less intra time and a higher RVW at 1.20. Respondents rated code 95922 with higher complexity and intensity than the reference service in all measures.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)



The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.



Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 95922

How often do physicians in your specialty perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty	How often?	
Specialty	How often?	
Estimate the number of the recommendation is explain the rationale for	times this service might b s from multiple specialtie this estimate. We estima	be provided nationally in a one-year period? 5372 es, please provide the frequency and <u>percentage</u> for each specialty. Please ate national utilization at 4 times the Medicare rate.
Specialty Neurology	Frequency 2149	P Percentage 40.00 %
Specialty	Frequency 0	Percentage 0.00 %
Specialty	Frequency 0	Percentage 0.00 %
Estimate the number of a If this is a recommendate explain the rationale for	times this service might b tion from multiple specia this estimate. Much of th	be provided to Medicare patients nationally in a one-year period? 1,343 alties please estimate frequency <u>and percentage</u> for each specialty. Please the utilization for this code will shift to new codes 9592XX and 95922X.

Specialty Neurology	Frequency 538	Percentage 40.05 %
Specialty	Frequency 0	Percentage 0.00 %
Specialty	Frequency 0	Percentage 0.00 %

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix will not change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 95923

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:95924 Tracking Number BB3

Original Specialty Recommended RVU: **1.89** Presented Recommended RVU: **1.89** RUC Recommended RVU: **1.86**

CPT Descriptor: Testing of autonomic nervous system function; combined parasympathetic and sympathetic adrenergic function testing with at least 5 minutes of passive tilt (Do not report 9592XX in conjunction with 95921 or 95922)

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A patient presents with repeated, unexplained episodes of fainting. Tests of cardiovascular function indicate severe cardiovagal impairment. Testing of the autonomic nervous system, specifically of parasympathetic function and vasomotor adrenergic function using a 5-minute tilt with a passive tilt table, is recommended.

Percentage of Survey Respondents who found Vignette to be Typical: 80.77%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Global Period: XXX

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 0%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 0%

Description of Pre-Service Work: Pre-service work includes review of the patient's records regarding the indication for the test and the clinical question.

Description of Intra-Service Work: Intra-service work includes supervision of patient preparation and performance of the test by the technician. The patient lays on a tilt table in a flat position. The patient is connected to an EKG machine and electrodes are attached to the chest, legs and arms. If needed, an IV line is placed in the arm. A blood pressure (BP) monitor and the heart rate (HR) and BP are constantly monitored during the procedure.

Blood pressure and heart rate are monitored while lying still. Deep breathing and a series of Valsalva maneuvers are performed until reproducible arterial responses are obtained. Electrocardiographic monitoring of heart rate derived from R-R interval is displayed on a monitor and stored for analysis. Heart response to deep breathing is derived from an analysis of recordings with subject breathing at a rate of 5-6 breaths per minute. This is a measure of cardiovagal or parasympathetic testing. Continuous beat-to-beat recording of blood pressure and heart rate in response to the Valsalva maneuver are captured and at least five minutes of passive tilt-up and tilt-back are performed. A series of Valsalva maneuvers are performed until reproducible arterial responses are obtained. These blood pressure responses are analyzed in order to assess cardiac and vascular adrenergic function. Valsalva ratio is determined by dividing the maximum heart rate by the lowest heart rate. This is another measure of cardiovagal or parasympathetic function. The initial heart rate responses to standing consist of tachycardia at 3 and then 12-15 seconds followed by a bradycardia at 20 seconds. The initial cardioacceleration is an exercise reflex while the subsequent tachycardia and bradycardia are baroreflex-medicated. The 30:15 ratio (R-R interval at beat 30)/(R-R interval at beat 15) is used as index of cardiovascular function. The physician reviews and analyzes this data.

CPT Code: 95924

After obtaining a baseline HR and BP, safety straps are applied across the chest and legs to hold the patient in place. The patient is raised to the upright and lowered to the supine position several times. The duration of time spent in the supine and upright position can vary from 5 to 30 minutes. Medication may be administered and adjusted during the testing to increase the heart rate and blood pressure. After completing the test, the patient remains flat or supine until the HR and BP return to normal. The patient is observed for 10 to 20 minutes and then disconnected from the equipment. The results of these measures are reviewed, data is interpreted, and a clinical correlation of the findings is done based on the patient's history.

Description of Post-Service Work: Post-service work includes generating, reviewing, and signing the study report based on the findings of the tests. Findings are discussed with the referring physician as appropriate.

SURVEY DAT	ГА						
RUC Meeting Da	ate (mm/yyyy)	04/2012					
Presenter(s):	Kevin Kerber	evin Kerber, MD (AAN); Andrea Boon, MD (AANEM)					
Specialty(s):	AAN, AANEN	1					
CPT Code:	95924						
Sample Size:	125 F	tesp N:	26	Respo	onse: 20.8 %	, 0	
Description of Sample:	Random - me	embers who inc	dicated the	y perform th	e services		
			Low	25 th pctl	Median*	75th pctl	High
Service Perform	nance Rate		0.00	27.50	100.00	150.00	800.00
Survey RVW:			0.70	1.43	1.89	2.50	5.00
Pre-Service Evalu	ation Time:				10.00		
Pre-Service Posit	ioning Time:				0.00		
Pre-Service Scrul	b, Dress, Wait T	ime:			0.00		
Intra-Service Ti	me:		10.00	17.50	26.00	47.50	120.00
Immediate Post	Service-Time	<u>15.00</u>					
Post Operative	<u>Visits</u>	Total Min**	CPT Cod	e and Num	ber of Visit	S	
Critical Care tim	ne/visit(s):	<u>0.00</u>	99291x 0.00 99292x 0.00				
Other Hospital t	time/visit(s):	<u>0.00</u>	99231x 0	. 00 99232	2x 0.00 9	9233x 0.00	
Discharge Day	Mgmt:	<u>0.00</u>	99238x 0	. 00 99239x	0.00	99217x 0.00	
Office time/visit	(s):	<u>0.00</u>	99211x 0	0.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00
Prolonged Serv	ices:	<u>0.00</u>	99354x 0	. 00 55x ().00 56x 0	.00 57x 0.0	D O
Sub Obs Care:		0.00	99224x 0	.00 9922	5x 0.00 9	9226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: XXX Global Code

CPT Code:	95924		Recommended Physician Work RVU: 1.86				
			Specialty Recommended Service Tim	l Pre- ne	Sp Recor Pre Tim	ecialty nmended ne Package	Adjustments/Recommende Pre-Service Time
Pre-Service Evaluation Ti	me:		10.00			0.00	10.00
Pre-Service Positioning T	ime:		0.00			0.00	0.00
Pre-Service Scrub, Dress	, Wait Tim	e:	0.00			0.00	0.00
Intra-Service Time:			35.00				
Immediate Post Service	e-Time:	<u>15.00</u>					
Post Operative Visits		Total Min**	CPT Code and	Num	ber of Vi	<u>sits</u>	
Critical Care time/visit(s):	<u>0.00</u>	99291x 0.00	99292	x 0.00		
Other Hospital time/vis	it(s):	<u>0.00</u>	99231x 0.00	99232	x 0.00	99233x 0.00)
Discharge Day Mgmt:		<u>0.00</u>	99238x 0.0 992	239x 0	.0	99217x 0.00)
Office time/visit(s):		<u>0.00</u>	99211x 0.00 12	x 0.00	13x 0.0	0 14x 0.00	15x 0.00
Prolonged Services:		<u>0.00</u>	99354x 0.00	55x 0	00 56	x 0.00 57>	0.00
Sub Obs Care:		<u>0.00</u>	99224x 0.00	99225	x 0.00	99226x 0 .	00

CPT Code: 95924

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? No

KEY REFERENCE SERVICE:

Key CPT Code	<u>Global</u>	Work RVU	Time Source
99244	XXX	3.02	Harvard Time

<u>CPT</u> Descriptor Office consultation for a new or established patient, which requires these 3 key components: A comprehensive history; A comprehensive examination; and Medical decision making of moderate complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 60 minutes face-to-face with the patient and/or family.

KEY MPC COMPARISON CODES:

Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review.

MPC CPT Code 1	<u>Global</u> W	ork RVU	Time Source	Medic	are Utilization	
90806	XXX	1.86	CMS Time File		6,270,188	
CPT Descriptor 1 Ind	lividual psychothera	oy, insight orie	nted, behavior modifyi	ng and/or	supportive, in an	office or
outpatient facility, appr	roximately 45 to 50 m	ninutes face-to-f	ace with the patient;			
					Most Recent	
MPC CPT Code 2	Global	Work RVU	Time Source	Medi	care Utilization	

MPC CPT Code 2	Global	Work RVU	Time Source	Medicare Utilization
99385	XXX	1.92	RUC Time	

<u>CPT Descriptor 2</u> Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; 18-39 years

Other Reference CPT Code	<u>Global</u>	Work RVU	Time Source	
		0.00		

CPT Descriptor

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 6

% of respondents: 23.08 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 95924	Key Reference CPT Code: <u>99244</u>	Source of Time RUC Time
Median Pre-Service Time	10.00	10.00	
Median Intra-Service Time	35.00	40.00	
Median Immediate Post-service Time	15.00	15.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	

Other time if appropriate		
Median Total Time	60.00	65.00
Median Subsequent Observation Care Time	0.0	0.00
Prolonged Services Time	0.0	0.00
Median Office Visit Time	0.0	0.00

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

Mental Effort and Judgment (Mean)

The number of possible diagnosis and/or the number of	f 4.50	4.17
management options that must be considered		
The amount and/or complexity of medical records, diagnostic tests,	, 4.67	4.33
and/or other information that must be reviewed and analyzed		
Urgency of medical decision making	4.33	4.50
Technical Skill/Physical Effort (Mean)		
Technical skill required	4.83	3.17
Physical effort required	4.17	3.00
<u>Psychological Stress (Mean)</u>		
The risk of significant complications, morbidity and/or mortality	4.17	3.50
Outcome depends on the skill and judgment of physician	4.17	4.17
Estimated risk of malpractice suit with poor outcome	3.83	3.83
INTENSITY/COMPLEXITY MEASURES	<u>CPT Code</u>	<u>Reference</u> Service 1
Time Segments (Mean)		
Pre-Service intensity/complexity	3.83	2.83
Intra-Service intensity/complexity	4.67	4.17
Post-Service intensity/complexity	4.00	3.50

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

CPT Code: 95924

The expert panel reviewed the survey times and determined some respondents must have been confused about what the new code describes. This service involves the work of 95921 and 95922 and the intra-service time should be 45 minutes, the combined intra-service times for 95921 (15 minutes) and 95922 (30 minutes). The intra-service work of providing the two tests does not decrease by providing them on the same day, and it is more complicated to interpret the two tests together than individually. There is an economy of 10 minutes saved in pre-time and 5 minutes saved in post-time.

The expert panel recommends 10/45/15 minutes and the median RVW of 1.89. The key reference service (99244) has similar times (10/40/15) but a higher RVW at 3.02. Respondents ranked 95924 with higher or the same intensity and complexity as the reference service in 10 of 11 measures.

СРТ	Descriptor	Global	Work RVI	Pre Time	Intra Time	Post Time	Total Time	IWPUT
90876	Individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with the patient), with psychotherapy (eg, insight oriented, behavior modifying or supportive psychotherapy); approximately 45-50 minutes	XXX	1.90	10	50	10	70	0.0290
93660	Evaluation of cardiovascular function with tilt table evaluation, with continuous ECG monitoring and intermittent blood pressure monitoring, with or without pharmacological intervention	000	1.89	15	50	15	80	0.0244

These existing codes serve as crosswalks with comparable times and RVWs:

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

- Multiple codes allow flexibility to describe exactly what components the procedure included.
- Multiple codes are used to maintain consistency with similar codes.
- Historical precedents. Other reason (please explain)
- 2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 95921 and 95922

How often do physicians in your specialty perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Neurology

How often? Sometimes

Specialty

How often?

Specialty How often? Estimate the number of times this service might be provided nationally in a one-year period? 0 If the recommendation is from multiple specialties, please provide the frequency and percentage for each specialty. Please explain the rationale for this estimate. Frequency 0 Specialty Neurology Percentage 0.00 % Frequency 0 Percentage 0.00 % Specialty Specialty Frequency 0 Percentage 0.00 % Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 64,581 If this is a recommendation from multiple specialties please estimate frequency and percentage for each specialty. Please explain the rationale for this estimate. We analyzed the times that 95921 and 95922 were reported together. Of that total, approximately 30% will go to this code. (70% will go to code 95922X) Frequency 25833 Specialty Neurology Percentage 40.00 % Specialty Frequency 0 Percentage 0.00 % Frequency 0 Percentage 0.00 % Specialty

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix <u>will not</u> change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 95923

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:95923 Tracking Number BB4

Original Specialty Recommended RVU: 0.90 Presented Recommended RVU: 0.90 RUC Recommended RVU: 0.90

Global Period: XXX

CPT Descriptor: Testing of autonomic nervous system function; sudomotor, including 1 or more of the following: quantitative sudomotor axon reflex test (QSART), silastic sweat imprint, thermoregulatory sweat test, and changes in sympathetic skin potential)

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A patient develops severe burning sensation affecting his toes and proximal foot. Standard laboratory tests are unremarkable. On exam, there is no compelling sensory loss and normal reflexes. The electromyogram and nerve conduction studies are within normal limits. Testing of the autonomic nervous system, specifically sudomotor function, is recommended.

Percentage of Survey Respondents who found Vignette to be Typical: 96.30%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 0%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 0%

Description of Pre-Service Work: Pre-service work includes review of the patient's records regarding the indication for the test and the clinical question.

Description of Intra-Service Work: Intra-service work includes supervision of patient preparation and performance of the test by the technician. Sympathetic nerve fibers to the sweat glands are stimulated at standard sites by the iontophoresis of acetylcholine and the evoked sweat response is measured by sudometers. Optimally the test is performed on one forearm site and three lower extremity sites in order to determine the severity and distribution of the sympathetic deficit. Thermoregulatory sweat test is a test of sympathetic nerves that supply the skin and involves dusting the skin with an indicator powder which changes color when the patient sweats in response to raising patient's temperature in a heat cabinet. Sympathetic skin potentials are evoked through electrical stimulation of the skin and recordings are made over the palm and soles of the feet. The skin potential change is carried by autonomic nerve fibers and determines if these fibers are working normally. The results of these measures are reviewed, data is interpreted, and a clinical correlation of the findings is done based on the patient's history.

Description of Post-Service Work: Post-service work includes generating, reviewing, and signing the study report based on the findings of the tests. Findings are discussed with the referring physician as appropriate.

SURVEY DAT	ГА						
RUC Meeting Date (mm/yyyy) 04/2012							
Presenter(s):	Kevin Kerber	vin Kerber, MD (AAN); Andrea Boon, MD (AANEM)					
Specialty(s):	AAN, AANEN	N, AANEM					
CPT Code:	95923	5923					
Sample Size:	124 F	lesp N:	27	Respo	onse: 21.7 %	, 0	
Description of Sample: Random - members who indicated they perform the services							
			Low	25 th pctl	Median*	75th pctl	<u>High</u>
Service Perform	nance Rate		3.00	72.50	100.00	182.50	1000.00
Survey RVW:			0.55	0.91	1.03	1.30	2.50
Pre-Service Evalu	ation Time:				5.00		
Pre-Service Posit	ioning Time:				0.00		
Pre-Service Scrul	b, Dress, Wait Ti	me:			0.00		
Intra-Service Ti	me:		5.00	10.00	15.00	23.75	45.00
Immediate Post	Service-Time:	<u>10.00</u>					
Post Operative	<u>Visits</u>	Total Min**	CPT Cod	e and Num	ber of Visit	S	
Critical Care tim	ne/visit(s):	<u>0.00</u>	99291x 0	.00 99292	2x 0.00		
Other Hospital t	ime/visit(s):	<u>0.00</u>	99231x 0.00 99232x 0.00 99233x 0.00				
Discharge Day I	Mgmt:	<u>0.00</u>	99238x 0.00 99239x 0.00 99217x 0.00				
Office time/visit	(s):	<u>0.00</u>	99211x 0	0.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00
Prolonged Serv	ices:	<u>0.00</u>	99354x 0).00 55x ().00 56x 0	.00 57x 0 .	00
Sub Obs Care:		0.00	99224x 0	.00 9922	5x 0.00 9	9226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: XXX Global Code

CPT Code:	95923		Recommende	Recommended Physician Work RVU: 0.90			
			Special Recommend Service T	ty ed Pre- ime	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time	
Pre-Service Evaluation Time:		5.00		0.00	5.00		
Pre-Service Positioning T	ime:		0.00		0.00	0.00	
Pre-Service Scrub, Dress	, Wait Tim	e:	0.00		0.00	0.00	
Intra-Service Time:			15.00			·	
Immediate Post Service	e-Time:	<u>10.00</u>					
Post Operative Visits		Total Min**	CPT Code an	d Num	ber of Visits		
Critical Care time/visit(s):	<u>0.00</u>	99291x 0.00	99292	× 0.00		
Other Hospital time/vis	it(s):	<u>0.00</u>	99231x 0.00	99232	x 0.00 99233x 0.0	0	
Discharge Day Mgmt:		<u>0.00</u>	99238x 0.0 9	9239x 0	.0 99217x 0.0	0	
Office time/visit(s):		<u>0.00</u>	99211x 0.00 1	2x 0.00	13x 0.00 14x 0.00	15x 0.00	
Prolonged Services:		<u>0.00</u>	99354x 0.00	55x 0	.00 56x 0.00 57	× 0.00	
Sub Obs Care:		<u>0.00</u>	99224x 0.00	99225	x 0.00 99226x 0	.00	

CPT Code: 95923

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? No

KEY REFERENCE SERVICE:

Key CPT Code	<u>Global</u>	Work RVU	Time Source
99213	XXX	0.97	RUC Time

CPT Descriptor Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: An expanded problem focused history; An expanded problem focused examination; Medical decision making of low complexity. Counseling and coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of low to moderate severity. Physicians typically spend 15 minutes face-to-face with the patient and/or family.

KEY MPC COMPARISON CODES:

Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review.

				Most Recent
MPC CPT Code 1	<u>Global</u>	Work RVU	Time Source	Medicare Utilization
20551	000	0.75	RUC Time	152,826
CPT Descriptor 1 Injecti	ion(s); single tend	on origin/insertior	ı	
	., _	-		Most Recent
MPC CPT Code 2	<u>Global</u>	Work RVU	Time Source	Medicare Utilization
99202	XXX	0.93	RUC Time	3,074,347

CPT Descriptor 2 Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: An expanded problem focused history; An expanded problem focused examination; Straightforward medical decision making. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of low to moderate severity. Physicians typically spend 20 minutes face-to-face with the patient and/or family.

Other Reference CPT Code	<u>Global</u>	Work RVU	Time Source	
		0.00		

CPT Descriptor

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 6

% of respondents: 22.2 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 95923	Key Reference CPT Code: <u>99213</u>	Source of Time RUC Time
Median Pre-Service Time	5.00	3.00	
Median Intra-Service Time	15.00	15.00	
Median Immediate Post-service Time	10.00	5.00	
Median Critical Care Time	0.0	0.00	

Median Subsequent Observation Care Time	0.0	0.00
Median Subsequent Observation Care Time	0.0	0.00
Median Subsequent Observation Care Time	0.0	0.00
Median Subsequent Observation Care Time	0.0	0.00
Multi Subarticol di Carti	0.0	0.00
Prolonged Services Time	0.0	0.00
Median Office Visit Time	0.0	0.00
Median Discharge Day Management Time	0.0	0.00
Median Other Hospital Visit Time	0.0	0.00

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

<u>Mental Effort and Judgment (Mean)</u>		
The number of possible diagnosis and/or the number of	3.67	3.33
management options that must be considered		
The amount and/or complexity of medical records, diagnostic tests	3 33	3 50
and/or other information that must be reviewed and analyzed	5.55	5.50
Urgency of medical decision making	3.50	3.33
<u>Technical Skill/Physical Effort (Mean)</u>		
Technical skill required	4.33	3.00
·		
Physical effort required	3.00	3.00
Psychological Stress (Mean)		
The risk of significant complications, morbidity and/or mortality	2.83	2.83
Outcome depends on the skill and judgment of physician	3.83	3.67
Estimated risk of malpractice suit with poor outcome	3.00	3.50
	2100	0.00
INTENSITY/COMPLEXITY MEASURES	CPT Code	Reference
		Service 1
Time Segments (Mean)		
Pre-Service intensity/complexity	3.33	2.83
	L]	
Intra-Service intensity/complexity	3.50	3.00
Post-Service intensity/complexity	3.33	3.17
	1	

CPT Code: 95923

Describe the process by which your specialty society reached your final recommendation. If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.

The expert panel reviewed the survey results and recommends maintaining the RVW (0.90). This RVW falls below the 25th percentile on the survey. The service has not changed.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)



The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents.



2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 95923

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Neurology	How often? Sometimes
Specialty	How often?
Specialty	How often?

Estimate the number of times this service might be provided nationally in a one-year period? 22104 If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate. We estimate national usage at 4 times the Medicare rate.

Specialty Neurology	Frequency 1856	8	Percentage 84.00 %
Specialty	Frequency 0	Percentage 0.00) %
Specialty	Frequency 0	Percentage 0.00	0%

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 5,526 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. 2010 Medicare utilization from RUC database

Specialty Neurology	Frequency 4642	Percentage 84.00 %	CPT Code: 95923
Specialty	Frequency 0	Percentage 0.00 %	
Specialty	Frequency 0	Percentage 0.00 %	
Do many physicians per	form this service across the	he United States? Yes	

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix will not change, enter the surveyed existing CPT code number 95923

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix.

SS Rec Summary

	А	В	С	D	E	F	G	Н		J	K	L	0	Р	Q	R	S	Т
12	ISSUE:	Autono	omic Function Testing															
13	TAB:	34																
14								RVW	1		Total	PRE-		INT	RA-T	IME		IMMD
15	Source	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th	МАХ	Time	EVAL	MIN	25th	MED	75th	МАХ	POST
16	REF	95925	Short-latency somatosensory evoked potential study, stimulation of any/all peripheral nerves or skin sites, recording from the central nervous system; in upper and lower limbs	7	0.011			0.54			31.5	6.5			15			10
17	RUC	95921	Testing of autonomic nervous system function; cardiovagal innervation (parasympathetic function), including 2 or more of the following: heart rate response to deep breathing with recorded R-R interval, Valsalva ratio, and 30:15 ratio		0.030			0.90			35	10			15			10
18	SVY	95921	Testing of autonomic nervous system function; cardiovagal innervation (parasympathetic function), including 2 or more of the following: heart rate response to deep breathing with recorded R-R interval, Valsalva ratio, and 30:15 ratio	33	0.040	0.50	0.86	1.00	1.88	6.00	33	8	5	10	15	20	75	10
19	REC	95921	Testing of autonomic nervous system function; cardiovagal innervation (parasympathetic function), including 2 or more of the following: heart		0.033			0.90			33	8			15			10
20	MPC	20551	Injection(s); single tendon origin/insertion		0.083			0.75			20	10			5			5
21	MPC	99202	Office or other outpatient visit for the evaluation and management of a new patient, which		0.052			0.93			22	2			15			5
22 23																		

SS Rec Summary

	А	В	С	D	E	F	G	Н		J	Κ	L	0	Р	Q	R S	Т
24								RVW			Total	PRE-		INT	RA-T	IME	IMMD
25	Source	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th	MAX	Time	EVAL	MIN	25th	MED	75th MAX	POST
26	REF	95805	Multiple sleep latency or maintenance of wakefulness testing, recording, analysis and interpretation of physiological measurements of sleep during multiple trials to assess sleepiness	5	0.026			1.20			50	15			20		15
27	RUC	9 5922	Testing of autonomic nervous system function; vasomotor adrenergic innervation (sympathetic adrenergic function), including beat-to-beat blood pressure and R-R interval changes during Valsalva maneuver and at least 5 minutes of passive tilt		0.020			0.96			45	10			25		10
28	SVY	95922	Testing of autonomic nervous system function; vasomotor adrenergic innervation (sympathetic adrenergic function), including beat-to-beat blood pressure and R-R interval changes during Valsalva maneuver and at least 5 minutes of passive tilt	29	0.053	0.50	1.08	1.50	2.45	4.00	40	10	5	10	20	30 75	10
29	REC	95922	Testing of autonomic nervous system function; vasomotor adrenergic innervation (sympathetic adrenergic function), including beat-to-beat blood pressure and R-R interval changes during Valsalva maneuver and at least 5 minutes of passive tilt		0.026			0.96			40	10			20		10
30	МРС	36510	Catheterization of umbilical vein for diagnosis or therapy, newborn		0.030			1.09			42	12			20		10
31	MPC	56605	Biopsy of vulva or perineum (separate procedure); 1 lesion		0.043			1.10			35	10			15		10
32	Crosswalk	95875	Ischemic limb exercise test with serial specimen(s) acquisition for muscle(s) metabolite(s)		0.022			1.10			50	10			30		10

SS Rec Summary

	А	В	С	D	E	F	G	Н		J	K	L	0	Р	Q	R	S	Т
33																		
34								RVW	1		Total	PRE-	-	INT	RA-T	IME		IMMD
35	Source	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th	MAX	Time	EVAL	MIN	25th	MED	75th	MAX	POST
36	REF	99244	Office consultation for a new or established patient, which requires these three key components: A comprehensive history; A comprehensive examination; and Medical decision making of moderate complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 60 minutes face-to- face with the patient and/or family.	6	0.062			3.02			65	10			40			15
37	CURRENT	n/a			#DIV/0!						0							
38	SVY	95924	Testing of autonomic nervous system function; combined parasympathetic and sympathetic adrenergic function testing with at least 5 minutes of passive tilt	26	0.051	0.70	1.43	1.89	2.50	5.00	51	10	10	20	26	45	120	15
39	REC	95924	Testing of autonomic nervous system function; combined parasympathetic and sympathetic adrenergic function testing with at least 5 minutes of passive tilt		0.037			1.86			60	10			35			15
40	MPC	90806	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or		0.037			1.86			50				50			
41	МРС	99385	Initial comprehensive preventive medicine evaluation and management of an individual		0.053			1.92			45	5			30			10
42	Crosswalk	90876	Individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with the patient), with		0.029			1.90			70	10			50			10
43	Crosswalk	93660	Evaluation of cardiovascular function with tilt table evaluation, with continuous ECG monitoring and intermittent blood pressure monitoring,		0.024			1.89			80	15			50			15
44																		

SS Rec Summary

	А	В	С	D	E	F	G	Н		J	K	L	0	Р	Q	R	S	Т
45								RVW			Total	PRE-		INT	RA-T	IME		IMMD
46	Source	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th	MAX	Time	EVAL	MIN	25th	MED	75th	MAX	POST
47	REF	99213	established patient, which requires at least 2 of these 3 key components: An expanded problem focused history; An expanded problem focused examination; Medical decision making of low complexity. Counseling and coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's prode. Usually, the presenting problem(c) are of low to moderate.	6	0.053			0.97			23	3			15			5
48	RUC	95923	Testing of autonomic nervous system function; sudomotor, including 1 or more of the following: quantitative sudomotor axon reflex test (QSART), silastic sweat imprint, thermoregulatory sweat test, and changes in sympathetic skin potential		0.030			0.90			35	10			15			10
49	SVY	95923	Testing of autonomic nervous system function; sudomotor, including 1 or more of the following: quantitative sudomotor axon reflex test (QSART), silastic sweat imprint, thermoregulatory sweat test, and changes in sympathetic skin potential	27	0.048	0.55	0.91	1.03	1.30	2.50	29.5	5	5	10	15	23	45	10
50	REC	95923	Testing of autonomic nervous system function; sudomotor, including 1 or more of the following: quantitative sudomotor axon reflex test (QSART), silastic sweat imprint, thermoregulatory sweat test, and changes in sympathetic skin potential		0.038			0.90			30	5			15			10
51	МРС	20551	Injection(s); single tendon origin/insertion		0.083			0.75			20	10			5			5
52	МРС	99202	Office or other outpatient visit for the evaluation and management of a new patient, which		0.052			0.93			22	2			15			5

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Non Facility Direct Inputs

<u>CPT Long Descriptor</u>: Testing of autonomic nervous system function; cardiovagal innvervation (parasympathetic function), including 2 or more of the following: heart rate response to deep breating with recorded R-R internal, Valsalva ratio, and 30:15 ratio

Global Period: XXX Meeting Date: April, 2012

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee: The societies convened a consensus panel of physicians to develop recommended inputs. The physicians on the panel represent a variety of geographic locations and practice settings.

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale: The comparison code for 95921, is the existing codes (with RUC-approved inputs from 2000-2001).

Please describe in detail the clinical activities of your staff:

Pre-Service Clinical Labor Activities:

The technician explains the procedure and asks detailed questions on medications, previous surgeries and other exclusions that may alter the outcome of testing. Patient is encouraged to empty bladder before testing begins.

The technician assists the patient in lying on the exam table and answers any questions the patient may have. An arm and finger blood pressure cuff is attached.

Service Clinical Labor Activities:

The technician instructs the patient in baseline breathing and coaches the patient through deep breathing maneuvers, giving feedback on the number of seconds left in each maneuver. If needed, balloon monitoring effort during inhalation and expiration is also provided by the technician.

Multiple Valsalva tests are performed –lying flat and from a mild tilt position. The patient rests between each maneuver.

CPT Code: 95921 Specialty Society('s) AAN, AANEM

The technician works to ensure the patient understands and complies with test specific instructions during the entirety of testing and assesses the patient for any reactions during testing, including blood pressure response to the Valsalva maneuver.

Post-Service Clinical Labor Activities:

The technician obtains resting blood pressure reading and removes arm and finger cuff, If a patient needs additional recuperation time, the technician stays with the patient, monitoring vital signs and assisting the patient with ambulating back to the dressing room.

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Non Facility Direct Inputs

<u>CPT Long Descriptor</u>: Testing of autonomic nervous system function; vasomotor adrenergic innveration (sympathetic adrenergic function), including beat-to-beat blood pressure and RR interval changes during Valsalva maneuver and at least 5 minutes of passive tilt.

Global Period: XXX Meeting Date: April, 2012

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee: The societies convened a consensus panel of physicians to develop recommended inputs. The physicians on the panel represent a variety of geographic locations and practice settings.

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale: The comparison code for 95922 is the existing codes (with RUC-approved inputs from 2000-2001).

Please describe in detail the clinical activities of your staff:

Pre-Service Clinical Labor Activities:

The technician explains the procedure and asks detailed questions on medications, previous surgeries and other exclusions that may alter the outcome of testing. Patient is gowned if clothing is too restrictive for adequate access to sites necessary for testing. Patient is encouraged to empty bladder before testing begins.

The technician assists the patient in lying on the exam table and answers any questions the patient may have. ECG electrodes are placed, blood pressure and finger cuffs are administered and a respiratory monitoring belt is attached to the patient.

Service Clinical Labor Activities:

The technician instructs the patient in baseline breathing and coaches the patient through multiple sets of deep breathing maneuvers, giving feedback on the number of seconds left in each maneuver. The patient is allowed to rest for 2 minutes between each set of breathing maneuvers.

Multiple Valsalva tests are performed –lying flat and from a mild tilt position. The patient rests between each maneuver. The patient then rests for 5 minutes before being placed in full heads up tilt position. Prior to tilt testing, the technician records the blood pressure and acquires baseline blood pressure

readings to compare to system readings. During tilt testing, the technician monitors heart rate and blood pressure and observes the patient for any adverse effects.

The technician works to ensure the patient understands and complies with test specific instructions during the entirety of testing and assesses the patient for any reactions during testing, including blood pressure response to the Valsalva maneuver.

Post-Service Clinical Labor Activities:

The patient is allowed to rest for several minutes post testing. The technician obtains multiple (maximum of 8 minutes) resting blood pressure readings and removes arm and finger cuff, electrodes, respiratory belts and any additional monitoring equipment. If a patient needs additional recuperation time, the technician stays with the patient, monitoring vital signs and assisting the patient with ambulating back to the dressing room.

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Non Facility Direct Inputs

<u>CPT Long Descriptor</u>: Testing of autonomic nervous system function; combined parasympathetic and sympathetic adrenergic function testing with at least 5 minutes of passive tilt

Global Period: XXX Meeting Date: April, 2012

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee: The societies convened a consensus panel of physicians to develop recommended inputs. The physicians on the panel represent a variety of geographic locations and practice settings.

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale: The comparison codes for 9592XX are 95921 and 95922, because the new code is a combination of those two codes provided on the same day.

Please describe in detail the clinical activities of your staff:

Pre-Service Clinical Labor Activities:

The technician explains the procedure and asks detailed questions on medications, previous surgeries and other exclusions that may alter the outcome of testing.

The technician assists the patient in lying on the exam table and answers any questions the patient may have. ECG electrodes are placed, blood pressure and finger cuffs are administered and a respiratory monitoring belt is attached to the patient.

Service Clinical Labor Activities:

The technician instructs the patient in baseline breathing and coaches the patient through deep breathing maneuvers, giving feedback on the number of seconds left in each maneuver.

The technician works to ensure the patient understands and complies with test specific instructions during the entirety of testing and assesses the patient for any reactions during testing, including blood pressure response to the Valsalva maneuver.

Prior to tilt testing, the technician records the blood pressure and acquires 10 minutes of baseline blood pressure readings. During tilt testing, the technician monitors heart rate and blood pressure and observes the patient for any adverse effects.

Post-Service Clinical Labor Activities:

The technician obtains multiple resting blood pressure readings and removes arm and finger cuff, electrodes, respiratory belts and any additional monitoring equipment. If a patient needs additional recuperation time, the technician stays with the patient, monitoring vital signs and assisting the patient with ambulating back to the dressing room.

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Non Facility Direct Inputs

<u>CPT Long Descriptor</u>: Testing of autonomic nervous system function; sudomotor, including 1 or more of the following quantitative sudomotor axon reflex tests (QSART), silastic sweat imprinting (SIT), thermoregulatory sweat test (TST), and changes in sympathetic skin potential.

Global Period: XXX Meeting Date: April, 2012

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee: The societies convened a consensus panel of physicians to develop recommended inputs. The physicians on the panel represent a variety of geographic locations and practice settings.

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale: The comparison code for 95923 is the existing codes (with RUC-approved inputs from 2000-2001).

Please describe in detail the clinical activities of your staff:

Pre-Service Clinical Labor Activities:

The technician explains the procedure and asks detailed questions on medications, previous surgeries and other exclusions that may alter the outcome of testing. Patient is encouraged to empty bladder before testing begins.

The technician assists the patient in lying on the exam table and answers any questions the patient may have.

For QSART testing: the patient may need to be gowned if clothing restricts access to skin. The technician assembles 4 capsules used for stimulation and recording and cleans multiple recording sites on the patient's arms, leg and foot. The capsules are secured and stimulation grounds and wires are attached. Surface skin temperature is verified. Warmers may be used at capsule site to ensure adequate skin temperature. The tech verifies the patient can feel a stimulus.

For SIT testing: electrodes are placed on the hands and feet

For TST testing: Vital signs (weight, height, temperature) are recorded. The patient is gowned and the technician assembles and secures capsules used for recording.

Service Clinical Labor Activities:

For QSART testing: The technician fills the capsules with a mixture of acetylcholine and water. The technician starts the recordings, verifying there are no leaks in the capsules and that the baseline recording is stable. Stimulation is begun, and the technician review latency and volume throughout the procedures. Once stimulation is complete, the nerves are monitored during a short period of rest.

For SIT testing: The technician stimulates sweat glands and applies a thin layer of moldable silastic material to the skin.

For TST: The technician and patient apply faces mask during powder application. The technician applies powder to the patient's entire body and places a thermal probe on the skin and in the patient's mouth. The patient is assisted into the heat box and observed throughout the testing for increased body temperature or sweat production. Probes are also used to control the heat lamps in the box.

Post-Service Clinical Labor Activities:

For all three tests: Capsules are removed and patient is monitored to ensure vital signs are normal.

For SIT testing: the number of droplets, size and distribution are reported

For TST: The patient is removed from the box at a rate slow enough to ensure the body has time to adjust to temperature changes. Photos are taken, computer scanning performed to map the areas of increased sweat production. Patient's weight is recorded. After the majority of powder is brushed off the patient, the technician assists the patient to the shower and provides additional instructions to ensure the powder is washed off safely.

A	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q
1 REVISED			REFEREN	ICE CODE			REFEREN	CE CODE					REFEREN	CE CODE		
2			959	921	95	921	959	22	95	922	95	924	959	23	959) 23
			Testing of	autonomic	Testing of auto	onomic nervous	Testing of	autonomic	Testing of	autonomic	Testing of	autonomic	Testing of a	autonomic	Testing of	autonomic
Monting Date: April 2012			nervous syst	innervation;	innervation (pa	arasympathetic	nervous syst	em function;	nervous sys vasomotor	adrenergic	nervous	s system	nervous syste	em function;	nervous	system
Tah. 33			(parasympath	etic function).	function), inclu of the followi	iding 2 or more	innervation (sympathetic	innervation	(sympathetic	parasymp	athetic and	more of the	followina:	includina 1	or more of
Specialty: AAN AANEM			including 2 o	r more of the	response to c	leep breathing	adrenergic	function),	adrenergi	c function),	sympatheti	c adrenergic	quantitative su	domotor axon	the fol	lowing:
	CMS		following:	heart rate	with recorded Valsalva ratio.	d R-R interval, and 30:15 ratio	including beat	-to-beat blood	blood press	ure and R-R	function te	sting with at	reflex test (QS	ART), silastic	quantitative	sudomotor
3	Code	Staff Type	response to d	eep breathing	,		pressure and	R-R interval	interval cha	nges during	least 5 n	ninutes of	sweat ii	mprint,	axon re	flex test
			Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility
5 GLOBAL PERIOD			XXX		XXX		XXX		XXX		XXX		XXX		XXX	
6 TOTAL CLINICAL LABOR TIME	L037A	Electrodiagno	64.0	0.0	64.0	0.0	92.0	0.0	79.0	0.0	79.0	0.0	81.0	0.0	74.0	0.0
7 TOTAL PRE-SERV CLINICAL LABOR TIME	L037A	Electrodiagno	10.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0
8 TOTAL SERVICE PERIOD CLINICAL LABOR TIME	L037A	Electrodiagno	49.0	0.0	64.0	0.0	77.0	0.0	79.0	0.0	79.0	0.0	66.0	0.0	74.0	0.0
9 TOTAL POST-SERV CLINICAL LABOR TIME	L037A	Electrodiagno	5.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
10 PRE-SERVICE																
11 Start: Following visit when decision for surgery or procedure	e made															
12 Complete pre-service diagnostic & referral forms																
13 Coordinate pre-surgery services																
14 Schedule space and equipment in facility					0				0		0				0	
15 Provide pre-service education/obtain consent																
16 Follow-up phone calls & prescriptions																
17 Other Clinical Activity - specify:																
18 End: When patient enters office/facility for surgery/procedure	•															
19 SERVICE PERIOD																
20 Start: When patient enters office/facility for surgery/procedur	e:															
Greet patient, provide gowning, ensure appropriate medical	1 0074				•				•		•				0	
21 records are available	L037A	Electrodiagno			3				3		3				3	
22 Obtain vital signs					3				3		3				3	
23 Provide pre-service education/obtain consent	L037A	Electrodiagno			3				3		3				3	
24 Prepare room, equipment, supplies	L037A	Electrodiagno			2				2		2				2	
25 Setup scope (non facility setting only)																
26 Prepare and position patient/ monitor patient/ set up IV																
27 Sedate/apply anesthesia																
28 Intra-service																
29 perform test	L037A	Electrodiagno			45				60		60				55	
30 Post-Service																
Monitor pt. following service/check tubes, monitors, drains	L037A	Electrodiagno			5				5		5				5	
32 Clean room/equipment by physician staff	L037A	Electrodiagno			3				3		3				3	
33 Clean Scope	1															
34 Clean Surgical Instrument Package																
35 Complete diagnostic forms, lab & X-ray requisitions																
36 Review/read X-ray, lab, and pathology reports																
Check dressings & wound/ home care instructions /coordinate																
37 office visits /prescriptions																
38 Other Clinical Activity - <i>specify:</i>																
39 Dischrg mgmt same day (0.5 x 99238) (enter 6 min)			n/a		n/a		n/a		n/a		n/a		n/a		n/a	
40 Dischrg mgmt (1.0 x 99238) (enter 12 min)			n/a		n/a		n/a		n/a		n/a		n/a		n/a	
41 Dischrg mgmt (1.0 x 99239) (enter 15 min)			n/a		n/a		n/a		n/a		n/a		n/a		n/a	
42 End: Patient leaves office																
43 POST-SERVICE Period																
44 Start: Patient leaves office/facility																
45 Conduct phone calls/call in prescriptions																
53 Other Clinical Activity - specify:																
54 End: with last office visit before end of global period																

I REFERENCE CODE REFERENCE CODE REFERENCE CODE REFERENCE CODE REFERENCE CODE REFERENCE CODE Statution Reference Code		A	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q
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Image: section of the sectin of the section of the sectin	2				959	21	959	921	959	95922		922	959	924	959	23	95) 23
Image: space of the s		Maating Data: April 2012			Testing of a nervous syste	autonomic em function;	Testing of auto system function innervation (pa	onomic nervous on; cardiovagal arasympathetic	Testing of a nervous syste	autonomic em function;	Testing of nervous syst vasomotor	autonomic em function; adrenergic	Testing of nervous	autonomic system	Testing of a nervous syste	autonomic em function;	Testing of nervous	autonomic s system
No. Speciality: ANA, AANEM Specinty: AANEM Speciality: AANEM		Tab. 22			(parasympath	etic function	function), inclu	iding 2 or more	innervation (sympathetic	innervation (sympathetic	narasympa	combined	more of the	following	including 1	or more of
Departure in the constraint of a low in the constrai		Specialty: AAN AANEM			including 2 or	more of the	response to d	leep breathing	adrenergic	function),	adrenergio	function),	sympathetic	adrenergic	quantitative su	domotor axon	the fol	lowing:
3			CMS		following:	heart rate	with recorded	d R-R interval,	including beat-	to-beat blood	blood press	ure and R-R	function tes	sting with at	reflex test (QS	ART), silastic	quantitative	sudomotor
1 DCATION Image Image <t< td=""><td>3</td><td></td><td>Code</td><td>Staff Type</td><td>response to de</td><td>eep breathing</td><td>valsalva ratio,</td><td></td><td>pressure and</td><td>R-R interval</td><td>interval cha</td><td>nges during</td><td>least 5 m</td><td>ninutes of</td><td>sweat in</td><td>mprint,</td><td>axon re</td><td>flex test</td></t<>	3		Code	Staff Type	response to de	eep breathing	valsalva ratio,		pressure and	R-R interval	interval cha	nges during	least 5 m	ninutes of	sweat in	mprint,	axon re	flex test
Image: Section of the section of t	4	LOCATION			Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility
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Sec Back, minimum multi-specially visit SH048 peak Image: second	55	MEDICAL SUPPLIES	CODE	UNIT														
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AMA/Specialty Society RVS Update Committee Summary of Recommendations Codes Reported Together- 75% or More Screen

October 2012

Bundle Thrombolysis

In 2010, the Relativity Assessment Workgroup identified two codes through the 75% reported together screen: 37201 *transcatheter therapy, infusion for thrombolysis other than coronary* and 75896 *transcatheter therapy, infusion, any method (eg thrombolysis other than coronary), radiological supervision and interpretation.* In October 2011, the CPT Editorial Panel created four new codes (37211-37214) to describe transcatheter therapy for thrombolysis bundled with radiologic supervision and interpretation and Management services. In January 2012, the specialty societies requested deferment of this family of services due to late CPT changes that expanded the number of codes; the continued questions about CPT guideline text, descriptors, and parentheticals; and the imprecision of the 000-day global survey instrument to accurately survey these codes. The Research Subcommittee approved a modified 000-day global survey instrument to be used to survey this family at the RUC meeting in April 2012. At the April 2012 RUC meeting, CPT codes 37211-37214 were reviewed and RUC recommendations were forwarded to CMS in May 2012. However, CPT codes 75896 *Transcatheter therapy, infusion other than for thrombolysis, radiological supervision and interpretation* and 75898 *Angiography through existing catheter for follow-up study for transcatheter therapy, embolization or infusion, other than for thrombolysis* were not surveyed and until specialty society recommendations were provided, the RUC recommended carrier pricing for both services.

At the October 2012 RUC meeting, the specialties reiterated to the RUC that under the current coding structure, CPT codes 75896 and 75898 are reported during thrombolytic therapy. However, with the CPT revisions for 2013, these two codes will no longer be reported during thrombolytic therapy. Given this, it is unknown exactly how these two orphan codes will be reported in 2013. The remaining non-thrombolysis use of these codes will be influenced by future CPT Editorial Panel changes. CPT code 75896 will be included in a multi-specialty coding revision effort led by neurossurgery. This coding proposal will describe intracranial infusion other than for thrombolysis (e.g. vasodilators in the setting of cerebral vasospasm). This coding change is expected to be reviewed by the CPT Editorial Panel in February 2013. CPT code 75898 will be addressed in the multi-specialty embolization coding revision due for CPT Editorial Panel review in February 2013 as well. The CPT codes resulting from these coding changes will be reviewed by the RUC at the April 2013 RUC meeting. **However, until recommendations are reviewed and submitted for 2014, the RUC continues to recommend carrier pricing for CPT codes 75896 and 75898.**

May 2012 RUC Recommendations:

The RUC recommendations for the other codes in this family were considered by the RUC in April 2012 and submitted to CMS in May 2012. These recommendations are attached for informational purposes only.

CPT five-digit codes, two-digit modifiers, and descriptions only are copyright by the American Medical Association.

CPT Code (•New)	Tracking Number	CPT Descriptor	Global Period	Work RVU Recommendation
D 37201		Transcatheter therapy, infusion for thrombolysis other than coronary (37201 has been deleted. To report see 37211-37214) (For radiological supervision and interpretation, use 75896)	000	N/A
⊙#●37211	Il	Transcatheter therapy, arterial infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, initial treatment day	000	8.00 (RUC Recommendation May 2012)
⊙#●37212	12	Transcatheter therapy, venous infusion for thrombolysis, any method, including radiological supervision and interpretation, initial treatment day	000	7.06 (RUC Recommendation May 2012)
⊙#●37213	13	Transcatheter therapy, arterial other than coronary or venous infusion for thrombolysis, any method, including radiological supervision and interpretation, continued treatment on subsequent day during course of thrombolytic therapy, including follow-up catheter contrast injection, position change, or exchange, when performed;	000	5.00 (RUC Recommendation May 2012)
⊙#●37214	I4	cessation of thrombolysis including removal of catheter and vessel closure by any method (Report 37211-37214 once per date of treatment) (For declotting by thrombolytic agent of implanted vascular access device or catheter, use 36593)	000	3.04 (RUC Recommendation May 2012)
D 37209		Exchange of a previously placed intravascular catheter during thrombolytic therapy (For radiological supervision and interpretation, use 75900) (37209 has been deleted. For exchange of a previously placed intravascular catheter during thrombolytic therapy, see 37211-37214)	000	N/A

CPT five-digit codes, two-digit modifiers, and descriptions only are copyright by the American Medical Association.

▲75896	15	Transcatheter therapy, infusion <u>other than for thrombolysis</u> , any method (eg, thrombolysis other than coronary) , radiological supervision and interpretation <u>(For radiological supervision and interpretation for thrombolysis other than coronary, see 37211-37214)</u> (Do not report 75896 in conjunction with 37211-37214) <i>(For infusion for coronary disease, see 92975, 92977)</i>	XXX	RUC recommends Carrier Pricing for 2013 Refer to CPT for CPT 2014
▲75898	16	Angiography through existing catheter for follow-up study for transcatheter therapy, embolization or infusion, other than for thrombolysis (For thrombolysis infusion management other than coronary, see 37211-37214) (Do not report 75898 in conjunction with 37211-37214)	XXX	RUC recommends Carrier Pricing for 2013 Refer to CPT for CPT 2014
D 75900		 Exchange of a previously placed intravascular catheter during thrombolytic therapy with contrast monitoring, radiological supervision and interpretation (For procedure, use 37209) (75900 has been deleted. For exchange of a previously placed intravascular catheter during thrombolytic therapy with contrast monitoring, radiological supervision and interpretation, see 37211-37214) 	XXX	N/A
D75961		Transcatheter retrieval, percutaneous, of intravascular foreign body (eg, fractured venous or arterial catheter), radiological supervision and interpretation. (75961 has been deleted. To report, use 37211)	XXX	N/A
92975 T 92977 (For thrombo	hrombolysis, by intrav lysis of vesse	coronary; by intracoronary infusion, including selective coronary angiography renous infusion Is other than coronary, see 37201 <u>37211-37214</u> 75896)		

September 24, 2012

Barbara Levy, MD Chair, RVS Update Committee American Medical Association 515 N. State St. Chicago, IL 60610

Re: Request to remove CPT 75896 and 75898 from September 2012 RUC agenda because they no longer relate to thrombolytic therapy

Dear Dr. Levy,

At the April 2012 RUC meeting, as part of the presentation of <u>Tab 15</u>, <u>Bundled Thrombolysis</u>, our specialties explained in a detailed letter why we did not survey CPT codes 75896 and 75898. Under the current coding structure, these two codes are reported during thrombolytic therapy. With the newly revised 2013 thrombolysis CPT descriptors, these two codes will no longer be reported during thrombolytic therapy. In fact, the 2013 code descriptors will be revised as follows to specifically <u>exclude</u> thrombolysis:

CPT code 75896 Transcatheter therapy, infusion any method (eg, thrombolysis other than coronary) for thrombolysis, radiological supervision and interpretation

CPT code 75898 Angiography through existing catheter for follow-up study for transcatheter therapy, embolization or infusion, <u>other than for thrombolysis</u>

For these reasons, the societies recommended that survey of the codes be delayed until the new thrombolysis codes enter the CPT book since no one knows exactly how these two orphan codes will be used in 2013. At that time, the RUC voted to recommend "carrier-pricing" to CMS, and our societies agreed with that approach. As we understand it, the RUC expects survey of 75896 and 75898 sooner than Medicare data will be available for the new thrombolysis codes.

The remaining <u>non</u>-thrombolysis use of these two codes will be influenced by future CCPs. Specifically, CPT code 75896 will be included in a multispecialty CCP effort led by AANS/CNS describing intracranial infusion other than for thrombolysis (e.g vasodilators in the setting of cerebral vasospasm). The group intends to submit that CCP for the winter Panel meeting. CPT code 75898 will be addressed in the multispecialty embolization CCP. Several specialty societies are working on that CCP for the winter Panel meeting as well.

Since there is no longer a thrombolytic therapy indication for 75896 and 75898, and since RUC has appropriately recommended carrier pricing for 2013, we respectfully request that these two codes be removed from the September 2012 RUC meeting. We recommend that survey be delayed pending the outcome of the CCPs described above after which the <u>non</u>-thrombolytic indications for these codes will be clearer.

Respectfully,

Seen M Tutto, MD

Sean Tutton, MD SIR RUC Advisor

Barry R. Salowork

Gary Seabrook, MD SVS RUC Advisor

Janual Sam

Zeke Silva, MD ACR RUC Advisor

John Ratliff, MD AANS RUC Advisor

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Alexander Mason, MD CNS RUC Advisor

Vichen 7 which mis

Richard Wright, MD ACC RUC Advisor

cc: Sherry Smith Trisha Crishock Angela Kim Cathy Hill Mike Morrow James Vavricek

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Joshua Hirsch, MD ASNR RUC Advisor
AMA/Specialty Society RVS Update Committee Summary of Recommendations Codes Reported Together- 75% or More Screen

January/April 2012

Bundle Thrombolysis

In 2010, the Relativity Assessment Workgroup identified two codes through the 75% reported together screen: 37201 *transcatheter therapy, infusion for thrombolysis other than coronary* and 75896 *transcatheter therapy, infusion, any method (eg thrombolysis other than coronary), radiological supervision and interpretation*. In October 2011, the CPT Editorial Panel created four new codes (37211-4) to describe transcatheter therapy for thrombolysis bundled with radiologic supervision and interpretation and Evaluation and Management services. In January 2012, the specialty societies requested deferment of this family of services due to late CPT changes that expanded the number of codes; the continued questions about CPT guideline text, descriptors, and parentheticals; and the imprecision of the 000-day global survey instrument to accurately survey these codes. The Research Subcommittee approved a modified 000-day global survey instrument to be used to survey this family at the RUC meeting in April 2012.

37211 Transcatheter therapy, arterial infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, initial treatment day

The RUC reviewed the survey data from 50 vascular surgeons and interventional/diagnostic radiologists and recommends the following physician time components: pre-service time= 48 minutes, intra-service time= 60 minutes and post-service time= 30 minutes. In accordance with prior analogous recommendations (e.g. lower extremity revascularization) additional pre-service time was added, 9 minutes, for proper positioning and additional evaluation necessary for selection and verification of numerous supplies and equipment. The RUC also noted that the post-service time, and the work value, includes the work of a subsequent hospital care service, CPT code 99233, which was previously separately reportable on the same date of service.

The RUC reviewed the survey's estimated work values and agreed with the specialty society that 8.00 work RVUs, the survey's 25th percentile, accurately reflects the physician work involved in this service. To justify this value, the RUC compared the surveyed code to reference CPT code 93460 *Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with right and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed* (work RVU= 7.35) and agreed that while the services have comparable work, 37211 should be valued slightly higher due to greater intra-service time, 60 minutes compared to 50 minutes. In addition, the RUC reviewed CPT code 36254 *Superselective catheter placement (one or more second order or higher renal artery branches) renal artery and any accessory renal artery(s) for renal angiography, including*

arterial puncture, catheterization, fluoroscopy, contrast injection(s), image postprocessing, permanent recording of images, and radiological supervision and interpretation, including pressure gradient measurements when performed, and flush aortogram when performed; bilateral (work RVU= 8.15) and agreed that this reference code should be valued slightly higher because it has slightly greater intra-service time compared to the surveyed code, 68 minutes and 60 minutes, respectively. **The RUC recommends a work RVU of 8.00 for CPT code 37211.**

37212 Transcatheter therapy, venous infusion for thrombolysis, any method, including radiological supervision and interpretation, initial treatment day

The RUC reviewed the survey data from 50 vascular surgeons and interventional/diagnostic radiologists and recommends the following physician time components: pre-service time= 48 minutes, intra-service time= 60 minutes and post-service time= 30 minutes. In accordance with prior analogous recommendations (e.g. lower extremity revascularization) additional pre-service time was added, 9 minutes, for proper positioning and additional evaluation necessary for selection and verification of numerous supplies and equipment. The RUC also noted that the post-service time, and the work value, includes the work of a subsequent hospital care service, CPT code 99233, which was previously separately reportable on the same date of service.

The RUC reviewed the survey's estimated work values and agreed with the specialty society that 7.06 work RVUs, the survey's 25th percentile, accurately reflects the physician work involved in this service. To justify this value, the RUC compared the surveyed code to key reference service 37187 *Percutaneous transluminal mechanical thrombectomy, vein(s), including intraprocedural pharmacological thrombolytic injections and fluoroscopic guidance* (work RVU= 8.03) and agreed that reference code should be valued higher due to greater intra-service time and slightly greater total time, 145 minutes and 138 minutes, respectively. In addition, the RUC reviewed CPT code 93460 *Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with right and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed (work RVU= 7.35) and agreed that while the services have comparable work, the surveyed code should be valued lower because it is a less intense and complex service. Finally, the RUC reviewed 37211 in comparison to 37212 and noted that while the two service have identical time, 37212 should be valued lower because the arterial system involved in 37211 has greater intensity due to higher risk for complication compared to the venous infusion code. The RUC recommends a work RVU of 7.06 for CPT code 37212.*

37213 Transcatheter therapy, arterial other than coronary or venous infusion for thrombolysis, any method, including radiological supervision and interpretation, continued treatment on subsequent day during course of thrombolytic therapy, including follow-up catheter contrast injection, position change, or exchange, when performed

The RUC reviewed the survey data from 50 vascular surgeons and interventional/diagnostic radiologists and recommends the following physician time components: pre-service time= 41 minutes, intra-service time= 33 minutes and post-service time= 25 minutes. In accordance with prior analogous recommendations (e.g. lower extremity revascularization) additional pre-service time was added, 2 minutes, for proper positioning to obtain necessary views to treat the lesion. The RUC also noted that the post-service time, and the work value, includes the work of a subsequent hospital care service, CPT code 99233, which was previously separately reportable on the same date of service. Finally, the specialty discussed that this service includes continued treatment only if the care continues into the third day. This service is not typical, and will be billed only a fraction of the time compared to CPT code 37214, which describes continued care concluded on the second day of care.

The RUC reviewed the survey's estimated work values and agreed with the specialty society that 5.00 work RVUs, the survey's 25th percentile, accurately reflects the physician work involved in this service. To justify this value, the RUC compared the surveyed code to reference CPT code 93452 *Left heart catheterization including intraprocedural injection(s) for left ventriculography, imaging supervision and interpretation, when performed* (work RVU= 4.75) and agreed that while the two services are similar services, the surveyed code should be valued slightly higher due to greater intra-service time, 33 minutes and 30 minutes, respectively. In addition, the RUC reviewed CPT code 93455 *Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) including intraprocedural injection(s) for bypass graft angiography (work RVU= 5.54) and the reference code should be valued slightly higher due to greater intra-service time compared to 37213. Finally, the RUC compared this service to the base arterial infusion service, 37211, and concurred that 37213 is appropriately valued relative to the family of services. The RUC recommends a work RVU of 5.00 for CPT code 37213.*

37214 Transcatheter therapy, arterial or venous infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, continued treatment on subsequent day during course of thrombolytic therapy, including follow-up catheter contrast injection, position change, or exchange, when performed; cessation of thrombolysis including removal of catheter and vessel closure by any method

The RUC reviewed the survey data from 48 vascular surgeons and interventional/diagnostic radiologists and recommends the following physician time components: pre-service time= 41 minutes, intra-service time= 38 minutes and post-service time= 23 minutes. In accordance with prior analogous recommendations (e.g. lower extremity revascularization) additional pre-service time was added, 2 minutes, for proper positioning to obtain necessary views to treat the lesion. The RUC also noted that the post-service time, and the work value, includes the work of a subsequent hospital care service, CPT code 99233, which was previously separately reportable on the same date of service. Finally, the specialty discussed that this service includes continued treatment when the thrombolysis is concluded on the second day, which is the typical clinical scenario.

The RUC reviewed the survey respondents' estimated physician work values and agreed with the specialties that the respondents overestimated the physician work involved in this service. To value this service accurately, the previously billed codes that are now bundled into this procedure (75898 work RVU= 1.65 and 99233 work RVU= 1.39) were summated to obtain a work RVU of 3.04. The RUC agreed that a work RVU of 3.04, below the survey's 25th percentile, is an accurate value for this service. To justify this value, the RUC compared the surveyed code to reference code 36200 *Introduction of catheter, aorta* (work RVU= 3.02) and agreed that while 37214 has 8 minutes more intra-service time compared to 36200, the reference code is a more intense procedure and the two services should be valued similarly. In addition, the RUC reviewed CPT code 31630 *Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with tracheal/bronchial dilation or closed reduction of fracture* (work RVU= 3.81) and agreed that the reference code should be valued higher due to greater intra-service time compared to the surveyed code, 45 minutes and 38 minutes, respectively. Finally, the RUC reviewed code 37214 in relation to the family of services and noted that the intensity and complexity of 37214 is much less compared to 37213 and is appropriately valued lower than 37213. **The RUC recommends a work RVU of 3.04 for CPT code 37214**.

The RUC discussed the need to survey CPT codes 75896 *Transcatheter therapy, infusion other than for thrombolysis, radiological supervision and interpretation* and CPT code 75898 *Angiography through existing catheter for follow-up study for transcatheter therapy, embolization or infusion, other than for thrombolysis* since the inherent physician work has changed due to CPT Editorial Panel revisions. The specialty explained that these codes will see large utilization shifts into the new bundled codes. The specialty societies have indicated that CPT code 75898 will be addressed in the upcoming Embolization code change proposal to the CPT Editorial Panel in CPT 2013. The specialties will be providing a further recommendation for CPT code 75896 at the October 2012 RUC meeting and the resulting RUC recommendation will be sent to CMS immediately for inclusion in the CY 2013 MPFS Final Rule. **However, until recommendations are provided, the RUC recommends carrier pricing for CPT codes 75896**.

Practice Expense: The RUC reviewed and accepted the direct practice expense inputs with minor modifications by the Practice Expense Subcommittee.

Work Neutrality: The RUC's recommendation for this family of codes will result in an overall work savings that should be redistributed back to the Medicare conversion factor.

CPT Code (•New)	Track- ing Num- ber	CPT Descriptor	Global Period	Work RVU Recommendation
D 37201		Transcatheter therapy, infusion for thrombolysis other than coronary (37201 has been deleted. To report see 37211-37214)	000	N/A
⊙#●37211	I1	(For radiological supervision and interpretation, use 75896) Transcatheter therapy, arterial infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, initial treatment day	000	8.00
⊙#●37212	I2	Transcatheter therapy, venous infusion for thrombolysis, any method, including radiological supervision and interpretation, initial treatment day	000	7.06
⊙#●37213	I3	Transcatheter therapy, arterial other than coronary or venous infusion for thrombolysis, any method, including radiological supervision and interpretation, continued treatment on subsequent day during course of thrombolytic therapy, including follow-up catheter contrast injection, position change, or exchange, when performed;	000	5.00
⊙#●37214	I4	 cessation of thrombolysis including removal of catheter and vessel closure by any method (Report 37211-37214 once per date of treatment) (For declotting by thrombolytic agent of implanted vascular access device or catheter, use 36593) 	000	3.04
D 37209		Exchange of a previously placed intravascular catheter during thrombolytic therapy (For radiological supervision and interpretation, use 75900) (37209 has been deleted. For exchange of a previously placed intravascular catheter during thrombolytic therapy, see 37211-37214)	000	N/A

▲75896	15	Transcatheter therapy, infusion <u>other than for thrombolysis</u> , any method (eg, thrombolysis other than coronary) , radiological supervision and interpretation (For radiological supervision and interpretation for thrombolysis other than coronary, see <u>37211-37214</u>) (Do not report 75896 in conjunction with <u>37211-37214</u>) (For infusion for coronary disease, see 92975, 92977)	XXX	RUC recommends Carrier Pricing
▲75898	16	Angiography through existing catheter for follow-up study for transcatheter therapy, embolization or infusion, other than for thrombolysis (For thrombolysis infusion management other than coronary, see 37211-37214) (Do not report 75898 in conjunction with 37211-37214)	XXX	RUC recommends Carrier Pricing
D 75900		 Exchange of a previously placed intravascular catheter during thrombolytic therapy with contrast monitoring, radiological supervision and interpretation (For procedure, use 37209) (75900 has been deleted. For exchange of a previously placed intravascular catheter during thrombolytic therapy with contrast monitoring, radiological supervision and interpretation, see 37211-37214) 	XXX	N/A
D75961		Transcatheter retrieval, percutaneous, of intravascular foreign body (eg, fractured venous or arterial catheter), radiological supervision and interpretation. (75961 has been deleted. To report, use 37211)	XXX	N/A
92975 Thron 92977 (For thrombolysis	mbolysis, co by intraver s of vessels	oronary; by intracoronary infusion, including selective coronary angiography nous infusion other than coronary, see 37201 <u>37211-37214</u> 7 5896)		

April 3, 2012

Barbara Levy, MD Chair, RVS Update Committee American Medical Association 515 N. State St. Chicago, IL 60610

Re: Tab 14 Bundle Thrombolysis - 75896/75898

Dear Dr. Levy,

Tab 14 Bundle Thrombolysis is on the agenda for the upcoming April RUC meeting. The genesis of this tab was the identification of CPT code 37201 *Transcatheter therapy, infusion for thrombolysis other than coronary* and 75896 *Transcatheter therapy, infusion, any method (eg, thrombolysis other than coronary), radiological supervision and interpretation* in a "Billed Together more than 75% of the time" screen.

This issue was discussed at CPT, where 4 new codes were developed to replace 37201 and 75896. The four new CPT codes were surveyed by a multi-specialty group and recommendations will be presented at the upcoming meeting.

There were two additional codes 75896 *Transcatheter therapy, infusion, any method (eg, thrombolysis other than coronary), radiological supervision and interpretation* and 75898 *Angiography through existing catheter for follow-up study for transcatheter therapy, embolization or infusion* listed on the LOI. We included the following note on our LOI "The two orphan S&I codes here 75896 and 75898 follow a similar pattern of our other orphan codes that have come through the RUC recently. It is not suitable to survey them at this time. As such we will be surveying the 4 new codes only." Those codes should remain in their current format in the CPT book until Medicare data are available from the new thrombolysis codes.

Please let us know if you have any questions.

Respectfully,

Bary K. Salonork

Gary Seabrook, MD SVS RUC Advisor

Jun M Jutto, MD

Sean Tutton, MD SIR RUC Advisor

cc: Sherry Smith Trisha Crishock Angela Kim

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Geraldine McGinty, MD ACR RUC Advisor

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:37211 Tracking Number I1

Original Specialty Recommended RVU: **8.00** Presented Recommended RVU: **8.00** RUC Recommended RVU: **8.00**

Global Period: 000

CPT Descriptor: Transcatheter therapy, arterial infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, initial treatment day

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 76-year-old man with a right femoral-popliteal bypass presents to the emergency room with a painful, ischemic leg. Physical exam shows absent graft and distal pulses. Motor/sensory exam shows mild sensory deficit, but no motor deficit. The patient is taken to the procedure room where aortogram and runoff angiography exams are performed. (Diagnostic angiography reported separately). Acute thrombosis of the graft is shown, as well as thrombosis of the popliteal artery. Arterial thrombolysis is performed.

Percentage of Survey Respondents who found Vignette to be Typical: 98%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? Yes Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 98%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 8%

Description of Pre-Service Work:

- The patient is evaluated.
- A targeted H&P is performed.
- The proposed procedure is discussed with the patient/family and consent is obtained and documented.
- The patient is transported to the procedure room and placed supine on the procedure table.
- Moderate sedation is administered.

Description of Intra-Service Work:

• Monitor the patient for moderate sedation.

• An exchange length guidewire is inserted into the diagnostic catheter and the diagnostic catheter is removed under fluoroscopic guidance.

• Under fluoroscopic guidance a coaxial infusion catheter system is introduced over the guidewire and positioned with the distal tip in the popliteal artery and with the proximal sideholes in the thrombosed fem-pop graft.

- Angiography is performed to document location of catheter and status of runoff vessels.
- The catheters and access sheath are sutured in position at the skin entrance site.
- Bolus injection of thrombolytic agent is performed.
- Thrombolysis infusion is initiated.

Description of Post-Service Work:

- Dressings are applied.
- Moderate sedation post procedure work.
- The patient is transferred from the angio suite to the ICU for care during thrombolysis.
- Appropriate care orders are entered in the electronic medical record.
- The procedure is documented in the chart.
- Procedural imaging is post processed and a permanent record is created for the PACS archive.

• A formal report including image interpretation is dictated, transcribed, edited, and authenticated for archival in the permanent medical record.

• The procedural findings and treatment plans are discussed with the patient, family, and referring medical team.

• Ongoing evaluation and management care is provided in the ICU during the infusion which includes management of thrombolysis dose, anticoagulation, monitoring of appropriate blood levels (e.g. fibrinogen, coagulation studies, etc) and clinical assessment of limb perfusion and access site.

SURVEY DAT	Γ Α								
RUC Meeting Da	ate (mm/yyyy)	04/2012							
Presenter(s):	Gary Seabroo MD, Sean Roo Jerry Niedzwie	k, MD, Robert ddy, MD, Sear ecki, MD, Gera	t Zwolak, N n Tutton, N aldine McO	/ID, Mathew ID, Michael I Sinty, MD an	Sideman, M Hall, MD, Ro d Zeke Silva	D, Michael Su obert Vogelza a, MD	utherland, ng, MD,		
Specialty(s):	Vascular Surg	ery, Interventi	onal Radio	ology and Dia	agnostic Ra	diology			
CPT Code:	37211								
Sample Size:	50	Respo	onse: 1.9 %						
Description of Sample:	SVS - 1953, A SIR - 400 ranc ACR - 175, rai	II US, MD me lomly selected ndomly select	mbers d ed						
			Low	25 th pctl	Median*	75th pctl	<u>High</u>		
Service Performance Rate			0.00	4.00	8.00	15.00	40.00		
Survey RVW:			5.00	8.00	9.00	10.00	20.00		
Pre-Service Evalu	uation Time:				52.50				
Pre-Service Posit	ioning Time:				10.00				
Pre-Service Scrul	b, Dress, Wait Tir	ne:			12.50				
Intra-Service Ti	me:		20.00	45.00	60.00	90.00	120.00		
Immediate Post	Service-Time:	<u>30.00</u>			1	1			
Post Operative	Visits	Total Min**	CPT Cod	e and Num	ber of Visit	S			
Critical Care tim	ne/visit(s):	0.00	99291x 0	.00 99292	2x 0.00				
Other Hospital t	time/visit(s):	<u>0.00</u>	99231x 0	.00 99232	2x 0.00 9	9233x 0.00			
Discharge Day I	Mgmt:	<u>0.00</u>	99238x 0.00 99239x 0.00 99217x 0.00						
Office time/visit	(s):	<u>0.00</u>	99211x 0	.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00		
Prolonged Serv	ices:	<u>0.00</u>	99354x 0.00 55x 0.00 56x 0.00 57x 0.00						
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00 9	9226x 0.00			

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: 2b -FAC Diff Pat/Straightfor Proc(w sedation/anes)

CPT Code:	37211	Recommended Physician Work RVU: 8.00					
			Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time		
Pre-Service Evaluation Time:			40.00	33.00	7.00		
Pre-Service Positioning Time:			3.00	1.00	2.00		
Pre-Service Scrub, Dress, Wait Time:			5.00	5.00	0.00		
Intra-Service Time:			60.00				
Immediate Post Service	e-Time: <u>30.0</u>	<u>0</u>					
Post Operative Visits	Total M	lin**	CPT Code and Num	<u>ber of Visits</u>			
Critical Care time/visit(s): <u>0.00</u>	<u>)</u>	99291x 0.00 99292	× 0.00			
Other Hospital time/vis	it(s): <u>0.00</u>	<u>)</u>	99231x 0.00 99232	x 0.00 99233x 0.0	D		
Discharge Day Mgmt:	<u>0.00</u>	<u>)</u>	99238x 0.0 99239x 0	.0 99217x 0.0	0		
Office time/visit(s):	<u>0.00</u>)	99211x 0.00 12x 0.00	13x 0.00 14x 0.00	15x 0.00		
Prolonged Services:	<u>0.00</u>	<u>)</u>	99354x 0.00 55x 0	.00 56x 0.00 57	× 0.00		

					CPT Code: 37211
Sub Obs Care:	<u>0.00</u>	99224x 0.00	99225x 0.00	99226x	0.00
Modifier -51 Exempt Status Is the recommended value for the	e new/revised	d procedure bas	sed on its modifie	r -51 exem	pt status? No
New Technology/Service: Is this new/revised procedure co	onsidered to b	e a new techno	logy or service?	No	
KEY REFERENCE SERVICE					
<u>Key CPT Code</u> <u>C</u> 37184	<u>ilobal</u> 000		Worl 8.6	<u>k RVU</u> 6	<u>Time Source</u> RUC Time
<u>CPT Descriptor</u> Primary percut graft, including fluoroscopic guid	aneous translu lance and intra	uminal mechan aprocedural pha	ical thrombectom rmacological thro	y, noncoro mbolytic in	nary, arterial or arterial bypas jection(s); initial vessel
KEY MPC COMPARISON C Compare the surveyed code to c appropriate that have relative val	DDES: codes on the Fues higher and	RUC's MPC Lis l lower than the	st. Reference coor requested relative	les from the values for	e MPC list should be chosen, i the code under review.
MPC CPT Code 1 43269 CPT Descriptor 1 Endoscopic foreign body and/or change of tu	<u>Global</u> <u>Worl</u> 000 retrograde ch be or stent	<u>k RVU</u> 8.20 olangiopancrea	Time Source RUC Time tography (ERCP)	<u>Me</u> ; with end	Most Recent dicare Utilization 19,974 loscopic retrograde removal o
<u>MPC CPT Code 2</u> <u>Glo</u> 31600	<u>bbal</u> 000	<u>Work RVU 7</u> 7.17	<u>Time Source</u> RUC Time	M	Most Recent edicare Utilization 37,809
<u>CPT Descriptor 2</u> Tracheostomy	planned (sepa	arate procedure)	;		
Other Reference CPT Code	<u>Global</u>	<u>Work RVU</u> 0.00	<u>Time Sou</u>	rce	
CPT Descriptor					
RELATIONSHIP OF CODE H	BEING REVI	EWED TO KI	EY REFERENCI	E SERVIC	E(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 11 % of respondents: 22.0 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 37211	Key Reference CPT Code: <u>37184</u>	Source of Time RUC Time
Median Pre-Service Time	48.00	40.00	
Median Intra-Service Time	60.00	90.00	
Median Immediate Post-service Time	30.00	30.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	
Median Office Visit Time	0.0	0.00	
Prolonged Services Time	0.0	0.00	

Median Subsequent Observation Care Time	0.0	0.00
Median Total Time	138.00	160.00
Other time if appropriate		

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

Mental Effort and Judgment (Mean)		
The number of possible diagnosis and/or the number of	4.00	4.11
management options that must be considered	J	
The amount and/or complexity of medical records, diagnostic tests,	4.18	4.11
and/or other information that must be reviewed and analyzed	J	
Urgency of medical decision making	4.64	4.56
Technical Skill/Physical Effort (Mean)		
Technical skill required	4.36	4.22
Physical effort required	4.09	4.00
Psychological Stress (Mean)	1	
The will of significant complications, more distributed on the statistics of the sta	4.92	4.67
The fisk of significant complications, moroluty and/of mortanty	4.02	4.07
	ı (ı	
Outcome depends on the skill and judgment of physician	4.64	4.67
Estimated risk of malpractice suit with poor outcome	4.18	4.33
INTENSITY/COMPLEXITY MEASURES	CPT Code	Reference
		<u>Service 1</u>
<u>Time Segments (Mean)</u>		
Pre-Service intensity/complexity	4.09	4.11
Intra-Service intensity/complexity	4.27	4.44
Post-Service intensity/complexity	3.18	3.11

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

Why is this code being reviewed?

Code 37211 "Transcatheter therapy, arterial infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, initial treatment day" is a new code bundling the work of arterial thrombolysis. This service was previously reported with 37201 "Transcatheter therapy, infusion for thrombolysis other than coronary" (wRVU 4.99), 75896 "Transcatheter therapy, infusion, any method (eg, thrombolysis other than coronary), radiological supervision and interpretation" (wRVU 1.31), and 75898 "Angiography through existing catheter for follow-up study for transcatheter therapy, embolization or infusion" (wRVU 1.65). It also bundles all evaluation and management service provided on the same day. These patients require ICU care and the most frequent E&M code would be 99233 "Subsequent hospital care, per day, for the evaluation and management of a patient, which requires at least 2 of these 3 key components: A detailed interval history; A detailed examination; Medical decision making of high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the patient is unstable or has developed a significant complication or a significant new problem. Physicians typically spend 35 minutes at the bedside and on the patient's hospital floor or unit" (wRVU 2.00).

Work RVU Recommendation

We are recommending the 25th percentile from our multispecialty survey, a work RVU of 8.00.

<u>Pre-time</u>

Pre-time package 2b (facility- difficult patient/straightforward procedure with sedation/anesthesia) is appropriate, with modifications to the package positioning time. We believe it is fully justified to add 7 minutes to pre-service evaluation to account for selection and verification of numerous supplies and devices, review and set-up of significant imaging necessary for the procedure, and to coordinate all technical personnel. We recommend adding 2 minutes for appropriate positioning on the table in order to be able to obtain all appropriately necessary views to treat the lesion in question. These additional minutes were added to the lower extremity revascularization codes for the same reasons and accepted by the RUC.

Comparison to key reference code

Clinical Comparison with Key Reference

The key reference service chosen by 22% of survey respondents is 37184 "Primary percutaneous transluminal mechanical thrombectomy, noncoronary, arterial or arterial bypass graft, including fluoroscopic guidance and intraprocedural pharmacological thrombolytic injection(s); initial vessel." This is similar to 37211 in the sense that they are both endovascular procedures performed on occluded arteries. Key differences are that 37184 involves the use of a mechanical device to remove thrombus whereas 37211 only uses pharmacologic means. The addition of a mechanical device adds a significant amount of time to the procedure. In addition, all of the evaluation and management services provides on the same day are also bundled into 37211 but they are not included in 37184.

Work Comparison with Key Reference

The primary differences between 37184 "Primary percutaneous transluminal mechanical thrombectomy, noncoronary, arterial or arterial bypass graft, including fluoroscopic guidance and intraprocedural pharmacological thrombolytic injection(s); initial vessel." and 37211 are the intra-service time, the intensity, and the bundled E&M services. 37184 requires 30 minutes MORE intra-time than 37211 (90 min compared to 60). Otherwise, the two services have the similar pre-time and immediate post-service times. The increased intra-time for 37184 is accounted for by the preparation and use of the mechanical device to remove thrombus from a vessel. 37211 is more intense than 37184 because it involves the initial diagnosis and decision making to treat the problem while 37814 is more technical. 37211 also includes all E&M services provided on the same day while the patient is in the intensive care unit receiving pharmacologic thrombolysis.

Given these similarities, the two codes compare favorably and support our recommended 25th percentile survey value of 8.00.

	RVW	IWPUT	Total Time	Eval	Posit	SDW	INTRA	IM-post
37211	8.00	0.105	138	40	3	5	60	30
37184	8.66	0.080	160	20	10	10	90	30

Comparison to MPC codes

Comparison with MPC List Code 1, CPT 43269 – RVW 8.20

43269 "Endoscopic retrograde cholangiopancreatography (ERCP); with endoscopic retrograde removal of foreign body and/or change of tube or stent" is a 0-day MPC service with 141 minutes total time, including 40 minutes pre-time and 30 minutes post-time. Both 43269 and 37211 are invasive procedures requiring technical skill to perform successfully. Both 43269 and 37211 have similar of intra-service times (71min vs. 60 min) and very similar IWPUTs (0.0934 vs. 0.105). RVW for 43269 is 8.20 and the major adjustment to estimate an RVW for 37211 from this reference service lies in the preservice and intra-service times. The difference in intra-service time can be accounted for by subtracting 11 minutes multiplied by the IWPUT for 43269 (11 x 0.0934 = 1.0274) and adding 8 minutes of pre-service time at 0.0224 RVW per minute (8 x 0.0224 = 0.1792).

Thus, the estimated RVW of 37211 should be 8.20 (MPC RVW) + 0.1792 (pre-service adjustment) – 1.0274 (intra-service adjustment) = 7.35. Comparison with this MPC code with very similar time and intensity inputs supports our recommended 25^{th} percentile survey value of 8.00.

Comparison with MPC List Code 1, CPT 31600 - RVW 7.17

31600 "Tracheostomy, planned (separate procedure);" is a 0-day MPC service with 156 minutes total time including 50 minutes pre-time and 66 minutes post-time. Both 31600 and 37211 are procedures requiring technical skill to complete successfully. Both 31600 and 37211 have similar total times and intensities but different distribution of times. RVW for 31600 is 7.17 and the adjustments to estimate an RVW for 37211 from this reference service lies in the pre-, intra- and post-service times. The difference in intra-service time can be accounted for by adding 20 minutes multiplied by the IWPUT for 31600 (20 x 0.1134 = 2.268) and subtracting 38 minutes of pre- and post-service time at 0.0224 RVW per minute (38 x 0.0224 = 0.8512).

Thus, the estimated RVW of 37211 should be 7.17 (MPC RVW) + 2.268 (intra-service adjustment) – 0.8512 (pre- and post-service adjustment) = 8.59. Comparison with this MPC code with very similar time and intensity inputs supports our recommended 25^{th} percentile survey value of 8.00.

In conclusion, our recommended 25th percentile survey value of 8.00 lays nicely between the wRVU for MPC codes 31600 and 43269, both raw and adjusted.

				Total					
CPT	DESC	RVW	IWPUT	Time	Eval	Posit	SDW	INTRA	IM-post
43269	Endo cholangiopancreatograph	8.20	0.093	141	40			71	30
37211	Thrombolysis, arterial, init day	8.00	0.105	138	40	3	5	60	30
31600	Incision of windpipe	7.17	0.113	156	50			40	66

Additional points of comparison

We find four other codes in the RUC database that further support our recommended 25th percentile survey value of 8.00 for 37211. They are 93460 "Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with right and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed", 52345 "Cystourethroscopy with ureteroscopy; with treatment of ureteropelvic junction stricture (eg, balloon dilation, laser, electrocautery, and incision)", 93461 "Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for left ventriculography, when performed, subject and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed, catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) with bypass graft angiography", 36254 "Superselective catheter placement (one or more second order or higher renal artery branches) renal artery and any accessory renal artery(s) for renal angiography, including arterial puncture, catheterization, fluoroscopy, contrast injection(s), image postprocessing, permanent recording of images, and radiological supervision and interpretation, including pressure gradient measurements when performed, and flush aortogram when performed; bilateral", and 52346

"Cystourethroscopy with ureteroscopy; with treatment of intra-renal stricture (eg, balloon dilation, laser, electrocautery, and incision)." The table below compares these codes to 37211.

СРТ	DESC	RVW	IWPIIT	Total Time	Eval	Posit	SDW	INTRA	IM-nost	RUC
011	5200				Lvai	1 031	0011		im-post	Tevieweu
52345	Cysto/uretero w/up stricture	7.55	0.128	135	45	10	15	45	20	2008
93460	R&I hrt art/ventricle angio	7.35	0.113	128	40	3	5	50	30	2010
37211	Thrombolysis, arterial, init day	8.00	0.105	138	40	3	5	60	30	2012

								-		
93461	R&I hrt art/ventricle angio	8.10	0.095	153	45	3	5	65	35	2010
36254	Ins cath ren art 2nd+ bilat	8.15	0.098	139	33	3	5	68	30	2011
52346	Cystouretero w/renal strict	8.58	0.116	140	40	10	10	60	20	2008

Summary

Based on all the above data and comparisons, we believe the 25th percentile survey RVW of 8.00 is appropriate for 37211.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: Yes

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.



Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario. Thrombolysis infusion can occur in any vessel, both arterial and venous. The work required for thrombolysis infusion will depend on the specific vessel that needs to be catheterized. Therefore, it is expected that coding for the procedure will include one or more vascular catheterization codes in addition to the arterial or venous thrombolysis infusion code. This reflects current coding practice and appropriately represents the highly variable work required for thrombolysis of different vessels.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 37201, 75896 and 99233

How often do physicians in your specialty perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Vascular Surgery	How often? Commonly
Specialty Interventional Radiology	How often? Commonly

Specialty Cardiology

How often? Sometimes

Estimate the number of times this service might be provided nationally in a one-year period? If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate. An estimate for the number of times this service is performed nationally in a one-year period is unknown.

Specialty	Frequency	Percentage	%
Specialty	Frequency	Percentage	%

Specialty	Frequency	Р	Percentage	%				
Estimate the number of times this service might be provided to Medicare patients nationally in a one-year period? 8,062 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. The specialty mix is based on the specialty mix in the reference service code 37184.								
Specialty Vascular Surg	gery F	requency 1855	Р	ercentage 23.00 %				
Specialty Interventional	Surgery F	requency 3225	Percentag	ge 40.00 %				
Specialty Cardiology	Frequency	y 1290 P	Percentage 16.00	%				
Do many physicians perform this service across the United States? Yes								

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix will not change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 37184

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:37212 Tracking Number I2

Original Specialty Recommended RVU: 7.06 Presented Recommended RVU: 7.06 RUC Recommended RVU: 7.06

Global Period: 000

CPT Descriptor: Transcatheter therapy, venous infusion for thrombolysis, any method, including radiological supervision and interpretation, initial treatment day

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 45-year-old woman presents with sudden onset of a severely swollen and painful left leg. Duplex ultrasound shows acute left leg deep vein thrombosis affecting the femoral vein. Diagnostic venography confirms thrombosis and also demonstrates thrombosis extending to the common iliac vein (venography reported separately). Venous thrombolysis is performed using a popliteal vein approach.

Percentage of Survey Respondents who found Vignette to be Typical: 96%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? Yes Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 96%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 10%

Description of Pre-Service Work:

- The patient is evaluated.
- A targeted H&P is performed.
- The proposed procedure is discussed with the patient/family and consent is obtained and documented.
- The patient is transferred from her hospital room to the angiographic suite and placed prone on the angiographic table.
- Moderate sedation is administered.

Description of Intra-Service Work:

• Monitor the patient for moderate sedation.

• An exchange length guidewire is inserted into the diagnostic catheter and the diagnostic catheter is removed under fluoroscopic guidance.

- Under fluoroscopic guidance a coaxial infusion catheter system is introduced over the guidewire and positioned with the distal tip in the inferior vena cava and with the proximal sideholes in the thrombosed vein.
- Angiography is performed to document location of catheter.
- The catheters and access sheath are sutured in position at the skin entrance site.
- Bolus injection of thrombolytic agent is performed.
- Thrombolysis infusion is initiated.

Description of Post-Service Work:

- Dressings are applied.
- Moderate sedation post procedure work.
- The patient is transferred from the angio suite to the ICU for care during thrombolysis.
- Appropriate care orders are written.
- The procedure is documented in the chart.
- Procedural imaging is post processed and a permanent record is created for the PACS archive.

• A formal report including image interpretation is dictated, transcribed, edited, and authenticated for archival in the permanent medical record.

• The procedural findings and treatment plans are discussed with the patient, family, and referring medical team.

• Ongoing evaluation and management care is provided in the ICU during the infusion which includes management of thrombolysis dose, anticoagulation, monitoring of appropriate blood levels (e.g. fibrinogen, coagulation studies, etc) and clinical assessment of venous return and access site.

SURVEY DAT	Γ Α						
RUC Meeting Da	ate (mm/yyyy)	04/2012					
Presenter(s):	Gary Seabroo MD, Sean Roo Jerry Niedzwie	Gary Seabrook, MD, Robert Zwolak, MD, Mathew Sideman, MD, Michael Sutherland, MD, Sean Roddy, MD, Sean Tutton, MD, Michael Hall, MD, Robert Vogelzang, MD, Jerry Niedzwiecki, MD, Geraldine McGinty, MD and Zeke Silva, MD					
Specialty(s):	Vascular Surg	/ascular Surgery, Interventional Radiology and Diagnostic Radiology					
CPT Code:	37212						
Sample Size:	2528 Re	esp N:	50	Respo	nse: 1.9 %		
Description of Sample:	SVS - 1953, A SIR - 400 ranc ACR - 175, rai	SVS - 1953, All US, MD members SIR - 400 randomly selected ACR - 175, randomly selected					
			Low	25 th pctl	Median*	75th pctl	High
Service Performance Rate			0.00	5.00	8.00	15.00	50.00
Survey RVW:			3.85	7.06	8.08	9.88	15.00
Pre-Service Evalu	uation Time:				52.50		
Pre-Service Posit	ioning Time:				10.00		
Pre-Service Scrul	b, Dress, Wait Tir	ne:			12.50		
Intra-Service Ti	me:		15.00	45.00	60.00	90.00	120.00
Immediate Post	Service-Time:	<u>30.00</u>		1	1	11	
Post Operative	Visits	Total Min**	CPT Cod	e and Num	ber of Visit	s	
Critical Care tim	ne/visit(s):	0.00	99291x 0.00 99292x 0.00				
Other Hospital t	time/visit(s):	<u>0.00</u>	99231x 0.00 99232x 0.00 99233x 0.00				
Discharge Day I	Mgmt:	<u>0.00</u>	99238x 0.00 99239x 0.00 99217x 0.00				
Office time/visit	(s):	<u>0.00</u>	00 99211x 0.00 12x 0.00 13x 0.00 14x 0.00 15x 0.00				
Prolonged Serv	ices:	<u>0.00</u>	99354x 0	. 00 55x 0	.00 56x 0).00 57x 0.0)0
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00 9	99226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: 2b -FAC Diff Pat/Straightfor Proc(w sedation/anes)

CPT Code:	37212	Recommended Phys	Recommended Physician Work RVU: 7.06					
		Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time				
Pre-Service Evaluation Ti	me:	40.00	33.00	7.00				
Pre-Service Positioning T	ime:	3.00	1.00	2.00				
Pre-Service Scrub, Dress,	, Wait Time:	5.00	5.00	0.00				
Intra-Service Time:		60.00						
Immediate Post Service	e-Time: <u>30.00</u>							
Post Operative Visits	Total Min**	CPT Code and Num	<u>ber of Visits</u>					
Critical Care time/visit(s): <u>0.00</u>	99291x 0.00 99292	x 0.00					
Other Hospital time/vis	it(s): <u>0.00</u>	99231x 0.00 99232	x 0.00 99233x 0.0	0				
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0	.0 99217x 0.0)				
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00) 13x 0.00 14x 0.00	15x 0.00				
Prolonged Services:	0.00	99354x 0.00 55x 0	.00 56x 0.00 57	< 0.00				

				CPT Code: 3	37212
Sub Obs Care:	<u>0.00</u>	99224x 0.00	99225x 0.00	99226x 0.00	
Modifier -51 Exempt Status					

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? No

KEY REFERENCE SF	CRVICE:				
<u>Key CPT Code</u> 37187	<u>Global</u> 000		<u>Work</u> 8.0	<u>RVU</u> 3	<u>Time Source</u> RUC Time
<u>CPT Descriptor</u> Percutar thrombolytic injections a	neous transluminal nd fluoroscopic gu	mechanical thro	ombectomy, vein(s),	including in	traprocedural pharmacologic
KEY MPC COMPARI Compare the surveyed c appropriate that have rela	SON CODES: ode to codes on thative values higher	ne RUC's MPC and lower than	List. Reference cod	es from the values for th	MPC list should be chosen, ne code under review. Most Recent
MPC CPT Code 1	<u>Global</u> <u>V</u>	Vork RVU	Time Source	Medi	icare Utilization
58560	000	6.99	RUC Time		64
CPT Descriptor 1 Hyster	oscopy, surgical; v	vith division or r	esection of intrauteri	ne septum (a	ny method)
		/			Most Recent
<u>MPC CPT Code 2</u>	<u>Global</u>	Work RVU	Time Source	Mec	licare Utilization
31600	000	7.17	RUC Time		37,809
CPT Descriptor 2 Trache	costomy, planned (separate procedu	ıre);		
Other Reference CPT Co	ode <u>Global</u>	<u>Work R</u> 0.00	<u>VU</u> <u>Time Sou</u>	<u></u>	
CPT Descriptor					
RELATIONSHIP OF (CODE BEING RI	EVIEWED TO	KEY REFERENCH	SERVICE	(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference C	Code: 15	% of respondents: 30.0 %			
<u>TIME ESTIMATES (Median)</u>	CPT Code: 37212	Key Reference CPT Code: <u>37187</u>	Source of Time RUC Time		
Median Pre-Service Time	48.00	40.00			
Median Intra-Service Time	60.00	85.00			
Median Immediate Post-service Time	30.00	20.00			
Median Critical Care Time	0.0	0.00			
Median Other Hospital Visit Time	0.0	0.00			
Median Discharge Day Management Time	0.0	0.00			
Median Office Visit Time	0.0	0.00			
Prolonged Services Time	0.0	0.00			
Median Subsequent Observation Care Time	0.0	0.00			

Median Total Time	138.00	145.00
Other time if appropriate		

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

<u>Mental Effort and Judgment (Mean)</u>		
The number of possible diagnosis and/or the number of	3.71	3.62
management options that must be considered		
The amount and/or complexity of medical records, diagnostic tests,	3.79	3.69
and/or other information that must be reviewed and analyzed		
Urgency of medical decision making	3.86	3.69
Technical Skill/Physical Effort (Mean)		
Technical skill required	4.07	3.85
Physical effort required	4.07	3.85
Psychological Stress (Mean)		
The risk of significant complications, morbidity and/or mortality	4.21	3.92
Outcome depends on the skill and judgment of physician	4.36	4.08
Estimated risk of malpractice suit with poor outcome	3.79	3.62
INTENSITY/COMPLEXITY MEASURES	<u>CPT Code</u>	<u>Reference</u> Service 1
Time Segments (Mean)		
Pre-Service intensity/complexity	3.71	3.62
Intra-Service intensity/complexity	4.00	4.00
Post-Service intensity/complexity	3.50	3.15
* * *	J	·

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

Why is this code being reviewed?

Code 37212 "Transcatheter therapy, venous infusion for thrombolysis any method, including radiological supervision and interpretation, initial treatment day" is a new code bundling the work of venous thrombolysis. This service was

previously reported with 37201, "Transcatheter therapy, infusion for thrombolysis other than coronary" (wRVU 4.99), Code 75896 "Transcatheter therapy, infusion, any method (eg, thrombolysis other than coronary), radiological supervision and interpretation" (wRVU 1.31), and 75898 "Angiography through existing catheter for follow-up study for transcatheter therapy, embolization or infusion" (wRVU 1.65). It also bundles all evaluation and management service provided on the same day. These patients require ICU care and the most frequent E&M code would be 99233 "Subsequent hospital care, per day, for the evaluation and management of a patient, which requires at least 2 of these 3 key components: A detailed interval history; A detailed examination; Medical decision making of high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the patient is unstable or has developed a significant complication or a significant new problem. Physicians typically spend 35 minutes at the bedside and on the patient's hospital floor or unit" (wRVU 2.00).

Work RVU Recommendation

We are recommending the 25th percentile from our multispecialty survey, a work RVU of 7.06.

<u>Pre-time</u>

Pre-time package 2b (facility- difficult patient/straightforward procedure with sedation/anesthesia) is appropriate, with modifications to the package positioning time. We believe it is fully justified to add 7 minutes to pre-service evaluation to account for selection and verification of numerous supplies and devices, review and set-up of significant imaging necessary for the procedure, and to coordinate all technical personnel. We recommend adding 2 minutes for appropriate positioning on the table in order to be able to obtain all appropriately necessary views to treat the lesion in question. These additional minutes were added to the lower extremity revascularization codes for the same reasons and accepted by the RUC.

Comparison to key reference code

Clinical Comparison with Key Reference

The key reference service chosen by 30% of survey respondents is 37187 "Percutaneous transluminal mechanical thrombectomy, vein(s), including intraprocedural pharmacological thrombolytic injections and fluoroscopic guidance." This is similar to 37212 in the sense that they are both vascular interventions performed on veins for thrombosis. Key differences are that 37187 only involves mechanical thrombectomy while 37212 involves the initial diagnostic exam, decision to perform thrombolysis, and all evaluation and management services provided that day.

Work Comparison with Key Reference

The primary differences between 37187 "Percutaneous transluminal mechanical thrombectomy, vein(s), including intraprocedural pharmacological thrombolytic injections and fluoroscopic guidance" and 37212 lay in the intra-service time and the pre- and post-service times. Code 37187 requires 25 minutes MORE intra-time than 37212 (85 min compared to 60). The pre-service time is longer for 37212 (48 min vs. 40) and the post-service time is longer for 37212 (30 min vs. 20). The increased intra-time for 37187 is accounted for by the preparation and use of the mechanical device to remove thrombus from the vein.

Given these similarities, the two codes compare favorably and support our recommended 25th percentile survey value of 7.06.

			Total					
	RVW	IWPUT	Time	Eval	Posit	SDW	INTRA	IM-post
37212	7.06	0.090	138	40	3	5	60	30
37187	8.03	0.080	145	26	5	9	85	20

Comparison to MPC codes

Comparison with MPC List Code 1, CPT 31600 - RVW 7.17

31600 "Tracheostomy, planned (separate procedure);" is a 0-day MPC service with 156 minutes total time including 50 minutes pre-time and 66 minutes post-time. Both 36100 and 37212 are procedures requiring technical skill to complete successfully. Both 31600 and 37212 have similar total times and intensities but different distribution of times. RVW for 36100 is 7.17 and the adjustments to estimate an RVW for 37212 from this reference service lies in the pre-, intra- and post-service times. The difference in intra-service time can be accounted for by adding 20 minutes multiplied by the

IWPUT for $31600 (20 \times 0.1134 = 2.268)$. The difference in pre- and post-service time can be accounted for by subtracting 38 minutes at 0.0224 RVW per minute (38 x 0.0224 = 0.8512).

Thus, the estimated RVW of 37212 should be 7.17 (MPC RVW) + 2.268 (intra-service adjustment) – 0.8512 (pre- and post-service adjustment) = 8.59. Comparison with this MPC code with very similar time and intensity inputs supports our recommended 25^{th} percentile survey value of 7.06.

Comparison with MPC List Code 1, CPT 58560 - RVW 6.99

58560 "Hysteroscopy, surgical; with division or resection of intrauterine septum (any method)" is a 0-day MPC service with 125 minutes total time, including 40 minutes pre-time and 25 minutes post-time. Both 58560 and 37212 are invasive procedures requiring technical skill to perform successfully. 58560 and 37212 have identical intra-service times and very similar IWPUTs (0.0922 vs. 0.090). RVW for 58560 is 6.99 and the major adjustment to estimate an RVW for 37212 from this reference service lies in the pre-service and post-service times. The difference in pre- and post-service times can be accounted for by adding 8 minutes of pre-service time at 0.0224 RVW per minute (8 x 0.0224 = 0.1792) and adding 5 minutes of post-service time at 0.0224 RVW per minute (5 x 0.0224 = 0.112).

Thus, the estimated RVW of 37212 should be 6.99 (MPC RVW) + 0.1792 (pre-service adjustment) + 0.112 (post-service adjustment) = 7.28. Comparison with this MPC code with very similar time and intensity inputs supports our recommended 25^{th} percentile survey value of 7.06.

СРТ	DESC	RVW	IWPUT	Total Time	Eval	Posit	SDW	INTRA	IM-post
31600	Incision of windpipe	7.17	0.113	156	50			40	66
37212	Thrombolysis, vein, init day	7.06	0.090	138	40	3	5	60	30
58560	Hysteroscopy resect septum	6.99	0.092	125	40			60	25

In conclusion, our recommended 25th percentile survey value of 7.06 lays nicely between the wRVU for MPC codes 36100 and 58560, both raw and adjusted.

Additional points of comparison

We find four other codes in the RUC database that further support our recommended 25th percentile survey value of 7.06 for 37212. They are 31545 "Laryngoscopy, direct, operative, with operating microscope or telescope, with submucosal removal of non-neoplastic lesion(s) of vocal cord; reconstruction with local tissue flap(s)", 36475 "Endovenous ablation therapy of incompetent vein, extremity, inclusive of all imaging guidance and monitoring, percutaneous, radiofrequency; first vein treated", 93460 "Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for left ventriculography, when performed.", and 52345 "Cystourethroscopy with ureteroscopy; with treatment of ureteropelvic junction stricture (eg, balloon dilation, laser, electrocautery, and incision)" The table below compares these codes to 37212.

СРТ	DESC	RVW	IWPUT	Total Time	Eval	Posit	SDW	INTRA	IM-post	RUC reviewed
31545	Remove vc lesion w/scope	6.30	0.069	154	40	10	10	60	34	2004
36475	Endovenous rf 1st vein	6.72	0.075	159	40	10	15	60	34	2004
37212	Thrombolysis, vein, init day	7.06	0.090	138	40	3	5	60	30	2012
93460	R&I hrt art/ventricle angio	7.35	0.114	128	40	3	5	50	30	2010
52345	Cysto/uretero w/up stricture	7.55	0.128	153	45	10	15	45	20	2008

<u>Summary</u>

Based on all the above data and comparisons, we believe the 25th percentile survey RVW of 7.06 is appropriate for 37212.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: Yes

CPT Code: 37212 Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)



The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario. Thrombolysis infusion can occur in any vessel, both arterial and venous. The work required for thrombolysis infusion will depend on the specific vessel that needs to be catheterized. Therefore, it is expected that coding for the procedure will include one or more vascular catheterization codes in addition to the arterial or venous thrombolysis infusion code. This reflects current coding practice and appropriately represents the highly variable work required for thrombolysis of different vessels.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 37201, 75894 and 99233

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Vascular Surgery	How often? Commonly
Specialty Interventional Radiology	How often? Commonly
Specialty Cardiology	How often? Sometimes

Estimate the number of times this service might be provided nationally in a one-year period? If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate. An estimate for the number of times this service is performed nationally in a one-year period is unknown.

Specialty	Frequency	Percentage	%
Specialty	Frequency	Percentage	%
Specialty	Frequency	Percentage	%

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 5,374 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. The specialty mix is based on the specialty mix in the reference service code 37184.

Specialty Vascular Surger	Freque	ncy 1237	Percentage 23.01 %
Specialty Interventional Rad	liology	Frequency 2150	Percentage 40.00 %
Specialty Cardiology	Frequency 860	Percentage	16.00 %

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix will not change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 37184

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:37213	Tracking Number I3	Original Specialty Recommended RVU: 5.00
		Presented Recommended RVU: 5.00
Global Period: 000		RUC Recommended RVU: 5.00

CPT Descriptor: Transcatheter therapy, arterial other than coronary or venous infusion for thrombolysis, any method, including radiological supervision and interpretation, continued treatment on subsequent day during course of thrombolytic therapy, including follow-up catheter contrast injection, position change, or exchange, when performed

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 76-year-old man with an occluded right femoral-popliteal bypass had thrombolysis infusion started the prior day. He has been managed in the intensive care unit overnight. He undergoes follow-up angiography which demonstrates a residual thrombus. A catheter exchange is performed and thrombolytic infusion is resumed.

Percentage of Survey Respondents who found Vignette to be Typical: 94%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? Yes Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 96%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 10%

Description of Pre-Service Work:

- Ongoing evaluation and management care is provided which includes management of thrombolysis dose,
- The patient is transferred from his hospital room to the angiographic suite and placed on the angiographic table.
- Clinical assessment of the patient includes evaluation of extremity perfusion, as well as motor/sensory exam of the affected leg.

• Moderate sedation is administered.

Description of Intra-Service Work:

- Monitor the patient for moderate sedation.
- Thrombolytic infusion is temporarily stopped.
- Contrast is injected through the infusion catheter and angiography is performed, studying the area that is being infused.

• Angiography shows partial success in clot dissolution. The decision is made to exchange the infusion catheter and advance the tip further down the graft. The dressings at the catheter site are removed, and the area is prepped and draped.

• Over a guidewire the existing catheter is removed and exchanged for a replacement.

• Angiography is performed to confirm correct catheter tip position, and to ensure that catheter exchange has not altered the clot position.

- The catheter and access sheath are re-sutured in position at the skin entrance site.
- The catheter and access sheath side-arm are connected to infusion pumps.
- Thrombolysis infusion is re-started.

Description of Post-Service Work:

- Dressings are applied.
- Moderate sedation post procedure work.
- The patient is transferred from the angio suite to the ICU for continued care during thrombolysis.
- Appropriate care orders are written.
- The procedure is documented in the chart.
- Procedural imaging is post processed and a permanent record is created for the PACS archive.

• A formal report including image interpretation is dictated, transcribed, edited, and authenticated for archival in the permanent medical record.

• The procedural findings and treatment plans are discussed with the patient, family, and referring medical team.

• Ongoing evaluation and management care is provided in the ICU during the infusion which includes management of thrombolysis dose, anticoagulation, monitoring of appropriate blood levels (e.g. fibrinogen, coagulation studies, etc) and clinical assessment of limb perfusion and access site.

SURVEY DAT	Γ Α						
RUC Meeting Da	ate (mm/yyyy)	04/2012					
Presenter(s):	Gary Seabrook, MD, Robert Zwolak, MD, Mathew Sideman, MD, Michael Sutherland, MD, Sean Roddy, MD, Sean Tutton, MD, Michael Hall, MD, Robert Vogelzang, MD, Jerry Niedzwiecki, MD, Geraldine McGinty, MD and Zeke Silva, MD						
Specialty(s):	Vascular Surg	Vascular Surgery, Interventional Radiology and Diagnostic Radiology					
CPT Code:	37213						
Sample Size:	2528 R	esp N:	50	Respo	onse: 1.9 %		
Description of Sample:	SVS - 1953, A SIR - 400 rand ACR - 175, rai	II US, MD me lomly selected ndomly select	mbers d ed				
			Low	25 th pctl	Median*	75th pctl	High
Service Perform	nance Rate		0.00	5.00	10.00	20.00	50.00
Survey RVW:			2.93	5.00	6.00	7.00	15.00
Pre-Service Evalu	uation Time:				15.00		
Pre-Service Posit	ioning Time:				10.00		
Pre-Service Scrul	b, Dress, Wait Tir	ne:			10.00		
Intra-Service Ti	me:		15.00	30.00	33.00	60.00	120.00
Immediate Post	Service-Time:	<u>25.00</u>			1	1	
Post Operative	Visits	Total Min**	CPT Code and Number of Visits				
Critical Care tim	ne/visit(s):	0.00	99291x 0.00 99292x 0.00				
Other Hospital time/visit(s): 0.00 99231x 0.0				x 0.00 99232x 0.00 99233x 0.00			
Discharge Day I	Mgmt:	<u>0.00</u>	99238x 0	. 00 99239x	0.00	99217x 0.00	
Office time/visit	(s):	0.00 99211x 0.00 12x 0.00 13x 0.00 14x 0.00 15x 0.00					
Prolonged Serv	ices:	<u>0.00</u>	99354x 0	.00 55x C	.00 56x 0	0.00 57x 0.0)0
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00 9	9226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: 2b -FAC Diff Pat/Straightfor Proc(w sedation/anes)

CPT Code:	37213	Recommended Physician Work RVU: 5.00				
		Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time		
Pre-Service Evaluation Ti	me:	33.00	33.00	0.00		
Pre-Service Positioning T	ime:	3.00	1.00	2.00		
Pre-Service Scrub, Dress, Wait Time:		5.00	5.00	0.00		
Intra-Service Time:		33.00				
Immediate Post Service	e-Time: <u>25.00</u>					
Post Operative Visits	Total Min**	CPT Code and Num	ber of Visits			
Critical Care time/visit(s): <u>0.00</u>	99291x 0.00 99292	x 0.00			
Other Hospital time/vis	it(s): <u>0.00</u>	99231x 0.00 99232	x 0.00 99233x 0.0)		
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0	.0 99217x 0.0)		
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00) 13x 0.00 14x 0.00	15x 0.00		
Prolonged Services:	0.00	99354x 0.00 55x 0	.00 56x 0.00 57	< 0.00		

				CPT Code: 37213	
Sub Obs Care:	<u>0.00</u>	99224x 0.00	99225x 0.00	99226x 0.00	

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? No

KEY REFERENCE SERVICE:

Key CPT Code	<u>Global</u>	Work RVU	Time Source
36521	000	5.35	RUC Time

<u>CPT Descriptor</u> Selective catheter placement (first-order), main renal artery and any accessory renal artery(s) for renal angiography, including arterial puncture and catheter placement(s), fluoroscopy, contrast injection(s), image postprocessing, permanent recording of images, and radiological supervision and interpretation, including pressure gradient measurements when performed, and flush aortogram when performed; unilateral

KEY MPC COMPARISON CODES:

Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review.

				Most Recent
MPC CPT Code 1	<u>Global</u>	Work RVU	Time Source	Medicare Utilization
52276	000	4.99	RUC Time	11,473
CPT Descriptor 1 Cystor	urethroscopy with	direct vision inter	rnal urethrotomy	
				Most Recent
MPC CPT Code 2	<u>Global</u>	Work RVU	Time Source	Medicare Utilization
45385	000	5.30	RUC Time	640,634

<u>CPT Descriptor 2</u> Colonoscopy, flexible, proximal to splenic flexure; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique

Other Reference CPT Code	<u>Global</u>	Work RVU	Time Source
		0.00	

CPT Descriptor

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 8

% of respondents: 16.0 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 37213	Key Reference CPT Code: <u>36521</u>	Source of Time RUC Time
Median Pre-Service Time	41.00	41.00	
Median Intra-Service Time	33.00	45.00]
Median Immediate Post-service Time	25.00	30.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	

Other time if appropriate		
Median Total Time	99.00	116.00
Median Subsequent Observation Care Time	0.0	0.00
Prolonged Services Time	0.0	0.00
Median Office Visit Time	0.0	0.00

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

Mental Effort and Judgment (Mean)

The number of possible diagnosis and/or the number of	3.56	3.22
management options that must be considered		
The amount and/or complexity of medical records, diagnostic tests,	3.44	3.22
and/or other information that must be reviewed and analyzed		
Urgency of medical decision making	3.22	3.11
<u>Technical Skill/Physical Effort (Mean)</u>		
Technical skill required	3.56	3.67
Physical effort required	3.56	3.56
Psychological Stress (Mean)		
The risk of significant complications, morbidity and/or mortality	4.11	3.67
Outcome depends on the skill and judgment of physician	4.22	4.00
Estimated risk of malpractice suit with poor outcome	3.89	3.67
F		
INTENSITY/COMPLEXITY MEASURES	CPT Code	Reference
		Service 1
Time Segments (Mean)		
Pre-Service intensity/complexity	3.67	3.11
Intra-Service intensity/complexity	3.89	3.33
<u>· · ·</u>		
Post-Service intensity/complexity	3.44	3.00
, , , , , , , , , , , , , , , , , , ,		

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

Why is this code being reviewed?

Code 37213, Transcatheter therapy, arterial or venous infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, continued treatment on subsequent day during course of thrombolytic therapy, including follow-up catheter contrast injection, position change, or exchange, when performed; is a new code bundling the subsequent day work of arterial or venous thrombolysis. This service was previously reported with 37209, Exchange of a previously placed intravascular catheter during thrombolytic therapy (wRVU 2.27), 75898, Angiography through existing catheter for follow-up study for transcatheter therapy, embolization or infusion (wRVU 1.65), and 75900, Exchange of a previously placed intravascular catheter during thrombolytic therapy with contrast monitoring, radiological supervision and interpretation (wRVU 0.49). It also bundles all evaluation and management service provided on the same day. These patients require ICU care and the most frequent E&M code would be 99233, Subsequent hospital care, per day, for the evaluation and management of a patient, which requires at least 2 of these 3 key components: A detailed interval history; A detailed examination; Medical decision making of high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the patient is unstable or has developed a significant complication or a significant new problem. Physicians typically spend 35 minutes at the bedside and on the patient's hospital floor or unit (wRVU 2.00).

Work RVU Recommendation

We are recommending the 25th percentile from our multispecialty survey, a work RVU of 5.00.

Pre-time

Pre-time package 2b (facility- difficult patient/straightforward procedure with sedation/anesthesia) is appropriate, with modifications to the package positioning time. We recommend adding 2 minutes for appropriate positioning on the table in order to be able to obtain all appropriately necessary views to treat the lesion in question. These additional minutes were added to the lower extremity revascularization codes for the same reasons and accepted by the RUC.

Comparison to key reference code

Clinical Comparison with Key Reference

The key reference service chosen by 20% of survey respondents is 36521 "Selective catheter placement (first-order), main renal artery and any accessory renal artery(s) for renal angiography, including arterial puncture and catheter placement(s)." This is similar to 37213 in the sense that they are both vascular interventions. Key differences are that 3625 is a first-order diagnostic code whereas 37213 is an interventional code with likely higher order selective catheter placement.

Work Comparison with Key Reference

The primary differences between 36521 "Selective catheter placement (first-order), main renal artery and any accessory renal artery(s) for renal angiography, including arterial puncture and catheter placement(s)." and 37213 are that 36251 has more intra-service time, and more post-service time but a lower intensity. There is less intra-service than key reference 36251 (33 min compared to 45). Otherwise, the two services have the identical pre-service and similar immediate post-service time.

Given these similarities, the two codes compare favorably and support our recommended 25th percentile survey value of 5.00 wRVUs.

СРТ	RVW	IWPUT	Total Time	Eval	Posit	SDW	INTRA	IM-post
37213	5.00	0.109	99	33	3	5	33	25
36251	5.35	0.085	116	33	3	5	45	30

Comparison to MPC codes

Comparison with MPC List Code 1, CPT 52276 – RVW 4.99

52276 "Cystourethroscopy with direct vision internal urethrotomy)" is a 0-day MPC service with 95 minutes total time including 30 minutes pre-time and 30 minutes post-time. Both 52276 and 372X3 are procedures requiring technical skill to complete successfully. Both 52276 and 37213 have similar total times and intensities but different distribution of times. RVW for 52276 is 4.99 and the adjustments to estimate an RVW for 372X3 from this reference service lies in the pre-, intra- and post-service times. The difference in intra-service time can be accounted for by adding 2 minutes multiplied by the IWPUT for 52276 (2 x 0.1042 = 0.2084). The difference in pre- and post-service time can be accounted for by adding 3 minutes at 0.0224 RVW per minute (3 x 0.0224 = 0.0672).

Thus, the estimated RVW of 37212 should be 4.99 (MPC RVW) + 0.2084 (intra-service adjustment) + 0.0672 (pre- and post-service adjustment) = 5.27. Comparison with this MPC code with very similar time and intensity inputs supports our recommended 25^{th} percentile survey value of 5.00.

Comparison with MPC List Code 1, CPT 45385 - RVW 5.30

45385 "Colonoscopy, flexible, proximal to splenic flexure; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique" is a 0-day MPC service with 74 minutes total time, including 16 minutes pre-time and 15 minutes post-time. Both 45385 and 37212 are invasive procedures requiring technical skill to perform successfully. 45385 and 372X2 have similar intra-service times and very similar IWPUTs (0.1071 vs. 0.109). RVW for 45385 is 5.30 and the major adjustment to estimate an RVW for 37213 from this reference service lies in the pre-, intra- and post-service times. The difference in intra-service time can be accounted for by subtracting 10 minutes multiplied by the IWPUT for 45385 (10 x 0.1071 = 1.071). The difference in pre- and post-service times can be accounted for by adding 32 minutes at 0.0224 RVW per minute (32 x 0.0224 = 0.7168).

Thus, the estimated RVW of 37213 should be 5.30 (MPC RVW) - 1.071 (intra-service adjustment) + 0.7168 (pre- and post-service adjustment) = 4.95. Comparison with this MPC code with very similar time and intensity inputs supports our recommended 25^{th} percentile survey value of 5.00.

СРТ	DESC	RVW	IWPUT	Total Time	Eval	Posit	SDW	INTRA	IM-post
52276	Cystoscopy and treatment	4.99	0.104	95	30			35	30
37213	Continue thrombolysis, subseq day	5.00	0.109	99	33	3	5	33	25
45385	Lesion removal colonoscopy	5.30	0.107	74	16			43	15

In conclusion, our recommended 25th percentile survey value of 5.00 lays nicely between the wRVU for MPC codes 52276 and 45385, both raw and adjusted.

Additional points of comparison

We find four other codes in the RUC database that further support our recommended 25th percentile survey value of 5.00 for 37213. They are 43246 "Upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with directed placement of percutaneous gastrostomy tube", 93452 "Left heart catheterization including intraprocedural injection(s) for left ventriculography, imaging supervision and interpretation, when performed", 59070 "Transabdominal amnioinfusion, including ultrasound guidance", and 93455 "Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with catheter placement(s) in bypass graft(s) (internal mammary, free arterial venous grafts) including intraprocedural injection(s) for bypass graft angiography" The table below compares these codes to 37213.

СРТ	DESC	RVW	IWPUT	Total Time	Eval	Posit	SDW	INTRA	IM-post	RUC reviewed
43246	Place gastrostomy tube	4.32	0.075	106	35	8	5	38	20	2005
93452	Left hrt cath w/ventrclgrphy	4.75	0.102	108	40	3	5	30	30	2010
37213	Continue thrombolysis, subseq day	5.00	0.109	99	33	3	5	33	25	2012
59070	Transabdom amnioinfus w/us	5.24	0.109	125	40	15	10	30	30	2003
93455	Coronary art/grft angio s&i	5.54	0.094	123	45	3	5	40	30	2010

Summary

Based on all the above data and comparisons, we believe the 25th percentile survey RVW of 5.00 is appropriate for 37213.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 37209, 75898, 75900 and 99233

How often do physicians in your specialty perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Vascular Surgery	How often? Commonly
Specialty Interventional Radiology	How often? Commonly

Specialty Cardiology How often? Sometimes

Estimate the number of times this service might be provided nationally in a one-year period? If the recommendation is from multiple specialties, please provide the frequency and percentage for each specialty. Please explain the rationale for this estimate. An estimate for the number of times this service is performed nationally in a oneyear period is unknown.

Specialty	Frequency	Percentage	%
Specialty	Frequency	Percentage	%
Specialty	Frequency	Percentage	%

Estimate the number of times this service might be provided to Medicare patients nationally in a one-year period? 2,230 If this is a recommendation from multiple specialties please estimate frequency and percentage for each specialty. Please explain the rationale for this estimate. The specialty mix is based on the specialty mix in the reference service code 37184.

Specialty Vascular Surgery	Frequer	ncy 610 l	Percentage 23.01 %
Specialty Interventional Radiolo	ogy	Frequency 1060	Percentage 40.00 %
Specialty Cardiology	Frequency 424	Percenta	ge 16.00 %

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix will not change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 37184

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:37214	Tracking Number	I4	Original Specialty Recommended RVU: 3.04
	-		Presented Recommended RVU: 3.04
Global Period: 000			RUC Recommended RVU: 3.04

CPT Descriptor: Transcatheter therapy, arterial or venous infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, continued treatment on subsequent day during course of thrombolytic therapy, including follow-up catheter contrast injection, position change, or exchange, when performed, and cessation of thrombolysis including removal of catheter and vessel closure by any method

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey: A 76-year-old man with an occluded right femoral-popliteal bypass has been treated by continuous infusion of thrombolysis for 2 days. He is clinically improved, and there is no longer evidence of leg ischemia. He undergoes follow-up angiography which demonstrates successful thrombolysis. The catheter is removed and vessel closed.

Percentage of Survey Respondents who found Vignette to be Typical: 81%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? Yes Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 92%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 8%

Description of Pre-Service Work:

• Ongoing evaluation and management care is provided which includes management of thrombolysis dose.

• The patient is transferred from his hospital room to the angiographic suite and placed on the angiographic table.

• Clinical assessment of the patient includes evaluation of extremity perfusion, as well as motor/sensory exam of the affected leg.

• Moderate sedation is administered.

Description of Intra-Service Work:

- Moderate sedation is monitored.
- Thrombolytic in fusion is temporarily stopped.
- Contrast is injected through the infusion catheter and angiography is performed, studying the area that is being infused.
- Angiography shows completed therapy.
- The infusion catheter is removed.
- Hemostasis obtained with manual compression, closure device, or standard closure of the arteriotomy.

Description of Post-Service Work:

- Dressings are applied.
- Moderate sedation post procedure work.
- The patient is transferred from the angio suite to the ICU for continued care during thrombolysis.
- Appropriate care orders are written.
- The procedure is documented in the chart.
- Procedural imaging is post processed and a permanent record is created for the PACS archive.

• A formal report including image interpretation is dictated, transcribed, edited, and authenticated for archival in the permanent medical record.

• The procedural findings and treatment plans are discussed with the patient, family, and referring medical team.

• Ongoing evaluation and management care is provided which includes anticoagulation, monitoring of appropriate blood levels (e.g. fibrinogen, coagulation studies, etc) and clinical assessment of limb perfusion and access site.
SURVEY DAT	ΓΑ							
RUC Meeting Da	ate (mm/yyyy)	04/2012						
Presenter(s):	Gary Seabroo MD, Sean Roo Jerry Niedzwie	Gary Seabrook, MD, Robert Zwolak, MD, Mathew Sideman, MD, Michael Sutherland, MD, Sean Roddy, MD, Sean Tutton, MD, Michael Hall, MD, Robert Vogelzang, MD, Jerry Niedzwiecki, MD, Geraldine McGinty, MD and Zeke Silva, MD						
Specialty(s):	Vascular Surg	ery, Interventi	ional Radio	ology and Dia	agnostic Ra	diology		
CPT Code:	37214							
Sample Size:	2528 R	esp N:	48	Respo	onse: 1.8 %			
Description of Sample:	SVS - 1953, A SIR - 400 rand ACR - 175, rai	II US, MD me domly selected ndomly select	mbers d ed					
			Low	25 th pctl	Median*	75th pctl	<u>High</u>	
Service Perform	nance Rate		0.00	5.00	10.00	16.00	50.00	
Survey RVW:			3.00	4.99	5.55	7.00	15.00	
Pre-Service Evalu	uation Time:				17.50			
Pre-Service Posit	ioning Time:				10.00			
Pre-Service Scrul	b, Dress, Wait Tir	ne:			10.00			
Intra-Service Ti	me:		10.00	20.00	38.00	60.00	120.00	
Immediate Post	Service-Time:	23.00		I	1	11		
Post Operative	Visits	Total Min**	CPT Cod	e and Num	ber of Visit	s		
Critical Care tim	ne/visit(s):	0.00	99291x 0	.00 99292	2x 0.00			
Other Hospital t	time/visit(s):	0.00	99231x 0.00 99232x 0.00 99233x 0.00					
Discharge Day I	Mgmt:	0.00	99238x 0.00 99239x 0.00 99217x 0.00					
Office time/visit	(s):	<u>0.00</u>	99211x 0	.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00	
Prolonged Serv	ices:	<u>0.00</u>	99354x 0	.00 55x C	.00 56x 0	.00 57x 0.0	00	
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00 9	9226x 0.00		

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: 2b -FAC Diff Pat/Straightfor Proc(w sedation/anes)

CPT Code: 3	37214	Recommended Physician Work RVU: 3.04			
		Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time	
Pre-Service Evaluation Time:		33.00	33.00	0.00	
Pre-Service Positioning T	ime:	3.00	1.00	2.00	
Pre-Service Scrub, Dress, Wait Time:		5.00	5.00	0.00	
Intra-Service Time:		38.00			
Immediate Post Service	e-Time: <u>23.00</u>				
Post Operative Visits	Total Min**	CPT Code and Num	<u>ber of Visits</u>		
Critical Care time/visit(s): <u>0.00</u>	99291x 0.00 99292	× 0.00		
Other Hospital time/vis	it(s): <u>0.00</u>	99231x 0.00 99232	x 0.00 99233x 0.0	0	
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0	.0 99217x 0.0	0	
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00	13x 0.00 14x 0.00	15x 0.00	
Prolonged Services:	0.00	99354x 0.00 55x 0	.00 56x 0.00 57	× 0.00	

				CPT Code: 37214	_
Sub Obs Care:	<u>0.00</u>	99224x 0.00	99225x 0.00	99226x 0.00	

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? No

KEY REFERENCE SERVICE:

Key CPT Code	<u>Global</u>	Work RVU	Time Source
36251	000	5.35	RUC Time

<u>CPT Descriptor</u> Selective catheter placement (first-order), main renal artery and any accessory renal artery(s) for renal angiography, including arterial puncture and catheter placement(s), fluoroscopy, contrast injection(s), image postprocessing, permanent recording of images, and radiological supervision and interpretation, including pressure gradient measurements when performed, and flush aortogram when performed; unilateral

KEY MPC COMPARISON CODES:

Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review.

				Most Recent
MPC CPT Code 1	<u>Global</u> V	<u>Vork RVU</u>	Time Source	Medicare Utilization
31622	000	2.78	RUC Time	84,807
CPT Descriptor 1 Bronche	oscopy, rigid or f	lexible, including	g fluoroscopic guidan	ce, when performed; diagnostic, with cell
washing, when performed	(separate proced	ure)		
				Most Recent
	~			

MPC CPT Code 2	Global	Work RVU	Time Source	Medicare Utilization
45378	000	3.69	RUC Time	758,465

<u>CPT Descriptor 2</u> Colonoscopy, flexible, proximal to splenic flexure; diagnostic, with or without collection of specimen(s) by brushing or washing, with or without colon decompression (separate procedure)

Other Reference CPT Code	<u>Global</u>	Work RVU	Time Source	
		0.00		

CPT Descriptor

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 8

% of respondents: 16.6 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 37214	Key Reference CPT Code: <u>36251</u>	Source of Time RUC Time
Median Pre-Service Time	41.00	40.00	
Median Intra-Service Time	38.00	45.00	
Median Immediate Post-service Time	23.00	30.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	

Median Discharge Day Management Time	0.0	0.00
Median Office Visit Time	0.0	0.00
Prolonged Services Time	0.0	0.00
Median Subsequent Observation Care Time	0.0	
Median Total Time	102.00	115.00
Other time if appropriate		

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

Mental Effort and Judgment (Mean)

<u>mentar Enore and Sudgment (Micany</u>		
The number of possible diagnosis and/or the number of	3.56	3.22
management options that must be considered		
The amount and/or complexity of medical records, diagnostic tests,	3.44	3.22
and/or other information that must be reviewed and analyzed		
Urgency of medical decision making	3.22	3.11
<u>Technical Skill/Physical Effort (Mean)</u>		
Technical skill required	3.56	3.67
Physical effort required	3.56	3.56
Psychological Stress (Maan)	0.00	0.00
rsychological Stress (1910/2011)		
The risk of significant complications, morbidity and/or mortality	4.11	3.67
Outcome depends on the skill and judgment of physician	4.22	4.00
	I	·
Fotimoted risk of medune time with we are t	2 00	2.60
Esumated risk of maipractice suit with poor outcome	3.89	3.09
INTENSITY/COMPLEXITY MEASURES	CPT Code	Reference
		Service 1
Time Segments (Mean)		
Pre-Service intensity/complexity	3.67	3.11

Intra-Service intensity/complexity	3.89	3.33
Post-Service intensity/complexity	3.44	3.00

Additional Rationale and Comments

CPT Code: 37214

Describe the process by which your specialty society reached your final recommendation. If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.

Why is this code being reviewed?

Code 37214 "Transcatheter therapy, arterial or venous infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, continued treatment on subsequent day during course of thrombolytic therapy, including follow-up catheter contrast injection, position change, or exchange, when performed; cessation of thrombolysis including removal of catheter and vessel closure by any method" is a new code bundling the final day work of arterial or venous thrombolysis. This service was previously reported with 75898 "Angiography through existing catheter for follow-up study for transcatheter therapy, embolization or infusion" (wRVU 1.65), and 99233 "Subsequent hospital care, per day, for the evaluation and management of a patient, which requires at least 2 of these 3 key components: An expanded problem focused interval history; An expanded problem focused examination; Medical decision making of moderate complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the patient is responding inadequately to therapy or has developed a minor complication" (wRVU 1.39).

Work RVU Recommendation

We are recommending the existing values, a work RVU of 3.04.

Pre-time

Pre-time package 2b (facility- difficult patient/straightforward procedure with sedation/anesthesia) is appropriate, with modifications to the package positioning time. We recommend adding 2 minutes for appropriate positioning on the table in order to be able to obtain all appropriately necessary views to treat the lesion in question. These additional minutes were added to the lower extremity revascularization codes for the same reasons and accepted by the RUC.

Comparison to key reference code

Clinical Comparison with Key Reference

The key reference service chosen by 17% of survey respondents is 36521 "Selective catheter placement (first-order), main renal artery and any accessory renal artery(s) for renal angiography, including arterial puncture and catheter placement(s)." This is similar to 37214 in the sense that they are both vascular interventions. Key differences are that 36521 is a first-order diagnostic code whereas 37214 is an interventional code with completion of treatment and closure of the access site.

Work Comparison with Key Reference

The primary differences between 36521 "Selective catheter placement (first-order), main renal artery and any accessory renal artery(s) for renal angiography, including arterial puncture and catheter placement(s)." and 37214 are that 36251 has more intra-service time, and more post-service time but a lower intensity. There is less intra-service than key reference 36251 (38 min compared to 45). Otherwise, the two services have the identical pre-service and similar immediate post-service time.

Given these similarities, the two codes compare favorably and support our recommended value of 3.04 wRVUs.

			Total					
CPT	RVW	IWPUT	Time	Eval	Posit	SDW	INTRA	IM-post
37214	3.04	0.044	102	33	3	5	38	23
36251	5.35	0.085	116	33	3	5	45	30

Comparison to MPC codes

Comparison with MPC List Code 1, CPT 31622 - RVW 2.78

31622 "Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; diagnostic, with cell washing, when performed (separate procedure)" is a 0-day MPC service with 65 minutes total time, including 20 minutes pre-time and 15 minutes post-time. Both 31622 and 37214 are invasive procedures requiring technical skill to perform successfully. Both 31622 and 37214 have similar of intra-service times (30 min vs. 38 min). RVW for 31622 is 2.78 and the major adjustment to estimate an RVW for 37214 from this reference service lies in the pre-service and intra-service times. The difference in intra-service time can be accounted for by adding 8 minutes multiplied by the IWPUT for 31622

CPT Code: 37214 (8 x 0.0688 = 0.5504) and adding 26 minutes of pre- and post-service time at 0.0224 RVW per minute (26 x 0.0224 = 0.5824).

Thus, the estimated RVW of 37214 should be 2.78 (MPC RVW) + 0.5504 (intra-service adjustment) + 0.5824 (pre- and post-service adjustment) = 3.91. Comparison with this MPC code with very similar intra-service time more than supports our recommended value of 3.04.

Comparison with MPC List Code 1, CPT 45378 - RVW 3.69

45378 "Colonoscopy, flexible, proximal to splenic flexure; diagnostic, with or without collection of specimen(s) by brushing or washing, with or without colon decompression (separate procedure)" is a 0-day MPC service with 75 minutes total time including 30 minutes pre-time and 15 minutes post-time. Both 45378 and 37214 are procedures requiring technical skill to complete successfully. Both 45378 and 37214 have similar intra-service times. RVW for 45378 is 3.69 and the adjustments to estimate an RVW for 37214 from this reference service lies in the pre-, intra- and post-service times. The difference in intra-service time can be accounted for by adding 8 minutes multiplied by the IWPUT for 45378 (8 x 0.0917 = 0.7336) and adding 16 minutes of pre- and post-service time at 0.0224 RVW per minute (16 x 0.0224 = 0.3584).

Thus, the estimated RVW of 37214 should be 3.69 (MPC RVW) + 0.7336 (intra-service adjustment) + 0.3584 (pre- and post-service adjustment) = 4.782. Comparison with this MPC code with very similar time supports our recommended value of 3.04.

In conclusion, our recommended value of 3.04 lays nicely between the wRVU for MPC codes 31622 and 45378.

				Total					
CPT	DESC	RVW	IWPUT	Time	Eval	Posit	SDW	INTRA	IM-post
31622	Dx bronchoscope/wash	2.78	0.069	65	10	5	5	30	15
37214	End thrombolysis, remov cath	3.04	0.044	102	33	3	5	38	23
45378	Diagnostic colonoscopy	3.69	0.092	75	20	5	5	30	15

Additional points of comparison

We find four other codes in the RUC database that further support our recommended value of 3.04 for 37214. They are 51729 "Complex cystometrogram (ie, calibrated electronic equipment); with voiding pressure studies (ie, bladder voiding pressure) and urethral pressure profile studies (ie, urethral closure pressure profile), any technique", 12007 "Simple repair of superficial wounds of scalp, neck, axillae, external genitalia, trunk and/or extremities (including hands and feet); over 30.0 cm", 49446 "Conversion of gastrostomy tube to gastro-jejunostomy tube, percutaneous, under fluoroscopic guidance including contrast injection(s), image documentation and report" and 31630 "Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with tracheal/bronchial dilation or closed reduction of fracture." The table below compares these codes to 37214.

СРТ	DESC	RVW	IWPUT	Total Time	Eval	Posit	SDW	INTRA	IM-post	RUC reviewed
51729	Cystometrogram w/vp&up	2.51	0.043	75	20	0	0	40	15	2006
12007	Repair superficial wound(s)	2.90	0.071	54	8	2	1	35	8	2010
36200	Place catheter in aorta	3.02	0.058	91	33	3	5	30	20	2011
37214	End thrombolysis, remov cath	3.04	0.044	102	33	3	5	38	23	2012
49446	Change g-tube to g-j perc	3.31	0.055	93	25	8	5	40	15	2007
31630	Bronchoscopy dilate/fx repr	3.81	0.050	125	20	15	15	45	30	2003

<u>Summary</u>

Based on all the above data and comparisons, we believe the RVW of 3.04 is appropriate for 37214.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: Yes

CPT Code: 37214 Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)



The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario. There is a possibility that a patient will have a stenosis identified after clot dissolution and would benefit from either an endovascular intervention or open surgical revascularization that may be done on the same day or a subsequent date (same hospitilization).

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) 75898 and 99232

How often? Commonly

How often do physicians in your specialty perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Vascular Surgery

Specialty Interventional Radiology

How often? Commonly

Specialty Cardiology

How often? Sometimes

Estimate the number of times this service might be provided nationally in a one-year period? If the recommendation is from multiple specialties, please provide the frequency and percentage for each specialty. Please explain the rationale for this estimate. An estimate for the number of times this service is performed nationally in a oneyear period is unknown.

Specialty	Frequency	Percentage	%
Specialty	Frequency	Percentage	%
Specialty	Frequency	Percentage	%

Estimate the number of times this service might be provided to Medicare patients nationally in a one-year period? 13,436 If this is a recommendation from multiple specialties please estimate frequency and percentage for each specialty. Please explain the rationale for this estimate. The specialty mix is based on the specialty mix in the reference service code 37184.

Specialty Vascular Surgery	Frequency 30	91	Percentage 2	23.00 %
Specialty Interventional Radiolo	gy Freq	uency 5375	Percentage 4	40.00 %
Specialty Cardiology	Frequency 2150	Percentage	16.00 %	

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix <u>will not</u> change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 37184

	А	В	С	D	E	F	G	Н	I J	K	Р	S T	U	V	W	Х	Y	Z	ΑZ	BA	BB	BC BD
1	ISSUE:	Thromb	olysis																			
2	TAB:	15																				
3			-					RVW		Total		PRE			INTRA	L .		POST	รเ	JRVEY	EXP	
4	SOURCE	СРТ	DESC	Resp	IWPUT	MIN	25th	MED	75th MAX	Time	EVAL	POSIT SDW	MIN	25th	MED	75th	MAX	P-SD	MIN	25th	MED	75th MAX
5	REF (2005)	37184	Primary percutaneous transluminal mechanical throm	11	0.080			8.66		160	20	10 10			90			30				
6	CURRENT	37201	Transcatheter therapy, infusion for thrombolysis othe		0.037			4.99		181	30	15 20			81			35				
7	CURRENT	75896	Transcatheter therapy, infusion, any method (eg, thro		0.052			1.31		25					25							
8	CURRENT	75898	Angiography through existing catheter for follow-up s		0.000					31					31							
9	CURRENT	99233	Subsequent hospital care, per day, for the evaluation		0.048			2.00		55	10				30			15				
10	SVY	37211	Transcatheter therapy, arterial infusion for thromboly	50	0.114	5.00	8.00	9.00	10.00 20.00	165	53	10 13	20	45	60	90	120	30	0	4	8	15 40
11	REC				0.105			8.00		138	40	35			60			30				
12																						
13	REF (2005)	37187	Percutaneous transluminal mechanical thrombectom	15	0.080			8.03		145	26	59			85			20				
14	CURRENT	37201	Transcatheter therapy, infusion for thrombolysis othe		0.037			4.99		181	30	15 20			81			35				
15	CURRENT	75896	Transcatheter therapy, infusion, any method (eg, thro		0.052			1.31		25					25							
16	CURRENT	75898	Angiography through existing catheter for follow-up s		0.000					31					31							
17	CURRENT	99233	Subsequent hospital care, per day, for the evaluation		0.048			2.00		55	10				30			15				
18	SVY	37212	Transcatheter therapy, venous infusion for thromboly	50	0.098	3.85	7.06	8.08	9.88 15.00	165	53	10 13	15	45	60	90	123	30	0	5	8	15 50
19	REC				0.090			7.06		138	40	35			60			30				
20										_												
21	REF (2011)	36251	Selective catheter placement (first-order), main renal	10	0.085			5.35		116	33	3 5			45			30				
22	CURRENT	37209	Exchange of a previously placed intravascular cathet		0.061			2.27		50	10				30			10				
23	CURRENT	75898	Angiography through existing catheter for follow-up s		0.053			1.65		31					31							
24	CURRENT	75900	Exchange of a previously placed intravascular cathet		0.009			0.49		44	3				38			3				
25	CURRENT	99233	Subsequent hospital care, per day, for the evaluation		0.048			2.00		55	10				30			15				
26	SVY	37213	Transcatheter therapy, arterial or venous infusion for	50	0.148	2.93	5.00	6.00	7.00 15.00	93	15	10 10	15	30	33	60	120	25	0	5	10	20 50
27	REC				0.109			5.00		99	33	35			33			25				
28										_												
29	REF (2011)	36251	Selective catheter placement (first-order), main renal	8	0.085			5.35		116	33	3 5			45			30				
30	CURRENT	75898	Angiography through existing catheter for follow-up s		0.053			1.65		31					31							
31	CURRENT	99232	Subsequent hospital care, per day, for the evaluation		0.047			1.39		40	10				20			10				
32	SVY	37214	Transcatheter therapy, arterial or venous infusion for	48	0.116	3.00	4.99	5.55	7.00 15.00	98	18	10 10	10	20	38	60	120	23	0	5	10	16 50
33	REC				0.044			3.04		102	33	3 5			38			23				

	А	В	С	D	E	F	G	Н		J	K			
1					Tab 1	15: Thrombo	olysis							
2	NEW CODE	NEW CPT Medicare ODE Code wRVU Freq		% of claims used to describe new code	Estimated Utilization	wRVUs for current coding (Col C*F)	NEW CODE	wRVU	2010 Medicare Freq	wRVUs for new coding (Col J *K)				
3		37201	4.99	13,436	60%	8,062	40,227							
4	X1	75896	1.31	18,190	44%	8,062	10,561	X1	8.00	8,062	64,493			
5		99233	2.00	21,650,554	0.04%	8,062	16,123							
6							66,911							
7														
8		37201	4.99	13,436	40%	5,374	26,818							
9	X2	75896	1.31	33,134	16%	5,374	7,040	X2	7.06	5,374	37,943			
10		99233	2.00	21,650,554	0.02%	5,374	10,749							
11							44,608							
12														
13		37209	2.27	2,650	100%	2,650	6,016							
14	X3	75898	1.65	46,825	6%	2,650	4,373	X3	5.00	2,230	11,150			
15		75900	0.49	2,230	100%	2,230	1,093	7.0	0.00	_,0	,			
16		99233	2.00	21,650,554	0.01%	2,650	5,300							
17							16,781							
18														
19	X4	75898	1.65	46,825	29%	13,436	22,169	X4	3.04	13,436	40.845			
20		99232	1.39	50,265,346	0.03%	13,436	18,676			2,	-,			
21							40,845							
22					Total c	urrent coding:	169,145	Total new coding:			154,432			
23								Change	e in the v	vRVU Pool	-9%			

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Facility Direct Inputs

<u>CPT Long Descriptor</u>:

- 37211 Transcatheter therapy, arterial infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, initial treatment day
- 37212 Transcatheter therapy, venous infusion for thrombolysis, any method, including radiological supervision and interpretation, initial treatment day
- 37213 Transcatheter therapy, arterial or venous infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, continued treatment on subsequent day during course of thrombolytic therapy, including follow-up catheter contrast injection, position change, or exchange, when performed
- 37214 Transcatheter therapy, arterial or venous infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, continued treatment on subsequent day during course of thrombolytic therapy, including follow-up catheter contrast injection, position change, or exchange, when performed, and cessation of thrombolysis including removal of catheter and vessel closure by any method

Global Period: 000 Meeting Date: April 2012

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee:

A consensus committee including SVS, SIR, and ACR members discussed practice expense details for codes 37211-37214.

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale:

We used CPT code 37182 Insertion of transvenous intrahepatic portosystemic shunt(s) (TIPS) (includes venous access, hepatic and portal vein catheterization, portography with hemodynamic evaluation, intrahepatic tract formation/dilatation, stent placement and all associated imaging guidance and documentation) as a reference code. CPT 37182 was reviewed by the RUC in Feb 2002.

The <u>typical</u> patient for 37211 and 37212 would present to the hospital emergency room and therefore we are not requesting pre-service clinical staff time. The patient will remain in the hospital; therefore, post-service clinical staff time does not apply.

The typical patient for 37213 and 37214 is already in the hospital. We are requesting pre time for scheduling space and equipment in the hospital for 37213 and 37214. We are also requesting 3 post service minutes in 37214 for phone calls.

<u>Pre-Service Clinical Labor Activities:</u> Schedule space and equipment in facility

 $\frac{Service\ Clinical\ Labor\ Activities:}{N/A}$

<u>Post-Service Clinical Labor Activities:</u> Conduct phone calls/call in prescriptions

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Non Facility Direct Inputs

CPT Long Descriptor:

37211	Transcatheter therapy, arterial infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, initial treatment day
37212	Transcatheter therapy, venous infusion for thrombolysis, any method, including radiological supervision and interpretation, initial treatment day
37213	Transcatheter therapy, arterial or venous infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, continued treatment on subsequent day during course of thrombolytic therapy, including follow-up catheter contrast injection, position change, or exchange, when performed
37214	Transcatheter therapy, arterial or venous infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, continued treatment on subsequent day during course of thrombolytic therapy, including follow-up catheter contrast injection, position change, or exchange, when performed, and cessation thrombolysis including removal of catheter and vessel closure by any method

Global Period: 000 Meeting Date: April 2012

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee:

A consensus committee including SVS, SIR, and ACR members discussed practice expense details for codes 37211-37214. It was determined that these services will not be provided in a non-facility setting. Therefore we recommend zero non-facility direct expense details for these four codes.

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale: N/A

Please describe in detail the clinical activities of your staff:

Pre-ServiceClinical Labor Activities:N/AServiceClinical Labor Activities:N/APost-ServiceClinical Labor Activities:N/A

of

	A	В		D	E	F	G	Н		J	K	L	М
1				REFEREN	ICE CODE			074		07		0.7	
2				372	182	372	11	372	212	372	213	372	<u>214</u>
	Meeting Date: 04/20012			Insert transv	ion of enous	I hromb arterial	olysis, init dav	I hrombolys da	sis, vein, init av	Continue th subse	rombolysis, a dav	End thror remov	nbolysis, / cath
	Tab: 36			intrah	epatic						-1		
	Specialty: SVS, SIR and ACR	CMS	o	portosyster	nic shunt(s)								
3		Code	Staff Type	(11)	PS)		1						
4	LOCATION			Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility
5	GLOBAL PERIOD												
6	TOTAL CLINICAL LABOR TIME			0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	TOTAL PRE-SERV CLINICAL LABOR TIME	L037D	RN/LPN/MTA	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	TOTAL SERVICE PERIOD CLINICAL LABOR TIME			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0		1 0075		0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9		L037D	RN/LPN/MTA	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	PRE-SERVICE					1	1						
11	Start: Following visit when decision for surgery or procedure	made											
12	Complete pre-service diagnostic & referral forms				5 5								
13	Schedule space and equipment in facility		RN/LEN/MTA		5								
14	Provide pre-service education/obtain consent	20370			5								
16	Follow-up phone calls & prescriptions											, ,	
17	Other Clinical Activity - specify:											ļ	
18	End: When patient enters office/facility for surgery/procedure												
19	SERVICE PERIOD					<u></u>							
20	Start: When patient enters office/facility for surgery/procedure	:											
	Greet patient, provide gowning, ensure appropriate medical												
21	records are available												
22	Obtain vital signs												
23	Provide pre-service education/obtain consent						ļ						
24	Prepare room, equipment, supplies												
25	Setup scope (non facility setting only)												
26	Prepare and position patient/ monitor patient/ set up IV												
27	Sedate/apply anestnesia												
28	Assist physician in performing procedure												
29	Post-Service												
50													
31	Monitor pt. following service/check tubes, monitors, drains												
32	Clean room/equipment by physician staff												
33	Clean Scope												
34	Clean Surgical Instrument Package												
35	Complete diagnostic forms, lab & X-ray requisitions						ļ						
36	Review/read X-ray, lab, and pathology reports												
27	Check dressings & wound/ home care instructions /coordinate												
38	Other Clinical Activity - specify:												
42	End: Patient leaves office		<u> </u>				<u> </u>					1	
43	POST-SERVICE Period												
44	Start: Patient leaves office/facility											,	
45	Conduct phone calls/call in prescriptions	L037D	RN/LPN/MTA		3		1						
52	Total Office Visit Time			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
53	Other Clinical Activity - specify:												
54	End: with last office visit before end of global period						1						
55	MEDICAL SUPPLIES	CODE	UNIT			1	1			<u> </u>			
56	pack, minimum multi-specialty visit	SA048	pack										
57													
58													
59													
60													
61	1												
62	2 EQUIPMENT						T						
63	3												
64	4												
65													
66													
0/												!	

AMA/Specialty Society RVS Update Committee Summary of Recommendations CMS Request- July 30, 2012 NPRM

October 2012

Radiation Treatment Delivery – Practice Expense Only

In the July 30, 2012, Proposed Rule for 2013, CMS requested that the RUC review the practice expense (PE) for CPT Codes 77418 and 77373. CMS identified these codes as having stand alone PE procedure time, defined as (PE) RVUs developed utilizing procedure time assumptions that are not based on physician work. The RUC recommended that these services be reviewed for practice expense in October 2012.

The RUC discussed in detail the need for two radiation therapists (RT) to safely perform the service. The RUC strongly agrees with the specialty societies that there are clear guidelines requiring two RTs to meet the current standard of care, and agrees with the specialty that both RTs are doing concurrent, but distinct clinical activities critical in performing the service.

The specialty society provided the following table outlining each therapists tasks, Two symbols (\checkmark \checkmark) indicate that the therapists are performing the task as a team and one symbol (\blacklozenge) indicates that the therapist is performing the task independently.

Therapist #1	Therapist #2
Greet patient, provide gowning, ensure appropriate medical	Prepare room, equipment, supplies
records are available	
Prepare and position	Prepare and position
Set up computer-controlled component of linear accelerator	Set up mechanical component of linac operation,
(linac) operation, working outside room at console	working inside room
(Open electronic medical record and electronic prescription	(Operate manual control to verify functionality and
of patient to be treated, review prescription parameters, Open	move gantry, table and collimators to starting
Record and Verify)	position)
Perform Procedure (Therapist #1)	Perform Procedure (Therapist #2)
Attach immobilization devices	Attach immobilization devices
$\bullet \bullet$ Verify vertical/horizontal patient position around site to	Verify vertical/horizontal patient position
be treated	around site to be treated
Use orthogonal 3-point laser light system to align patient	Use orthogonal 3-point laser light system to
w/external tattoos	align patient w/external tattoos

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 Verify Isocenter Verify proper performance of 2 audio/video motoring systems Maintain Visual surveillance of gantry motion to verify no collision with table or patient and continuous audio-visual surveillance to verify patient comfort and positional stability during therapy Repeat prior step for remaining 6 beams Set gantry to safe position allowing patient to arise from table and assist patient up from treatment table and out of immobilization device 	 Verify Isocenter Verify proper performance of two audio/video monitoring systems Set control to rotate the gantry angle of first beam for treatment, initiate treatment and continuous visual surveillance of computer monitor showing desired pattern of MLC motion during beam on time Repeat prior step for remaining 6 beams Set gantry to safe position allowing patient to arise from table and assist patient up from treatment table and out of immobilization device
Clean Room	Other Clinical Activity (please specify): Document treatment administered in record and verify system

• • *Two therapists performing task with each other*

Single therapist task

77418 Intensity modulated treatment delivery, single or multiple fields/arcs, via narrow spatially and temporally modulated beams, binary, dynamic MLC, per treatment session

In October 2012, the RUC's Practice Expense Subcommittee met and discussed the CMS request. The PE Subcommittee discussed the procedure time and number of staff related to 77418. The Subcommittee also verified that in October 2010 they agreed with the specialty society that two radiation therapists are required to perform this procedure. After review of the practice expense inputs the RUC's Practice Expense Subcommittee and the RUC agreed that since there is no physician work associated with this code, in order to ensure accurate procedure times for 77418 the specialty society should conduct a survey for clinical staff time. The RUC recommends two radiation therapists for CPT code 77418. To verify the clinical staff time the RUC recommends that the specialty societies submit questions related to clinical staff time at all practice settings (total time for each clinical staff, percentage of time available for multitasking) to the Research Subcommittee for approval in order to be used in a survey specific to staff time in IMRT services. In addition to the survey data the RUC recommends that the specialty societies submit representative daily schedules per treatment room from all practice settings for practice expense review in January 2013.

77373 Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions

In October 2012, the RUC's Practice Expense Subcommittee met and discussed the CMS request. The PE Subcommittee discussed the procedure time related to 77373. After review of the practice expense inputs the RUC's Practice Expense Subcommittee and the RUC agreed that since there is no physician work associated with this code, in order to ensure accurate procedure times for 77373 the specialty society should conduct a survey for clinical staff time. To verify the clinical staff time the RUC recommends that the specialty societies submit questions related to clinical staff time at all practice settings (total time for each clinical staff, percentage of time available for multitasking) to the Research Subcommittee for approval in order to be used in a survey specific to staff time in SBRT services. In addition to the survey data the RUC recommends that the specialty societies submit representative daily schedules per treatment room from all practice settings, for practice expense review in January 2013.

CPT Code (•New)	Tracking Number	CPT Descriptor	Global Period	Work RVU Recommendation
77373		Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions	XXX	Direct Practice Expense Inputs
77418		Intensity modulated treatment delivery, single or multiple fields/arcs, via narrow spatially and temporally modulated beams, binary, dynamic MLC, per treatment session	XXX	Direct Practice Expense Inputs

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(1) ASTRO "Safety is No Accident" (page 14)

Recommended: A minimum of two qualified individuals be present for any routine external beam patient treatment.

(2) ASRT Standard (page 25)

Advocates: The need for two credentialed radiation therapists to be available per treatment unit for treatment delivery.

(3) ASRT Position Statement (page 6)

Staffing for Radiation Therapy Treatment Delivery: It is the position of the American Society of Radiologic Technologists that two registered radiation therapists per patient per treatment unit is the minimum standard for safe and efficient delivery of radiation therapy. Adopted, Resolution 98-3.04, 1998 Amended, Main Motion, C-08.44, 2008

(4) ASRT White Paper (page 4)

Best Practice: All sites providing radiation therapy staff, two therapists per machine at all times.

(5) ASRT Radiation Therapy Staffing Survey 2011 (page 11)

Survey Results Indicate: 70% of the RO practices surveyed use 2 therapist per linear accelerator during a given treatment session by region. 22% use 3 therapists.

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ASTRO TARGETING CANCER CARE

SAFETY IS NO A FRAMEWORK FOR

QUALITY RADIATION

ONCOLOGY AND CARE

DEVELOPED AND ENDORSED BY:

American Association of Medical Dosimetrists (AAMD) American Association of Physicists in Medicine (AAPM) American Board of Radiology (ABR) American Brachytherapy Society (ABS) American College of Radiology (ACR) American College of Radiation Oncology (ACRO) American Radium Society (ARS) American Society for Radiation Oncology (ASTRO) American Society of Radiologic Technologists (ASRT) Association of Freestanding Radiation Oncology Centers (AFROC) Society of Chairmen of Academic Radiation Oncology Programs (SCAROP)

Society for Radiation Oncology Administrators (SROA)



SAFETY IS NO ACCIDENT

A FRAMEWORK FOR QUALITY RADIATION ONCOLOGY AND CARE

SPONSORED BY: American Society for Radiation Oncology (ASTRO)

DEVELOPED AND ENDORSED BY:

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SAFETY IS NO ACCIDENT: A Framework for Quality Radiation Oncology and Care

Technologic advances and systemic changes in health care delivery mean that the field of radiation oncology and its processes of care are in continuous evolution. These changes must be reflected in this book and so a mechanism for timely review and revision is necessary. The radiation oncology intersociety meeting is held biennially, bringing together the participating societies to discuss issues of importance to the field. As planning begins for each intersociety meeting, this safety document will be reviewed to assess whether a significant update is needed. If so, the update will become the subject of the next intersociety meeting.

ASTRO

The content in this publication is current as of the publication date. The information and opinions provided in the book are based on current evidence and consensus in the radiation oncology community. However, no such guide can be all-inclusive, and, especially given the evolving environment in which we practice, the recommendations and information provided in the book are subject to change and are intended to be updated over time.

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Introduction

During the later part of the twentieth century, the "Blue Book" had a unique importance in defining the shape of a modern radiation oncology department. It set standards regarding personnel, equipment and quality assurance and has been an invaluable guide for department chairs and practice leaders. Twenty years have elapsed since the last edition was published and during that time the world of radiation oncology has changed beyond measure. These two decades have seen an unprecedented expansion in the technological tools at our disposal with clear benefits to our patients. At the same time, however, the "Great Expansion" has added the challenge of deep complexity to our planning and treatment delivery. These decades have also been associated with a vigorous awareness of safety in medicine generally and radiation oncology in particular. This movement is pushing the practice of medicine toward integrated teamwork and effective, simple, quality assurance procedures.

The safe delivery of radiation therapy was never a simple matter and is now exceedingly complex. This new document is designed to address the specific requirements of a contemporary radiation oncology facility in terms of structure, personnel and technical process in order to ensure a safe environment for the delivery of radiation therapy. It was developed through collaboration between all of the major societies in the field representing physicians, medical physicists, radiation therapists, medical dosimetrists, nurses and administrators. It explicitly sets a high bar below which no radiation oncology facility should operate, and it foresees that the bar will be raised further in the years ahead. This book is unapologetic in its strong stance because, as the title states, safety is no accident. It comes from well-run facilities with good processes operating harmoniously within their capabilities. We recognize that some with smaller facilities may find the standards set here hard to achieve but we do not believe that they are impossible. We recognize that, in a declining economy, these high bars may prove a challenge but we believe this interdisciplinary document will help facility leaders advocate on behalf of patients from a position of strength. The authors wish this book to be a living manifesto of the specialty's dedication to patient safety and, after initial publication, will place it on the web with regular updating to follow.

Anthony L. Zietman, MD Jatinder R. Palta, PhD Michael L. Steinberg, MD 2011-2012 "Safety Is No Accident" Writing Chairmen



CHAPTER 1

The Process of Care In Radiation Oncology

Leader: James Galvin

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he "process of care" in radiation oncology refers to a conceptual framework for guaranteeing the appropriateness, quality and safety of all patients treated with radiation for therapy. Each of the aspects of the process of care in radiation oncology requires knowledge and training in the natural history of cancer, certain benign disease processes, radiobiology, medical physics and radiation safety that can only be achieved by Board certification in radiation oncology (or equivalent training), to synthesize and integrate the necessary knowledge base to safely and completely render care. This high level of training and Board certification applies as a recommendation for all of the specialists on the radiation oncology team. The medical therapeutic application of ionizing radiation is irreversible, may cause significant morbidity and is potentially lethal. Use of ionizing radiation in medical treatment, therefore, requires direct or personal physician management, as the leader of the radiation oncology team, as well as input from various other essential coworkers.

The radiation oncology process of care can be separated into the following five operational categories.

- Patient Evaluation
- Preparing for Treatment
 - o Clinical Treatment Planning
 - o Therapeutic Simulation
 - o Dosimetric Treatment Planning
 - o Pretreatment Quality Assurance and Plan Verification
- Radiation Treatment Delivery
- Radiation Treatment Management
- Follow-up Evaluation and Care

A course of radiation therapy is a function of the individual patient situation, composed of a series of distinct activities of varying complexity. All components of care involve intense cognitive medical evaluation, interpretation, management and decision-making by the radiation oncologist and other members of the clinical team. Each time a component of care is completed and reported, it should be appropriately documented in the patient record.

The clinical team, led by the radiation oncologist, provides the medical services associated with the process of care. Other team members involved in the patient's planning and treatment regimen include the medical physicist, medical dosimetrist, radiation therapist and nursing staff. Many of the procedures within each phase of care will be carried to completion before the patient's care is taken to the next phase. Others will occur and recur during the course of treatment, and they are by necessity repeated during treatment due to patient tolerance, changes in tumor size, need for boost fields or port size changes, protection of normal tissue or as required by other clinical circumstances (that is, certain procedures may need to occur multiple times during the treatment course).

1.1.0 PATIENT EVALUATION

Patient evaluation is a service provided by a physician at the request of another physician, the patient, or an appropriate source, and is intended to recommend care for a specific condition or problem, including further workup, or to recommend treatment. The radiation oncologist, as part of this process, will review the pertinent history, patient complaints, physical findings, imaging studies, pathology and lab findings. If treatment is recommended and accepted, this patient visit, or a return visit, should also be used for patient counseling, informed consent, coordinating care and making recommendations about other aspects of oncologic management or staging.

The evaluation with the radiation oncologist will often be followed by discussions with other members of the multidisciplinary care team, as indicated. This will include a review of details regarding pathology, disease extent based on radiographic imaging and other procedures, and potential sequencing of treatment modalities either used or planned, including surgery, chemotherapy, hormonal therapy or molecular targeted therapy. Full details of the patient evaluation are beyond the scope of this safety document.

1.2.0 PREPARING FOR TREATMENT

1.2.1 Clinical Treatment Planning

Clinical treatment planning is a comprehensive, cognitive effort performed by the radiation oncologist for each patient undergoing radiation treatment. The radiation oncologist is responsible for understanding the natural history of the patient's disease process, conceptualization of the extent of the disease relative to the adjacent normal anatomical structure, integration of the patient's overall medical condition and associated comorbidities. Knowledge of the integration of chemotherapeutic and surgical treatment modalities with radiation therapy is essential. An understanding of the integration of the various radiation treatment modalities is an essential part of this phase in the process of care.

Clinical treatment planning for either external beam radiation therapy (EBRT) or brachytherapy is an important step in preparing for radiation oncology treatment. This planning includes several components: determining the disease-bearing areas based on the imaging studies described above and pathology information; identifying the type (brachytherapy, photon beam, particle beam, etc.) and method of radiation treatment delivery (intensity modulated radiation therapy [IMRT], intensity modulated proton therapy [IMPT], three-dimensional conformal radiation therapy [3-D CRT], two-dimensional conformal radiation therapy [2-D CRT], low-dose-rate [LDR] or high-dose-rate [HDR] brachytherapy, etc.); specifying areas to be treated; and specifying dose and dose fractionation. In developing the clinical treatment plan, the radiation oncologist may use information obtained from the patient's initial clinical evaluation, as well as the additional tests, studies and procedures described above that are necessary to complete treatment planning. Studies ordered as part of clinical treatment planning may or may not be associated with studies necessary for staging the cancer, and may be

needed to obtain specific information to accomplish the clinical treatment plan. In this regard, the radiation oncologist must consider toxicities and tolerances associated with definitive radiation therapy or combined-modality therapy. Review is needed of imaging studies and lab tests to determine treatment volume and critical structures, commonly referred to as organs at risk (OARs), in close proximity to the treatment area or more distant and receiving a dose of radiation that needs monitoring.

For either EBRT or brachytherapy, clinical treatment planning results in a complete, formally documented and approved directive. Details including total desired dose to all targets and OARs, fractionation, treatment modality, energy, time constraints and all other aspects of the radiation prescription are recorded in a written or electronic format and must be provided by the radiation oncologist prior to the start of treatment planning. In some cases, this prescription can require modification based on the results of the treatment planning process.

1.2.2 Therapeutic Simulation, Fabrication of Treatment Devices and Preplanning Imaging

Simulation is the process by which the geometry of the treatment device in juxtaposition to the patient is simulated for the purpose of developing an accurate and reproducible treatment delivery plan. For this purpose, it is necessary initially to acquire radiographic images of the patient in the preferred treatment position. Selecting a comfortable and appropriate patient position for treatment is an important part of the simulation process. The selected position should consider the location of the target and anticipated orientation of the treatment beams. Appropriate immobilization devices provide comfort, support and reproducibility.

In some cases the exact treatment position cannot be duplicated for some imaging procedures that are not under direct control of the radiation oncology team; clinical considerations should be made to compensate for such differences.

Some computed tomography (CT)-Simulator devices include the ability to register imaging datasets. However, most image registration is still performed manually with rigid datasets. Treatment planning systems can also provide the software for this capability. Using the software included with the treatment planning system shifts this part of the process to the treatment planning phase of the overall care process.

1.2.2.1 Team Interaction

The radiation oncology team, under the leadership of the radiation oncologist, works to deliver irradiation safely and reproducibly. Most radiation treatments use standard operating procedures (SOPs) describing the treatment approach. These SOPs are considered to be an essential component of any radiation oncology department. In those situations where the patient presents with target and critical sensitive structure geometric relationships that are not easily handled using available SOPs, the involvement of the radiation therapy team is necessary. Team interactions that include the radiation therapists, medical dosimetrists, medical physicists and representation from the departmental nursing staff can prove helpful in specific situations. The purpose of these meetings is to carefully consider how treatments might be tailored to a particular patient's situation.

1.2.2.2 Fabrication of Immobilization Treatment Devices

Immobilization of the patient in a comfortable position for treatment might involve the construction or selection of certain treatment devices, facilitating accurate treatment delivery. This step must take into account the potential treatment planning considerations so that the immobilization aids do not restrict the treatment techniques. A personalized approach is required here, taking into consideration each patient's unique anatomy, at times requiring special accommodations appropriate for the individual case-specific concerns.

1.2.2.3 Therapeutic Simulation for EBRT

Simulation is the process of determining critical information about the patient's geometry, to permit safe and reproducible treatments on a megavoltage machine. Simulation for external beam radiation treatment is imaging based. Most simulation procedures have now shifted away from the direct use of the treatment beam to using X-rays in the diagnostic range of energies. In general, this part of the overall process of care reveals the relationship between the position of the target, or targets, and the surrounding critical structures. It is helpful here to think of the simulation step as the imaging needed for input to the treatment planning process. These images can be obtained in a large number of ways. Modern conventional simulators, like the CT-Simulator, can include the ability to produce volumetric data in addition to 2-D images. Intravenous contrast should be used during simulation, as indicated, to improve enhancement within both target and normal tissues/structures.

Preparing for EBRT treatment can also depend on other imaging modalities that are directly or indirectly introduced in the simulation process. In some cases, extra time and effort are required to directly incorporate the information available from other imaging modalities. For example, magnetic resonance (MR) and/or positron emission tomography (PET) are now available, and treatment planning systems that include image registration capabilities allow combining of information from other imaging modalities with the standard CT dataset obtained during simulation in appropriate situations. It is now possible to produce image datasets that quantify the motion of structures and targets due to respiration, cardiac motion and physiologic changes in the body. These four-dimensional (4-D) datasets include time as the fourth dimension and are used for motion management techniques like respiratory tracking or gating. Ultrasound imaging has a role in both EBRT and brachytherapy. Ultrasound comes into play as a preplanning imaging technique and can also be used as an image guided radiation therapy (IGRT) technique during the treatment delivery and verification steps of the care process.

1.2.2.4 Therapeutic Simulation for Brachytherapy

For certain brachytherapy procedures, preparing for treatment is similar to the procedure described above for EBRT. The simulation portion for this treatment modality is also imaging based, and can involve either planar X-rays or CT scans. Other imaging modalities may be important for some brachytherapy procedures and these studies can be obtained as part of the preplanning imaging process.

1.2.2.5 Treatment Planning for Radiation Therapy Using Unsealed Sources

For clinical situations where therapy using unencapsulated radionuclides is indicated, a distinct treatment planning process is necessary due to its multidisciplinary execution. The process can involve calculations of the anticipated dose distribution to the target organ or tumor(s) based on knowledge of the patient's vascular anatomy or biological imaging, such as nuclear medicine scans. This process should include multidisciplinary evaluation of the patient and consideration of clinical indications and radiation safety precautions. The American College of Radiology (ACR)/American Society for Radiation Oncology (ASTRO) Practice Guidelines regarding the Performance of Therapy with Unsealed Radiopharmaceutical Sources and NRC Guidelines discuss these issues in greater detail^[1].

1.2.3 Dosimetric Treatment Planning

The computer-aided integration of the patient's unique anatomy, the desired radiation dose distribution to the tumor and normal tissues inside the patient, and the technical specifications of the treatment delivery device yield a work product referred to as the dosimetric treatment plan. The plan is a programmed set of instructions for the linear accelerator or brachytherapy device whereby a combination of external beams or internal source positioning will administer the intended dose of radiation to the target volume while minimizing the exposure of normal tissues. Accordingly, before the medical dosimetrist begins the treatment planning process, the radiation oncologist needs to define the target volumes and dose limiting organs and structures on the diagnostic images obtained during simulation.

The skills of the appropriately trained and credentialed medical dosimetrist and medical physicist relate to the efficient and effective use of the complex treatment planning system hardware and software. These individuals must also understand the clinical aspects of radiation oncology in order to interact with the radiation oncologist during the planning process. The role of the medical physicist is to guarantee proper functioning of the hardware and software used for the planning process, consult with the radiation oncologist and medical dosimetrist, check the accuracy of the selected treatment plan and perform measurements and other checks aimed at assuring accurate information exchange between radiation therapy devices and delivery of the treatment plan.

At various steps in the treatment planning process, the radiation oncologist is presented with one or more treatment plans for evaluation. The plans are evaluable by a combination of graphic visual representations of the radiation dose distribution inside the patient and quantitative statistics describing the dose to the tumor and normal tissue of interest. The radiation oncologist must then decide whether to accept or reject a given plan. Typically, this process is iterative and requires multiple revisions and adjustments to the initial plan in order to achieve a dose distribution that is both clinically acceptable and technically feasible. The radiation oncologist is responsible for selecting and formally approving the plan ultimately selected for treatment.

1.2.4 Pretreatment Quality Assurance (QA) and Plan Verification

The QA steps taken after treatment planning is completed and before the start of treatment are critical for guaranteeing patient safety. An important initial step is an independent calculation of the machine output setting (monitor units) for external beam radiation therapy or radioactive source dwell times for brachytherapy. This recalculation may be accomplished as a manual point dose verification in the center of the treatment volume based on printed tables relating the effective field size to the administered dose at given depths from the surface. Alternatively, this can be performed in a computer-assisted manner, whereby data from the patient's planning images are entered into a separate software program along with parameters describing the prescription dose to the tumor and beam or source arrangements. In either case, the key result is confirmation of linear accelerator output settings or brachytherapy dwell times that reduce the risk of error related to an input mistake in the initial treatment planning software operation. If an independent calculation method is not available, then an appropriate measurement technique should be used. The radiation onologist ensures that a pretreatment quality assurance program is in place and followed for every patient.

In the past, treatment verification consisted of field aperture imaging using radiographic film. These images are referred to as portal images or port films. These images are now frequently obtained using electronic portal imaging devices (EPIDs). With the introduction of IMRT, imaging of individual apertures is no longer practical. However, the traditional method of verifying the plan isocenter position using orthogonal imaging is often used for both 3-D CRT and IMRT. For IMRT, this important QA technique is not considered to be completely sufficient to guarantee patient safety. In addition to this isocenter check procedure, patient-specific QA measurements are also required for IMRT and other complex delivery techniques that use inverse treatment planning. In terms of clearly organizing the different steps in the process of care for radiation oncology, a blurring of the separation between the verification step described in this subsection and the treatment delivery step described in section 1.3.0 occurs on the first day of treatment and whenever the treatment plan is changed. While patient-specific QA measurements are obtained prior to the start of treatment, dosimeters are sometimes also placed on the patient as a verification of correct dose delivery. The information gathered on the first day of treatment, if within acceptable limits, allows the treatment to continue for all fractions using the same treatment plan.

IGRT equipment is now available for checking the patient setup on the treatment table immediately prior to treatment delivery and then adjusting the patient position as needed to localize the target volume precisely within the volume that receives the prescription dose. This equipment can be used to verify the patient setup daily and can supplement port film information. IGRT has the advantage that it sometimes provides volumetric imaging capabilities. The extra setup accuracy provided by IGRT can allow for the use of treatment plans that reduce the volume of normal tissue around the tumor receiving a high dose of radiation, since there is less uncertainty in the target volume location. This process goes well beyond the simple plan verification process discussed further in the treatment delivery section.

For either portal imaging or isocenter verification imaging (using volumetric or planar images), it is necessary to have a reference image for comparison. This information





is obtained from the imaging that is performed during the therapeutic simulation step in the process.

The QA process must include other steps that are aimed at checking the accuracy of both the dose calculations and the data used for treatment through the complete chain of systems (e.g., CT-Simulator to treatment planning to record and verify to accelerator control computer).

Another important step in the QA part of the process is the performance of secondary monitor unit calculations to check the primary calculation used to treat the patient.

1.3.0 RADIATION TREATMENT DELIVERY

1.3.1 External Beam Radiation Therapy

With treatment plan and treatment portal verification complete, the patient is ready for treatment. The initial step in this part of the process is patient setup on the treatment table using several different techniques, such as simple skin marks or a room laser system that localizes the treatment unit isocenter in space. Alternatively, the IGRT system may be used on each day of treatment.

Radiation treatment delivery includes various methods, modalities and complexities of radiation therapy. The physician is responsible for verification and documentation of the accuracy of treatment delivery as related to the initial treatment planning and setup procedure.

IGRT may be performed to ensure accurate targeting of precise radiation beams where certain needs of dose and organs at risk (OARs) tolerance exist. IGRT corrects for the positioning errors encountered when an internal target can move from day to day and can be reliably identified. The physician is responsible for the supervision and review of these images and shifts in order to ensure the therapy delivered conforms to the original clinical and dosimetric plans. Similarly, management of organ motion during treatment delivery, when indicated, is the responsibility of the treating physician (*Figure 1.1, see page 7*).

The overall clinical plan can involve selection of chemotherapy, surgery, EBRT, brachytherapy or a combination of modalities. Adaptive techniques can involve a modification to the initial treatment plan to adjust for an observed change.

1.3.2 Brachytherapy

Brachytherapy involves the temporary or permanent placement of radioactive material inside or immediately adjacent to a tumor-bearing region. One example is permanent seed implants for prostate cancer, either as definitive therapy for early stage disease or as a boost treatment following external beam treatment for intermediate- or high-risk disease (*Figure 1.2*).

Figure 1.2. Process of Care for Brachytherapy



1.3.3 Calibration Procedures, Ongoing Equipment QA and Preventive Maintenance

The initial commissioning, ongoing performance evaluation and periodic calibration of radiation treatment delivery devices are important tasks that are vital to the safe administration of radiation therapy. In general, it is the medical physicist who is primarily responsible for the device evaluations necessary for compliance with applicable state and federal regulations concerning radiation treatment delivery technology. The American Association of Physicists in Medicine (AAPM) has published extensive guidelines on the conduct of these duties and regularly updates its educational materials when new technologies enter into standard clinical practice. The radiation oncologist, medical physicist and other members of the radiation therapy team should maintain a clear channel of communication on this issue of treatment device performance so that any possible sign of impending machine malfunction is quickly recognized and diagnosed, and any necessary corrective or reparative action is taken prior to use of the machine to deliver a clinical treatment to a patient.

1.4.0 RADIATION TREATMENT MANAGEMENT

Radiation treatment management encompasses the radiation oncologist's overall management of the course of treatment and care for the patient as well as checks and approvals provided by other members of the radiation therapy team that are necessary at various points in the process. For the radiation oncologist, radiation treatment management requires and includes a minimum of one examination of the patient by the physician for medical evaluation and management. The professional services furnished during treatment management may include:

- Review of portal images
- Review of dosimetry, dose delivery and treatment parameters
- Review of patient treatment setup
- Patient evaluation visit (described in section 1.1.0)

Not all of these parameters of treatment management are required for all patients for each week of management (except for the patient evaluation visit) because the clinical course of care may differ due to variation in treatment modality and individual patient requirements. For example, use of port films may vary based on certain technical characteristics (i.e., electron beams) and modification of dose delivery can vary based on individual patient needs, depending on the patient's tolerance of therapy or variation in tumor response. Examinations and evaluations may be required more often than weekly.

It should be emphasized that weekly treatment management requires the integration of multiple medical and technical factors, which may be required on any day through the treatment course. While nurses and nonphysician providers can effectively participate in the management of patients receiving radiation therapy, typically by helping to manage side effects associated with the treatment *(Table 2.1, see page 12)*, their efforts do not represent the comprehensive effort of management for which the radiation oncologist is solely responsible. Additionally, regardless of whether a nurse or nonphysician provider evaluates the patient, the proper quality care for a patient receiving radiation therapy involves a personal evaluation by the radiation oncologist at least once for every five treatments given, and this evaluation should be documented in the patient's record.

1.5.0 FOLLOW-UP EVALUATION AND CARE

Continued follow-up evaluation and care of patients who have completed irradiation is necessary to manage acute and chronic morbidity resulting from treatment, as well as to monitor the patient for tumor relapse. Such follow-up is preferably provided through in-person examinations by the radiation oncologist and/or nonphysician provider, or when this is not feasible, by electronic communications and/or patient reports. The radiation oncologist should consult with the other members of the radiation therapy team when unexpected morbidity is observed or reported for the purpose of trying to identify measures that might reduce the risk of toxicity for future patients.

The ultimate goal for radiation treatment is to achieve the best possible outcome for the patient. This result depends on a number of factors. The training of the various members on the radiation therapy team is a major consideration. Board certification is one useful measure of competency of the team members. After receiving this important credential, the members of the team should actively pursue continuing education as required by the certifying Board.

Creating an error-free environment is an essential part of any radiation oncology department. This can be accomplished by understanding and properly implementing all steps in the process of care as described here.

CHAPTER REFERENCES

^[1] Henkin RE, Del Rowe JD, Grigsby PW, et al. ACR-ASTRO practice guideline for the performance of therapy with unsealed radiopharmaceutical sources. *Clin Nucl Med 2011*;36(8):e72-80.



CHAPTER 2

The Radiation Oncology Team

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2.1.0 ROLES AND RESPONSIBILITIES

The radiation oncology team ensures every patient undergoing radiation treatment receives the appropriate level of medical, emotional and psychological care before, during and after treatment, through a collaborative multidisciplinary approach.

The primary radiation oncology team consists of, but is not limited to, radiation oncologists, medical physicists, medical dosimetrists, oncology nurses and radiation therapists. On-site or by consultation, services provided by nonphysician providers can include, but are not limited to, nurse practitioners, clinical nurse specialists, advanced practice nurses and physician assistants, dentists, clinical social workers, psychologists/psychiatrists, nutritionists, speech/swallowing therapists, physical therapists, occupational therapists, genetic counselors, integrative medicine specialists and pastoral care providers. These services are available to the interdisciplinary team to meet the complex needs of patients.

The process of care in radiation oncology involves close collaboration between a team of qualified individuals. The attending radiation oncologist has ultimate and final responsibility, as well as accountability for all aspects of patient care.

While **Table 2.1** *(see page 12)* does not specifically define individual roles within the radiation oncology team, it is an attempt to clarify those roles and relative responsibilities. The scope of practice of each team member should be based on the criteria established by their professional organization and local jurisdiction. Each facility must have policies and procedures defining the roles of these team members.

2.2.0 QUALIFICATIONS AND TRAINING

Board certification is the primary consideration for establishing proper qualifications and training for a professional working in radiation oncology. The relevant professional societies establish the eligibility requirements to sit for a board exam, including education, training and clinical residency requirements. In addition, where applicable, professionals must meet requirements for obtaining a state license, as shown in **Table 2.2** (*see page 13*).

Each facility should have a policy regarding orientation, competency, credentialing and periodic evaluations of all team members.

2.2.1 Medical Director

The medical director is a radiation oncologist who is responsible for oversight of the facility, in addition to establishing policies and procedures.

2.2.2 Radiation Oncologist

The radiation oncologist has American Board of Radiology (ABR) certification in Radiation Oncology, Therapeutic Radiology or equivalent certification. Additional processes of certification as defined by ABR are published at: www.theabr.org.

2.2.3 Nonphysician Providers (Physician Extenders)

Nonphysician providers include, but are not limited to, nurse practitioners, clinical nurse specialists, advanced practice nurses and physician assistants. The roles, qualifications, licensure requirements and maintenance of credentials for these individuals should be determined by their professional organizations, scope of practice, rules and

Table 2.1	Roles and	Responsibilities	of the Radiation	Oncology Team
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	RADIATION ON COLOGIST	MEDICAL PHYSICIST	MEDICAL DOSIMETRIST	RADIATION THERAPIST	NONPHYSICIAN PROVIDERS (NP/PA)	ONCOLOGY NURSE
Clinical evaluation	x				x	x
Ongoing psycho/social evaluation	x				x	x
Decision to deliver external radiation therapy (XRT)	x					
Patient +/- family education	x			x	x	х
Interdisciplinary coordination of care	x			х	x	х
Patient positioning and image acquisition	x	х	х	х		
Fusion and registration	x	x	x			
Contouring/segmentation	x	x	х			
Dose-volume constraints	x	x	х			
Dose calculation	x	x	x			
Review of final treatment plan	x	x	x	х		
Patient-specific QA	x	x	х	х		
Treatment delivery	x	х	х	х		
Special procedures (SRS, SBRT, HDR, etc.)	x	x	x	х		
Monitor accuracy of delivery (ports, dose, etc.)	x	x	x	х		
Weekly evaluation		х	х	х	x	х
Follow-up	x				х	х
Survivorship	x				х	х
Equipment, software and systems acceptance testing, maintenance and commissioning		х	x	x		

regulations of individual institutions and licensure regulations within individual jurisdictions (American Academy of Nurse Practitioners [AANP], www.aanp.org; American Nurses Credentialing Center [ANCC], www.nursecredentialing.org; National Commission on Certification of Physician Assistants [NCCPA], www.nccpa.net; American Academy of Physician Assistants [AAPA], www.aapa.org).

2.2.4 Medical Physicist

Medical physicists should be certified in accordance with the appropriate qualification for the designation of Qualified Medical Physicist (as published at www.aapm.org), Therapeutic Medical Physicist (as published at www.theabr.org) or equivalent certification.

Profession	Relevant Certifying Body	State Licensure Required?	Information Resources
Radiation Oncologist	ABR	Yes	www.theabr.org
Medical Physicist	ABR ABMP CCPM	In 3 states as of 2011(FL, NY, TX)	www.theabr.org www.abmpexam.com www.ccpm.ca
Medical Dosimetrist	MDCB	No	www.mdcb.org
Radiation Therapist	ARRT ASRT	Yes (Currently in 35 states)	www.arrt.org www.asrt.org
Nurse Practitioner	AANP ANCC	Yes Yes	www.aanp.org www.ancc.org
Oncology Nurse	ANCC ONCC	Yes	www.www.nursecredentialing.org www.oncc.org
Clinical Nurse Specialists	ANCC	Yes	www.ancc.org
Physician Assistant	NCCPA	Yes	www.nccpa.net

Table 2.2. Certification and Licensure Requirements

2.2.5 Medical Dosimetrist

A medical dosimetrist is competent to practice under the supervision of a qualified physician and qualified medical physicist. An individual is considered competent to practice in medical dosimetry if that individual is eligible or certified in accordance with the appropriate qualification for the designation of Qualified Medical Dosimetrist through the Medical Dosimetrist Certification Board (MDCB) at www.mdcb.org.

2.2.6 Radiation Therapist

A qualified radiation therapist is considered competent to practice in radiation therapy if he or she is eligible or certified in accordance with the appropriate qualification for the designation of Radiation Therapist, published by the American Registry of Radiologic Technologists (ARRT) at www.arrt.org and the American Society of Radiologic Technologists (ASRT) at www.asrt.org.

2.2.7 Radiation Oncology Nurse

A qualified oncology or radiation oncology nurse has oncology certification, in addition to basic educational preparation to function as a registered professional nurse, as determined by the individual jurisdiction. Oncology certification can be obtained through the Oncology Nursing Certification Corporation (ONCC, www.oncc.org), American Nurses Credentialing Center (ANCC, www. nursecredentialing.org), or National Association of Clinical Nurse Specialists (NACNS, www.nacns.org).

2.3.0 CONTINUING EDUCATION AND MAINTENANCE OF CERTIFICATION

The applications, technologies and methodologies of radiation oncology continue to expand and develop. Lifelong learning is vital to ensure incorporation of new knowledge into clinical practice, therefore, each member of the interdisciplinary team should participate in available Continuing Medical Education (CME) and, where applicable, Maintenance of Certification (MOC) programs.
2.4.0 STAFFING REQUIREMENTS

The staffing needs of each facility are unique and vary based greatly upon the patient mix, as well as on the type and complexity of the services offered. Patient load, number of machines and satellites/affiliated centers also influence the need to allocate management manpower and full-time employees (FTEs) *(Table 2.3)*, as well as teaching responsibilities and vacation time. As such, it is impossible, in the current era, to prescribe hard staffing levels.

The radiation oncology facility should have a qualified radiation oncologist on-call 24 hours a day, seven days a week, to address patient needs and/or emergency treatments. An adequate number of other members of the radiation oncology team should be available to deliver urgent treatments in off-hours. Otherwise, the facility must have arrangements for referral of emergency patients for timely treatments.

CHAPTER APPENDIX: ILLUSTRATIVE SAFETY STAFFING MODEL

In the current environment, radiation oncology as a profession is providing more complex special procedures. The above guidelines reflect the combined input from the surveys performed by several professional organizations (ACR, ASTRO, AAMD, AAPM and the ABR studies) during the last decade. Additional personnel will be required for research, education and administration. For a progressive clinic, the above recommendations may be insufficient to accurately estimate the medical physics and dosimetry FTE effort required to provide all special patient procedures and services.

CATEGORY	STAFFING (See important comments below.)
Chief Radiation Oncologist	One per facility
Chief Medical Physicist	One per facility
Department Manager	One per facility (in some departments this function
	may be filled by a member of the team)
Medical Dosimetrist*	As needed, approximately one per 250 patients treated annually
Radiation Therapist*	As needed, approximately one per 90 patients treated annually
Brachytherapy Technologist*	As needed, approximately one per 100 brachytherapy patients
	treated annually
Mold Room Technologist	As needed to provide service
Social Worker/Dietician	As needed to provide service

Table 2.3 Minimum Personnel Requirements for Clinical Radiation Therapy

* This number may be higher or lower depending upon the complexity of patients treated by an individual physician or by the complexity of technology.

**It is recommended that a minimum of two qualified individuals be present for any routine external beam patient treatment.

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			Relative F	TE Factor	Requir	ed FTE	Required	Total FTE
	Services # of Units or Licenses*	No. of systems*	Physicist	Dosimetrist	Physicist	Dosimetrist	Physicist	Dosimetrist
swa	Multi energy accelerators		0.25	0.05				
ða s fe	Single energy accelerators		0.08	0.01				
Տ թւ	Tomotherapy, CyberKnife, GammaKnife		0.3	0.03				
16 24	Cobalt Units, IMRT, PACS, EMR & Contouring		0.08	0.03				
urce	Orthovoltage and superficial units		0.02	0.01				
os '	Manual brachytherapy; LDR Seed Implants		0.2	0.03				
ţuəi	HDR brachytherapy		0.2	0.02				
mqi	Simulator, CT-Simulator, PET, MRI Fusion		0.05	0.02				
nb∃	Computer planning system (per 10 workstations)		0.05	0.02				
	HDR planning system		0.2	0.01				
						Subtotal		
	Annual # of Patients undergoing Procedures**	No. of patients**						
tn 29	External Beam RT with 3D planning		0.0003	0.003				
atie duro	External Beam RT with conventional planning		0.0002	0.002				
o. P.	Sealed source Brachytherapy (LDR & HDR)		0.008	0.003				
ы И	Unsealed source therapy		0.008	0.005				
	IMRT, IGRT, SRS, TBI, SBRT		0.008	0.005				
						Subtotal		
le:	Estimated Total (Phys & Dosim) FTE Effort***	FTE Effort***						
- leci I Tot ort	Education & Training (FTE)		0.667	0.333				
inilo ote field	Generation of Internal Reports (FTE)		0.667	0.333				
onol imit iTT	Committees & Meetings; Inc. Rad. Safety (FTE)		0.667	0.333				
s∃	Administration and Management (FTE)		0.667	0.333				
						Subtotal		
						Total		

* Enter the sum of the number of therapy units, imaging systems, workstations, support systems and technologies in each category (column 3).

** Enter the annual number of new patients that undergo each of the following planning and treatment deliver procedures; count each new patient one time (column 3). ***Enter the summed total medical physicist and medical dosimetrist estimated FTE effort in each of the following categories. See Component FTE table for typical FTE (column 3).

d the Dosimetrist FTE factor (column 5);	iple below:
he entries in column 3 by the Physicist FTE factor (column 4) and t	ese in columns 6 and 7. Sum and total in columns 8 and 9. Examp
Multiply	report ti

			Relative F	TE Factor	Requir	ed FTE	Required	Total FTE
	Services # of Units or Licenses*	No. of systems*	Physicist	Dosimetrist	Physicist	Dosimetrist	Physicist	Dosimetrist
swa	Multi energy accelerators	4	0.25	0.05	1	0.2		
λεté	Single energy accelerators	0	0.08	0.01	0	0		
Տ ԵՐ	Tomotherapy, CyberKnife, GammaKnife	-	0.3	0.03	0.3	0.03		
16 2£	Cobalt Units, IMRT, PACS, EMR & Contouring	0	0.08	0.03	0	0		
erce	Orthovoltage and superficial units	0	0.02	0.01	0	0		
os '	Manual brachytherapy; LDR Seed Implants	1	0.2	0.03	0.2	0.03		
tnər	HDR brachytherapy	1	0.2	0.02	0.2	0.02		
mqi	Simulator, CT-Simulator, PET, MRI Fusion	1	0.05	0.02	0.05	0.02		
nbg	Computer planning system (per 10 workstations)	1	0.05	0.02	0.05	0.02		
	HDR planning system	1	0.2	0.01	0.2	0.01		
						Subtotal	2.00	.033
	Annual # of Patients undergoing Procedures**	No. of patients**						
jr Jr	External Beam RT with 3D planning	500	0.0003	0.003	0.15	1.5		
atieı duro	External Beam RT with conventional planning	200	0.0002	0.002	0.04	0.4		
59 .0 920	Sealed source Brachytherapy (LDR & HDR)	100	0.008	0.003	0.8	0.3		
Ъч	Unsealed source therapy	25	0.008	0.005	0.2	0.125		
	IMRT, IGRT, SRS, TBI, SBRT	400	0.008	0.005	3.2	2		
						Subtotal	4.39	4.33
ls:	Estimated Total (Phys & Dosim) FTE Effort***	FTE Effort***						
ical I Toi J'ro	Education & Training (FTE)	0.1	0.667	0.333	0.0667	0.00333		
inilo atec H3 :	Generation of Internal Reports (FTE)	0.1	0.667	0.333	0.0667	0.00333		
nov imit IT1	Committees & Meetings; Inc. Rad. Safety (FTE)	0.1	0.667	0.333	0.0667	0.00333		
s I	Administration and Management (FTE)	0.5	0.667	0.333	0.0667	0.00333		
						Subtotal	0.53	0.27
						Total	6.92	4.92

Another resource for calculating radiation oncology staffing is: Battista JJ et al. Medical physics staffing for radia-tion oncology: a decade of experience in Ontario, Canada. J Appl Clin Med Phys. 2012;13(1):3704.





CHAPTER 3

Safety

Leader: Lawrence B. Marks Leader Designee: Daniel Pavord R. Alan Burns Laura A. Dawson Lisa A. Kachnic Peter A. S. Johnstone Christopher J. Moore Christopher F. Serago

3.1.0 THE NEED FOR A CULTURE OF SAFETY

Modern radiation therapy is complex and rapidly evolving. The safe delivery of radiation therapy requires the concerted and coordinated efforts of many individuals with varied responsibilities. Further, safety and efficiency go hand in hand. Inefficient systems lead to staff frustration, rushing and sometimes cutting corners, thus, all team members need to work together to create a safe and efficient clinical environment and workflow.

The need for efficiency is heightened by the increasing demands being placed on all members of the radiation oncology team. Changes in the levels of reimbursement for some clinical activities, global changes in the national healthcare system (e.g., structural, financial) and increasing levels of administrative burden (e.g., documentation requirements) require physicians to search for improved levels of efficiency. This is essential in order to provide staff with necessary time to perform critical safety-related activities.

The rapidly-evolving nature of radiation oncology requires that processes and workflows be continually reassessed. Each member of the team needs to accept that optimal approaches are not static, but will necessarily change to accommodate the evolving practice. Long-held traditional approaches will need to be challenged and possibly modified.

People may be hesitant to change, often for good reasons. Good clinical practices usually evolve over years if not decades, so change should be carefully implemented. It is critical that a culture that appropriately manages change exists, ensuring change facilitates safety and quality. Furthermore, all team members must be open to having any member of the team (whether in leadership positions or not) raise concerns about safety as well as suggesting and considering change. Indeed, it is often the frontline staff that are more likely to understand the limitations of current procedures and suggest improvements. Thus, an ideal open environment with a safety-minded culture only exists where staff are permitted and encouraged to suggest and lead change to improve safety, quality and efficiency.

3.2.0 LEADERSHIP AND EMPOWERING OTHERS

Physicians and medical physicists comprise the primary leadership roles within a radiation oncology clinical site. They must empower all members of their team to be active participants in improving clinical processes. This is true from a practical perspective, as one person cannot possibly understand all aspects of the complex field. Further, such empowerment is a meaningful way to provide team members with a feeling of responsibility, thereby increasing job satisfaction, raising expectations and enhancing performance. Staff should know that they have a meaningful and beneficial impact in the work environment.

In the radiation oncology clinic, these professionals are ultimately responsible for creating a culture of safety. Society has entrusted physicians and medical physicists as the guardians of both the individual and societal health care structure. With this trust, they are empowered to operate as advocates for safety-related initiatives. Leadership needs to make all staff feel comfortable to raise concerns about safety without fear of reprimand or reprisal.

3.3.0 EVOLVING ROLES AND RESPONSIBILITIES OF EACH TEAM MEMBER

The field of radiation oncology is ever-evolving, and as such, there are rapid changes in the roles and responsibilities of each team member. **Table 3.1** *(see page 21)* summarizes some of these changes and associated challenges. Entries are meant as examples, as this is not an exhaustive list.

3.4.0 EXAMPLES OF TOOLS/INITIATIVES TO FACILITATE SAFETY, AND THE SAFETY CULTURE

3.4.1 Staffing/Schedules

Staffing levels need to be adjusted to reflect the workload, particularly in physics, dosimetry and treatment, where the demands have markedly increased (e.g., patient-specific QA for IMRT). Schedules should be realistic to avoid/ minimize hurrying through a given task and risking error. An excessive workload can lead to errors. Conversely, light workloads can also be a problem since a certain level is needed to maintain "situational awareness" ^[1, 2].

3.4.2 Communication/Facilities

Systems that facilitate clear, unambiguous and efficient communication between all team members are critical. This is particularly true between physicians, medical dosimetrists, medical physicists and radiation therapists, given the large number of hand-offs and interdependent tasks that routinely occur during the planning and treatment-implementation processes. Well-defined charting procedures, either paper or preferably electronic, are critical. In planning the layout of a department, one might centrally locate dosimetry, and/or establish dedicated time for physicians and medical dosimetrists to work together, thereby facilitating the iterative "directive-segment-computation-review-repeat" cycle. This is a particular challenge when physicians and planners rotate between facilities. Enhanced tools are needed to enable efficient and accurate communication/transfer of complex 3-D data between centers. A well-defined communication pathway between workers will reduce the need for ad hoc/variable solutions and provide for messages being sent, received and verified.

3.4.3 Workflow/Efficiency

Clinical practice is complex, often mired in administrative and historically-derived procedures. Efficiency impacts quality and safety. Harried workers are more prone to error, therefore eliminating nonessential tasks increases time available for critical tasks. Lean approaches (adapted from the Toyota Production System)^[3] have been adopted by many to streamline clinical workflow and alter the work environment. Some have implemented rapid improvement events (Kaizens [4]) where participating representative members of involved groups create process maps for particular tasks. Value-added steps are identified, with wasteful steps and unnecessary stressors being eliminated, and a more streamlined, unambiguous, standardized process emerges. Having stakeholders meet to discuss and define their work builds teamwork and mutual respect, while fostering an environment in which staff know that they can positively impact their work.

3.4.4 Standardization

Standardization is widely recognized as a means to reduce errors and confusion. This might be particularly useful in group practices where radiation therapists, medical dosimetrists and medical physicists interact with numerous physicians, each having their own preferred methods. Having too many diverse approaches can lead to confusion. It is helpful if providers can agree on standard approaches to common diseases using reference or guide sheets to avoid confusion among planning staff. Standard treatment practices and QA mechanisms, as well as associated policies and procedures, should be vetted through a review committee and required for every technique or site, with regular updates, as needed. These should be posted with easy access for all who may need to refer to them.

3.4.5 Hierarchy of Effectiveness

Different methods used to affect behaviors have variable expectations for success ^[5]. Reliance on policies and training is the usual but least effective approach. In a large database of errors from the State of New York, "failure to follow policies/procedures" was implicated as a contributing factor in 84 percent of events, versus "inadequate policies/procedures" in 16 percent of events. Whenever possible, it is best to "hardwire" the systems for success using simplification, standardization, automation and forced functions to create workflows and systems that support human work. Checklists and time-outs are effective ^[6, 7] especially if:

- They are focused on the task at hand;
- The user believes in their utility; and
- The user is forced to use them (e.g., "hard stop").

Team Member	Traditional Role	Evolving Role	Challenges
Physician	 Patient care Supervises RT (e.g., sets dose/ volume criteria, approves plan and treatment images, manages toxicity) 	 Team leader for patient safety Coordination with multidisciplinary team Continuous education (e.g., image evaluation/segmentation, new software/technology) 	 Relinquish some autonomy to other personnel Engaging others in safety mission
Medical Physicist	 Assure the safe and effective delivery of radiation as prescribed 	 Incorporating technological innovations to improve patient/ staff safety Assess safety of treatment processes, (e.g., with statistic processes, failure mode analysis, fault trees, etc.) 	 Role shift to increase emphasis on safety-related work Education in advanced process analysis tools for patient safety
Medical Dosimetrist	Treatment planningPlan and TPS QA	 Image cataloging/manipulation (e.g., fusion/registration/ segmentation) Assist in IMRT/IGRT/equipment QA 	 Adequate instruction in anatomy Proper utilization of emerging imaging/segmentation tools
Radiation Therapist	 Provide safe and effective delivery of radiation as prescribed Daily equipment and new patient treatment QA 	 Assessment of 2-D/3-D images to make decisions concerning patient treatment/ motion/ alignment 	 Safe and proper use of additional imaging and treat- ment delivery systems
Nurse	 Assist with patient care/ education Manage toxicity 	 Patient pain Assist in multidisciplinary coordination 	 Adequate instruction in evolving technologies Knowledge of evolving chemotherapy agents
Nonphysician Providers	Assist physician with patient care	Coordination with multidisci- plinary team	Legal or regulatory restrictions
Administrator	Oversight of regulatory compliance	Support patient safety program	Resource allocation
IT Specialist	Desktop support	ConnectivityFailure mode analysisData archiving/recovery	ResourcesSpaceVendor interoperability
All Clinical Staff	 Proper patient identification Peer review 	 QA/Quality Improvement (QI) Increased documentation in EMR Evolving peer review Compliance with evolving regulatory requirements 	 Identification/discussion of near-misses Continuous education Increased reliance on EMR Adequate instruction with software/technological advances Dedicating time for safety initiatives Minimizing distractions

Table 3.1. Examples of Safety-Related Roles and Challenges – Radiation Oncology Staff

"Knowledge in the field" (automatic computer/machine functions and checklists) is more likely to improve human performance than is "knowledge in the head" (memory).

3.4.6 Human Factors Engineering [5, 8]

Human-machine interactions are ubiquitous. Human factors engineering aims to define processes, interfaces and machinery that facilitate correct usage. For example, the forcing function of an automated teller machine can require withdrawal of the bankcard before money is dispensed. Similarly, placing console control buttons that perform particular functions in a consistent location enables users to more reliably operate equipment in a predictable and correct manner. Safety is improved with workspaces that are designed to reduce noise, interruptions and visual clutter. Improving lighting, temperature and desk height are additional factors proven to affect performance.

In the radiation oncology field, complicated computer screen layouts, keyboard functions and treatment consoles are a few examples of the hundreds of human-machine interfaces that are navigated daily. These require increasing mental effort as they become more complicated or lack standardization. Many are well designed, but there is ample room for improvement. For example, within individual products, shortcut keyboard commands should be consistent whenever possible. Standardization of nomenclature, monitor layouts and shortcuts across different vendors are examples of enhancements that might also be helpful.

3.4.7 Incorporating QA Tools/Functionality Into Software

Often, QA is not incorporated into the planning or record and verify delivery systems. For example, user-configurable checklists and time-outs are not an option. Although potentially valuable, such embedded checklists still require the user to verify that checklist items are appropriately addressed rather than being automatic. Some embedded automatic QA functions would be useful, such as:

- For a new plan, the system searches its directory archive for patients with the same name to identify inadvertent retreatment.
- For common diagnoses, the planning system compares the proposed target volumes and associated dose parameters to a library of user-specified "expected" parameters and issues predefined alerts.
- Normal tissue dose-volume parameters are compared to user-specified constraints.
- Automatic highlighting of under-dosed target, or normal tissue hot-spots.

- Beams and plans are named automatically to reflect the treatment planner, date, etc.
- Common nomenclature of target volumes, organs at risk and plans to facilitate review of plans and identification of outliers.

Some of these functions may already exist. At least one manufacturer is "training" their planning system to identify discrepancies between pending plans and their library of "similar plans" ^[9].

3.4.8 Peer and Interdisciplinary Review

Peer review is an essential part of the safe delivery of radiation. Prospective peer review is critical, especially for new technologies such as IMRT and IGRT^[10, 11]. Once treatment has been initiated, the threshold for making a meaningful change in image segmentation or motion-management strategy is relatively high because it may result in time-consuming replanning and QA. Physician-to-physician peer review is useful, and review of target delineation and image segmentation prior to planning deserves more standardization. Peer review is also conducted as part of the chart rounds process. See Chapter 4, sections 4.1.5 and 4.1.6, in this document for the specifics regarding the components of this process.

Peer review is clearly important for other team members as well. As an example, medical dosimetrists can check each other's work (e.g., choice of beam selection/weighting). A distinction is often made between quality assurance and peer review (Table 3.2, see page 23). Quality assurance is often taken to relate to objective/quantitative "right versus wrong" actions (e.g., was the correct plan sent from the planning system to the treatment machine? Is the machine beam output correct?), that can readily lead to major clinical events that affect one or many patients. Peer review is often used to refer to somewhat more subjective items (e.g., target definition or dose selection) that are perhaps less likely to lead to major clinical events, and not affect a large number of patients. These interactions traditionally occur roughly as physics-, planning- or therapy-based versus physician-based. However, this distinction can be readily blurred. For example, should there be a double check for things such as machine QA? (e.g., there may be two people to confirm the machine output). Similarly, a physician can make gross right or wrong type errors in target delineation (e.g., mislabeling the left atrium as a sub-carinal lymph node) or misinterpreting published data leading to systematic errors in treatment recommendation that could affect many patients.

	Peer Review	Quality Assurance
Physician	Target definition	 Verify appropriate nomenclature and documentation Verify dose constraints are within policy Review portal films
Medical Physicist	Verify machine output	 Verify the correct transfer of data from the planning system to the treatment machine
Medical Dosimetrist	 Assess selection of beam orientation and weighting Evaluate plan for target coverage and normal tissue exposure 	• Verify that prescription matches the treatment plan
Radiation Therapist**	Double check patient setup accuracy	Ensure patient-specific procedure time-out

Table 3.2. Examples of Peer Review and Quality Assurance Items *

* Examples shown are items that might be (somewhat arbitrarily) divided into the peer review and quality assurance.

** In addition, two radiation therapists should always be available in the event of emergencies and as a "second set of eyes" to verify information during time-outs for procedures.^[12]

There is additional utility to prospective multidisciplinary interactions (e.g., between physician, medical physicist, medical dosimetrist, nurse and radiation therapist). A dosimetrist might note inconsistencies in the segmentations and directives, and anticipate dosimetric challenges (e.g., "I cannot meet both the cord and the planning target volume [PTV] doses due to their proximity") prior to initiating planning. Such a preplanning/ treatment meeting facilitates a healthy interdisciplinary dialogue that can make the subsequent planning/treatment processes smoother, but may also require more time between simulation and treatment.

3.4.9 Daily Morning Meetings

Having all members of the team meet daily to review the upcoming clinical activities can be a useful exercise to preempt potential problems. For example, the CT-Simulation therapists can review the day's schedule, noting patients whose records lack clear directives. Patients presenting unique challenges or learning opportunities can also be identified and discussed. The availability or lack of openings for add-ons can be noted. Medical dosimetrists can alert the group regarding treatment plans that are proceeding more slowly than expected and seek direction. The chief radiation therapist can note to the group patients who will need pre-RT films/imaging reviewed that day, the daily patient treatment census and potential challenges (e.g., anesthesiology cases). All members of the group are invited to raise concerns, make announcements, and so forth. The morning meeting serves the practical function of trying to anticipate the upcoming challenges and avoid chaos in the clinic. It also serves a social and cultural function to bring the department together daily, fostering an environment of easy communication among all team members.

3.4.10 Safety Rounds

Safety rounds may be characterized by personal 15- to 20-minute interviews by the chairman (or members of the safety or quality committees) and members of the leadership team with staff members in groups of one to three people at their worksite, asking about near-misses or unsafe conditions causing potential or real harm to patients or employees.

3.4.11 Routine Public Announcements/Updates

Issues relating to safety/quality/efficiency should be routinely included in all departmental activities. For example, the morning meeting is a good opportunity for leadership to make announcements about ongoing initiatives. Similarly, regular reports summarizing the outcomes of safety rounds can be provided to all department members and posted in prominent locations throughout the department. This demonstrates the responsiveness of leadership and reinforces leadership's commitment to process improvement. Achievements of staff working in these areas should be publicly acknowledged and celebrated. This helps to create an environment where people may be more willing to speak openly about safety concerns.

3.4.12 Address Errors and Near-Misses

Employees should be encouraged to report both errors and near-misses (errors that almost happen). Experienced employees typically know how to rapidly work around challenges, and may not always recognize the potential problems that could arise, since they are so skilled at adapting to situations. The study of near-misses is powerful in identifying problems with work processes that can lead to an error. The reporting of near-misses should be met positively, and not with fear of punitive action. Near-misses should be addressed with a similar vigor as that applied to errors, and reported through the Quality Assurance Committee.

3.4.13 Quality Assurance Committee

A dedicated formal QA committee should consist of a multidisciplinary team (e.g., physicians, medical physicists, medical dosimetrists, nurses, radiation therapists and IT support) that meets regularly and serves as liaison with leadership and hospital-wide safety committees. This committee should develop initiatives related to patient safety (e.g., sections 4.1-4.12), which are feasible and work best for the individual institution. This committee should ensure that a mechanism for reporting and monitoring errors and near-misses is in place, that leadership is aware of trends, and that a process exists for implementing change when needed. Monitoring appropriate compliance with local, national and international safety, licensure and credentialing standards falls under this committee, as does developing mechanisms to investigate serious or potentially serious incidents in near real-time (e.g., less than 24 hours). Such mechanisms may include having a dedicated team on-call to meet with staff involved in an error or near-miss, to help in determining root causes of the incident, to provide input on the potential impact of the error or near-miss and on proposed solutions or recommended changes (if any). This committee also disseminates safety information through peer review meetings, the morning meeting and safety rounds, in addition to more formal safety, QA or possibly morbidity/mortality rounds.

Peer review meetings, QA Committee, morning meetings and safety rounds are examples of initiatives that promote staff involvement in seeking positive change in their workspace. These activities help foster a sense of openness, mutual respect, group participation and responsibility. Staff should be encouraged to raise concerns and be reassured that reporting and raising safety concerns will not be punitive.

3.4.14 Credentialing and Training

Institutional policies must exist for appropriate training and credentialing of personnel. This could be challenging with new technologies where there are few training programs or the technology is rarely available. Nevertheless, centers must ensure that providers are qualified to deliver any care for which they are privileged.

3.5.0 INGRAINING SAFETY INTO EVERYDAY PRACTICE

Safety and quality initiatives are often viewed as separate from routine practice. For example, QA meetings are something that The Joint Commission (TJC) requires, where the leadership reacts to events in the clinic by generating rules/policies in a hierarchical manner that are (often) ignored. This is an unfortunate historical paradigm. A preferred approach is to ingrain safety considerations into the fabric of our clinical operations, such that it is seen as a natural component of evolving clinical practice *(Figures 3.1A and B, see page 25)*. This requires a persistent acknowledgement of safety concerns by the leadership to enable an increased mindfulness among the staff.

Figure 3.1A. Hierarchical Model



HIERARCHICAL MODEL



COLLABORATIVE MODEL

Figure 3.1. Panel A: Hierarchical model where departmental leadership and QA committee operate in a largely reactive mode where policies and dictums are "handed down" to the clinic, often in response to isolated events. Panel B: Collaborative Model where departmental leadership and QA committee proactively support and nurture a culture of safety. All staff are encouraged to become engaged in improving operations. Measures from the clinic are continually monitored to assess for opportunities for improvement.

3.6.0 COLLABORATION BETWEEN USERS AND VENDORS

The practice of modern radiation oncology requires the use of multiple commercial products. As safety becomes an increasing concern, our partnership with the vendors of these products must mature. An open exchange is needed where users and manufacturers work synergistically to maximize the likelihood of optimal outcomes *(Figure 3.2)*. The responsibilities and opportunities are complementary.



Connectivity

Users and vendors have a synergistic relationship that is critical for the healthy evolution of safe and useful products. The vendor needs to educate the user as to the capabilities and limitations of their products. Users need to share their concerns with the vendors and work with them to improve products.

Vendors need to create user-friendly products to maximize the probability that they are used as intended *(see section 3.4.6, Human Factors Engineering).* Products should typically not be marketed until they are relatively free of known flaws, especially those with serious clinical implications. Vendors should be forthcoming with information about all known shortcomings of their products. This should include challenges related to the integration of their products with other vendor's products (i.e., even when the "problem" is not inherent to their product alone, but rather arises from the interaction with other products). Since these issues often only become known to the vendors as their products become more widely used, vendors need to share this information, as it evolves, rapidly with their wider user-base.

Similarly, users need to operate products in the settings and modes in which they were intended, and use care when utilization is extended to uncharted territory. Problems, both real and potential, should be reported to the vendor (and regulatory agencies as required) in a timely fashion, and with enough information (e.g., the context) to enable the vendor to make a full assessment. Users should take the time to familiarize themselves with the functionality of new/evolving products prior to their clinical implementation and communicate with the vendors so that they can work together to seek needed improvements to products.

It is important that the team tasked with managing the needs of the radiation therapy department's information technology reviews and approves any and all software or hardware that is involved in treatment planning and delivery. Vendor specifications and network connectivity requirements must be approved prior to the purchase of any new system *(see Chapter 4, section 1.6, Equipment and Devices)*. There could be logistic challenges that limit the ability for vendors to rapidly alter products (e.g., Food and Drug Administration [FDA] regulatory review, and user acceptance of "short cycle" upgrades).

3.7.0 INVOLVING THOSE BEYOND RADIATION ONCOLOGY

Cancer care is multidisciplinary and often involves surgeons, medical oncologists, diagnostic radiologists, pathologists, internists (gastroenterology, pulmonary, neurology, other), social workers and others. Communication between disciplines is challenging but exceedingly important as our treatment approaches involve multiple disciplines. Many of the initiatives and concepts described herein can, and should, be applied on a broader scale (*Table 3.3*).

Table 3.3. Multidisciplinary Approaches to Quality in Cancer Care Delivery

Radiation Oncology Initiative	Analogous Multidisciplinary Initiative
Pretreatment team discussion	Tumor board
Daily meeting	Regular multidisciplinary meetings to review patients under treatment
Determining unambiguous methods of communication between team members in the radiation oncology EMR	Determining unambiguous methods of communication between multidisciplinary care providers in an oncology- specific or hospital-wide EMR
Safety rounds within radiation oncology	Safety rounds within cancer center
Departmental safety culture	Cancer center or hospital-wide safety culture
Discipline-specific training	Team training

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CHAPTER 4

Management and Assurance of Quality in Radiation Oncology

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4.1.0 QUALITY REQUIREMENTS FOR RADIATION ONCOLOGY PROGRAMS

The overall goal of the guidelines summarized in this chapter is the delivery of high quality radiation oncology treatment to all patients. Note that quality assurance is a shorthand term which is often used to describe some or all of the different aspects involved in quality management (QM) and a culture of safety.

4.1.1 Facilities

A radiation oncology facility must satisfy numerous requirements:

- General space requirements include providing adequate clinic space, exam rooms and equipment, patient waiting and changing space, convenient patient parking, treatment rooms, simulation/imaging room(s), brachytherapy source preparation and storage space (if service is offered), dosimetry and treatment planning rooms, office space for professional staff (physicians, medical physicists, nursing, etc.) and medical physics laboratory/equipment storage space. The extent of facilities should be appropriate for the volume of patients seen and treated, as well as the modalities offered.
- Treatment rooms for linear accelerators or other treatment machines (e.g., tomotherapy, cobalt, robotic accelerator systems, etc.) must be carefully designed for radiation shielding, environmental conditions, adequate storage space for spare parts, testing and

dosimetry equipment, patient access and safety, while also allowing installation, testing and repair of the treatment system. Design must include video and audio patient monitoring systems, dosimetry monitors (when required), electronic cables for dosimetry, computers and other systems.

- Each department must have access to CT imaging for treatment planning. Radiation oncology CT-Simulator room designs must carefully protect staff from accidental radiation exposures, while allowing patient positioning, immobilization device implementation or fabrication. The same requirements apply to MR-Simulation rooms (when the modality is offered) with the additional requirements for the establishment of an MR safety zone.
- Rooms used for brachytherapy procedures require special attention to the specific radiation protection requirements associated with the particular brachytherapy modalities used. If the brachytherapy procedure load warrants it, a brachytherapy suite should be available, including patient waiting space, procedure rooms, recovery rooms (if necessary) and brachytherapy source preparation and storage areas, so that the entire brachytherapy process can be performed within a well-designed and controlled space, to ensure radiation protection and source control.
- Each department must have electronic access to the hospital, clinic or outside information system(s) and picture archiving and communication system (PACS), interaction with other medical specialties to insure

coordination of care as well as access to laboratory services, and other ancillary services such as social service, dentistry and nutrition for the benefit of patients during therapy.

4.1.2 Program Requirements

Each radiation oncology program must satisfy a number of general requirements.

4.1.2.1 Program Accreditation

Each radiation oncology program should become accredited by an established radiation oncology-specific accreditation program. This process will verify that crucial basic capabilities and procedures necessary for quality radiation therapy are performed, and will raise the general level of radiation oncology practice in the country.

4.1.2.2 Required Capabilities

The following specific capabilities and methods for various aspects of the radiation therapy process are essential:

- Calibration of treatment machines, CT and MR scanners, treatment planning systems and brachytherapy sources shall be carefully accomplished according to the appropriate protocols described by scientific/ professional organizations.
- A safety program designed to improve patient safety, avoid radiation incidents and prevent errors in the treatment process shall be in place and periodically reviewed and enhanced.
- The system for documenting radiation therapy treatment, and other aspects of the patient's medical care ("charting") must be rigorous, periodically reviewed and enhanced, and available to all members of the radiation oncology team when needed.
- High quality and comprehensive treatment planning, using 3-D computerized treatment planning for dose calculations, imaging and other aspects of the planning process, is essential.
- A comprehensive quality management program, including quality assurance, quality control (QC) and other quality improvement tools shall be in place.
- Radiation monitoring of machinery, sources and patients (where necessary) and staff exposures are crucial.
- All radioactive sources shall be carefully controlled and monitored, as required by regulatory agencies
- A careful and pre-emptive program for maintenance and repair of equipment is essential.
- Staff training shall be comprehensive, ongoing and well documented.

- Each department shall have a well-developed strategy for peer review, for the entire department and its procedures, as well as for individual clinical care, physician and qualitative decisions made throughout the process (e.g., treatment plan quality, patient setup technique acceptability).
- Each department must have access to medical oncology, surgical oncology and other physicians involved in the multidisciplinary care of the patient, as well as access to dentistry, nutrition, laboratory testing and other supportive services necessary for patient care or handling of patient toxicity that arise during (or after) therapy.

4.1.2.3 Policies and Procedures

Each department shall develop and implement careful and well-described policies and procedures for each aspect of the process used for patient care, for QA of the patient care process, and for staff behavior, as well as those issues impacting safety for patients and/or staff. Each specific treatment (e.g., IMRT, IGRT and SBRT) should have detailed documentation of its treatment planning and delivery process, roles and responsibilities of each team member in that procedure, QA checklists and test procedures, and a plan for continuous quality improvement and safety.

4.1.3 Radiation Safety

Radiation safety, for patients and staff, is a crucial responsibility for all members of the radiation oncology department. This section documents, in brief, the technical requirements for facilities and machines that will facilitate safety.

4.1.3.1 Radioactive Source Procedures

AAPM Task Group Reports 56^[50], 59^[33], 138^[15] and 144^[72] outline safety and quality standards for the handling of radioactive sources such as those used in brachytherapy clinical procedures and QA. Safety considerations should be consistent with state and federal regulations. The radiation oncologist, medical physicist and radiation safety officer should define local radiation safety guidelines that are consistent with the ASTRO, ACR/ASTRO, American Brachytherapy Society (ABS) and regulatory brachytherapy guidelines.

4.1.3.2 Accelerator Safety

Once the treatment room is correctly designed, staff procedures for accelerator use, patient treatment and other work performed in the accelerator room must be designed to ensure patients and staff members do not receive any unwarranted radiation exposure. A monitoring program that updates and enhances the safety of this program must be a part of the departmental procedures.

4.1.3.3 Safety for Imaging Devices

Unlike the general situation with diagnostic imaging and image guided surgery, imaging in radiation therapy adds the imaging dose to an already high level of radiation therapy. There is a strong correlation between increased imaging and improved quality of delivery of the therapeutic dose; therefore, the emphasis in radiation therapy should be on optimizing rather than simply minimizing the imaging dose. AAPM Task Group 75^[38] provides guidance on optimal use of imaging and strategies for reducing imaging dose without sacrificing its clinical effectiveness.

4.1.4 Monitoring Safety, Errors and Medical Quality

One of the most crucial activities in a quality radiation oncology department is the organized review and monitoring of all aspects of safety, errors and quality. Creating a "culture of safety" depends on guidance, direction and financial means from the leadership of the institution and of the radiation therapy department; on individual effort by every member of the department; and on organized support for quality and safety at every level in the institution. This section briefly describes a few of the organization- and department-level activities that can help to create the necessary culture and awareness.

4.1.4.1 Quality and Error Monitoring

Each department should have a department-wide review committee which monitors quality problems, near-misses and errors in treatment, diagnosis, patient care or other procedural problems that might lead to errors. This committee should organize the collection and analysis of such events, work to identify potential problems in devices or processes, and then try to mitigate these problems by modifying processes or adding new checks or actions to minimize the likelihood of further problems. It is important that these kinds of safety-related efforts, data and notes be identified as peer review protected and not subject to legal discovery. Further detail can be found in Chapter 3, Safety.

4.1.4.2 Safety, Morbidity and Mortality Rounds

Radiation oncology departments must at a minimum hold rounds quarterly, or more typically monthly, to review patient morbidity and mortality, dose discrepancies and any incident reports involving an accident, injury or untoward effect to a patient. Morbidity and mortality to be reviewed should include unusual or severe acute complications of treatment, unexpected deaths or unplanned treatment interruptions. At a minimum, participants included should represent all the team members, including radiation oncologists, nurses, medical physicists, medical dosimetrists, radiation therapists and administrators. Minutes of this review should be recorded.

4.1.4.3 Minimizing Time Pressures

In order to avoid safety problems or quality lapses caused by rushing to meet unrealistic scheduling expectations, each institution should determine the appropriate process time allocated for each step in the process. **Table 4.1** (see *page 32*) is an example of such a record, listing basic steps in the process. It is the responsibility of each institution to develop its own guidelines for the amount of time allocated to each step in order to avoid inappropriate time pressures. The goal of this effort is to avoid safety issues caused by time pressures, while satisfying the responsibility of the radiation oncology team to set a course of action that will assure a timely, yet safe and accurate transition from patient clinical evaluation to treatment.

4.1.5 Monitoring Professional Performance

Over the past several years, there has been increasing interest on the part of public and government agencies in requirements for greater oversight for physicians and other healthcare providers. In response to the public's concerns, the American Board of Medical Specialties (ABMS) decided that all medical specialties should develop MOC programs to replace current recertification initiatives. The ABMS has defined four components of MOC: professional standing, lifelong learning and self-assessment, cognitive expertise and practice quality improvement (PQI).

Many specialty societies offer opportunities for radiation oncologists and medical physicists to satisfy the requirements of MOC. For example, ASTRO has developed online courses with self-assessment modules (SAMs) to fulfill the lifelong learning requirements and a special program called the Performance Assessment for the Advancement of Radiation Oncology Treatment (PAAROT)^[76] to meet the PQI requirements. ACR has the R-O PEER program and the AAPM offers similar initiatives for medical physicists. Radiation oncologists and medical physicists should take advantage of these opportunities.

One important aspect of those programs is the use of peer review methods to help individuals learn from other practitioners in the field. Peer review is relevant in a number of different aspects of clinical practice: overall review

Table 4.1. Scheduling and Minimum Process Time (Required for Safety)

Individual institutions should create a table like this for their process(es) and circumstances, assigning appropriate values to the minimum process times ("x"). Cases identified as emergencies and other specialized techniques will require special consideration.

Process Step	Minimum Process Time Required for Safety
After imaging: Completion of target volumes, definition of plan intent, normal structure volumes; anatomy approved	x days
After anatomy approval: Planning: 3-D CRT Planning: 3-D IMRT, Volumetric Modulated Arc Therapy (VMAT) Planning: 3-D SBRT Planning: SRS	x days x days x days x hours
Plan evaluation and physician approval	x minutes (though xx hours must be allocated to schedule this time)
IMRT QA and analysis	To be completed x hours before treatment
Treatment preparation (transfer from treatment planning system to treatment management system before treatment start)	Allow x hours
Final checks before treatment	x minutes or hours
Treatment setup and delivery (based on complexity)	x minutes

of the behavior of the practice, review of individual skills and methods, as well as the common practice of reviews of physician clinical decisions which occur at a weekly "chart rounds" type review of ongoing patient treatments. Note that peer review is a quality improvement tool that has application throughout the process of radiation therapy (see, for example, the Safety White Paper on Peer Review ^[77]).

4.1.5.1 Ongoing Monitoring/Evaluation of Staff Qualifications

It is equally important that the other members of the radiation oncology team have proper credentials and training in the simulation, treatment planning, treatment delivery and QA processes of each specialized treatment technique. The staff should also be appropriately trained to use each specific device.

Radiation oncology is a technologically demanding field which is dependent on well-trained and highly-skilled members of the radiation oncology team, as described earlier in this report. It is crucial that all members of the team maintain the proper credentials, skills and training levels, satisfying clinical competencies annually. In some cases (for example, radiation therapists moving between different kinds of treatment machines), additional training or review sessions in the use of specific devices may be necessary more often than annually. Each facility should follow the ASTRO recommendations and ensure that the staff have opportunity to maintain continued competence in their job responsibilities. See, for example, the roles, responsibilities and training requirements for each staff member described in the recent Safety White Paper on IMRT^[37].

4.1.6 Equipment and Devices

Radiation oncology is a highly technical field which relies on computer-controlled treatment machines, interconnected imaging, delivery and planning systems and important ancillary equipment. This section describes general requirements for radiation oncology equipment and systems, including guidance on system-specific quality assurance. Further patient- and process-oriented quality measures and QA are described later.

4.1.6.1 General Guidance

For any device, system or process to be integrated into the radiation oncology care process, many of the same general methods and issues must be addressed, as described here.

System Specification, Acceptance Testing, Clinical Commissioning and Clinical Release: Any new

radiation therapy system should go through the following process as it is prepared for clinical use:

- *System Specification:* To prevent later safety or effectiveness problems, each system should be carefully specified before acquisition, purchase or development, including design, expectations, capabilities, tolerances, hazards, necessary training, usability and technical specifications.
- *System Connectivity:* To prevent data communication errors and clinical efficiency issues, each system must be interoperable and interconnectable with other systems in the clinic. Integrating Healthcare Enterprise-Radiation Oncology (IHE-RO) compliance can help ensure interoperability and interconnectivity of devices in the clinic.
- *Acceptance Testing:* To document that the new system satisfies the specifications, acceptance testing must be performed. Often, the acceptance criteria and/or testing methods should be documented as part of the specification for the system.
- *Clinical Commissioning:* All the activities that must be performed to understand, document, characterize and prove that a given system is ready to be used clinically are included in clinical commissioning. Determination of the limitations under which the system can be used safely is one of the important parts of the commissioning process. Such commissioning should be dependent on the clinical use(s) of the system, and typically is not a static thing that can be done only once, since clinical system use usually evolves and changes with time and clinical needs. Standard operating procedures, training and hazard analysis should be part of the commissioning process.
- *Clinical Release:* Each new system, device, capability and process must be formally released for clinical use after clinical commissioning has been completed.

Device, System or Process QA: Clinical use of a device, system or process must be included in the creation and application of a safety- and quality-oriented program which helps assure that the system is working appropriately and as desired. This kind of program has many aspects:

- *Quality Management:* QM, the overall program that aims to organize all the quality efforts appropriately to assure the quality and safety of the use of the system, must be established for each new system or process. The QM program should include hazard analysis, quality control, quality assurance, training and documentation, and ongoing quality improvement efforts.
- *Hazard analysis:* Hazard analysis, the active evaluation of the potential for failures that will cause incorrect results or harm to the patient, should be performed in some fashion for any new system, as it will help delineate issues which can benefit from QC, QA, training or other mitigation strategies. The methodologies, such as failure mode and effect analysis (FMEA), that are prevalent in the industrial world are being adapted for process and quality improvement in healthcare. The Joint Commission now requires every hospital to use FMEA as one means to improve its processes.
- *Quality Control:* QC includes activities that force specific quality on a process. It entails the evaluation of actual operating performance characteristics of a device or a system, comparing it to desired goals and acting on the difference.
- *Quality Assurance:* QA includes all activities that demonstrate the level of quality achieved by the output of a process. QA checks, along with QC, are essential parts of the QM for most devices and systems, as they can check the output of potentially complicated decisions or actions performed by the system. The choice of QC, QA or other methods depends on how to prevent errors most efficiently. Note that QA is the typical shorthand term used throughout the field to describe the entire QM program, not just the quality assurance aspect.
- *Training and Documentation:* Training of staff in goals, methods, results, operation and evaluation of the quality of output can be very important in proper use of any system. Documentation of appropriate operating procedures is also critical, so new staff can be trained. Both training and documentation should be updated often. In particular, it is often necessary to perform retraining of staff after time away from a system, or to refresh current knowledge.

The QM program for each system, device or process should be individualized to attain the most effective safety and quality as efficiently as possible. Adequate time and resources should be allocated for the QA/QC/QM program. Maintenance programs (below) are another important part of any QM program.

Maintenance: All systems, devices and processes require routine maintenance. While most people are familiar with the maintenance needs of mechanical devices, electronics and software, processes also need routine maintenance, though the specifics of the maintenance required are different:

- *Mechanical systems:* Routine mechanical and preventative maintenance programs are crucial to prevent major component failures, and are safety critical, as failures can lead to major potential safety problems.
- *Electronic systems:* Preventative maintenance in electronic systems can involve monitoring parameter values and behavior to look for components of the device that are beginning to fail or show undesirable behavior.
- *Software systems:* Since software is never completely bug-free, and the use of the system can evolve as experience is gained, maintenance in the software context often involves the installation of new versions of the software. This new version can be a simple "bug-fix" version with no planned new functionality, or it can be a major version upgrade with major new functionality and/or internal structure. Any new version (minor or major) can contain significant new problems that can be unrecognized before the commercial release of the software, so these upgrades can involve new testing, commissioning, QA and training as part of the release of that software. It is crucial to investigate the scope of any new software upgrade, and to design appropriate commissioning, QA and training to assure the safety of the clinical use of that new system.
- **Processes:** All processes evolve as they are used clinically. This evolution therefore changes the potential failures that the process may be sensitive to, so the QM program associated with that progress must be modified (maintained) just as other systems require maintenance.

Adequate time, materials and resources must be allocated for the maintenance program of all systems and devices.

Interconnectivity and Interoperability of Devices and

Systems: Nearly all major pieces of radiation oncology equipment are computer-controlled or software-based devices, and they are virtually all interconnected. The safety and quality of any therapy planned or performed with this

system of interconnected devices is crucially dependent on the accuracy and completeness with which the various devices communicate data, commands and the overall process which is being performed. Any flaws in the communication protocols, interfaces or underlying system designs can allow errors, most of which will be systematic errors that will always occur given a specific set of circumstances. These errors can be nearly impossible to find without specific formal hazard analysis and directed testing.

A concerted program directed toward rigorous testing and documentation of the accuracy and correctness of computer system interconnections, interfaces and interoperability must be used for all systems involved in radiation therapy. The IHE-RO program is one effort to address this need, but each institution should evaluate and implement QM/QA/QC testing programs to confirm that interconnected systems used in their center are correct and safe. IHE-RO compliance should be part of this testing.

External Review: Single points of failure, or extremely unlikely combinations of errors, can happen to anyone or any institution. Independent review of crucial aspects of any quality program is an extremely effective way to avoid those highly unlikely or single point failures, and should be used wherever practical.

The intersociety group recommends the creation of mechanisms to support the following independent/external reviews:

- Basic treatment machine calibration should be confirmed before clinical use and annually thereafter by a nationally-available program (similar to the radiological physics center [RPC] remote monitoring program).
- Special treatment techniques (including IMRT, SBRT, SRS, IGRT, intraoperative radiation therapy [IORT] and others) should undergo external peer review initially and at regular intervals to maintain "competency" in that technology.
- Review of treatment planning system implementation and use should happen initially and at regular intervals. Comparisons can be detailed, as performed by the RPC, or more limited comparisons performed with the appropriately designed plan comparison strategies, including use of similar machine data and calculation methods.
- Treatment protocols and standard operating procedures should be peer reviewed by an external radiation oncologist every five years (as part of accreditation).
- Many more aspects of a radiation oncology program will benefit from similar review, including the device calibration and QA program, clinical protocols and nursing support.

Equipment Replacement, Upgrades and Additions:

Radiation therapy devices require replacement or upgrades when they become technologically obsolete or worn out. For example, the average life of a linear accelerator is typically 8-10 years if: the equipment is properly maintained; replacement parts are readily and economically available; and the operational characteristics and mechanical integrity meet performance and safety standards. On the other hand, treatment planning systems require replacement or upgrade when the hardware becomes obsolete or the software functionality limits its ability to satisfy the current standard of care.

Beyond its useful working life, a treatment planning and/or delivery system needs to be withdrawn from clinical service if it cannot be upgraded to warranty status, even if it is not technologically obsolete. This periodic replacement and renovation of equipment is necessary not only for quality care, but for patient and personnel safety and efficient economical operation. Equipment replacement must be justified based on departmental and institutional, not geographical or political, needs.

Furthermore, the need for additional equipment in a specific facility should be based upon an increasing number of patients requiring treatment, changing complexity of treatment or addition of a new specialized service. An increased commitment to clinical research and teaching is another reasonable justification for equipment addition.

4.1.6.2 External Beam Treatment Machines

Minimum Device Requirements: State-of-the-art radiation oncology facilities require a standard treatment delivery platform to deliver 2-D and 3-D conformal external beam radiation therapy and IMRT. Standard features include one or more photon energies, multiple electron energies, multileaf collimator (MLC), electronic portal imager and a computerized treatment delivery and management system. The equipment capabilities should be sufficient to provide a continuum of care for patients. As an example, it is unrealistic to assume that all patients needing electron beam therapy will be specifically referred to an "outside" facility for that purpose. However, there is also justification for the establishment of specialized care facilities for complex circumstances, like treatment of pediatric cases, radiosurgery and proton therapy. These types of centers can provide focused expertise in certain complex treatment delivery techniques that may require special considerations in terms of staffing and training. Professional and scientific organizations in the United States (AAPM, ACR, American College of Radiation Oncologists [ACRO] and ASTRO) have established practice guidelines/standards that outline accepted processes related to these complex techniques. Referral of patients to such facilities for specialty care should be supported and encouraged.

Minimum QA Requirements: The bulk of radiation therapy treatment is performed with external beam machines (linear accelerators, tomotherapy, robot accelerator systems, etc.). A complete quality management program is essential for each device, and should include routine quality assurance and quality control procedures, monthly and annual testing, as well as a hazard analysis of the treatment process used for that machine to identify procedural problems in addition to the technical or mechanical issues that the QA/QC checks address. Current quality expectations are described in detail by well-known guidance documents (Table 4.2). Modern techniques such as IMRT and IGRT have become the standard of care for the treatment of a wide variety of disease sites. The basic QA/QC and clinical practice guidelines for these procedures are also well documented (Table 4.2). Newer IMRT delivery techniques such as VMAT and Flattening Filter-Free (FFF) treatment delivery do not have published guidelines. Therefore, it is the responsibility of medical physicists (along with other members of the radiation oncology team) to evolve and modify existing QA programs to make them as effective as possible for the clinical treatments

Table 4.2. Basic External B	Beam QA Requirements
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Name	Issue	Recent Summary	References
Linac + MLC	Linear Accelerator Use	TG 40 + TG 142. TG 148 (tomotherapy), TG 135 (robot accelerator)	[32], [31], [34], [16]
3-D CRT	3-D Conformal Therapy and Treatment Planning	ACR 3-D, TG 53	[1], [20]
IMRT	Intensity Modulated Radiation Therapy	IMRT Safety White Paper	[37] and references therein
IGRT	Image Guided Radiation Therapy	IGRT Safety White Paper	[30] and references therein

performed in that institution, as well as to deal with evolution of the technology and capabilities of the equipment.

4.1.6.3 Brachytherapy Devices

Minimum Device Requirements: Due to its century-long record of clinical implementation, the field of brachytherapy has grown into a subspecialty, having devices developed specifically for each disease site. Still, there are frequent advances that move the field forward and permit improved local control rates and/or minimized healthy tissue toxicities. It is not feasible to outline the minimum standards for devices used for every current disease site. However, the expected minimum standard is to provide at least the same current level of safety and capability as existing devices. New capabilities that supersede existing capabilities are required for new brachytherapy devices.

Minimum QA Requirements: The AAPM and other radiation therapy professional societies have prepared reports issuing quality standards for the sources and devices used for brachytherapy. *Table 4.3* indicates the associated reports providing guidance for these sources and devices.

4.1.6.4 Imaging Devices

Minimum QA Requirements: Numerous imaging devices are crucial to the radiation therapy process, including diagnostic systems used for development of the

treatment approach and plan (e.g., CT, MR, PET), as well as systems used during treatment for patient setup, positioning, alignment, motion assessment and IGRT (e.g., megavoltage portal imaging, kilovoltage imaging, cone beam CT [CBCT] and numerous alternate technologies). Finally, the advent of adaptive and individualized approaches to the treatment course, based on serial CT and/ or MR imaging, as well as functional MR, PET and Single Photon Emission Computed Tomography (SPECT) images, has led to new QA requirements for the use of these systems within the radiation therapy treatment course.

- Diagnostic systems used in radiation therapy (CT, MR, PET) must satisfy the usual diagnostic QA requirement^[85, 84], but must also satisfy the more stringent geometric requirements forced by the use of the images for patient and beam geometry. Additional testing for this issue is recommended.
- QA for the kV and MV imaging systems which are used for patient localization, setup and motion assessment is well described by recent reports^[86-91], as well as the recent ASTRO IGRT Safety White Paper^[30] and the ACR/ASTRO IGRT Standard of Practice^[2]. It is essential that the recommendations of these reports be used, but they should be modified to appropriately handle the specific requirements of the IGRT or other positioning techniques used in each institution, paying close attention to the tolerances which the entire process allows.

Brachytherapy sources or devices	References
Radiation sources General HDR and pulsed-dose-rate remote (PDR) afterloaders LDR sources ⁹⁰ Y unsealed sources Electronic brachytherapy sources Liquid radioactive sources (lotrex) Intravascular brachytherapy (IVBT) sources	[48], [32], [49] [50], [70], [15], [23] [33], [51] [72] [74], [53] [73] [52], [13]
Applicators	[50], [73]
Hardware	[50]
Imaging devices	[50]
Treatment planning systems and dose calculation processes	[48], [32], [49], [20], [50]
Survey instruments, badges, radiation safety	[48], [32], [50]

Table 4.3. Brachytherapy Devices

• The use of functional and metabolic imaging as part of the adaptive treatment process is a technique which is just developing now, so many changes are expected. For each specific metric, biomarker and/or decision process used for adaptive treatment strategy changes, the sensitivity, repeatability and tolerances of the metrics with respect to their clinical use must be considered as specific QA methods are developed.

4.1.6.5 Treatment Planning Systems

Minimum Device Requirements: 3-D computerized treatment planning based on CT data is the minimum state-of-the-art for modern radiation therapy. Safe and effective use of planning requires direct input of CT, MR and other imaging information; the capability to define (by contouring and other segmentation) 3-D anatomical objects (targets and normal tissues); beams and/or radioactive sources defined in 3-D; well-characterized and accurate dose calculations; dose-volume histograms (DVHs) and other plan evaluation metrics; and electronic downloading of treatment plan information to the treatment management system. Many special treatment techniques require specific and sophisticated use of additional planning capabilities, as described in **Table 4.4** *(see page 38)*.

Minimum QA Requirements: Computerized treatment planning is an essential requirement of virtually every radiation therapy treatment, so the quality assurance of the planning system and of the process in which it is used is crucial. AAPM TG 53 ^[20] provides a general guidance to all the issues which must be addressed in order to use modern treatment planning in a safe and appropriate way, including discussion of acceptance testing, clinical commissioning, routine QA, training, dosimetric and nondosimetric testing, and more, while more specialized technique issues are described in **Table 4.4**. Specific discussion of dose calculation algorithm issues is described by a number of reports, including the recent TG 105 on Monte Carlo treatment planning issues ^[92].

4.1.6.6 Treatment Management Systems (TMS)

Minimum Device Requirements: State of the art radiation therapy involves the use of a computerized treatment management system (TMS) which manages treatment delivery and/or all the treatment preparation and planning steps involved before treatment. These systems, evolved from record and verify systems which were used to check manually set treatment parameters on "analog" treatment machines, now involve 1) an information system piece (sometimes called an "RT-EMR") which includes database(s) storing patient demographics, planning and treatment delivery data, applications used to create/ modify/edit and manage the data, as well as some procedural and workflow tools, and 2) a treatment delivery system that directly manages the flow of activities during treatment delivery, as well as patient setup, imaging and IGRT, treatment verification and other activities that happen during each fraction of a patient's treatment. The TMS communicates with the departmental network, hospital EMR, other ancillary treatment setup, verification, dosimetry and scheduling systems.

Minimum QA Requirements: The TMS is one of the newest and most quickly evolving systems involved in radiation therapy. As such, the quality management program, which should be associated with safe use of the system, is less well-described and understood than almost any other system. A few of the crucial QA issues for TMS that have been published are listed in **Table 4.5** (*see page 39*), however, new efforts to develop improved guidance in this area are needed.

4.1.6.7 Particle Therapy

Minimum Device Requirements: Particle therapy is another contemporary form of radiation therapy that has its own unique challenges. The precision and accuracy of both the treatment planning and delivery of proton therapy are greatly influenced by uncertainties associated with the delineation of volumes of interest in 3-D imaging, imaging artifacts, tissue heterogeneities, patient immobilization and setup, inter- and intrafractional patient and organ motion, physiological changes and treatment delivery. Furthermore, the locations, shapes and sizes of diseased tissue can change significantly because of daily positioning uncertainties and anatomical changes during the course of radiation treatments. To ensure safe and accurate treatment planning and delivery of particle therapy, minimum device requirements include on-line image guidance, a robotic couch capable of six degrees of motion (three translations plus pitch, roll and rotation), a robust immobilization system, a computerized TMS to manage treatment preparation and delivery, and adequate QA equipment.

Minimum QA Requirements: Particle therapy does not currently have QA guidelines published by our national scientific organizations, though there are AAPM task groups at work on aspects of proton therapy QA. Therefore, it is the responsibility of medical physicists (along with other members of the RT team) to evolve and modify existing QA programs to make them as effective as possible for the clinical treatments performed with a particle therapy system, as well as to deal with evolution of the technology and capabilities of the equipment.

Technique	Requirement	References
IMRT	Automated optimization, cost function creation, MLC sequencing (or equivalent delivery script creation)	[19], [37], [25]
SBRT	Preparation of IGRT reference data (annotated digitally restored radio- graphics [DRRs], or reference data for CBCT comparisons)	[64], [10], [6], [58]
SRS	Integrated use of stereotactic frame coordinate systems, integrated use of specialized radiosurgery applicators and arc delivery	[5]
VMAT	Field and MLC optimization capabilities for specialized IMRT arc therapy delivery, including delivery constraints	[69]
Use of MRI, PET, etc.	Requires image dataset registration and fusion of imaging information	[20], [71]
NTCP and Biological Modeling Features	Clinical use of normal tissue complication probability or other biological modeling information requires appropriate algorithms and especially the relevant clinical data. Specifically note the recent Quantitative Analysis of Normal Tissue Effects in Clinic (QUANTEC) project publications ^[80] .	[80], [36]

Table 4.4. Additional Treatment Planning Requirements

4.1.6.8 Specialized Techniques and Devices

Advances in imaging, computer science and information technologies, coupled with the development of sophisticated radiation delivery systems, have resulted in a plethora of specialized radiation therapy techniques and devices. Robotic radiation delivery systems, SRS, SBRT, IORT, electronic brachytherapy, motion and setup management devices and unsealed radiopharmaceutical sources are some of the examples of such specialized techniques and devices. Each of these techniques and devices have unique performance and QA requirements that should be critically evaluated before they are introduced in the clinic. Issues that should be considered include: reason(s) for device/ technique introduction and use; minimum requirements to use device safely (including an adequate team both for the planning and delivery process, see section 4.2.2.2); description of how device is to be introduced; necessary training; and need to compare results with current clinical standard with respect to clinical objectives for use and outcomes.

Often, but not always, the introduction of specialized techniques and devices prompts professional organizations such as ASTRO, AAPM and ACR to develop clinical/ QA guidelines. For example, ACR and ASTRO already have practice guidelines for the performance of IMRT, IGRT, SRS, SBRT, total body irradiation (TBI), electronic brachytherapy and therapy with unsealed radiopharmaceutical sources. AAPM also has QA task group reports on most of these specialized techniques and some devices. However, the development of these guidelines and recommendation usually lag behind their clinical implementation. Therefore, it is incumbent upon the early adopters of emerging technologies and techniques (radiation oncologists and medical physicists) to develop clinical procedures and QA programs that can ensure safe and efficient use of specialized techniques and devices in the absence of published guidance documents.

4.2.0 PATIENT-RELATED QUALITY MANAGEMENT

Concentration of QA efforts and scrutiny of the devices and processes involved in radiation therapy address only one aspect of the overall problem. Within the complex and many-step process with which radiation therapy patients are treated, patient-specific issues must be carefully and comprehensively analyzed, documented and verified.

Safety/Quality Issue	Recommendations	Reference
Computer-controlled delivery	Acceptance test procedures for new software and/or control features should be designed to test software and control aspects of the system.	[59]
	Safety interlocks and new functionality should be tested in accordance with vendor documentation and testing information	
Software upgrade testing	Routine updates of software for a computer-controlled machine should be treated as if it includes the possibility of major changes in system operation. All vendor information supplied with the update should be studied carefully, and a detailed software/control system test plan created. All safety interlocks and dosimetry features should be carefully tested, regardless of the scope of the changes implied by the update documentation.	[59]
System interconnectivity	IHE-RO protocols	[81]

Table 4.5. Treatment Management and Delivery System Issues

4.2.1 General Guidelines

4.2.1.1 General Medical Issues

Each radiation oncology facility, regardless of its location, size or complexity, must appropriately manage and adhere to high quality standards of practice for general medical issues, including:

- Drug allergies
- Do-not-resuscitate codes
- Cleanliness and efforts to reduce infection
- Patient confidentiality and security of protected health information

4.2.1.2 Multidisciplinary Physician Conferences and Multidisciplinary Clinics

Modern oncology patient care very often involves multiple modalities and requires the review and discussion of experts in various oncology-related disciplines. It is critical that many types of cancer, and most complex cases, are addressed by the appropriate mix of disciplines. Regular presentation of these cases to multidisciplinary physician conferences (conventional tumor boards or prospective disease-site treatment planning conferences) is one standard of care, and should be performed for most cancer cases to determine the appropriate combination (and coordination) of therapies for each individual case. An alternate approach is to have patients seen in traditional or virtual multidisciplinary clinics by various specialists (surgeon, radiation oncologist, medical oncologist) in concurrent or sequential fashion (see The Advisory Board Oncology Roundtable, 2008 on Multidisciplinary Cancer Clinics).

4.2.1.3 Quality and Safety in Patient Care Process

The process of patient care in radiation oncology departments varies between institutions, and depends on the specific organization and details of each department. However, maintenance of the safety and quality of the radiation therapy process for most patients requires that a number of procedures must be performed adequately. Guidelines regarding many common radiation oncology procedures are addressed in the ACR Practice Guideline for Radiation Oncology^[94]. These SOPs include:

• *History and Physical (H/P):* It is essential for the radiation oncologist to obtain a clear, accurate and detailed description of the patient's history, current status and medical issues so that appropriate radiation therapy decisions are made. The H/P information must be available to others who interact with the patient so they can make informed and appropriate decisions.

- *New patient conference:* In most departments, a brief presentation of the details of each patient's H/P, disease status and plan for therapy to the other physicians and staff involved in patient care is used as early peer review for the basic treatment decisions and plan.
- *Multidisciplinary physician conferences (tumor board/prospective disease-site treatment planning conferences) or multidisciplinary disease-site clinics:* As previously mentioned, discussion in a multidisciplinary physician conference or evaluation in concurrent or sequential multidisciplinary clinics is essential for many patients' cases.
- *CT-Simulation:* Virtually all patients who receive nonsuperficial radiation therapy should receive a CT-based simulation.
- *Contouring/contour review:* After the physician defines target volumes and normal organs/tissues, this anatomical description of the patient should be reviewed and confirmed (by physician, with peer review if possible) before treatment planning begins.
- *Plan evaluation and approval:* After treatment planning, the physician and members of the planning team must review the plan, verify that it satisfies the clinical requirements and prescription(s) from the physician, and that it can be carried out accurately.
- **On-treatment visits:** For most patient care, on-treatment visits of the patient to the physician are essential for continuity of care and monitoring of patient response and toxicity. Typically, this happens approximately every five fractions at a minimum, but clinical circumstance may require more frequent visits.
- *Patient chart rounds:* Traditionally, chart rounds is an important peer review procedure used throughout radiation oncology, involving weekly review of patients under treatment by the radiation therapy team, including multiple physicians, radiation therapists, nurses, medical dosimetrists and medical physicists. The ongoing review of patients under treatment is crucial, and many institutions are attempting to develop improved methods for both peer review and technical quality assurance techniques. See, for example, the ASTRO Safety White Paper on Peer Review^[77]. Note that for small or remote centers, electronic peer review or other collaborative method from other locations may be necessary.
- *Follow-up visits:* Patient follow-up visits are crucial to clinical patient management and to gather treatment outcome information. Newer processes, including patient-reported outcome reporting, are in development. The frequency and method of follow-up are specific to each type of cancer, stage and clinical status

of the patient. Patients would preferably have a component of their follow-up performed in the office(s) of the treating radiation oncologist by either the radiation oncologist or a nonphysician provider so that the most accurate information is obtained with regard to both treatment tolerance and disease status (free of disease; local, regional or distant relapse).

4.2.1.4 Charting and Documentation

In a highly technical field like radiation oncology, documentation of all the relevant details of the overall plan for patient care, including the technical details of all procedures as well as the clinical trade-off decisions and compromises that led to decisions about the treatment course, are crucial. Maintenance and improvement of the quality and accessibility of the documentation of patient's treatment strategy and delivery is a high priority.

Radiation oncology is currently involved in the transition from paper charts to EMRs and a paperless environment, so many of the old standards of care are being revised or completely changed to handle the new EMR environment. Radiation oncology departments, practices, vendors and everyone else in the field must continue to improve the design, implementation and effectiveness of electronic documentation for radiation oncology care, changing processes and quality management strategies to address the fundamental change and the kinds of errors or misunderstandings that may commonly occur with electronic systems.

Currently, there is significant emphasis on behalf of governmental bodies and regulations attempting to push the health enterprise toward improved use of EMR technology. The radiation oncology team should make use of EMR technology to enhance patient care coordination, as required by the recent HITECH ACT^[78].

4.2.1.5 Outcome Assessment

Performance status and organ function prior to treatment should be assessed in many clinical circumstances to determine baseline status. Thereafter, routine and consistent assessment of patient outcomes and toxicity should occur both during and after treatment. This is a crucial aspect of quality radiation therapy treatment, and must be performed in a systematic way, preferably in the treating physician's office, as noted in section 4.2.1.3. Changes in patient response to treatment may identify large or even subtle changes in technique, equipment performance or clinical decision strategies, and are a valuable independent check on the success of the overall quality management system for the institution. Standard toxicity scoring schemes (e.g., RTOG, European Organisation for Research and Treatment Center [EORTC] or similar) should always be employed when applicable. Departments should consider the collection of "Patient Reported Outcomes" as another aspect of outcomes assessment since these valid instruments have come into common use. These results can also be linked with physician quality reporting systems (PQRS) as they become available.

4.2.1.6 Outcomes Registry

In addition to the assessment of outcomes by each individual institution for their local QA, reporting clinical patient outcomes, such as treatment-related toxicity and control rates, to a shared registry serves an important role in the development of the "Rapid Learning Health System"^[93]. Registries also serve to identify variations in technique, physician methods, process of care, patient selection and various other confounding variables that will allow for improvement in radiation oncology treatment. Outcomes data will be most accurate if obtained in the treating physician's office (radiation oncologist, NP or PA), as noted in section 4.2.1.3.

4.2.2 External Beam Quality Assurance (QA)

4.2.2.1 General Guidelines

QA for the Standard External Beam Process: Nearly all external beam treatment processes involve the following steps, each of which must be carefully confirmed as part of the patient-specific QA process: determination of patient setup position and immobilization; cross-sectional imaging (CT-Simulation); creation of the anatomical model (contouring); specification of the treatment intent; creation of the planning directive and treatment prescription by the physician; computerized treatment planning and dose calculation; monitor unity (MU) calculation and/or IMRT leaf sequencing; plan and electronic chart preparation; plan evaluation; download to TMS; patient-specific QA typically performed for IMRT, SRS and SBRT; patient setup and delivery; plan verification checks; plan adaptation and modifications; chart checks; and more. See for example^[1, 3, 25, 37] and many other references. Table 4.6 (see page 42) describes a standard set of quality assurance process steps commonly used to help prevent errors or loss of quality in most standard external beam treatment processes. The sequence of these steps may vary depending on clinical presentation and circumstance.

Commissioning and QA of the Treatment Planning and

Delivery Process: Commissioning and quality assurance of the process used for planning and delivery of treatment to each patient is just as crucial as the commissioning and QA for the systems used as part of that process. After testing

each component of the clinical system, it is essential that the full process be considered, tested and finally released after commissioning has been completed. Commissioning of a clinical process typically should include the following:

- Commissioning and testing of each individual component of the process
- Evaluation of the potential failure modes of the process using a hazard analysis or similar technique to look for potential weak points in the process
- Directed testing of the interfaces between systems (for example, testing the download connection from treatment planning to the treatment management and delivery system)
- End-to-end testing for representative treatments, performing the entire process, with dosimetric or other quantitative tests that can be evaluated at the end of the test to confirm accurate delivery of the planned treatment
- Review and identification of QA tests or other process changes which can prevent or mitigate the most likely failure modes of the process
- Identification of quality metrics which can be monitored to ensure that the process is performing as designed and which can help identify problems in the process

4.2.2.2 Technique-Specific Issues

There are a variety of specialized techniques in radiation oncology that are used in appropriate clinical situations (3-D CRT, IGRT, IMRT, SRS, SBRT, TBI, partial breast irradiation [PBI], IORT). Details regarding recommended clinical practices and quality assurance parameters, developed by expert panels, are covered in documents from ASTRO, ACR and other professional organizations. The reader may consult these documents for more comprehensive information (*Table 4.7, see page 43*).

3-D Conformal Radiation Therapy: Clinical requirements for appropriate use of 3-D CRT include:

- Experience with dual photon energy linear accelerators with electron beams, radiographic imaging and megavoltage imaging devices
- Clinical experience with use of CT scanner equipped with CT-Simulation software and laser alignment devices
- Knowledge and experience with 3-D treatment planning software, including the ability to contour target(s) and adjacent critical structures and ability to perform volumetric dosimetric analysis with DVHs
- Experience with design and use of beam shaping devices (including cerrobend blocks or MLCs)
- A radiation oncology team (physician, medical dosime-

Table 4.6. General Clinical QA Guidelines

This table describes optimal quality assurance process checks which are commonly used during routine radiation therapy. There are a wide variety of times when these checks are performed. This table describes the timing that is likely the most efficient.

Subject	Checks Performed By	Tasks	Most Efficient Timing
Overall treatment strategy	Radiation Oncologist Peer Review, Multidisciplinary Physician Conference/ Clinic	Review of patient case, clinical issues, possible treatment strategies, overall patient treatment strategy to be pursued; peer review of general treatment strategy	Before planning process
Planning directive	Radiation Oncologist, Medical Dosimetrist, Medical Physicist	Describe plan intent, target volumes, dose ex- pectations, normal tissue limits, other treatment constraints or goals; peer review of goals and limits is important.	Before planning process
Approval of volumes	Radiation Oncologist, Medical Dosimetrist, Medical Physicist	Verify accuracy and appropriateness of target volumes (including GTVs, CTVs, PTVs, ITVs (per ICRU-50 [52], ICRU-62 [53], and ICRU-70 [54]) and critical normal tissues; peer review of target volumes and decisions is important.	Initial step of planning process
Treatment prescription accuracy	Radiation Oncologist, Medical Dosimetrist, Medical Physicist	Define dose fractionation techniques and dosimetric constraints	Before final plan checks
Treatment plan quality	Medical Dosimetrist, Medical Physicist	Verify beam designs, dose calculation parameters and reasonability of dosimetric results; check evaluation metrics for correctness and compare to plan directive; peer review of plan adequacy, quality and complexity is important.	Before final physics and physician review, before plan preparation for treatment
Treatment plan approval	Radiation Oncologist	Approval of treatment plan	Before final checks and clinical use
MU calculation	Medical Physicist	Verify accuracy and appropriateness of MU calculation.	After plan approval; before plan download to TMS
Patient-specific QA checks	Medical Physicist	Dosimetric (for example, IMRT) or geometric patient-specific checks of plan data, delivery accuracy, etc.	Typically, day before treat- ment starts
Preparation and download of electronic plan	Medical Physicist	Verify plan information has been prepared correctly and downloaded accurately from treatment planning into TMS.	Recommended at least 1 hour before treatment, as last minute difficulties are a potentially serious problem
Day 1 Treatment verification	Radiation Oncologist, Medical Physicist, Radiation Therapist	Specific Day 1 verification methods, including portal imaging, patient SSD measurements, etc.	For each changed plan
Daily treatment verification	Radiation Therapist	Standard daily treatment protocol (includes pa- tient identification, setup, prescription check, etc.)	Daily as part of each fraction
"Weekly" chart checks	Medical Physicist	Formal procedure for chart check, including dose tracking, prescription, plan parameters, etc.	At least every 5 fractions (standard fractionation), as often as daily for few fraction SBRT
Final check	Radiation Oncologist, Medical Physicist, Medical Dosimetrist	Verify accuracy and completeness of the record of the patient's treatment course, including the physician's summary	For each patient

trist, medical physicist) with anatomic knowledge and the ability to contour structures correctly, as well as to interpret DVHs and other plan evaluation metrics

- Appropriate use of patient positioning and immobilization devices (mask, alpha cradle, etc.) to allow reproducible patient positioning
- Planning system dose calculations accurately reproduce beam characteristics and include sophisticated heterogeneity corrections
- Physician must have appropriate knowledge of normal tissue tolerances in order to make good plan optimization choices
- If MR, PET or other imaging is used for planning, software and clinical knowledge, combined with experience with image dataset registration and information fusion, is essential.

Intensity Modulated Radiation Therapy: IMRT is a highly technological method that can be used to deliver highly conformal therapy. In addition to the requirements (above) for 3-D conformal therapy, IMRT also requires the following:

- The machine must be equipped with IMRT capability, including segmental MLC or dynamic MLC delivery of modulated beam intensity (compensators are also possible).
- The IMRT planning and delivery system must be carefully characterized and clinically commissioned, and techniques for routine patient-specific IMRT QA must be implemented, tested and characterized so that accuracy of individual patient IMRT plans is confirmed.

- The treatment delivery system must be used with computer-controlled delivery and verification of the IMRT plan for each treatment fraction.
- The radiation oncologist and planning team must have extensive knowledge of anatomy for structure delineation and normal tissue tolerance, as well as detailed experience creating optimized IMRT treatment plans.
- IMRT QA and QC program and devices are crucial, as well as direct oversight of the QA processes by the physics staff.

Image Guided Radiation Therapy: IGRT has become an important part of modern radiation oncology, and its utilization is growing each year. The ACR guideline on IGRT^[57] and the recent IGRT Safety White Paper^[30] summarizes all the recent safety and quality guidance on the use of IGRT processes in the clinic.

Stereotactic Radiosurgery and Stereotactic Body Radiation Therapy: SRS and SBRT are techniques that deliver high radiation doses in a small number of treatment fractions (typically 1-5). While single fraction SRS is typically confined to the brain and spine, clinical data on the use of few fraction SBRT to sites in the body has been growing. Both SRS and SBRT use multiple photon beams, carefully shaped to the target and delivered with high precision, often with high precision IGRT guidance (SBRT). Practice guidelines from the ACR and ASTRO^[5, 6, 58] have been published, and guidance on technical aspects of the treatment process have been described in AAPM reports including TG 101^[10]. The recent Safety White Paper on

Specialized Technique/Modality	Organization	Reference #
3-D External Beam and Conformal Radiation Therapy (EBRT, CRT)	ACR/ASTRO	[1]
Image Guided Radiation Therapy (IGRT)	ACR/ASTRO ASTRO	[2], [57] [30]
Intensity Modulated Radiation Therapy (IMRT)	ACR/ASTRO ASTRO	[3], [25] [37]
Stereotactic Radiosurgery (SRS)	ACR/ASTRO ASTRO	[5] [63]
Stereotactic Body Radiation Therapy (SBRT)	ACR/ASTRO ASTRO	[6], [58] [78]
Total Body Irradiation (TBI)	ACR/ASTRO	[7]
Partial Breast Irradiation (PBI)	ASTRO	[63]

Table 4.7. General Procedure Guidelines

SBRT summarizes much of the recent guidance on quality and safety for these techniques^[64]. For patients treated with curative intent SRS or SBRT, a qualified radiation oncologist and medical physicist should be present for the treatment.

Photon Total Body Irradiation: TBI is a treatment modality mainly to support stem cell graft-host success in the practice of bone marrow transplantation. The ACR and ASTRO have issued practice guidelines on this modality^[7] and the AAPM has issued quality assurance standards for oversight of safe treatment delivery^[75].

Intraoperative Radiation Therapy: IORT is most commonly given as a single boost dose of 10-20 Gy with electrons or HDR brachytherapy, combined with 45-54 Gy of fractionated EBRT in standard 1.8-2 Gy fractions, for patients treated with curative intent. Occasionally IORT is given as the only component of irradiation (primarily early breast cancer). In view of the large single fraction size, a qualified radiation oncologist and physicist should be present for the treatment.

4.2.3 Brachytherapy QA

The QA process for brachytherapy, similar to that of external beam, involves several components that must be carefully confirmed as part of the patient-specific QA management: treatment planning; treatment delivery systems; applicator commissioning; applicator periodic checks; imaging (i.e., CT-Simulation or plain film) checks; specification of the treatment intent; planning directive; treatment prescription by the physician; plan and chart preparation; plan evaluation; download toTMS; plan verification checks; plan modifications; and chart checks. Some aspects of quality assurance directed at preventing errors in treatment planning and delivery specific to brachytherapy are summarized in the following references:

- ACR: Technical Standard for the Performance of Brachytherapy Physics: Remotely Loaded HDR Source Res. 18^[4]. This document is a general description of HDR brachytherapy physics.
- ESTRO Booklet 8^[18] is a full-length book detailing quality procedures for brachytherapy, including HDR brachytherapy. While some of the procedures, such

as calibration of an HDR brachytherapy unit in air, are considered outdated because of the uncertainties involved, most of the material remains current.

• IAEA TECDOC – 1257^[29] is simply an overview for hospital administrators in developing countries.

4.2.3.1 Qualification of Brachytherapy Personnel

To administer brachytherapy, a qualified physician and medical physicist must be present for the initiation of treatment. Board certification or eligibility is required by the radiation oncologist and the medical physicist with other staff requiring registration for all cases. A specific "Focused Practice" certification in brachytherapy through the ABR is now available for brachytherapy practice, signaling the specialty's recognition of the increased complexity of many procedures and the need for enhanced expertise for all but the most routine brachytherapy cases.

4.2.3.2 Brachytherapy Treatment Recommendations

The use of brachytherapy, particularly HDR brachytherapy, has increased significantly and adherence to recommended standards is important in the process of patient care. Trained personnel must be appropriately informed and work together to ensure accurate and safe treatment of a variety of well-defined procedures. Several organizations have generated guidelines and recommendations that review details of the processes required for proper patient care, including the American Brachytherapy Society (ABS), ASTRO, the Groupe Européen de Curiethérapie-European Society for Therapeutic Radiology and Oncology (GEC-ESTRO), the ACR and the AAPM. For patients treated with HDR brachytherapy, a qualified radiation oncologist and medical physicist must be present in the control room. **Table 4.8** (see page 45) outlines the various topics covered by these organizations with respect to specific clinical sites.

Table 4.8. General Brachytherapy Guidance for Specific Clinical Sites

Site	Issue	Organization	Online	Reference #
General Principles	General guidelines	ACR/ASTRO	http://www.acr.org/~/media/ACR/Documents/PGTS/ guidelines/Radiation_Oncology.pdf	
	HDR	ACR/ASTRO	http://www.acr.org/~/media/ACR/Documents/ PGTS/guidelines/High_Dose_Rate_Brachy.pdf	[17]
		ASTRO	White Paper	[65]
	LDR	ACR/ASTRO	http://www.acr.org/~/media/ACR/Documents/PGTS/ guidelines/Low_Dose_Rate_Brachytherapy.pdf	
Gynecology Cervical Cancer	General principles	ABS	http://www.americanbrachytherapy.org/ guidelines/index.cfm	[66]
	Equivalent dose worksheets	ABS		
	HDR			
	LDR/PDR	ABS		[67], [41]
	MR-based contouring	ABS		[35], [43]
	Dose-volume parameter reporting	GEC-ESTRO		[24] [55]
	Postoperative cylinder	ABS		[39], [61]
	Vaginal cancer interstitial	ABS		[11]
Prostate	LDR	ACR/ASTRO	http://www.acr.org/~/media/ACR/Documents/PGTS/ guidelines/Brachy_Prostate_Cancer.pdf	[60], [21]
	LDR	ABS		[42], [12], [40], [14]
	HDR	ABS		[68]
Breast		ASTRO		[62]
		GEC-ESTRO		[54]
		ABS		[8], [9]
Esophageal	Endoluminal	ABS		[22]
Microspheres		ACR	http://www.acr.org/~/media/ACR/Documents/PGTS/ guidelines/RMBD.pdf	[82], [83]
Vascular		ABS		[44]
		GEC-ESTRO		[56]
		ACR	http://www.acr.org/~/media/ACR/Documents/PGTS/ guidelines/Coronary_Vascular_Brachy.pdf	
Sarcoma		ABS		[45]
Head and Neck		ABS		[46]
Uveal Melanoma		ABS		[47]

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APPENDIX I: Acronym Glossary

A

AAMD = American Association of Medical Dosimetrists

- AANP = American Academy of Nurse Practitioners
- AAPA = American Association of Physician Assistants
- AAPM = American Association of Physicists in Medicine
- ABMP = American Board of Medical Physics
- ABMS = American Board of Medical Specialties
- ABR = American Board of Radiology
- ABS = American Brachytherapy Society
- ACR = American College of Radiology
- ACRO = American College of Radiation Oncology
- AFROC = Association of Freestanding Radiation Oncology Centers

ANCC = American Nurses Credentialing Center ARRT = American Registry of Radiologic Technologists ASRT = American Society of Radiologic Technologists ASTRO = American Society for Radiation Oncology

B

C

CBCT = cone beam computed tomography CCPM = Canadian College of Physicists in Medicine CME = continuing medical education CT = computed tomography

D

DRR = digitally restored radiographs DVH = dose-volume histogram

E

EBRT = external beam radiation therapy EMR = electronic medical record EORTC = European Organisation for Research and Treatment Center EPID = electronic portal imaging device

F

FDA = Food and Drug Administration FFF = flattening filter-free FMEA = failure mode and effect analysis FTE = full-time employee

G

GEC-ESTRO = Groupe Européen de Curiethérapie-European Society for Therapeutic Radiology and Oncology

Н

H/P = history/physical HDR = high-dose-rate

- IGRT = image guided radiation therapy
- IHE-RO = Integrating the Healthcare Enterprise-Radiation Oncology IMPT = intensity modulated proton therapy
- IMRT = intensity modulated radiation therapy
- IORT = intraoperative radiation therapy
- IVBT = intravascular brachytherapy

J

Κ

L

LDR = low-dose-rate

Μ

MDCB = Medical Dosimetrist Certification Board MLC = multileaf collimator MOC = maintenance of certification MR = magnetic resonance (imaging) MU = monitor unity

Ν

NACNS = National Association of Clinical Nursing Specialists NCCPA = National Commission for the Certification of Physician Asssistants

NP = nurse practitioner

NTCP = normal tissue complication probability

0

OAR = organs at risk

P

PA = physician assistant
PAAROT = Performance Assessment for the Advancement of
Radiation Oncology Treatment
PACS = picture archiving and communication system
PBI = partial breast irradiation
PDR = pulsed-dose-rate
PET = positron emission tomography
PQI = practice quality improvement
PQRS = physician quality reporting systems
PTV = planning target volume

Q

QA = quality assurance QC = quality control QI = quality improvement QM = quality management QUANTEC = Quantitative Analysis of Normal Tissue Effects in Clinic

R

RPC = radiological physics center RT = radiation therapy RTOG = Radiation Therapy Oncology Group

S

SAM = self-assessment module
SBRT = stereotactic body radiation therapy
SCAROP = Society of Chairmen of Academic Radiation Oncology Programs
SOP = standard operating procedure
SPECT = Single Photon Emission Computed Tomography
SROA = Society for Radiation Oncology Administrators
SRS = stereotactic radiosurgery

Т

TBI = total body irradiation TG = task group TJC = The Joint Commission TMS = treatment management system TPS = treatment planning system

U

V

W

VMAT = volumetric modulated arc therapy

X Y Z

0-9

2-D CRT = two-dimensional conformal radiation therapy 3-D CRT = three-dimensional conformal radiation therapy 4-D = four-dimensional



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The Practice Standards for Medical Imaging and Radiation Therapy

Radiation Therapy Practice Standards

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Introduction to Radiation Therapy Practice Standards

The practice of radiation therapy is performed by health care professionals responsible for the administration of ionizing radiation for the purpose of treating diseases, primarily cancer.

The complex nature of cancer frequently requires the use of multiple treatment specialties. Radiation therapy is one such specialty, which requires an interdisciplinary team of radiation oncologists, nurses, radiation physicists, medical dosimetrists, and radiation therapists. It is typically the radiation therapist who administers the radiation to the patient throughout the treatment process. Radiation therapy integrates scientific knowledge, technical competency, patient interaction skills, and caring concern to deliver safe and accurate treatment. A radiation therapist exercises independent professional and ethical judgment.

Radiation Therapy – General Requirements

Radiation therapists must demonstrate an understanding of anatomy and physiology, pathology, and medical terminology. In addition, comprehension of oncology, radiobiology, radiation physics, radiation oncology techniques, radiation safety, and the psychosocial aspects of cancer are required of a radiation therapist.

Radiation therapists must maintain a high degree of accuracy in positioning and treatment technique. They must maintain knowledge about radiation protection and safety. Radiation therapists assist the radiation oncologist in localizing the treatment area, participate in treatment planning, and deliver high doses of ionizing radiation prescribed by a radiation oncologist.

Radiation therapists are the primary liaison between patients and other members of the radiation oncology team. They also provide a link to other health care providers, such as social workers and dietitians. Radiation therapists must remain sensitive to the physical and emotional needs of the patient through good communication, patient assessment, patient monitoring, and patient care skills. Radiation therapy often involves daily treatments extending over several weeks. This treatment method uses highly sophisticated equipment and requires a great deal of initial planning as well as constant patient care and monitoring. Radiation therapists use independent, professional, ethical judgment and critical thinking. Quality improvement and customer service allow the radiation therapist to be a responsible member of the health care team by continually assessing professional performance. Radiation therapists engage in continuing education to enhance patient care, public education, knowledge, and technical competence while embracing lifelong learning.

Education and Certification

Radiation therapists prepare for their role on the interdisciplinary team by successfully completing an accredited educational program in radiation therapy. Two-year certificate, associate degree, and four-year baccalaureate degree programs exist throughout the United States. Accredited programs must meet specific curricular and educational standards.

Upon completion of a course of study in radiation therapy from an accredited program recognized by the American Registry of Radiologic Technologists (ARRT), individuals may apply to take the national certification examination. Those who successfully complete the

certification examination in radiation therapy may use the credential R.T.(T) following their name; the R.T. signifies registered technologist and the (T) indicates radiation therapy. To maintain ARRT certification, radiation therapists must complete appropriate continuing education requirements in order to sustain a level of expertise and awareness of changes and advances in practice.

Practice Standards

The practice standards define the practice and establish general criteria to determine compliance. Practice standards are authoritative statements established by the profession for judging the quality of practice, service, and education.

Professional practice constantly changes as a result of a number of factors including technological advances, market and economic forces, and statutory and regulatory mandates. While a minimum standard of acceptable performance is appropriate and should be followed by all practitioners, it is inappropriate to assume that professional practice is the same in all regions of the United States.¹ Community custom, state statute, or regulation may dictate practice parameters. Wherever there is a conflict between these standards and state or local statutes and regulations, the state or local statutes and regulations supersede these standards. Recognizing this, the profession has adopted standards that are general in nature.

A radiation therapist should, within the boundaries of all applicable legal requirements and restrictions, exercise individual thought, judgment and discretion in the performance of the procedure.

Format

The standards are divided into five sections: scope of practice, clinical performance, quality performance, professional performance, and advisory opinion.

Scope of Practice. The scope of practice delineates the parameters of the radiation therapy practice.

Clinical Performance Standards. The clinical performance standards define the activities of the practitioner in the care of patients and delivery of diagnostic or therapeutic procedures. The section incorporates patient assessment and management with procedural analysis, performance, and evaluation.

Quality Performance Standards. The quality performance standards define the activities of the practitioner in the technical areas of performance including equipment and material assessment, safety standards, and total quality management.

¹ The terms "practice" and "practitioner" are used in all areas of the standards in place of the various names used in medical imaging and radiation therapy, such as radiologic technologist, sonographer, or radiation therapist. Practitioner is defined as any individual practicing in a specific area or discipline. The profession believes that any individual practicing in one of the defined disciplines or specialties should be held to a minimum standard of performance to protect the patients who receive professional services.

Professional Performance Standards. The professional performance standards define the activities of the practitioner in the areas of education, interpersonal relationships, self-assessment, and ethical behavior.

Advisory Opinion Statements. The advisory opinions are interpretations of the standards intended for clarification and guidance for specific practice issues.

A profession's practice standards serve as a guide for appropriate practice. Standards provide role definition for practitioners that can be used by individual facilities to develop job descriptions and practice parameters. Those outside the imaging, therapeutic, and radiation science community can use the standards as an overview of the role and responsibilities of the practitioner as defined by the profession.

Each section is subdivided into individual standards. The standards are numbered and followed by a term or set of terms that identify the standards, such as "assessment" or "analysis/determination." The next statement is the expected performance of the practitioner when performing the procedure or treatment. A rationale statement follows and explains why a practitioner should adhere to the particular standard of performance.

Criteria. Criteria are used in evaluating a practitioner's performance. Each set of criteria is divided into two parts: the general criteria and the specific criteria. Both general and specific criteria should be used when evaluating performance.

General Criteria. General criteria are written in a style that applies to imaging and radiation science practitioners. These criteria are the same in all sections of the standards and should be used for the appropriate area of practice.

Specific Criteria. Specific criteria meet the needs of the practitioners in the various areas of professional performance. While many areas of performance within imaging and radiation sciences are similar, others are not. The specific criteria are drafted with these differences in mind.

Radiation Therapist Scope of Practice

The scope of practice of the radiation therapist includes:

- 1. Delivering radiation therapy treatments as prescribed by a radiation oncologist.
- 2. Performing simulation, treatment planning procedures, and dosimetric calculations.
- 3. Detecting and reporting significant changes in patients' conditions, and determining when to withhold treatment until the physician is consulted.
- 4. Monitoring doses to normal tissues within the irradiated volume to ensure tolerance levels are not exceeded.
- 5. Constructing/preparing immobilization, beam directional, and beam modification devices.
- 6. Performing quality assurance activities, detecting equipment malfunctions, and taking appropriate action.
- 7. Applying principles of radiation protection (as low as reasonably achievable, or ALARA) at all times.
- 8. Participating in brachytherapy procedures.
- 9. Practicing universal precautions in procedures.
- 10. Identifying and managing emergency situations.
- 11. Educating and monitoring students and other health care providers.
- 12. Educating patients, their families, and the public about radiation therapy.
- 13. Preparing and/or administering contrast media, and/or medications as prescribed by a licensed practitioner with the appropriate clinical and didactic education where state and/or institutional policy permits.
- 14. Performing venipuncture with the appropriate clinical and didactic education where state and/or institutional policy permits.
- 15. Administering medications at the physician's request according to policy.
- 16. Starting and maintaining intravenous (IV) access per orders when applicable.

Comprehensive Practice:

Radiation therapy is performed by competent radiation therapists who deliver care to the patient in the therapeutic setting and are responsible for the simulation, treatment planning, and administration of a prescribed course of radiation therapy and/or hyperthermia. Radiation therapists assume direct responsibility for the well-being of the patient preparatory to, during, and following the delivery of daily treatment. Additional related settings where radiation therapists practice include education, management, industry, and research.

Radiation Therapy Clinical Performance Standards

Standard One – Assessment

The practitioner collects pertinent data about the patient and the procedure.

Rationale

Information about the patient's health status is essential in providing appropriate imaging and therapeutic services.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Uses consistent and appropriate techniques to gather relevant information from the patient, medical record, significant others, and health care providers.
- 2. Reconfirms patient identification and verifies the procedure requested or prescribed.
- 3. Reviews the patient's medical record to verify the appropriateness of a specific exam or procedure.
- 4. Verifies the patient's pregnancy status.
- 5. Determines whether the patient has been prepared for the procedure.
- 6. Corroborates patient's clinical history with procedure.
- 7. Assesses factors that may contraindicate the procedure, such as medications, patient history, insufficient patient preparation, or artifacts.
- 8. Recognizes signs and symptoms of an emergency.

Specific Criteria

- 1. Assesses the patient's risk for allergic reaction to contrast material prior to administration for simulation.
- 2. Assesses the patient's need for information and reassurance.
- 3. Monitors side effects and reactions to treatment.

- 4. Reviews treatment record prior to treatment or simulation.
- 5. Monitors doses to normal tissues.
- 6. Recognizes the patient's need for referral to other care providers such as a social worker or nutritionist.
- 7. Monitors and assesses patients throughout the treatment course and follow-up visits.
- 8. Reviews treatment protocol criteria and assesses conditions affecting treatment delivery.

Standard Two – Analysis/Determination

The practitioner analyzes the information obtained during the assessment phase and develops an action plan for completing the procedure.

Rationale

Determining the most appropriate action plan enhances patient safety and comfort, optimizes diagnostic and therapeutic quality, and improves efficiency.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Selects the most appropriate and efficient action plan after reviewing all pertinent data and assessing the patient's abilities and condition.
- 2. Uses professional judgment to adapt imaging and therapeutic procedures to improve diagnostic quality and therapeutic outcome.
- 3. Consults appropriate medical personnel to determine a modified action plan.
- 4. Determines the need for and selects supplies, accessory equipment, shielding, and immobilization devices.
- 5. Determines the course of action for an emergency or problem situation.
- 6. Determines that all procedural requirements are in place to achieve a quality diagnostic or therapeutic procedure.

Specific Criteria

- 1. Participates in decisions about appropriate simulation techniques and treatment positions.
- 2. Reviews patient treatment records and doses daily to ensure that treatment does not exceed prescribed dose, normal tissue tolerance, or treatment protocol constraints.
- 3. Determines when to contact the licensed independent practitioner regarding patient side effects or questions.
- 4. Determines when to withhold treatment until a licensed independent practitioner is contacted.
- 5. Reviews portal images prior to treatment.

Standard Three – Patient Education

The practitioner provides information about the procedure and related health issues according to protocol.

Rationale

Communication and education are necessary to establish a positive relationship.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Verifies that the patient has consented to the procedure and fully understands its risks, benefits, alternatives, and follow-up. When appropriate, the practitioner verifies that written or informed consent has been obtained.
- 2. Provides accurate explanations and instructions at an appropriate time and at a level the patients and their care providers can understand. Addresses patient questions and concerns regarding the procedure.
- 3. Refers questions about diagnosis, treatment, or prognosis to a licensed independent practitioner.
- 4. Provides related patient education.

Specific Criteria

- 1. Provides information regarding risks and benefits of radiation.
- 2. Instructs patient in the maintenance of treatment field markings.
- 3. Provides information and instruction on proper skin care, diet, and self-care procedures.
- 4. Anticipates a patient's need for information and provides it throughout the treatment course.
- 5. Explains precautions regarding administration of pharmaceuticals.

Standard Four – Performance

The practitioner performs the action plan.

Rationale

Quality patient services are provided through the safe and accurate performance of a deliberate plan of action.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Performs procedural time-out.
- 2. Implements an action plan.
- 3. Explains each step of the action plan to the patient as it occurs and elicits the cooperation of the patient.
- 4. Uses an integrated team approach.
- 5. Modifies the action plan according to changes in the clinical situation.
- 6. Administers first aid or provides basic life support in emergency situations.
- 7. Uses accessory equipment.
- 8. Assesses and monitors the patient's physical, emotional, and mental status.
- 9. Administers oxygen as prescribed.
- 10. Uses principles of sterile technique.
- 11. Positions patient for anatomic area of interest, respecting patient ability and comfort.
- 12. Immobilizes patient for examination.

Specific Criteria

The practitioner:

1. Fabricates individualized immobilization, custom blocks, and other beam modifying devices.

- 2. Assists the radiation oncologist in determining the optimum field to cover the target volume using conventional or CT simulation.
- 3. Prepares and positions patient for simulation and daily treatment.
- 4. Creates and labels simulation and portal images.
- 5. Obtains radiation oncologist's approval of simulation images prior to initiation of treatment.
- 6. Plans and delivers the treatment as directed and prescribed by the radiation oncologist.
- 7. Calculates monitor units and treatment times.
- 8. Performs pretreatment imaging.
- 9. Monitors the patient visually and aurally during treatment.
- 10. Prepares or assists in preparing brachytherapy sources and equipment.
- 11. Monitors the treatment console during treatment.
- 12. Utilizes knowledge of biological effects of ionizing radiation on tissue to minimize radiation dose to normal tissues.
- 13. Administers pharmaceuticals.

Monitors the patient for reactions to pharmaceuticals.

Standard Five – Evaluation

The practitioner determines whether the goals of the action plan have been achieved.

Rationale

Careful examination of the procedure is important to determine that expected outcomes have been met.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Evaluates the patient and the procedure to identify variances that may affect the expected outcome.
- 2. Completes the evaluation process in a timely, accurate, and comprehensive manner.
- 3. Measures the procedure against established policies, protocols, and benchmarks.
- 4. Identifies exceptions to the expected outcome.
- 5. Documents exceptions in a timely, accurate, and comprehensive manner.
- 6. Develops a revised action plan if necessary to achieve the intended outcome.
- 7. Communicates revised action plan to appropriate team members.

Specific Criteria

- 1. Checks treatment calculations.
- 2. Verifies the accuracy of the patient setup prior to treatment delivery.
- 3. Compares pretreatment and portal images to simulation images using anatomical landmarks or fiducial markers.
- 4. Verifies treatment console readouts and settings prior to initiating treatment and upon termination of treatment.
- 5. Evaluates the patient daily for any untoward effects, reactions, and therapeutic responses.

Standard Six – Implementation

The practitioner implements the revised action plan.

Rationale

It may be necessary to make changes to the action plan to achieve the expected outcome.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Bases the revised plan on the patient's condition and the most appropriate means of achieving the expected outcome.
- 2. Takes action based on patient and procedural variances.
- 3. Measures and evaluates the results of the revised action plan.
- 4. Notifies appropriate health care provider when immediate clinical response is necessary based on procedural findings and patient condition.

Specific Criteria

The practitioner:

- 1. Reports deviations from the standard or planned treatment.
- 2. Initiates field changes indicated on simulation or portal images.
- 3. Initiates field changes based on pretreatment imaging.
- 4. Develops additional treatment plans to achieve an adequate dose distribution.
- 5. Adapts procedures to equipment limitations and patient needs.

Works with radiation oncologists, physicists, and dosimetrists to compensate for treatment inaccuracies.

Standard Seven – Outcomes Measurement

The practitioner reviews and evaluates the outcome of the procedure.

Rationale

To evaluate the quality of care, the practitioner compares the actual outcome with the expected outcome.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Reviews all diagnostic or therapeutic data for completeness and accuracy.
- 2. Determines whether the actual outcome is within established criteria.
- 3. Evaluates the process and recognizes opportunities for future changes.
- 4. Assesses the patient's physical, emotional, and mental status prior to discharge from the practitioner's care.

Specific Criteria

The practitioner:

1. Monitors patient status during procedures, throughout the treatment course, and for follow-up care.

Standard Eight – Documentation

The practitioner documents information about patient care, the procedure, and the final outcome.

Rationale

Clear and precise documentation is essential for continuity of care, accuracy of care, and quality assurance.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Documents diagnostic, treatment, and patient data in the record in a timely, accurate, and comprehensive manner.
- 2. Documents exceptions from the established criteria or procedures.
- 3. Provides appropriate information to authorized individual(s) involved in the patient's care.
- 4. Participates in billing and coding procedures.
- 5. Archives images or data.

Specific Criteria

- 1. Documents radiation exposure parameters.
- 2. Documents procedural time-out.
- 3. Documents justification for additional views.

Radiation Therapy Quality Performance Standards

Standard One – Assessment

The practitioner collects pertinent information regarding equipment, procedures, and the work environment.

Rationale

The planning and provision of safe and effective medical services relies on the collection of pertinent information about equipment, procedures, and the work environment.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Determines that services are performed in a safe environment, free from any potential hazards.
- 2. Confirms that equipment performance, maintenance, and operation comply with manufacturer's specifications.
- 3. Verifies that protocol and procedure manuals include recommended criteria and are reviewed and revised.

Specific Criteria

- 1. Inspects ancillary devices prior to use.
- 2. Monitors treatment unit operation during use.
- 3. Observes the environment for any potential radiation hazards.
- 4. Participates in radiation protection, patient safety, risk management, and quality management activities.

Standard Two – Analysis/Determination

The practitioner analyzes information collected during the assessment phase to determine the need for changes to equipment, procedures, or the work environment.

Rationale

Determination of acceptable performance is necessary to provide safe and effective services.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Assesses services, procedures, and environment and adjusts the action plan.
- 2. Monitors equipment to meet or exceed established standards and adjusts the action plan.
- 3. Assesses and maintains the integrity of medical supplies such as a lot/expiration, sterility, etc.

Specific Criteria

- 1. Verifies the mathematical accuracy of the prescription and the daily treatment summary.
- 2. Reviews treatment record and verifies calculations before treatment delivery.

Standard Three – Education

The practitioner informs the patient, public, and other health care providers about procedures, equipment, and facilities.

Rationale

Open communication promotes safe practices.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Elicits confidence and cooperation from the patient, the public, and other health care providers by providing timely communication and effective instruction.
- 2. Presents explanations and instructions at the learner's level of understanding.
- 3. Educates the patient, public, and other health care providers about procedures along with the biological effects of radiation, sound wave, or magnetic field, and protection.
- 4. Provides information to patients, health care providers, students, and the public concerning the role and responsibilities of individuals in the profession.

Specific Criteria

- 1. Informs the patient and significant others about appropriate and essential uses of radiation and corrects misconceptions.
- 2. Instructs other health care providers about radiation protection procedures.
- 3. Assists in development and production of educational materials for patients and the general public.

Standard Four – Performance

The practitioner performs quality assurance activities.

Rationale

Quality assurance activities provide valid and reliable information regarding the performance of equipment, materials, and processes.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Acquires information on equipment, materials, and processes.
- 2. Performs quality assurance activities.
- 3. Provides evidence of ongoing quality assurance activities.
- 4. Verifies performance and results of quality control of imaging and support equipment.

Specific Criteria

- 1. Adheres to radiation safety rules and standards.
- 2. Makes the decision to discontinue patient treatment until equipment is operating properly.
- 3. Verifies that only the patient is in the treatment room prior to initiating treatment.
- 4. Demonstrates safe handling, storing, and disposal of brachytherapy sources.

Standard Five – Evaluation

The practitioner evaluates quality assurance results and establishes an appropriate action plan.

Rationale

Equipment, materials, and processes depend on ongoing quality assurance activities that evaluate performance based on established guidelines.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Verifies quality assurance testing conditions and results.
- 2. Compares quality assurance results to accepted values.
- 3. Formulates an action plan following the comparison of results.
- 4. Participates in the institution's quality assessment and improvement plan.

Specific Criteria

- 1. Reviews portal and pretreatment images for accuracy.
- 2. Performs treatment chart checks.
- 3. Reviews treatment deviations and determines causes.

Standard Six – Implementation

The practitioner implements the quality assurance action plan for equipment, materials, and processes.

Rationale

Implementation of a quality assurance action plan promotes safe and effective services.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Obtains assistance from qualified personnel to support the quality assurance action plan.
- 2. Implements the quality assurance action plan.

Specific Criteria

The practitioner:

1. Formulates recommendations for process improvements to minimize treatment deviations.

Standard Seven – Outcomes Measurement

The practitioner assesses the outcome of the quality management action plan for equipment, materials, and processes.

Rationale

Outcomes assessment is an integral part of the ongoing quality management action plan to enhance diagnostic and therapeutic services.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Reviews the implementation process for accuracy and validity.
- 2. Determines that actual outcomes are in compliance with the action plan.
- 3. Develops and implements a modified action plan.

Specific Criteria

The practitioner:

1. Reviews and evaluates quality assurance tools and instruments periodically for effectiveness.

Standard Eight – Documentation

The practitioner documents quality assurance activities and results.

Rationale

Documentation provides evidence of quality assurance activities designed to enhance safety.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Maintains documentation of quality assurance activities, procedures, and results.
- 2. Provides timely, accurate, and comprehensive documentation.
- 3. Provides documentation that adheres to protocol, policy, and procedures.
- 4. Reports the need for equipment maintenance and repair.

Specific Criteria

The practitioner:

1. Reports any treatment deviations.

Radiation Therapy Professional Performance Standards

Standard One – Quality

The practitioner strives to provide optimal patient care.

Rationale

Patients expect and deserve optimal care during diagnosis and treatment.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Collaborates with others to elevate the quality of care.
- 2. Participates in quality assurance programs.
- 3. Adheres to standards, policies, and procedures adopted by the profession and regulated by law.
- 4. Applies professional judgment and discretion while performing diagnostic study or treatment.
- 5. Anticipates and responds to patient needs.
- 6. Respects cultural variations and addresses misconceptions.

Specific Criteria

The practitioner:

1. Advocates the need for two credentialed radiation therapists to be available per treatment unit for treatment delivery.

Standard Two – Self-Assessment

The practitioner evaluates personal performance.

Rationale

Self-assessment is necessary for personal growth and professional development.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Monitors personal work ethics, behaviors, and attitudes.
- 2. Evaluates performance and recognizes opportunities for self-improvement.
- 3. Recognizes and applies personal and professional strengths.
- 4. Performs procedures only when educationally prepared and clinically competent.
- 5. Recognizes opportunities for educational growth and improvement in technical and problem-solving skills.
- 6. Actively participates in professional societies and organizations.

Specific Criteria None added.

Standard Three – Education

The practitioner acquires and maintains current knowledge in clinical practice.

Rationale

Advancements in the profession require additional knowledge and skills through education.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Demonstrates completion of education related to clinical practice.
- 2. Maintains credentials and certification related to clinical practice.
- 3. Participates in continuing education and case review to maintain and enhance competency and performance.
- 4. Shares knowledge and expertise with others.
- 5. Demonstrates understanding of and continued competency in the functions and operations of equipment, accessories, treatment and imaging methods, and protocols.

Specific Criteria None added.

Standard Four – Collaboration and Collegiality

The practitioner promotes a positive, collaborative practice atmosphere with other members of the health care team.

Rationale

To provide quality patient care, all members of the health care team must communicate effectively and work together efficiently.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Shares knowledge and expertise with members of the health care team.
- 2. Develops collaborative partnerships to enhance diagnostic and therapeutic quality and efficiency.
- 3. Promotes understanding of the profession.

Specific Criteria

- 1. Interacts with other members of the radiation oncology team.
- 2. Instructs others in postprocedural radiation safety.

Standard Five – Ethics

The practitioner adheres to the profession's accepted ethical standards.

Rationale

Decisions made and actions taken on behalf of the patient are based on a sound ethical foundation.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Provides health care services with respect for the patient's dignity, age-specific needs, and culture.
- 2. Acts as a patient advocate to support patients' rights.
- 3. Takes responsibility for professional decisions made and actions taken.
- 4. Delivers patient care and service free from bias or discrimination.
- 5. Respects the patient's right to privacy and confidentiality.
- 6. Adheres to the established practice standards of the profession.

Specific Criteria None added.

Standard Six – Research and Innovation

The practitioner participates in the acquisition and dissemination of knowledge and the advancement of the profession.

Rationale

Scholarly activities such as research, scientific investigation, presentation, and publication advance the profession.

General Stipulation

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

General Criteria

The practitioner:

- 1. Reads and critically evaluates research in diagnostic and therapeutic services.
- 2. Participates in data collection.
- 3. Investigates innovative methods for application in practice.
- 4. Shares information with colleagues through publication, presentation, and collaboration.
- 5. Adopts new best practices.
- 6. Pursues a life of learning.

Specific Criteria None added.

Radiation Therapy Advisory Opinion Statements
Medical Imaging and Radiation Therapy Glossary

Action Plan – A program or method developed prior to the performance of the examination or treatment.

Advanced-practice radiologic technologist – A registered technologist who has gained additional knowledge and skills through successful completion of an organized program or radiologic technology education that prepares radiologic technologists for advanced practice roles and has been recognized by the national certification organization to engage in the practice of advanced-practice radiologic technology.

Arthrogram – Visualization of a joint by radiographic study after injection of a contrast medium into joint space.

Artifact – A structure or feature produced by the technique used and not occurring naturally.

Assess – To determine the significance, importance, or value.

Assessment – The process by which a patient's condition is appraised or evaluated.

Clinical – Pertaining to or founded on actual observation and treatment of patients.

Competency – Performance in a manner that satisfies the demands of a situation.

Contrast medium – Substance administered to a patient undergoing an imaging procedure that provides a difference in density (contrast) so that the tissue, organ, or pathology can be better visualized.

Contraindicate – To warrant an otherwise advisable procedure or treatment inappropriate.

Cholangiogram – A radiograph of the bile duct(s).

Cystogram – A radiograph of the bladder.

Disease – A pathological condition of the body that presents a group of clinical signs, symptoms, and laboratory findings peculiar to it and setting the condition apart as an abnormal entity differing from other normal or pathological conditions.

Ductogram – A radiograph of the breast duct after injection of a contrast medium.

Electrocardiogram (ECG) – A record of the electrical activity of the heart.

Esophagram – A series of x-rays of the esophagus. The x-ray images are captured after the patient drinks a solution that coats and outlines the walls of the esophagus. Also called a barium swallow.

Ethical – Conforming to the norms or standards of professional conduct.

Examination preparation – The act of helping to ready a patient for a diagnostic imaging procedure.

Fistulogram – A radiograph of a sinus tract filled with radiopaque contrast medium to determine the range and course of the tract.

Galactogram – A radiograph of the breast duct after injection of a contrast medium.

Hysterosalpingogram – A radiograph of the uterus and oviducts after injection of a contrast medium.

Initial observation – Assessment of technical image quality with pathophysiology correlation communicated to a radiologist.

Interpretation – The process of examining and analyzing all images within a given procedure and integration of the imaging data with appropriate clinical data in order to render an impression or conclusion set forth in a formal written report composed and signed by the radiologist.

Interventional procedures – Percutaneous catheterization for diagnostic and therapeutic purposes.

Licensed independent practitioner – An individual permitted by law to provide care and services, without direction or supervision, within the scope of the individual's license and consistent with individually granted privileges (e. g., physician, nurse practitioner, physician assistant).

Loopogram – A radiograph of the ileal conduit following the injection of a contrast medium.

Myelogram – A radiograph of the spinal cord and associated nerves.

Paracentesis – Puncture of a cavity with removal of fluid.

Pathophysiology – The study of how normal physiological processes are altered by disease.

Pharmaceutical – Contrast media, radiopharmaceuticals or other medications. Note: the ASRT House of Delegates has indicated that administration of contrast media or other medications is within the scope of practice for radiologic technologists (see also ASRT Position Statements titled "Drug Administration by Radiologic Technologists).

Protocol – The plan for carrying out a scientific study or a patient's treatment regimen.

Qualified Supervisor – Individual who is educationally prepared, clinically competent, and credentialed in the medical imaging and radiation therapy sciences who provides clinical supervision to the individual.

Quality assurance – Activities and programs designed to achieve a desired degree or grade of care in a defined medical, nursing, or health care setting or program.

Radiation protection – Prophylaxis against injury from ionizing radiation. The only effective preventive measures are shielding the operator, handlers, and patients from the radiation source; maintaining appropriate distance from the source; and limiting the time and amount of exposure.

Radiography – The process of obtaining an image for diagnostic examination using x-rays.

Sinogram – A radiograph of a sinus tract filled with radiopaque contrast medium to determine the range and course of the tract.

T-tube – A device inserted into the biliary duct after removal of the gallbladder.

Thoracentesis – Puncture of the chest wall for removal of fluids, usually done by using a largebore needle.

Time-out – Immediate preprocedural pause to review procedure and determine the correct procedure is conducted upon the correct patient in the correct manner.

Urethrogram – A radiograph of the urethra after it has been filled with a contrast medium.

Upper GI series – A series of x-rays of the esophagus, stomach, and small intestine (upper gastrointestinal, or GI, tract) that are taken after the patient drinks a barium solution.

Venipuncture – The puncture of a vein.



ASRT Position Statements

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ASRT Position Statements

Introduction

ASRT position statements reflect the beliefs or standing of the American Society of Radiologic Technologists. In reviewing these position statements, radiologic technologists must take into account existing state statutes and institutional policy.

ASRT uses the term radiologic technologist throughout its official documents to describe personnel working in any discipline or specialty area of radiologic technology. Radiologic technology is the term that describes the medical disciplines and specialties that use radiation for diagnostic medical imaging, interventional procedures and radiation therapy, to include energies used for magnetic resonance and sonographic imaging. The five disciplines in radiologic technology are radiography, radiation therapy, magnetic resonance, sonography and nuclear medicine. Specialties in radiologic technology include cardiovascular-interventional radiography, computed tomography, mammography and other specialty areas.

Position Statements

Campaign Guidelines

It is the position of the American Society of Radiologic Technologists that ASRT members running for national office or chapter delegate positions shall limit their campaign activities to ASRT-published candidate position statements and the use of the ASRT Communities social networking tool to ensure fairness and equal opportunity for all candidates.

> Adopted, Resolution 99-1.06, 1999 Amended, Main Motion, C-8.05, 2008 Amended, Main Motion, C-09.33, 2009 Amended, Main Motion C-12.18, 2012

Certification of Personnel Practicing in the Radiologic Sciences

It is the position of the American Society of Radiologic Technologists that radiologic technologists practicing radiography, sonography, nuclear medicine, radiation therapy and other imaging disciplines or specialties in all health care facilities are certified by agencies such as the American Registry of Radiologic Technologists, American Registry for Diagnostic Medical Sonography, Nuclear Medicine Technology Certification Board, Medical Dosimetrist Certification Board or meet state licensure requirements.

Amended, Resolution 97-3.03, 1997 Amended, Main Motion, C-08.12, 2008

Collective Bargaining Units

It is the position of the American Society of Radiologic Technologists that the Society not serve as a collective bargaining unit.

Amended, Resolution 06-3.09, 2006 Amended, Main Motion C-09.57, 2009

Computed Tomography Procedures on Pediatric Patients

It is the position of the American Society of Radiologic Technologists that computed tomography procedures performed on children employ the "as low as reasonably achievable" (ALARA) principle.

Adopted, Main Motion, C-08.01, 2008 Amended, Main Motion, C-09.78, 2009

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Conjoint Evaluation of Educational Programs

It is the position of the American Society of Radiologic Technologists that, in states where state agencies approve radiologic science educational programs, evaluation of such programs be conducted jointly by the state agency and the applicable Joint Review Committee(s) or equivalent.

Amended, Main Motion, C-08.06, 2008 Amended, Main Motion, C-09.36, 2009

Continuing Education of Personnel in Area of Practice to Reduce Radiation Dose

It is the position of the American Society of Radiologic Technologists that the continuing education of registered radiologic technologists includes their areas of practice and methods to reduce radiation dose.

Adopted, Main Motion, C-11.35, 2011

Definition of Limited X-ray Machine Operator

It is the position of the American Society of Radiologic Technologists that a limited x-ray machine operator is defined as an individual other than a radiologic technologist who performs static diagnostic x-ray procedures on selected anatomical sites. Limited x-ray machine operator is the term that replaces other terms including, but not limited to, radiologic technician, x-ray technician and limited permittee.

Adopted, Resolution 03-2.02, 2003 Amended, Main Motion, C-08.17, 2008 Amended, Main Motion, C-09.11, 2009

Degree Requirements for Radiologic Science Program Directors and Clinical Coordinators

It is the position of the American Society of Radiologic Technologists that radiologic science program directors hold a minimum of a master's degree and that clinical coordinators hold a minimum of a baccalaureate degree.

Adopted, Resolution 98-2.02, 1998 Amended, Resolution 06-2.03, 2006 Amended, Main Motion C-09.37, 2009

Documentation of Patient Radiation Exposure and Shielding for Computed Tomography and Fluoroscopic Procedures

It is the position of the American Society of Radiologic Technologists that facilities document patient dose, patient dose indicator readings, patient exposure indicator readings or technical factors and use of shielding for computed tomography and fluoroscopic procedures.

Adopted, Main Motion, C-07.38, 2008 Amended, Main Motion, C-09.79, 2009

Ensuring Radiation Exposures Are As Low As Reasonably Achievable

It is the position of the American Society of Radiologic Technologists that all individuals performing medical imaging and radiation therapy procedures employ the "as low as reasonably achievable" (ALARA) principle to minimize patient and occupational radiation dose.

Adopted, Resolution 06-1.07, 2006 Amended, Main Motion, C-09.53, 2009

Entry Level of Education for Radiation Therapists

It is the position of the American Society of Radiologic Technologists that the baccalaureate degree is the entry level for radiation therapists.

Adopted, Resolution C-07.10, 2007 Amended, Main Motion C-09.39, 2009

Entry Level of Education for Radiographers

It is the position of the American Society of Radiologic Technologists that the associate degree is the entry level for radiographers.

Adopted, Resolution C-07.03, 2007 Amended, Main Motion C-09.40, 2009

Evaluating Medical Images for Technical Adequacy

It is the position of the American Society of Radiologic Technologists that the technical adequacy of medical images produced by a registered or licensed radiologic technologist only be evaluated by a registered radiologic technologist within their scope of practice.

Adopted, Resolution 05-3.03, 2006 Amended, Main Motion C-09.54, 2009

Federal Minimum Standards for Medical Imaging and Radiation Therapy

It is the position of the American Society of Radiologic Technologists that the U.S. Congress should enact federal minimum standards of education and certification for all individuals performing medical imaging or planning and/or delivering radiation therapy. Such standards should be, at the minimum, equivalent to those established for educational accreditation by the Joint Review Committees or equivalent and certification by the American Registry of Radiologic Technologists or equivalent.

Amended, Resolution 95-2.08, 1995 Amended, Resolution 06-2.06, 2006 Amended, Main Motion C-09.44, 2009

Level of Education for the Radiologic Science Profession

It is the position of the American Society of Radiologic Technologists that the baccalaureate degree is the professional level of radiologic science education if it contains upper division coursework in radiologic science.

Adopted, Resolution 94-2.04, 1994 Amended, Resolution 95-2.05, 1995 Amended, Resolution 06-2.05, 2007 Amended, Main Motion C-09.41, 2009

Limited X-Ray Machine Operator Education and Examination

It is the position of the American Society of Radiologic Technologists that the educational requirements for limited x-ray machine operators meet the ASRT Limited X-ray Machine Operator Curriculum and examinees successfully pass the American Registry of Radiologic Technologists limited scope of practice exam.

Adopted, Resolution 06-2.09, 2006 Amended, Main Motion C-09.43, 2009

Limited X-Ray Machine Operator Scope of Practice

It is the position of the American Society of Radiologic Technologists that the limited x-ray machine operator's scope of practice be restricted to practices covered in the ASRT curriculum for limited x-ray machine operators. Procedures excluded from the LXMO scope of practice include fluoroscopy, contrast procedures, computed tomography, mammography and mobile imaging.

Adopted, Resolution 05-3.11, 2005 Amended, Resolution 06-3.04, 2007 Amended, Main Motion, C-09.58, 2009

Majority Representation on State Radiologic Technologist Licensure or Regulatory Boards and Committees

It is the position of the American Society of Radiologic Technologists that the majority of members appointed or designated to serve on state radiologic technologist licensure or regulatory boards and committees be practicing registered radiologic technologists with expertise in the disciplines licensed or regulated by that entity.

Adopted, Resolution C-07.05, 2007 Amended, Main Motion, C-09.46, 2009

Monitoring Patient Exposure During Utilization of Digital Radiography Systems

It is the position of the American Society of Radiologic Technologists that health care facilities using digital radiography systems monitor patient exposure. Exposure indicator data should be included in the Digital Imaging Communications in Medicine (DICOM) header for images sent to picture archiving and communication systems (PACS) or in the patient demographics field for images printed to film, and in either case should be part of the permanent patient record. The exposure indicator should not be altered to modify image appearance and should accurately record the exposure or exposure factors used in producing the image. Health care facilities should collect patient exposure range distributions and reject analyses as part of the quality assurance program. This exposure data should be reviewed routinely by the health care facility.

Adopted, Resolution 05-3.10, 2005 Amended, Resolution C-07.22, 2007 Amended, Main Motion C-09.16, 2009

Opposition to Employment of Uncertified or Unlicensed Individuals

The American Society of Radiologic Technologists opposes the employment or utilization of uncertified or unlicensed individuals to administer ionizing or nonionizing radiation for diagnostic or therapeutic procedures. This is a breach of responsibility of the health care industry in providing quality patient care.

Adopted, Resolution 93-3.01, 1993 Amended, Resolution 94-1.21, 1994 Amended, Resolution 06-1.04, 2006 Amended, Main Motion, C-09.81, 2009

Opposition to Institutional Licensure of Radiologic Technologists

The American Society of Radiologic Technologists opposes institutional licensure of radiologic technologists.

Amended, Resolution 06-1.03, 2006 Amended, Main Motion, C-09.45, 2009

Opposition to Listing in Trade School Directories

The American Society of Radiologic Technologists opposes the listing of radiologic technology educational programs in any trade school directory. It is the position of the ASRT that radiologic technology is a profession.

Amended, Resolution 06-3.10, 2006 Amended, Main Motion, C-09.74, 2009

Opposition to Radiologic Technologists Supervising and/or Training Unlicensed or Uncertified Individuals

The American Society of Radiologic Technologists opposes any radiologic technologists being required to supervise and/or train any unlicensed or uncertified individuals in the delivery of medical imaging or radiation therapy procedures unless they are enrolled in or have graduated from an educational program in the radiologic sciences accredited by a mechanism recognized by the American Registry of Radiologic Technologists or equivalent.

Adopted, Resolution 02-3.01, 2002 Amended, Main Motion, C-08.15, 2008 Amended, Main Motion C-09.49, 2009

Opposition to Supervision by Limited X-ray Machine Operators

The American Society of Radiologic Technologists opposes limited x-ray machine operators supervising or managing the technical aspects of imaging procedures performed by registered radiologic technologists.

Adopted, Resolution 04-3.07, 2004 Amended, Main Motion, C-08.13, 2008 Amended, Main Motion, C-09.47, 2009

Opposition to Use of Fluoroscopy for Positioning

The American Society of Radiologic Technologists opposes the use of fluoroscopy to ensure proper positioning for radiography prior to making an exposure. This is unethical, increases patient dose and should never be used in place of appropriate skills required of the competent radiologic technologist.

> Adopted, Resolution 06-3.14, 2006 Amended, Main Motion, C-09.55, 2009

Opposition to Use of Full-body Computed Tomography Screening

The American Society of Radiologic Technologists opposes the use of full-body computed tomography as a screening tool.

Adopted, Resolution 02-3.08, 2002 Amended, Main Motion, C-08.42, 2008 Amended, Main Motion, C-09.80, 2009

Opposition to Use of Medical Ultrasound for Nonmedical Purposes

The American Society of Radiologic Technologists opposes the use of medical ultrasound for the purpose of nonmedical entrepreneurial application or entertainment contrary to the tenets of ethical medical practice.

Adopted, Resolution 05-3.01, 2005 Amended, Main Motion, C-08.41, 2008 Amended, Main Motion, C-09.75, 2009

Pregnant Radiologic Technologists and the Magnetic Resonance Environment

It is the position of the American Society of Radiologic Technologists that the pregnant radiologic technologist should not enter the magnetic resonance scanner/magnet room while scanning is in progress due to limited knowledge of the effects of gradient magnetic/radiofrequency fields.

Adopted, Resolution 02-3.04, 2002 Amended, Resolution C-07.24, 2007 Amended, Main Motion, C-09.61, 2009

Professional Programmatic Peer Review

The American Society of Radiologic Technologists supports professional programmatic peer review for all medical imaging and radiation therapy educational programs.

Adopted, Main Motion, C-11.34, 2011

Public Health Statements

It is the position of the American Society of Radiologic Technologists that the Society release position statements on public health issues to increase public awareness of the diverse contributions in health care by the members of the ASRT.

Adopted, Resolution 92-1.07, 1992 Amended, Resolution 94-1.23, 1994 Amended, Main Motion C-09.34, 2009

Qualifications for Performing Image Acquisition With Hybrid Imaging Equipment in

Fusion Mode

It is the position of the American Society of Radiologic Technologists that radiologic technologists performing multiple modality fusion imaging be registered by the American Registry of Radiologic Technologists, Nuclear Medicine Technology Certification Board, American Registry for Diagnostic Medical Sonography or equivalent and be educationally prepared and clinically competent in all components of the specific fusion procedures.

Adopted, Resolution 03-3.03, 2003 Amended, Resolution 06-3.07, 2006 Amended, Main Motion C-09.72, 2009 Amended, Main Motion C-10.36, 2010

Qualifications for Performing Medical Dosimetry

It is the position of the American Society of Radiologic Technologists that only individuals certified in medical dosimetry by the Medical Dosimetrist Certification Board or equivalent perform medical dosimetry procedures.

Adopted, Resolution 04-3.04, 2004 Amended, Main Motion, C-08.33, 2008

Radiographic Technique Charts

It is the position of the American Society of Radiologic Technologists that radiographic technique charts be used by persons performing radiography and that all health care facilities make radiographic technique charts available to persons performing radiography.

Adopted, Resolution 91-4.03, 1991 Amended, Resolution C-07.31, 2007 Amended, Main Motion, C-09.73, 2009

Staffing for Radiation Therapy Treatment Delivery

It is the position of the American Society of Radiologic Technologists that two registered radiation therapists per patient per treatment unit is the minimum standard for safe and efficient delivery of radiation therapy.

Adopted, Resolution 98-3.04, 1998 Amended, Main Motion, C-08.44, 2008

State Agency Recognition of Joint Review Committees

It is the position of the American Society of Radiologic Technologists that state agencies accept accreditation of radiologic science educational programs by Joint Review Committees or equivalent to meet state standards.

Adopted, Main Motion C-09.03, 2009

State Licensure Examinations by the American Registry of Radiologic Technologists

It is the position of the American Society of Radiologic Technologists that state agencies should contract with the American Registry of Radiologic Technologists to administer state licensure examinations.

Amended, Main Motion, C-08.14, 2008 Amended, Main Motion, C-09.48, 2009

Unification of the Profession

It is the position of the American Society of Radiologic Technologists that the Society foster unification of the radiologic science profession.

Adopted, Resolution 89-1.20, 1989 Amended, Resolution 94-1.19, 1994 Amended, Resolution C-07.13, 2007 Amended, Main Motion, C-09.35, 2009

Radiation Therapy Safety: The Critical Role of the Radiation Therapist

Teresa G Odle, BA, ELS, and Natasha Rosier, MHA, MBA, R.T.(R)(T) for the ASRT Education and Research Foundation Health Care Industry Advisory Council Subcommittee on Patient Safety and Quality in Radiation Therapy



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Radiation Therapy Safety: the Critical Role of the Radiation Therapist

Teresa G Odle, BA, ELS, and Natasha Rosier, MHA, MBA, R.T.(R)(T), for the ASRT Education and Research Foundation Health Care Industry Advisory Council Subcommittee on Patient Safety and Quality in Radiation Therapy

early 1.6 million people in the United States were diagnosed with cancer in 2011 and about two-thirds of these patients likely received radiation therapy treatments during their illnesses.^{1,2} Most radiation treatments occur without incident and contribute to the comfort or cure of cancer patients.³ Still, advances in technology that provide more sophisticated, promising and accurate techniques for targeting malignancies come with a price: complex technology that requires extensive training, continuing education and attention from the radiation therapists who deliver the radiation.

The consequences of a single error are enormous, as outlined by feature articles in *The New York Times* beginning in 2010.^{4,5} These and other reports, such as the ECRI Institute (formerly Emergency Care Research Institute) naming of radiation therapy errors as the number one hazard in health care,⁶ have focused public, professional and regulatory attention on radiation oncology processes, equipment and delivery of care. Professional organizations, vendors and providers are responding to address the challenges faced by ensuring that all of the tools for learning and improving processes are in place to prevent, detect and correct radiation therapy-related errors.

Background

The American Society of Radiologic Technologists (ASRT) is a professional membership organization representing more than 144,000 medical imaging technologists

and radiation therapists. The organization provides educational opportunities to members, promotes the radiologic science profession and monitors legislation affecting the profession. In addition, ASRT establishes standards of practice and develops education criteria for medical imaging and radiation therapy professionals.⁷

The ASRT Education and Research Foundation, the philanthropic arm of the ASRT, accepts donations from individuals and organizations to fund research and scholarships. The Foundation supports and empowers professionals in medical imaging and radiation therapy professions to pursue opportunities that improve patient care. One method to accomplish this goal is through partnering with the industry to improve medical imaging technologist and radiation therapist education, job performance and patient care. The Foundation's Health Care Industry Advisory Council (HCIAC) includes representatives of important companies in the radiology and radiation oncology industries who work together in a noncompetitive environment to advance patient care.⁸ Members meet annually, and occasionally form subcommittees to discuss significant issues in the radiologic sciences. The Subcommittee on Patient Safety and Quality in Radiation Therapy met November 14, 2011, in Albuquerque, N.M. Committee members in attendance are listed in Appendix A.

Committee Purpose

HCIAC member organizations recognize the importance of working together for the good of the patient. Patient care and safety remain at the forefront of radiation therapist ethics and practice standards, and safe and effective design, manufacture and operation of radiation oncology equipment remain constant goals for HCIAC member organizations. However, events such as media reports brought these matters to the surface beginning in January 2010. The Subcommittee on Patient Safety and Quality in Radiation Therapy met in light of these events, but also because of numerous challenges regarding radiation oncology care and commitment to the role of the radiation therapist in patient care.

There has been a heightened perception of medical safety among professionals and the public over the past decade, with mixed perception regarding patient safety in radiation therapy.⁹ When *The New York Times* featured stories of serious radiation overdoses,⁵ the errors raised fears in the public — and in patients slated to receive radiation therapy. In addition, the complexity of the technology used to deliver radiation treatments has increased exponentially in recent years. This is good news for patients, but only if personnel who maintain and operate the equipment and plan the treatments remain up-to-date on the advances and the skills necessary to work within the technological environments the new modalities and machines require.

These and other factors brought together the subcommittee of concerned radiation therapists, managers and representatives of radiation therapy equipment vendors to discuss the issue in detail and consider cooperative and workable solutions focusing primarily on the areas they represent: the role of the radiation therapist and the support provided to therapists and other radiation oncology staff from equipment vendors.

Industry Response

Several professional organizations responded immediately to the articles in *The New York Times,* including the ASRT. In a letter to the newspaper's editor, thenpresident Diane Mayo, R.T.(R)(CT), reminded readers that although radiation therapy errors are tragic, they are rare. She also pointed out that in 2010, 17 states did not require a license to deliver radiation therapy.¹⁰ Many organizations also were asked to testify before the U.S. House of Representatives Energy and Commerce Committee's Subcommittee on Health. ASRT was among these, and was represented by Sandra Hayden, MA, R.T.(T), a member of the ASRT Board of Directors and administrative director of radiation therapy services at the University of Texas, MD Anderson Cancer Center in Houston.

Hayden emphasized that establishing national education and certification standards for technical personnel who perform radiation therapy procedures was the best way to ensure quality and safety of the procedures. She mentioned that the solution lies in the Consistency, Accuracy, Responsibility and Excellence in Medical Imaging and Radiation Therapy (CARE) bill before the House. Hayden and the ASRT also called for establishment of consistent and mandatory methods of reporting medical radiation errors.11 Other organizations, such as the American Association of Physicists in Medicine (AAPM), the American Society for Radiation Oncology (ASTRO) and the Medical Imaging and Technology Alliance (MITA) have made statements, published white papers or developed initiatives to address safety in radiation therapy.9,12,13

Scope of White Paper

This White Paper also is a response — as commissioned by the ASRT Foundation and the HCIAC — on behalf of the radiation therapy profession and the industry's equipment vendors, particularly representatives of the companies' education services. The goal of the document is to provide background on the radiation therapist's role in safe treatment delivery, an overview of the challenges faced by therapists in delivery of care and challenges faced by vendors and sites in appropriately training providers on use of clinical equipment. The paper also outlines best practice scenarios and recommendations for radiation therapists, their leadership and industry. The committee's evaluation and recommendations are categorized according to: skills assessment, applications training and support, workplace culture and workplace staffing.

This document is the direct result of collaborative discussions of the radiation therapists represented from practice and industry who serve on the HCIAC Subcommittee on Patient Safety and Quality in Radiation Therapy and has been reviewed and accepted by its members.

Workplace Staffing

Radiation helps treat cancer and select other diseases by destroying cells. When radiation damages cancer cells' DNA, it affects the cells' ability to continue reproducing. By nature, cancer cells divide rapidly, which makes them particularly susceptible to radiation.¹⁴ Delivering ionizing radiation to patients to target specific cells requires unparalleled accuracy. Too little radiation can allow cancerous cells to regrow, but too much radiation — or missed targets — can harm the patient.

Ensuring consistent, accurate and effective radiation treatment requires cooperation of a team of radiation oncology specialists: radiation oncologists, medical physicists, radiation therapists, medical dosimetrists and nurses. Radiation therapists are responsible for delivering the radiation treatments. To prepare for this role, a radiation therapist successfully completes an accredited educational program in radiation therapy and attains certification in the specialty from the American Registry of Radiologic Technologists (ARRT).

Accredited radiation therapy education options include a certificate, associate or bachelor's degree program. Programs focus on physics, radiation safety, anatomy and patient care and prepare students for the national certification examination administered by the ARRT. To maintain certification, ARRT-registered radiation therapists are required to complete appropriate continuing education to sustain a level of expertise and remain aware of changes and advances in radiation therapy practice.¹⁵ In general, this involves completing 24 hours of continuing education in approved activities every two years.¹⁶

The ARRT does not license therapists, however, and states' education requirements regarding radiation therapist licensing vary. As of February 2012, 15 states did not regulate radiation therapists. As pointed out in Hayden's report to Congress on behalf of ASRT, hairdressers are better regulated in some states than people who perform medical radiation procedures." Yet radiation therapists must maintain high degrees of accuracy when delivering treatment, think critically, and at times use independent, professional and ethical judgment in every aspect of their work. Though members of a team that is supervised by radiation oncologists, therapists review protocols, operate increasingly sophisticated equipment, monitor and assess patients and initiate treatments that can extend for several weeks.¹⁵ In effect, there are no requirements regarding education and expertise for radiation therapists in states that have no licensing regulations; it is up to hiring managers at

facilities to set and enforce minimum qualifications for radiation therapists and medical dosimetrists.¹⁷

Despite lack of regulation, accreditation programs for radiation oncology recommend that radiation therapists have ARRT certification.18 Still, the CARE bill (H.R. 2104) remains stalled in the U.S. House of Representatives.¹⁹

Accreditation programs also address staffing of radiation therapy, recommending a minimum of two therapists per active linear accelerator regardless of patient volume, and more therapists based on the annual number of new patients at a facility and ratio of procedures performed.¹⁸ One example, intensity-modulated radiation therapy (IMRT), has improved the radiation oncology team's ability to conform isodose distributions more precisely to targets' shapes, which reduces dose to adjacent structures. The planning and delivery of radiation under this newer technology is more complex, however, than with conventional linear accelerator procedures.

In fact, since 3-D treatment planning began in the 1980s, the workflow processes associated with radiation therapy have become increasing complex. IMRT introduced highly conformal doses and dose gradients much sharper than those possible with previous technologies.²⁰ Advanced technologies such as IMRT have improved treatment of a number of cancers by better compensating for irregular or concave tissues, along with those close to or largely surrounded by normal tissues.^{21,22}

Radiation therapists always have had to review all approved treatment plans, instructions, prescriptions and images to ensure that the information is consistent and valid before delivering any treatment. The evolution of radiation treatments to more complex planning and targeting, including, but not limited to IMRT, requires an ever-vigilant approach to quality assurance. QA must be performed, documented, verified and approved before treatments proceed. This includes a time-out before turning the x-ray beam on so that therapists can verify patient identity and target isocenter; the time-out is more complex and lengthy the more dynamic the treatment. Keeping with the IMRT example, time-out verifications are more complex and lengthy than for traditional linear accelerator procedures. Radiation therapists must obtain, review and seek approval for images taken for all patients' treatments according to the department's policies and procedures,

along with approved treatment plans, instructions and prescriptions. Therapists monitor the patient and treatment conditions for inconsistencies or irregularities and notify physicists if any problems arise; they also stop treatments when problems occur.²³

Although continued advances that improve accuracy and effectiveness of treatment delivery while minimizing normal tissue damage are crucial to patients who receive radiation therapy, QA policies and procedures — along with time and system support for those procedures must progress along with the development of ever more complex treatment options. Increasing demands from QA naturally demand more attention from radiation therapists administering treatments, and are critical to safety. The increasing demands must not sacrifice patient care, and must be considered in staffing decisions.

In a 2010 survey of the radiation therapist and dosimetrist workforce, the ASRT found that most radiation therapists reported that exactly two therapists per linear accelerator routinely were scheduled at their facilities. About 18 percent reported having three therapists per treatment machine, yet about 41 percent of these facilities reported routinely scheduling one therapist per linear accelerator between one and eight hours a day. Most of these instances were for one-hour periods, but 10 percent of facilities responded that only one therapist staffed a treatment machine for eight hours each day.²⁴ One therapist always should be attentive to the patient, and another to the treatment console. A minimum of two therapists per machine at all times ensures they can perform and remain attentive to the console and patient should a third or rotating therapist be called away to perform a simulation, find files, assist a patient with psychosocial needs, communicate with other members of the health care team, perform QA activities or answer the telephone. In addition, two therapists always should be available in the event of emergencies and as a "second set of eyes" to verify information during time-outs for procedures.

Though costs often are cited as the reasons staffing ratios are maintained at minimum levels possible, leadership should be reminded of the cost — not only to patients, but in real settlements and litigation — of lawsuits brought against radiation oncology providers because of errors. The costs of settlements for the cases described in *The New York Times* were not revealed, but the public relations costs were extremely high.⁴

Best Practices:

- All radiation therapy is delivered only by ARRTregistered radiation therapists.
- All sites providing radiation therapy staff at the level of two therapists per machine at all times.

Recommendations:

- ASRT will continue to support the CARE bill and other efforts to ensure registered radiation therapists deliver care.
- Sites should evaluate workflow and staffing levels to determine whether (and when) fewer than two therapists staff each machine and correct as soon as possible.

Workplace Culture

The radiation therapist is the ultimate gatekeeper in the delivery of curative doses of radiation. As such, all members of the treatment team must recognize the therapist's critical role in safeguarding the patient. Doing so requires that radiation therapists and others on the radiation oncology and health care teams view therapists as professionals and embrace a culture that strongly supports safety.

In a report on IMRT safety considerations, Moran and colleagues suggested several considerations to support a culture of safety, including trust among department members, event tracking, review and follow-up, hiring and ongoing training of personnel, use of standard operating procedures, defining each team member's roles and responsibilities and effective communication among team members.¹³

Administrators can set the tone for safety and professionalism in radiation oncology facilities. They do so by openly supporting error prevention and reporting. This includes encouraging team members to report errors and near misses and providing the tools, training and time for reporting by ensuring there are processes and equipment in place for tracking errors and adequate staffing to allow therapists and other team members time to complete the processes.²³ Mutic and colleagues found that by specially designing electronic event reporting systems, staff were more likely to report errors and near misses because work disruption was minimal.²⁵ When the Johns Hopkins Hospital implemented a voluntary incident reporting system, most of the events were logged by radiation therapists and none were logged by physicians.³

A survey conducted in spring 2011 by Robert Adams, EdD, MPH, R.T.(R)(T), of the University of North Carolina, questioned 250 radiation therapists throughout the United States regarding error rates and barriers to reporting. Although most radiation therapists reported good communication with dosimetrists, department administrators and radiation oncologists in particular, only 78 percent strongly agreed that they are encouraged to report clinical errors. In addition, 16 percent of radiation therapists surveyed reported that they have been reprimanded by their superiors for reporting clinical errors. Fear of reprimand is the greatest barrier to error reporting, cited by 29 percent of those surveyed as the top barrier.²⁶ In fact, all team members must be able to communicate openly and feel comfortable challenging one another regarding safety and quality issues, or freely asking questions throughout the process, without reprisal.²³

The culture shift begins, however, with radiation therapists, who must continually promote and practice within the profession's standards and ethics. Taking the initiative to learn about new advancements in technology is an example of promoting one's professionalism. When it comes to patient safety and error reporting, radiation therapists must take the time to perform timeouts and double-checks — and trust one another as well as all members of their teams. A culture of professionalism and patient safety requires radiation therapists to be able to inherently say or believe "I trust you and your work, but I am double-checking it; I expect you to do the same for me."

Promoting safety and professionalism also means minimizing distractions while delivering treatments. In the ASRT workplace survey, the primary distraction in the clinical setting for radiation therapists (at 28.4 percent) was interruptions from other people such as nurses, physicians or fellow therapists.²⁴ Discussions from other professional societies have cited interruptions from staff members, crowded workstations, and Internet availability as sources of distraction.³ Radiation therapists and other team members should work together to develop policies, procedures, communication standards and — if necessary — physical barriers or reminders to minimize distractions while radiation therapists are treating patients and the beam is on. The report by Moran and colleagues also added ACR/ASTRO accreditation and continuing improvement activities as supportive of safety.¹³ These programs recognize existing standards and ethics in radiation oncology professions designed to ensure a culture of professionalism and patient safety. For example, the ARRT rules of ethics for radiologic technologists include possible sanctions for any radiation therapist who fails "to immediately report to his or her supervisor information concerning an error made in connection with imaging, treating, or caring for a patient."²⁷ The rules include departures from the standards of care that could be harmful, unethical or improper, along with negligent behavior. Therapists have an ethical duty to report regardless of whether the patient is harmed.²⁷

The ASRT Practice Standards for Medical Imaging and Radiation Therapy also clearly outline that radiation therapists determine, because of safety concerns, "when to withhold treatment until a licensed independent practitioner is contacted." The therapist also is expected to identify exceptions to expected outcomes and develop revised action plans, and during therapy administration, to report deviations from the standard or planned treatment. When documenting treatment data, the therapist also is expected to document exceptions from the established criteria or procedures.¹⁵

Radiation therapists should be encouraged to document all errors and exceptions, along with all attempts to correct deviations from standards of care or planned treatments. They also should be involved in continuous improvement activities to suggest ways to ensure patient safety. Meetings of organizations such as AAPM and ASTRO have cited the absence of defined policies and procedures to define team member roles, along with empowerment of staff, as impediments to patient safety.³ Therapists should practice within their scope of practice and follow their standards of practice and rules of ethics by reporting appropriate events, and they should continue to enhance the perception of their professionalism by participating in lifelong learning, research and publishing opportunities.

As administrators establish cultures that encourage safety and radiation oncology organizations develop and improve error reporting and tracking systems, it is imperative that radiation therapists feel they can report errors and near-misses — according to the standards and ethics that guide their profession — without fear of negative repercussions. Any reporting system is only as strong as its accurate and consistent participation. These systems will be successful if administrators and other members of the radiation oncology team approach reports of errors and exceptions as opportunities for improvement rather than reprimand. Error reporting should not be tied to performance evaluation. Mutic and colleagues at Washington University School of Medicine use their Web-based reporting structure as the basis for formal process improvement in patient safety.²⁵

Best Practices:

- Administrators, radiation oncologists, radiation therapists and all oncology staff members embrace a culture that supports radiation therapist professionalism.
- Radiation therapists and other radiation oncology professionals adhere to professional ethics and standards of practice established by their professions.
- Reporting of errors is expected and encouraged.

Recommendations:

- ASRT and its members continue to support efforts to develop consistent and mandatory error reporting.
- Radiation therapy site managers should implement changes to encourage reporting of errors and nearmisses and investigate a systematic approach to error reporting, tracking and correction.
- Radiation therapists should embrace a comprehensive approach to professionalism that includes lifelong learning, error reporting and process improvement.

Skills Assessment

Medical care improves because of dedicated providers and advances in technology. Radiation therapy is no exception to this rule. IMRT, image-guided radiation therapy (IGRT) and stereotactic radiosurgery are recent examples of improved care that rely on complex technology.

For example, approximately 90 percent of respondents to the ASRT workplace survey said their facilities provided IMRT and computed tomography (CT) simulation. Nearly 80 percent had IGRT services.²⁴ The procedure radiation therapists reported they were least prepared to perform was CT simulation.²⁴ These simulations require working knowledge of CT, and although CT simulation is included in the radiation therapy education curriculum, new technologies add complexity that can require additional skills. Less than 3 percent of radiation therapists held additional CT certifications.

When radiation therapists and other members of the treatment team work at facilities installing new equipment, they must be prepared with the basic knowledge required to work on the new modality before the equipment vendors arrive to install the equipment and train staff on its proper operation. An example is IMRT. Additional training specific to IMRT is critical before beginning work with the modality.¹³ Educational programs designed by national organizations and methods to test readiness for IMRT are available to sites.²³ These matters are important to radiation therapy professionalism and patient safety regardless of new equipment installations. What's more, if radiation therapists do not understand the basics of the technology and modality before the equipment arrives, applications trainers cannot focus on the task at hand: specific function and safe, effective operation of the newly installed system.

The skills of recently hired and temporary staff also can vary in radiation oncology facilities and should be a primary concern for administrators as part of the safety and quality culture. Competency checklists for new and temporary staff help ensure that all radiation therapists are prepared to perform procedures specific to a site; they also help ensure that staff members are ready for applications training from vendors. Much like procedural checklists — which have been shown to improve safety in several disciplines²³ — checklists to assess readiness for working on new equipment could prove to be objective and thorough tools for administrators.

Administrators can work together with applications trainers to prepare brief quizzes for core competency preassessment and postassessment that determine staff readiness for training. For example, cross-sectional anatomy is important for many new radiation therapy modalities. These assessments should meet administrators' goals for education of staff, along with the goals set by vendors for safe and effective operation of their products. Most vendors currently conduct preassessments and postassessments as part of end-user applications training,²⁸ but assessments conducted by on-site managers working in concert with vendors would be most effective.

Some facilities perform peer assessment, along with assessments from physicists and chief therapists or administrators, to ensure radiation therapists are ready to take on all clinical tasks required of them in the practice environment and are up-to-date on the depth of increasingly complex technology. Chart checks ensure that therapists are following standard operating procedures and practices, and small facilities can help check across disciplines or work with similar, noncompeting facilities to periodically provide informal peer review. Tiered responsibilities or user-right levels can help ease new staff into the site's modalities and operating procedures. For example, a new or temporary therapist might not be allowed to work alone for a period of 30 days or have user rights that limit the parameters he or she can modify or enter until reassessment.

Organizations such as ACR and AAPM have begun facilitating peer-to-peer review to share best practices. These confidential evaluations use valid assessment tools from outside reviewers, and focus on safety and continuous learning.³ This sort of peer assessment could help minimize problems associated with communication and fear of reprisal among staff — a radiation therapist might favor review from another therapist if he or she does not work side-by-side with the therapist every day. Peer-to-peer review is meant to be an ongoing program that is part of continuous improvement.

Often, applications training or continuing education activities are viewed as "events." As part of workplace culture shifts, administrators, radiation therapists and the entire radiation oncology team should view training and continuing education as an ongoing process. In fact, participating in continuing education "to maintain and enhance competency and performance" is inherent in the radiation therapy professional performance standards. Pursuit of lifelong learning and adoption of best practices also are among therapist standards of practice.¹⁵

Post-training assessments and competency assessments, along with periodic re-assessments, should be viewed as opportunities to learn and help staff grow, not as disciplinary situations. Assessments managed by administrators and supervisors should be performed systematically as part of a site's policies and procedures. Documentation of staff competency proves helpful for accreditation programs such as The Joint Commission.

The ARRT implemented a new approach to maintenance of registration that applies to radiation therapists certified beginning January 1, 2011. The continuing qualifications requirements eventually will include an assessment specific to practice every 10 years.²⁹ A program — planned for implementation in 2012 — will offer online self-assessment so that therapists can plan continuing education according to any identified weaknesses.

Best Practices:

- Employers conduct preassessments of radiation therapist skills before beginning applications training and postcompetency assessments following training.
- Radiation oncology providers conduct ongoing peer-to-peer assessment.

Recommendations:

- All radiation oncology sites installing new equipment or upgrades should work with applications trainers to develop and implement checklists for preassessment and postassessment of radiation therapists' skills.
- Therapists should use the assessments as a method for identifying gaps in skills and knowledge and seek opportunities for continued professional development in these areas.

Applications Training and Support

The media reports cited in this document and many others outlining serious errors at a few radiation therapy facilities focused on people, procedures and the technology used to deliver the radiation.⁵ Most importantly, mistakes occurred when members of the treatment teams did not work in concert with the technology to avoid or correct costly errors that caused patient harm.

In the past 20 years, linear accelerators and treatment planning have become much more complex, and radiation oncology sites and team members must adjust processes, policies, procedures and learning accordingly. There also are several challenges for sites and trainers in providing applications training. Among these are time constraints vs increased time requirements to cover complex modalities, along with inconsistent commitment to training on the part of staff and management.²⁸ In addition, sites often are not prepared for installations and logistical aspects of training. The goal of applications training is to provide the highest quality care for radiation oncology patients, and to ensure that staff members are competent and comfortable with new technologies in their departments to safely operate the equipment. This requires having radiation therapists who are thoroughly and completely trained on the equipment, so that they are prepared to provide safe and quality care for patients in their facilities. Too often, however, applications training is viewed not only as an "event," but as an interruption to staff schedules and a drain on productivity and revenue.

In creating a culture that focuses on safety and professionalism, all radiation oncology sites installing and updating equipment should consider applications training a requirement for staff rather than an option. In the ASRT's survey of the radiation therapy workplace, more than 90 percent of managers reported that they have the latitude to facilitate time for training activities.²⁴

In the current state, however, busy staff in revenuestrapped radiation oncology departments seldom find — or make — time to attend entire applications training sessions. Even when good intentions result in scheduled time for staff to attend, problems occur that pull many away from important sessions. In addition, employees come and go, affecting training continuity and effectiveness. Aside from issues regarding readiness for training, some radiation therapists and other members of the radiation oncology team miss critical portions of programs or training schedules get behind because a few participants have to catch up to others.

Radiation oncology sites and radiation therapists are accountable to attend and be engaged in applications training as a critical part of their missions to provide safe, quality patient care. Vendors and their applications trainers are accountable to provide effective and thorough training programs. Follow-up after applications training also is the joint responsibility of vendors and site leadership. Although vendors should provide information while on site and be available following training to answer questions and problem-solve according to purchase agreement terms, planning of follow-up training is the responsibility of the site.

Under a culture that emphasizes quality and patient safety, time spent on applications training is viewed as "safety time." Although the site might not be able to provide patient care and bill for services during scheduled down time for training, radiation oncology is different from other medical services in that treatment is ongoing. When planned ahead, patient schedules can be adjusted; revenue is delayed rather than lost, and patient care is not affected if treatment interruptions are brief and planned for training purposes. On the other hand, radiation therapists always work to minimize frequent interruptions to treatments. Yet a potential outcome of poorly planned and attended or executed applications training could be just these types of interruptions, resulting from help needed should problems arise because staff attended intermittently or assessments did not adequately ensure staff understood how to handle unusual situations that occur. Organization, planning and preparation help ensure that application installs and training run smoothly, which can save time. The IMRT white paper on safety considerations in IMRT also states that "administrators should allow time and provide financial support for training with new equipment, prior to the use of the equipment for patient treatments."²³ There is potential danger in shortcutting applications training, and potentially improved return on investment for appropriately conducted training.

Contracts can ensure that site managers and vendor representatives are clear on accountabilities, responsibilities and preparation for applications training. They help reinforce the concept that vendors, sites and staff share ownership and accountability in facilitating successful training and creating the opportunity for training and full engagement in applications training activities. Checklists from vendors help sites better prepare for installation and training to minimize delays and scheduling problems. In addition, applications training usually includes only how to work the equipment when all goes as planned. Thorough training should involve built-in error points, in which trainees must problemsolve and correct errors on the new equipment.

Many facilities have installations from more than one vendor or an equipment upgrade that affects the operation of another piece of equipment made by the same vendor or another vendor. Radiation therapists, administrators and other team members can be faced with multiple calls or trainings relevant to equipment, and can be subjected to mixed messages or confusion when trying to resolve equipment performance problems related to cross-vendor systems. Providers and vendors would benefit from improved cooperation among vendors when testing, training and supporting radiation therapy systems. Multivendor training events would be desirable over separate events, although multivendor events can be difficult to coordinate.

In its white paper on IMRT safety, an appointed ASTRO committee emphasizes that improvements in IMRT equipment and methods to enhance patient safety "would be facilitated by collaborative efforts between vendors, user and regulatory agencies."²³ The HCIAC subcommittee on radiation therapy agrees with the ASTRO committee that each of these groups has important information about radiation therapy safety, but that no single group can resolve the problem of catastrophic errors alone. The same holds true for solving issues regarding applications training and ongoing support: Collaboration is key.

Best Practices:

- Radiation therapy managers, radiation therapists and vendor representatives work together to help ensure successful implementation and training for sites purchasing new radiation therapy equipment.
- Vendors cooperate to improve multivendor implementation, training and support for radiation therapy sites.

Recommendations:

- HCIAC Subcommittee on Patient Safety and Quality in Radiation Therapy will spearhead efforts to provide guidelines for successful radiation therapy equipment installation and training, including preparedness and competency checklist suggestions.
- All HCIAC member companies should conduct additional multivendor prerelease and testing and explore possible multivendor training, along with cross-vendor support systems for help desks and online support groups.
- Sites installing equipment cooperate with vendors to support successful and complete installation

and appropriate, uninterrupted and complete training of all radiation therapy staff to ensure safe, quality patient care.

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Appendix A

ASRT Foundation Health Care Industry Advisory Council Subcommittee on Patient Safety and Quality in Radiation Therapy Members

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- Karen Reed, R.T.(R)(T), Manager, Oncology Clinical Applications, Elekta Inc.
- Kevin Rush, MHA, R.T.(R)(T), FASRT, Director of Cancer Radiation Centers at Indiana University Health Bloomington Hospital, and member of ARRT Board of Directors.

Appendix B

Summary of Best Practices and Recommendations

Workplace Staffing

Best Practices:

- All radiation therapy is delivered only by ARRTregistered radiation therapists.
- All sites providing radiation therapy staff at the level of two therapists per machine at all times.

Recommendations:

- ASRT will continue to support the CARE bill and other efforts to ensure registered radiation therapists deliver care.
- Sites should evaluate workflow and staffing levels to determine whether (and when) fewer than two therapists staff each machine and correct as soon as possible.

Workplace Culture

Best Practices:

- Administrators, radiation oncologists, radiation therapists and all oncology staff members embrace a culture that supports radiation therapist professionalism.
- Radiation therapists and other radiation oncology professionals adhere to professional ethics and standards of practice established by their professions.
- Reporting of errors is expected and encouraged.

Recommendations:

- ASRT and its members continue to support efforts to develop consistent and mandatory error reporting.
- Radiation therapy site managers should implement changes to encourage reporting of errors and nearmisses and investigate a systematic approach to error reporting, tracking and correction.
- Radiation therapists should embrace a comprehensive approach to professionalism that includes lifelong learning, error reporting and process improvement.

Skills Assessment

Best Practices:

- Employers conduct preassessments of radiation therapists' skills before beginning applications training and postcompetency assessments following training.
- Radiation oncology providers conduct ongoing peer-to-peer assessment.

Recommendations:

- All radiation oncology sites installing new equipment or upgrades should work with applications trainers to develop and implement checklists for preassessment and postassessment of radiation therapists' skills.
- Therapists should use the assessments as a method for identifying gaps in skills and knowledge and seek opportunities for continued professional development in these areas.

Applications Training

Best Practices:

- Radiation therapy managers, radiation therapists and vendor representatives work together to help ensure successful implementation and training for sites purchasing new radiation therapy equipment.
- Vendors cooperate to improve multivendor implementation, training and support for radiation therapy sites.

Recommendations:

- HCIAC Subcommittee on Patient Safety and Quality in Radiation Therapy will spearhead efforts to provide guidelines for successful radiation therapy equipment installation and training, including preparedness and competency checklist suggestions.
- All HCIAC member companies should conduct additional multivendor prerelease and testing and explore possible multivendor training, along

with cross-vendor support systems for help desks and online support groups.

 Sites installing equipment cooperate with vendors to support successful and complete installation and appropriate, uninterrupted training for all radiation therapy staff to ensure safe, quality patient care.

essential research

Radiation Therapy Staffing Survey 2011

A Nationwide Survey of Registered Radiologic Technologists Conducted by the American Society of Radiologic Technologists

Reported April 2011



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Appendix A. Survey Instruments and Invitation Letter (Please contact the ASRT for a copy.)

Appendix B. Verbatim responses (Please contact the ASRT for a copy.)

Executive Summary

The Radiation Therapy Staffing Survey 2011 was e-mailed on January 26, 2011, to 2,686 managers of U.S. radiation therapy facilities. At the close of the survey on March 23, 2011, a total of 531 completed questionnaires had been submitted resulting in a response rate of 19.8%.

With the finite population correction of an estimated 2,170 radiation therapy facilities in the United States, the sample size of 531 yields a margin of error for overall percentages of a maximum \pm 3.7% (at the 95% confidence interval).

To keep the report at a minimal length, responses to openended questions were not included, but are available upon request.

Staffing of the Facilities

Facilities reported their 2011 mean budgeted full-time employees (FTEs) as:

- Radiation therapy [7.4].
- Medical dosimetry [2.1].

The 2011 budgeted FTEs, along with vacant and recruiting figures, produce the estimated percent of unfilled positions as:

- Radiation therapy [3.1%].
- Medical dosimetry [4.9%].
- The New England geographic region had the highest overall mean vacancy rate at 13.9%, with the Mountain region having the lowest at 0.3%.

Longitudinal Staffing Change in the Profession

- In 2004, the mean budgeted FTEs per facility for radiation therapy was 6.0. On average, facilities have since added 1.4 FT radiation therapists per facility.
- In 2004, the mean budgeted FTEs per facility for medical dosimetry was 1.6. On average, facilities have since added 0.5 FT medical dosimetrists per facility.
- The estimated percent of unfilled FTEs for radiation therapy has dropped from 7.9% in 2004 to 3.1% in 2011.
- The estimated percent of unfilled FTEs for medical dosimetry has dropped from 8.0% in 2004 to 4.9% in 2011.

Facility Demographics

46.3% of the respondents indicated that their title was department/facility manager or director; 32% chose chief therapist; and 5% chose chief medical dosimetrist.

About 47% of the respondents indicated that their facilities are located in a community hospital; 35% in a freestanding clinic; 9% in a university medical center; 5% in a teaching facility; and 1% in a government hospital.

Facilities, on average have 2.22 linear accelerators, 2.27 therapists per linear accelerator and treat 52.01 patients per day.

The services provided at facilities were reported as:

- Radiation therapy [98.7%].
- IMRT [95.5%].
- Conformal radiation therapy delivery [90.9%].
- CT simulation [89.0%].
- Targeted radiation therapy [61.2%].
- Fractionated stereotactic therapy [53.2%].
- Pediatric therapy [22.2%].
- Whole-body irradiation [22.0%].
- Proton therapy [1.3%].

The number of services checked as being provided by a given facility ranged from zero to all 9 items.

- University medical centers have the most services with an average of 7.69 being offered.
- Freestanding clinics offer the fewest with a mean of 5.10 services.

CT Simulation

Approximately 89% of respondents indicated that their facility has a CT device used for treatment simulation.

- Of these facilities, 84% of the respondents indicated that the simulator was located in the radiation therapy department.
- About 12% indicated that it was in the radiology department.

85.4% of the respondents chose radiation therapists as those who typically operate the simulator, followed by CT technologists at 18.5%.

About 47% indicated that the typical CT simulator operator received on-the-job training to perform treatments, with 33.9% indicating vendor training.

About 69% indicated that the CT device is never used for performing diagnostic CT exams on nontherapy patients during overflow periods.

Executive Summary

Calculation of Percent Vacancy Rates

The estimated proportion of unfilled positions for a given specialty for the population of U.S. hospital-based radiology facilities is defined as:

(mean number of vacant and recruiting FTEs per facility) / (mean number of budgeted FTEs per facility)

For example, in radiation therapy the mean vacant and recruiting FTE positions is equal to 0.23 for 2011, when divided by the mean budgeted FTE of 7.4, this yields a percent of unfilled FTE positions of 3.1%.

Only facility/discipline combinations for which both the number of budgeted FTEs and the number of vacant and recruiting FTEs were reported were included in the calculation of vacancy rates.

Staffing of the Facilities

9. For each of the following job titles, please provide the budgeted and vacant full-time employees (FTEs) for your organization in January 2010 and today. Please use decimals for fractional FTEs.

Radiation Therapist

Year	N	Mean Budgeted FTEs per Facility	Mean Vacant and Recruiting FTEs per Facility	Estimated Percent Unfilled FTE Positions
2004	360	6.0	0.47	7.9%
2005	352	6.4	0.40	6.2%
2006	522	6.8	0.31	4.7%
2007	549	7.1	0.39	5.4%
2008	476	6.8	0.29	4.2%
2009	448	7.2	0.54	7.5%
2010	484	7.2	0.19	2.6%
2011	460	7.4	0.23	3.1%

Medical Dosimetrist

Year	N	Mean Budgeted FTEs per Facility	Mean Vacant and Recruiting FTEs per Facility	Estimated Percent Unfilled FTE Positions
2004	360	1.6	0.13	8.0%
2005	352	1.8	0.11	5.8%
2006	522	1.9	0.18	9.3%
2007	549	2.0	0.18	9.0%
2008	441	2.1	0.13	6.2%
2009	409	2.1	0.17	8.2%
2010	432	2.0	0.07	3.6%
2011	411	2.1	0.10	4.9 %





Estimated Percent Unfilled FTE Positions





Number of Budgeted FTE Radiation Therapists by Number of Budgeted FTE Medical Dosimetrists per Facility*



y = 0.2717x + 0.2149 $R^2 = 0.8056$

*3.5 radiation therapists for every 1 medical dosimetrist

Discipline	Statistic	New England	East South Central	East North Central	Pacific	Mid- Atlantic	West South Central	South Atlantic	West North Central	Mountain
Radiation	Ν	23	24	84	60	59	42	94	38	33
Therapist	%	6.2%	6.3 %	4.9 %	5.4%	3.1%	1.6%	1.4%	0.5%	0.5%
Medical	N	20	23	77	53	53	32	86	35	29
Dosimetrist	%	22.8%	5.4%	5.8%	3.3%	3.9%	5.2%	3.9%	1.1%	0.0%
				-						
Ov	erall Mean	13.9%	5.8%	5.3%	4.4%	3.5%	3.2%	2.6%	0.8%	0.3%

2011 Estimated Percent of Unfilled FTE Positions by Geographic Region ^a

^a New England: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut

East South Central: Kentucky, Tennessee, Mississippi and Alabama

East North Central: Wisconsin, Michigan, Illinois, Indiana and Ohio

Pacific: Alaska, Washington, Oregon, California and Hawaii

Mid-Atlantic: New York, Pennsylvania and New Jersey

West South Central: Oklahoma, Texas, Arkansas and Louisiana

South Atlantic: Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina and Georgia

West North Central: Missouri, North Dakota, South Dakota, Nebraska, Kansas, Minnesota and Iowa

Mountain: Idaho, Montana, Wyoming, Nevada, Utah, Colorado, Arizona and New Mexico



2011 Overall Mean Estimated Percent of Unfilled FTE Positions by Geographic Region



Facility Demographics

1. Location

	Frequency	Valid Percent
Urban	221	41.8
Suburban	213	40.2
Rural	95	18.0
Total	529	100.0

Location



2. State

State	Ν
AK	1
AL	4
AR	8
AZ	13
CA	45
СО	7
СТ	9
DE	0
FL	34
GA	26

State	N
HI	1
IA	5
ID	3
IL	21
IN	18
KS	4
KY	8
LA	5
MA	11
MD/DC	11

Stato	N
Jiale	IN
ME	1
MI	20
MN	18
МО	7
MS	5
MT	3
NC	12
ND	3
NE	3
NH	5

State	Ν
NJ	10
NM	4
NV	2
NY	29
OH	24
OK	6
OR	11
PA	32
RI	1
SC	7

State	Ν
SD	1
TN	10
ТΧ	29
UT	4
VA	11
VT	0
WA	14
WI	11
WV	3
WY	4



3. Your title

	Frequency	Valid Percent
Department/facility manager or director	244	46.3
Chief therapist	171	32.4
Chief medical dosimetrist	28	5.2
Other	84	15.9
Total	527	100.0

Your title



4. Type of facility

	Frequency	Valid Percent
Community hospital	245	46.5
Freestanding clinic	183	34.7
University medical center	49	9.3
Teaching facility	24	4.6
Government hospital	6	1.1
Other	20	3.8
Total	527	100.0

Type of facility


		Community hospital	Freestanding clinic	University medical center	Other or unstated	Overall
Radiation	Count	245	182	49	45	521
therapy	%	100.0%	99.5%	100.0%	88.2%	98.7%
IMRT	Count	238	177	47	42	504
	%	97.1%	96.7%	95.9%	82.4%	95.5%
Conformal	Count	231	150	48	41	470
radiation therapy delivery	%	94.3%	82.0%	98.0%	80.4%	90.9%
CT simulation	Count	223	167	47	43	480
	%	91.0%	91.3%	95.9%	84.3%	89.0%
Targeted	Count	154	100	34	35	323
radiation therapy	%	62.9%	54.6%	69.4%	68.6%	61.2%
Fractionated	Count	127	76	46	32	281
stereotactic therapy	%	51.8%	41.5%	93.9%	62.7%	53.2%
Pediatric therapy	Count	29	23	41	24	117
	%	11.8%	12.6%	83.7%	47.1%	22.2%
Whole-body	Count	29	20	42	25	116
irradiation	%	11.8%	10.9%	85.7%	49.0%	22.0%
Proton therapy	Count	1	1	4	1	7
	%	.4%	.5%	8.2%	2.0%	1.3%
Other	Count	61	37	19	18	135
	%	24.9%	20.2%	38.8%	35.3%	25.6%

5. Radiation therapy services provided by your facility







	Frequency	Valid Percent	Cumulative Percent
0	3	0.6	0.6
1	12	2.3	2.8
2	12	2.3	5.1
3	29	5.5	10.5
4	90	16.9	27.5
5	110	20.7	48.2
6	118	22.2	70.4
7	74	13.9	84.4
8	52	9.8	94.2
9	31	5.8	100.0
Total	531	100.0	
Mean number of services	5.56 (SD=1.84)	
Percentiles	5th=2.27, 25th=4.32, 50th=5.57, 75th=6.87, 95th=8.73		

Number of services provided by each facility

Number of services provided by each facility



Mean number of services provided by each facility by facility type

	Ν	Mean	Standard Deviation
Community hospital	245	5.46	1.410
Freestanding clinic	183	5.10	1.594
University medical center	49	7.69	1.517
Other or unstated	54	5.67	2.972

University medical centers provide significantly more services (mean of 7.69 of the 10 listed services) than do community hospitals and freestanding clinics (combined mean of 5.25 services), t(527) = 9.40, P < .001.

	Frequency	Valid Percent	Cumulative Percent
1 accelerator	188	36.3	36.3
2 accelerators	188	36.3	72.6
3 accelerators	72	13.9	86.5
4 accelerators	30	5.8	92.3
5 accelerators	16	3.1	95.4
6 or more accelerators	24	4.6	100.0
Total	518	100.0	
Mean number of linear accelerators	2.22 (SD=1.6	2)	
Percentiles	5th=.24, 25th= 75th=2.81, 95t	=1.16, 50th=1.86, th=5.45	

6. Number of linear accelerators used at your facility

Number of linear accelerators used at your facility



	Frequency	Valid Percent	Cumulative Percent
0 therapists	5	1.0	1.0
1 therapist	11	2.1	3.1
2 therapists	365	70.5	73.6
3 therapists	116	22.4	95.9
4 therapists	11	2.1	98.1
5 or more therapists	10	1.9	100.0
Total	518	100.0	
Mean number of therapists	2.27 (SD=.91	0)	
Percentiles	5th=1.52, 25th 95th=3.22	n=1.80, 50th=2.07	, 75th=2.43,

7. Number of therapists per linear accelerator during a given treatment session (Frequency table categories are rounded to the nearest therapist.)

Number of therapists per linear accelerator during a given treatment session



Number of therapists per linear accelerator during a given treatment session by region

	Mean	Ν	Standard Deviation
New England	2.21	27	0.859
Middle Atlantic	2.20	69	0.783
East North Central	2.33	94	0.928
West North Central	2.12	39	0.334
South Atlantic	2.28	103	0.809
East South Central	2.09	27	0.538
West South Central	2.29	47	0.523
Mountain	2.21	38	0.553
Pacific	2.36	70	1.584

There were no statistically significant differences among the means, F(8,505) = .475, p=.874

	Frequency	Valid Percent	Cumulative Percent
1 to 10 patients	5	1.0	1.0
11 to 20 patients	69	13.5	14.5
21 to 30 patients	114	22.4	36.9
31 to 40 patients	82	16.1	52.9
41 to 50 patients	76	14.9	67.8
51 to 60 patients	55	10.8	78.6
61 to 70 patients	24	4.7	83.3
71 to 80 patients	20	3.9	87.3
81 to 90 patients	13	2.5	89.8
91 to 100 patients	10	2.0	91.8
101 ore more patients	42	8.2	100.0
Total	510	100.0	
Mean number of patients	52.01 (SD=43.70)		
Percentiles	5th=15.03, 25th=25.53, 50th=40.10, 75th=60.58, 95th=144.63		

8. Number of patients receiving treatment per day

Number of patients receiving treatment per day







Patients treated per day by budgeted FTE radiation therapists per facility









CT Simulation

10. Does your facility have a treatment device used for CT simulation?

	Frequency	Valid Percent
Yes	460	88.8
No	58	11.2
Total	518	100.0

Does your facility have a treatment device used for CT simulation?



11. If you answered "yes" to the question above, where is the CT simulator located?

	Frequency	Percent of Respondents
Radiation therapy department	392	84.1
Radiology department	57	12.2
Imaging center	13	2.8
Mobile CT service	3	0.6
Other	8	1.7
Total	473	-

Where is the CT simulator located?



	Frequency	Percent of Respondents
Radiation therapist	402	85.4
CT technologist	87	18.5
Radiographer	10	2.1
Physicist	0	0
Radiation oncologist	0	0
Other	19	4.0
Total	518	-

12. Who typically operates the CT device to produce treatment simulations?

Who typically operates the CT device to produce treatment simulations?



13. How was the person(s) specified in question 12 trained to perform treatment simulations? (Coded from open-ended responses.)

	Frequency	Percent of Respondents
On-the-job training	169	46.9
Vendor training	122	33.9
Radiation therapy education program	87	24.2
Operator qualified as a Radiation therapist and CT technologist	13	3.6
Other	44	12.2
Total	435	-

How was the person(s) specified in question 12 trained to perform treatment simulations? (Coded from open-ended responses.)



14. Is the CT device ever used for performing diagnostic CT exams on nontherapy patients during overflow periods in diagnostic CT?

	Frequency	Valid Percent
Yes	145	30.8
No	326	69.2
Total	471	100.0

Is the CT device ever used for performing diagnostic CT exams on nontherapy patients during overflow periods in diagnostic CT?



15. If you answered "yes" to the question above, who performs those studies?

	Frequency	Valid Percent
CT technologist	130	87.8
Radiation therapist	6	4.1
Radiographer	3	2.0
Other	9	6.1
Total	148	100.0

If you answered "yes" to the question above, who performs those studies?



AMA/Specialty Society RVS Update Committee Summary of Recommendations

October 2012

Transitional Care Management Services

In response to the July 2011 Notice of Proposed Rulemaking, the CPT Editorial Panel and the AMA/Specialty Society RVS Update Committee created the Chronic Care Coordination Workgroup (C3W) to specifically address the Centers for Medicare and Medicaid Services request to ensure that care coordination services were described and valued within the Evaluation and Management services. The C3W requested that CPT consider creation of codes to describe transitional care management and monthly complex chronic care coordination services. After many stakeholder meetings and as a result of discussions with CMS, in May 2012, the CPT Editorial Panel created two new codes to describe transitional care provided to patients from an inpatient setting to a home setting over a 30 day period. CPT codes 99495 *Transitional Care Management Services with the following required elements: Communication (direct contact, telephone, electronic) with the patient and/or caregiver within 2 business days of discharge, medical decision making of at least moderate complexity during the service period, face-to-face visit, within 14 calendar days of discharge and 99496 <i>Transitional Care Management Services with the following required elements: Communication (direct contact, telephone, electronic) with the patient and/or caregiver within 2 business days of discharge and 99496 Transitional Care Management Services with the following required elements: Communication (direct contact, telephone, electronic) with the patient and/or caregiver within 2 business days of discharge, medical decision making of at least moderate complexity during the service period, face-to-face visit, within 7 calendar days of discharge, medical decision making of high complexity during the service period, face-to-face visit, within 7 calendar days of discharge are unique Evaluation and Management services that include both face-to-face and significant non-face-to-face care delivered by the physician and the clinical staff over a 30 day period.*

Transitional Care Management (TCM) is services delivered to patients who are transitioning from a facility to a non-facility care setting. The typical case is that of a patient transitioning from a hospital to home. Following a hospital discharge, TCM is a set of bundled face-to-face and non-face-to-face services performed by the physician or qualified health provider and clinical staff for the 30 days following discharge. The intent of TCM is to prevent re-hospitalization or emergency department visits. TCM is targeted to moderately or highly complex patients, with multiple co-morbidities, who take multiple medications and who are at high risk of deterioration. The service requires early and frequent communication with the patient, family, other providers and agencies over the month following hospital discharge to ensure that the discharge summary and appropriate clinical information is obtained quickly and reviewed, that the patient's medication and therapeutic regimen is reconciled and optimized and that all necessary clinical and community services are coordinated and delivered. In addition to these non face-to-face services, each code includes a timely face-to-face visit which typically occurs in the office, but can also occur at home or other location where the patient resides.

The non face-to-face services of TCM include communication with the patient and caregivers, communication with home health agencies, education to support self-management and activities of daily living, assessment of medication adherence and management, identification of community resources, facilitating access to care and services needed, obtaining and reviewing discharge information as available, reviewing need

for or follow up on pending diagnostic tests, interaction with other qualified health care professionals, and the establishment of referrals and arranging for community resources.

TCM codes 99495 and 99496 have an XXX global period. All physician and staff time appear in the intra-service time because any services provided during the 30 day service period are, by definition, intra-service time. The CPT introductory language specifically describes the physician and clinical staff activities included in these services. The two significant differences between codes 99495 and 99496 are that 99496 requires **highly complex medical decision making** and a face-to-face visit must occur within **7 days** of discharge; whereas, CPT code 99495 requires **either moderate or highly complex medical decision making** and a face-to-face visit within **14 days** of discharge.

99495 Transitional Care Management Services with the following required elements:

- Communication (direct contact, telephone, electronic) with the patient and/or caregiver within 2 business days of discharge
- Medical decision making of at least moderate complexity during the service period
- Face-to-face visit, within 14 calendar days of discharge

The RUC reviewed the survey results from 110 multi-specialty physicians and other qualified health care professionals for CPT code 99495. The RUC agreed with the survey respondents that the Evaluation and Management service that is most similar to the face-to-face portion of the TCM service to use as a proxy to understand the complexity of the patient is 99214. The RUC agreed that the survey median work RVU of 2.11 and 40 minutes of intra-service time appropriately account for the work required to perform the 30 days of transitional care services of CPT code 99495. The RUC compared 99495 to the key reference service, which was also 99214 *Office or other outpatient visit for the evaluation and management of an established patient* (work RVU = 1.50, 25 minutes intra-time, and 40 minutes total time). The RUC agreed with the specialty societies that the time related to the face-to-face portion of this service may be different from that of a typical 99214. The RUC determined that the complexity of caring for the typical patient is somewhere between an established patient and a new patient, due to the recent hospital stay of the patient. The RUC reviewed the correlation of physician time in relation to the clinical staff time and agreed with the specialty societies that the 75th percentile intra-time for clinical staff time (not including clinical staff time for the face-to-face visit) is 45 minutes. The clinical staff are required to clearly document what services they provide in order for this service to be reported. The RUC agreed that the physician non face-to-face time (estimated at 15 minutes) is largely spent addressing questions and supervising the clinical staff and there is not an overlap of transitional care services performed by the physician and the clinical staff.

The RUC determined that 99204 *Office or other outpatient visit for the evaluation and management of a new patient* (work RVU = 2.43) is an appropriate key reference service because it is for a new patient and similarly for 99495, the patient's post discharge condition is unknown to the physician and is comparable to a new patient but is less intense. The RUC also compared 99495 to 74174 *Computed tomographic angiography, abdomen and pelvis, with contrast material(s), including noncontrast images, if performed, and image postprocessing* (work RVU = 2.20, 30 minutes intra-service and 40 minutes total time) and determined that 99495 requires similar total time but is more intense to perform than 74174.

To support the median work RVU of 2.11 and intra-service time of 40 minutes the RUC compared 99495 to the services listed below, which require similar work, time and intensity. The relativity between code 99495 and these services is appropriate. The RUC recommends a work RVU of 2.11 and 40 minutes of intra-service time for CPT code 99495.

СРТ	Descriptor	Pre-	Intra-	Post-	Work
Code		time	time	time	RVU
99204	Office or other outpatient visit for the evaluation and management of a new patient	5	30	10	2.43
70554	Magnetic resonance imaging, brain, functional MRI; including test selection and administration of repetitive body part	15	35	10	2.11
	movement and/or visual stimulation, not requiring physician or psychologist administration				
74174	Computed tomographic angiography, abdomen and pelvis, with contrast material(s), including noncontrast images, if	5	30	5	2.20
	performed, and image postprocessing				
79403	Radiopharmaceutical therapy, radiolabeled monoclonal antibody by intravenous infusion	30	30	15	2.25
88189	Flow cytometry, interpretation; 16 or more markers	5	40	5	2.23
99495	TCM, face-to-face visit within 14 calendar days of discharge		40		2.11

99496 Transitional Care Management Services with the following required elements:

- Communication (direct contact, telephone, electronic) with the patient and/or caregiver within 2 business days of discharge
- Medical decision making of high complexity during the service period
- Face-to-face visit, within 7 calendar days of discharge

The RUC reviewed the survey results from 110 multi-specialty physicians and other qualified health care professionals for CPT code 99496. The RUC agreed with the survey respondents that the Evaluation and Management service that is most similar to the face-to-face portion of the TCM service to use as a proxy to understand the complexity of the patient is 99215 *Office or other outpatient visit for the evaluation and management of an established patient* (work RVU = 2.11, 35 minutes intra-time and 55 minutes total time). The RUC agreed with the specialty societies that the time related to the face-to-face portion of this service may be different from that of a typical 99215. The RUC determined that the complexity of caring for the typical patient is somewhere between an established patient and a new patient, due to the recent hospital stay of the patient. The RUC reviewed the correlation of physician time in relation to the clinical staff time and agreed with the specialty societies that the 75th percentile intra-time for clinical staff time (not including clinical staff time for the face-to-face visit) is 60 minutes. The clinical staff time are required to clearly document what services they provide in order for this service to be reported. The RUC agreed that the physician non face-to-face time (estimated at 20 minutes) is largely spent addressing questions and supervising the clinical staff and there is not an overlap of transitional care services performed by the physician and the clinical staff.

The RUC agreed that the survey median work RVU of 3.05 and 60 minutes of intra-service time appropriately account for the work required to perform the 30 days of transitional care services of 99496. The RUC compared 99496 to the key reference service 90962 *End-stage renal disease (ESRD) related services monthly, for patients 20 years of age and older; with 1 face-to-face physician visit per month* (work RVU = 3.15 and 63 minutes intra-time) and noted that both services span a one month period and require similar physician time, 60 and 63 minutes respectively, all accounted for in the intra-service period.

The RUC also compared CPT code 99496 to 99205 *Office or other outpatient visit for the evaluation and management of a new patient* (work RVU = 3.17) which is reported for similar patients, whom require highly complex medical decision making. The RUC determined that 99205 is an appropriate key reference because it is for a new patient and similarly for 99496 the patient's post discharge condition is unknown to the physician and is comparable to a new patient but is less intense. For additional support, the RUC referenced CPT codes 77427 *Radiation treatment management, 5 treatments* (work RVU = 3.37) and 95978 *Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, battery status, electrode selectability and polarity, impedance and patient compliance measurements), complex deep brain neurostimulator pulse generator/transmitter, with initial or subsequent programming; first hour (work RVU = 3.50), which require similar work, time and intensity. The relativity between code 99496 and these services is appropriate. The RUC recommends a work RVU of 3.05 and 60 minutes of intra-service time for CPT code 99496.*

СРТ	Descriptor	Pre-	Intra-	Post-	Work
Code		time	time	time	RVU
90962	End-stage renal disease (ESRD) related services monthly, for patients 20 years of age and older; with 1 face-to-face		63		3.15
	physician visit per month				
99205	Office or other outpatient visit for the evaluation and management of a new patient	7	45	15	3.17
77427	Radiation treatment management, 5 treatments	7	70	10	3.37
95978	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration,	5	60	5	3.50
	battery status, electrode selectability and polarity, impedance and patient compliance measurements), complex deep				
	brain neurostimulator pulse generator/transmitter, with initial or subsequent programming; first hour				
99496	TCM, face-to-face visit within 7 calendar days of discharge		60		3.05

Practice Expense:

The RUC reviewed the direct practice expense inputs and accepted the changes as modified by the Practice Expense Subcommittee. Specifically, any duplication between the clinical staff pre and post service time of the Evaluation/Management Service and the care coordination time was removed from the recommendations. The RUC also understands that electronic medical record systems are considered to be indirect costs and, therefore, these costs are not included in the direct cost recommendations.

2013 Utilization Estimates:

The specialty societies estimated the utilization for TCM to be approximately 2 million in the Medicare population, reflecting approximately 20% of all facility discharges. The specialties estimate that CPT code 99495 will be reported for Medicare patients 1,300,032 in 2013 and CPT code 99496 will be 866,688 times in 2013. Please see the attached word document and spreadsheet for detailed methodology on how the specialty societies arrived at these assumptions. Also, the RUC recommends that CMS consider for budget neutrality purposes that this reporting will be offset by decreases in the stand alone office visits that are bundled within the codes, as well as hospitalizations and emergency room visits that will be avoided. The detailed assumptions regarding these offsets are also attached in the spreadsheet provided.

New Technology/New Services List

The RUC noted that CPT codes 99495 and 99496 are new services and should be placed on the New Technology/New services list.

Transitional Care Management Services

Codes 99495 and 99496 are used to report transitional care management services (TCM). These services are for an established patient whose medical and/or psychosocial problems require moderate or high complexity medical decision making during transitions in care from an inpatient hospital setting (including acute hospital, rehabilitation hospital, long-term acute care hospital), partial hospital, observation status in a hospital, or skilled nursing facility/nursing facility, to the patient's community setting (home, domiciliary, rest home, or assisted living). TCM commences upon the date of discharge and continues for the next 29 days. TCM is comprised of one face-to-face visit within the specified timeframes, in combination with non- face-to-face services that may be performed by the physician or other qualified health care professional and/or licensed clinical staff under his/her direction.

Non-face-to-face services provided by clinical staff, under the direction of the physician or other qualified health care professional, may include:

- communication (with patient, family members, guardian or caretaker, surrogate decision makers, and/or other professionals) regarding aspects of care;
- communication with home health agencies and other community services utilized by the patient;
- patient and/or family/caretaker education to support self-management, independent living, and activities of daily living;
- assessment and support for treatment regimen adherence and medication management;
- identification of available community and health resources;
- <u>facilitating access to care and services needed by the patient and/or family.</u>

Non-face-to-face services provided by the physician or other qualified health care provider may include:

- obtaining and reviewing the discharge information (eg, discharge summary, as available, or continuity of care documents);
- reviewing need for or follow-up on pending diagnostic tests and treatments;
- interaction with other qualified health care professionals who will assume or reassume care of the patient's system specific problems;
- education of patient, family, guardian, and/or caregiver;
- establishment or reestablishment of referrals and arranging for needed community resources;
- assistance in scheduling any required follow-up with community providers and services.

TCM requires a face-to-face visit, initial patient contact and medication reconciliation within specified timeframes. The first face-to-face visit is part of the TCM service and not reported separately. Additional E/M services after the first face-to-face visit may be reported separately.

TCM requires an interactive contact with the patient or caregiver, as appropriate, within two business days of discharge. The contact may be direct (face-to-face), telephonic or by electronic means. Medication reconciliation and management must occur no later than the date of the face-to-face visit.

These services address any needed coordination of care performed by multiple disciplines and community service agencies. The reporting individual provides or oversees the management and/or coordination of services, as needed, for all medical conditions, psychosocial needs and activities of daily living support by providing first contact and continuous access.

Medical decision making and the date of the first face-to-face visit are used to select and report the appropriate TCM code. For 99496, the face-to-face visit must occur within 7 calendar days of the date discharge and medical decision making must be of high complexity. For 99495, the face-to-face visit must occur within 14 calendar days of the date of discharge and medical decision making must be of at least moderate complexity.

Selection of Code

Type of Medical Decision Making	<u>Face-to-face visit within 7 days</u>	<u>Face-to-face visit within 8 to 14</u> <u>days</u>
Moderate Complexity	<u>99495</u>	<u>99495</u>
High Complexity	<u>99496</u>	<u>99495</u>

Medical decision making is defined by the E/M Services Guidelines. The medical decision making over the service period reported is used to define the medical decision making of TCM. Documentation includes the timing of the initial post discharge communication with the patient or caregivers, date of the face-to-face visit, and the complexity of medical decision making.

Only one individual may report these services and only once per patient within 30 days of discharge. Another TCM may not be reported by the same individual or group for any subsequent discharge(s) within the 30 days. The same individual may report hospital or observation discharge services and TCM. The same individual should not report TCM services provided in the post-operative period.

A physician or other qualified health care professional who reports codes 99495, 99496 may not report care plan oversight services (99339, 99340, 99374-99380), prolonged services without direct patient contact (99358, 99359), anticoagulant management (99363, 99364), medical team conferences (99366-99368), education and training (98960-98962, 99071, 99078), telephone services (98966-98968, 99441-99443), end stage renal disease services (90951-90970), online medical evaluation services (98969, 99444), preparation of special reports (99080), analysis of data (99090, 99091), complex chronic care coordination services (99487-99489) or medication therapy management services (99605-99607) during the time period covered by the transitional care management services codes.

CPT Code (•New)	Tracking Number	CPT Descriptor	Global Period	Work RVU Recommend-
			VVV	ation 2.11
•99495	G1	Transitional Care Management Services with the following required elements:	ΛΛΛ	2.11
		• Communication (direct contact, telephone, electronic) with the patient and/or caregiver within 2 business days of discharge		
		 Medical decision making of at least moderate complexity during the service period Face-to-face visit, within 14 calendar days of discharge 		
•99496	G2	Transitional Care Management Services with the following required elements:	XXX	3.05
		• Communication (direct contact, telephone, electronic) with the patient and/or caregiver within 2 business days of discharge		
		 Medical decision making of high complexity during the service period 		
		• Face-to-face visit, within 7 calendar days of discharge		
		(Do not report 90951-90970, 98960-98962, 98966-98969, 99071, 99078, 99080, 99090, 99091, 99339, 99340, 99358, 99359, 99363, 99364, 99366-99368, 99374-99380, 99441-99444, 99487-99489, 99605-99607 when performed during the service time of codes 99495 or 99496)		

Non-Face-to-Face Nonphysician Services

Telephone Services

Telephone services are non-face-to-face assessment and management services provided by a qualified health care professional to a patient using the telephone. These codes are used to report episodes of care by the qualified health care professional initiated by an established patient or guardian of an established patient. If the telephone service ends with a decision to see the patient within 24 hours or the next available urgent visit appointment, the code is not reported; rather the encounter is considered part of the preservice work of the subsequent assessment and management service, procedure and visit. Likewise, if the telephone call refers to a service performed and reported by the qualified health care professional within the previous seven days (either qualified health care professional requested or unsolicited patient follow-up) or within the postoperative period of the previously completed procedure, then the service(s) are considered part of that previous service or procedure. (Do not report 98966- 98969 if reporting 98966- 98969 performed in the previous seven days.)

(For telephone services provided by a physician, see 99441-99443)

98966 Telephone assessment and management service provided by a qualified nonphysician health care professional to an established patient, parent, or guardian not originating from a related assessment and management service provided within the previous 7 days nor leading to an assessment and management service or procedure within the next 24 hours or soonest available appointment; 5-10 minutes of medical discussion

98967 11-20 minutes of medical discussion

98968 21-30 minutes of medical discussion

(Do not report 98966-98968 during the same month with 99487-99489)

(Do not report 98966-98968 when performed during the service time of codes 99495, 99496)

On-line Medical Evaluation

An on-line electronic medical evaluation is a non-face-to-face assessment and management service by a qualified health care professional to a patient using Internet resources in response to a patient's on-line inquiry. Reportable services involve the qualified health care professional's personal timely response to the patient's inquiry and must involve permanent storage (electronic or hard copy) of the encounter. This service is reported only once for the same episode of care during a seven-day period, although multiple qualified healthcare professionals could report their exchange with the same patient. If the on-line medical evaluation refers to an assessment and management service previously performed and reported by the qualified health care professional within the previous seven days (either qualified health care professional requested or unsolicited patient follow-up) or within the postoperative period of the previously completed procedure, then the service(s) are considered covered by the previous assessment and management office service or procedure. A reportable service encompasses the sum of communication (eg, related telephone calls, prescription provision, laboratory orders) pertaining to the on-line patient encounter.

(For an on-line medical evaluation provided by a physician, use 99444)

98969 Online assessment and management service provided by a qualified nonphysician health care professional to an established patient, guardian, or health care provider not originating from a related assessment and management service provided within the previous 7 days, using the Internet or similar electronic communications network

(Do not report 98969 when using 99339-99340, 99374- 99380 for the same communication[s])

(Do not report 98969 for anticoagulation management when reporting 99363, 99364)

(Do not report 98969 during the same month with 99487-99489)

(Do not report 98969 when performed during the service time of codes 99495, 99496)

Domiciliary, Rest Home (eg, Assisted Living Facility), or Home Care Plan Oversight Services

99339 Individual physician supervision of a patient (patient not present) in home, domiciliary or rest home (eg, assisted living facility) requiring complex and multidisciplinary care modalities involving regular physician development and/or revision of care plans, review of subsequent reports of patient status, review of related laboratory and other studies, communication (including telephone calls) for purposes of assessment or care decisions with health care professional(s), family member(s), surrogate decision maker(s) (eg, legal guardian) and/or key caregiver(s) involved in patient's care, integration of new information into the medical treatment plan and/or adjustment of medical therapy, within a calendar month; 15-29 minutes

99340 30 minutes or more

(Do not report 99339, 99340 for patients under the care of a home health agency, enrolled in a hospice program, or for nursing facility residents) (Do not report 99339-99340 during the same month with 99487-99489)

(Do not report 99339-99340 when performed during the service time of codes 99495 or 99496)

Prolonged Service Without Direct Patient Contact

Codes 99358 and 99359 are used when a prolonged service is provided that is neither face-to face time in the office or outpatient setting, nor additional unit/floor time in the hospital or nursing facility setting during the same session of an evaluation and management service and is beyond the usual physician or other qualified health care professional service time.

This service is to be reported in relation to other physician or other qualified health care professional services, including evaluation and management services at any level. This prolonged service may be reported on a different date than the primary service to which it is related. For example, extensive record review may relate to a previous evaluation and management service performed earlier and commences upon receipt of past records. However, it must relate to a service or patient where (face-to-face) patient care has occurred or will occur and relate to ongoing patient management. A typical time for the primary service need not be established within the CPT code set.

Codes 99358 and 99359 are used to report the total duration of non-face-to-face time spent by a physician or other qualified health care professional on a given date providing prolonged service, even if the time spent by the physician or other qualified health care professional on that date is not continuous. Code 99358 is used to report the first hour of prolonged service on a given date regardless of the place of service. It should be used only once per date.

Prolonged service of less than 30 minutes total duration on a given date is not separately reported.

Code 99359 is used to report each additional 30 minutes beyond the first hour regardless of the place of service. It may also be used to report the final 15 to 30 minutes of prolonged service on a given date.

Prolonged service of less than 15 minutes beyond the first hour or less than 15 minutes beyond the final 30 minutes is not reported separately.

Do not report 99358, 99359 for time spent in care plan oversight services (99339, 99340, 99374-99380), anticoagulant management (99363, 99364), medical team conferences (99366-99368), on-line medical evaluations (99444), or other non-face-to-face services that have more specific codes and no upper time limit in the CPT code set. Codes 99358, 99359 may be reported when related to other non-face-to-face services codes that have a published maximum time (eg, telephone services)

99358 Prolonged evaluation and management service before and/or after direct patient care; first hour

99359 each additional 30 minutes (List separately in addition to code for prolonged service)

(Use 99359 in conjunction with 99358)

(Do not report 99358-99359 during the same month with 99487-99489)

(Do not report 99358-99359 when performed during the service time of codes 99495 or 99496)

Anticoagulant Management

Anticoagulant services are intended to describe the outpatient management of warfarin therapy, including ordering, review, and interpretation of International Normalized Ratio (INR) testing, communication with patient, and dosage adjustments as appropriate.

When reporting these services, the work of anticoagulant management may not be used as a basis for reporting an evaluation and management (E/M) service or care plan oversight time during the reporting period. Do not report these services with 98966- 98969, 99441- 99444 when telephone or on-line services address anticoagulation with warfarin management. If a significant, separately identifiable E/M service is performed, report the appropriate E/M service code using modifier 25.

These services are outpatient services only. When anticoagulation therapy is initiated or continued in the inpatient or observation setting, a new period begins after discharge and is reported with 99364. Do not report 99363- 99364 with 99217- 99239, 99291- 99292, 99304- 99318, 99471- 99480 or other code(s) for physician review, interpretation, and patient management of home INR testing for a patient with mechanical heart valve(s).

Any period less than 60 continuous outpatient days is not reported. If less than the specified minimum number of services per period are performed, do not report the anticoagulant management services (99363-99364).

99363 Anticoagulant management for an outpatient taking warfarin, physician review and interpretation of International Normalized Ratio (INR) testing, patient instructions, dosage adjustment (as needed), and ordering of additional tests; initial 90 days of therapy (must include a minimum of 8 INR measurements)

99364 each subsequent 90 days of therapy (must include a minimum of 3 INR measurements)

(Do not report 99363-99364 during the same month with 99487-99489)

(Do not report 99363-99364 when performed during the service time of codes 99495 or 99496)

Medical Team Conference, Direct (Face-to-Face) Contact With Patient and/or Family

Medical team conferences include face-to-face participation by a minimum of three qualified health care professionals from different specialties or disciplines (each of whom provide direct care to the patient), with or without the presence of the patient, family member(s), community agencies, surrogate decision maker(s) (eg, legal guardian), and/or caregiver(s). The participants are actively involved in the development, revision, coordination, and implementation of health care services needed by the patient. Reporting participants shall have performed face-to-face evaluations or treatments of the patient, independent of any team conference, within the previous 60 days.

Physicians or other qualified health care professionals who may report evaluation and management services should report their time spent in a team conference with the patient and/or family present using evaluation and management (E/M) codes (and time as the key controlling factor for code selection when counseling and/or coordination of care dominates the service). These introductory guidelines do not apply to services reported using E/M codes (see E/M services guidelines). However, the individual must be directly involved with the patient, providing face-to-face services outside of the conference visit with other physicians, qualified health care professionals or agencies.

Reporting participants shall document their participation in the team conference as well as their contributed information and subsequent treatment recommendations.

No more than one individual from the same specialty may report 99366- 99368 at the same encounter.

Individuals should not report 99366- 99368 when their participation in the medical team conference is part of a facility or organizational service contractually provided by the organizational or facility provider.

The team conference starts at the beginning of the review of an individual patient and ends at the conclusion of the review. Time related to record keeping and report generation is not reported. The reporting participant shall be present for all time reported. The time reported is not limited to the time that the participant is communicating to the other team members or patient and/or family. Time reported for medical team conferences may not be used in the determination of time for other services such as care plan oversight (99374-99380), home, domiciliary, or rest home care plan oversight (99339-99340), prolonged services (99354-99359), psychotherapy, or any E/M service. For team conferences where the patient is present for any part of the duration of the conference, nonphysician qualified health care professionals (eg, speech-language pathologists, physical therapists, occupational therapists, social workers, dietitians) report the team conference face-to-face code 99366.

99366 **Medical team conference** with interdisciplinary team of health care professionals, face-to-face with patient and/or family, 30 minutes or more, participation by nonphysician qualified health care professional

(Team conference services of less than 30 minutes duration are not reported separately)

(For team conference services by a physician with patient and/or family present, see Evaluation and Management services)

(Do not report 99366 during the same month with 99487-99489)

(Do not report 99366 when performed during the service time of codes 99495 or 99496)

Medical Team Conference, Without Direct (Face-to-Face) Contact With Patient and/or Family

CPT five-digit codes, two-digit modifiers, and descriptions only are copyright by the American Medical Association.

99367 **Medical team conference** with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more; participation by physician

99368 participation by nonphysician qualified health care professional

(Team conference services of less than 30 minutes duration are not reported separately)

(Do not report 99367-99368 during the same month with 99487-99489)

(Do not report 99367-99368 when performed during the service time of codes 99495 or 99496)

Care Plan Oversight Services

Care plan oversight services are reported separately from codes for office/outpatient, hospital, home, nursing facility or domiciliary, or non-face-to-face services. The complexity and approximate time of the care plan oversight services provided within a 30-day period determine code selection. Only one individual may report services for a given period of time, to reflect the dole or predominant supervisory role with a particular patient. These codes should not be reported for supervision of patients in nursing facilities or under the care of home health agencies unless they require recurrent supervision of therapy.

The work involved in providing very low intensity or infrequent supervision services is included in the pre-and post-encounter work for home, office/outpatient and nursing facility or domiciliary visit codes.

(For care plan oversight services of patients in the home, domiciliary, or rest home [eg, assisted living facility], see 99339, 99340, and for hospice agency, see 99377, 99378) (Do not report 99374-99380 for time reported with 98966-98969, 99441-99444) (Do not report 99374-99378 during the same month with 99487-99489)

(Do not report 99374-99380 when performed during the service time of codes 99495 or 99496)

Supervision of a patient under care of home health agency (patient not present) in home, domiciliary or equivalent environment (eg, Alzheimer's facility) requiring complex and multidisciplinary care modalities involving regular development and/or revision of care plans by that individual, review of subsequent reports of patient status, review of related laboratory and other studies, communication (including telephone calls) for purposes of assessment or care decisions with health care professional(s), family member(s), surrogate decision maker(s) (eg, legal guardian) and/or key caregiver(s) involved in patient's care, integration of new information into the medical treatment plan and/or adjustment of medical therapy, within a calendar month; 15-29 minutes

99375 30 minutes or more

Supervision of a hospice patient (patient not present) requiring complex and multidisciplinary care modalities involving regular physician development and/or revision of care plans by that individual, review of subsequent reports of patient status, review of related laboratory and other studies, communication (including telephone calls) for purposes of assessment or care decisions with health care professional(s), family member(s), surrogate decision maker(s) (eg, legal guardian) and/or key caregiver(s) involved in patient's care, integration of new information into the medical treatment plan and/or adjustment of medical therapy, within a calendar month; 15-29 minutes

99378 30 minutes or more

Supervision of a nursing facility patient (patient not present) requiring complex and multidisciplinary care modalities involving regular physician development and/or revision of care plans by that individual, review of subsequent reports of patient status, review of related laboratory and other studies, communication (including telephone calls) for purposes of assessment or care decisions with health care professional(s), family member(s), surrogate decision maker(s) (eg, legal guardian) and/or key caregiver(s) involved in patient's care, integration of new information into the medical treatment plan and/or adjustment of medical therapy, within a calendar month; 15-29 minutes

99380 30 minutes or more

Non-Face-to-Face Physician Services Telephone Services

Telephone services are non-face-to-face evaluation and management (E/M) services provided by a physician to a patient using the telephone by a physician or other qualified health care professional, who may report evaluation and management services. These codes are used to report episodes of care by the physician initiated by an established patient or guardian of an established patient. If the telephone service ends with a decision to see the patient within 24 hours or next available urgent visit appointment, the code is not reported; rather the encounter is considered part of the preservice work of the subsequent E/M service, procedure, and visit.

Likewise if the telephone call refers to an E/M service performed and reported by that individual within the previous seven days (either requested or unsolicited patient follow-up) or within the postoperative period of the previously completed procedure, then the service(s) are considered part of that previous E/M service or procedure. (Do not report 99441- 99443 if reporting 99441- 99444 performed in the previous seven days.)

(For telephone services provided by a qualified nonphysician health care professional who may not report evaluation and management services [eg speechlanguage pathologists, physical therapists, occupational therapists, social workers, dietitians], see 98966-98968)

99441 Telephone evaluation and management service by a physician or other qualified health care professional who may report evaluation and management services provided to an established patient, parent, or guardian not originating from a related E/M service provided within the previous 7 days nor leading to an E/M service or procedure within the next 24 hours or soonest available appointment; 5-10 minutes of medical discussion

99442 11-20 minutes of medical discussion

CPT five-digit codes, two-digit modifiers, and descriptions only are copyright by the American Medical Association.

99443 21-30 minutes of medical discussion

(Do not report 99441-99443 when using 99339-99340, 99374-99380 for the same call[s])

(Do not report 99441-99443 for anticoagulation management when reporting 99363-99364)

(Do not report 99441-99443 during the same month with 99487-99489)

(Do not report 99441-99443 when performed during the service time of codes 99495 or 99496)

On-Line Medical Evaluation

An on-line electronic medical evaluation is a non-face-to-face evaluation and management (E/M) service by a physician to a patient using Internet resources in response to a patient's on-line inquiry. Reportable services involve the physician's personal timely response to the patient's inquiry and must involve permanent storage (electronic or hard copy) of the encounter. This service is reported only once for the same episode of care during a seven-day period, although multiple physicians could report their exchange with the same patient. If the on-line medical evaluation refers to an E/M service previously performed and reported by the physician within the previous seven days (either physician requested or unsolicited patient follow-up) or within the postoperative period of the previously completed procedure, then the service(s) are considered covered by the previous E/M service or procedure. A reportable service encompasses the sum of communication (eg, related telephone calls, prescription provision, laboratory orders) pertaining to the on-line patient encounter.

(For an on-line medical evaluation provided by a qualified nonphysician health care professional, use 98969)

99444 Online evaluation and management service provided by a physician or other qualified health care professional who may report an evaluation and management services provided to an established patient, guardian, or health care provider not originating from a related E/M service provided within the previous 7 days, using the Internet or similar electronic communications network

(Do not report 99444 when using 99339, 99340, 99374-99380 for the same communication[s])

(Do not report 99444 for anticoagulation management when reporting 99363, 99364)

(Do not report 99444 during the same month with 99487-99489)

(Do not report 99444 when performed during the service time of codes 99495 or 99496)

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:99495 Tracking Number G1

Original Specialty Recommended RVU: 2.54 Presented Recommended RVU: 2.11 RUC Recommended RVU: 2.11

Global Period: XXX

CPT Descriptor:

Transitional Care Management Services with the following required elements:

- Communication (direct contact, telephone, electronic) with the patient and/or caregiver within 2 business days of discharge
- Medical decision making of at least moderate complexity during the service period
- Face-to-face visit, within 14 calendar days of discharge

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey:

Typical Patient (99495) (Child)

A 6 year old who is neurologically impaired and developmentally delayed and has a chronic seizure disorder is discharged from the hospital after an admission for breakthrough seizures.

Typical patient (99495) (Adult)

An 84-year-old woman with hypertension and osteoarthritis is discharged from the hospital after a 1-week stay for congestive heart failure.

Percentage of Survey Respondents who found Vignette to be Typical: 83%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 0%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 0%

Description of Pre-Service Work:

Description of Intra-Service Work:

These services are for an established patient whose medical and/or psychosocial problems require moderate or high complexity medical decision making during transitions in care from an inpatient hospital setting (including acute hospital, rehabilitation hospital, long-term acute care hospital), partial hospital, observation status in a hospital, or skilled nursing facility/nursing facility, to the patient's community setting (home, domiciliary, rest home, or assisted living). TCM commences upon the date of discharge and continues for the next 29 days.

TCM is comprised of one face-to-face visit within the specified timeframes, in combination with non-face-to-face services that may be performed by the physician or other qualified health care professional and/or licensed clinical staff under his/her direction.

CPT Code: 99495

Non-face-to-face services provided by clinical staff, under the direction of the physician or other qualified health care professional, may include:

- communication (with patient, family members, guardian or caretaker, surrogate decision makers, and/or other professionals) regarding aspects of care;
- communication with home health agencies and other community services utilized by the patient;
- patient and/or family/caretaker education to support self-management, independent living, and activities of daily living;
- assessment and support for treatment regimen adherence and medication management;
- identification of available community and health resources;
- facilitating access to care and services needed by the patient and/or family.

Non-face-to-face services provided by the physician or other qualified health care provider may include:

- obtaining and reviewing the discharge information (eg, discharge summary, as available, or continuity of care documents);
- reviewing need for or follow-up on pending diagnostic tests and treatments;
- interaction with other qualified health care professionals who will assume or reassume care of the patient's system specific problems;
- education of patient, family, guardian, and/or caregiver;
- establishment or reestablishment of referrals and arranging for needed community resources;
- assistance in scheduling any required follow-up with community providers and services.

Description of Post-Service Work:

SURVEY DAT	A						
RUC Meeting Da	te (mm/yyyy)	10/2012					
Presenter(s):	Robert Zorowit Carlson, RN, J	z, MD (AGS) D (ANA), and	, Thomas \ I Steven Kı	Veida (AAFI ug, MD (AA	P), Mary Nev P).	wman, MD (A	CP), Eileen
Specialty(s):	American Geria College of Card American Acad Association of (ACR), Americ (AOA), Americ Physicians (AA Physician Assi	atrics Society diologists (AC demy of Neur Clinical Endo an College of an College of AFP), America stants (AAPA	(AGS), Ar CC), Americ ology (AAN crinologists Physician Chest Phy an Nursing) and The	nerican Academ can Academ I), American s (AACE), A s (ACP), An /sicians (AC Association Endocrine S	demy of Peo y of Family n Thoracic So merican Col nerican Oste CP), Americ (ANA), Ame Society (TES	liatrics (AAP) Physicians (A ociety (ATS), lege of Rheur copathic Asso can Academy prican Acader).	, American AFP), American matology ociation of Family ny of
CPT Code:	99495						
Sample Size:	8305 Re	sp N:	110	Respo	onse: 1.3 %		
Description of Sample:	Random			1	-		
			Low	25 th pctl	Median*	75th pctl	<u>High</u>
Service Perform	ance Rate		0.00	0.00	20.00	50.00	1200.00
Survey RVW:			0.75	1.75	2.11	3.19	7.00
Pre-Service Evalu	ation Time:				0.00		
Pre-Service Posit	ioning Time:				0.00		
Pre-Service Scrub	o, Dress, Wait Tin	ne:			0.00		
Intra-Service Tir	ne:		2.00	30.00	40.00	60.00	120.00
Immediate Post	Service-Time:	0.00					
Post Operative	Visits	Total Min**	CPT Code	e and Num	ber of Visit	S	
Critical Care tim	e/visit(s):	0.00	99291x 0	. 00 99292	2x 0.00		
Other Hospital t	ime/visit(s):	0.00	99231x 0	.00 99232	2x 0.00 9	9233x 0.00	
Discharge Day I	Agmt:	<u>0.00</u>	99238x 0	. 00 99239x	0.00	99217x 0.00	
Office time/visit	(s):	<u>0.00</u>	99211x 0	.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00
Prolonged Servi	ces:	<u>0.00</u>	99354x 0	. 00 55x 0	.00 56x 0	.00 57x 0.0	00
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00 9	9226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: XXX Global Code

CPT Code:	99495		Recommended F	Physician W	ork RVU: 2.	11	
			Specialty Recommended I Service Time	Pre- Reco Pre- Reco	pecialty ommended me Package	Adjustments/Recomm Pre-Service Time	iended e
Pre-Service Evaluation Ti	me:		0.00		0.00	0.00	
Pre-Service Positioning T	ime:		0.00		0.00	0.00	
Pre-Service Scrub, Dress,	, Wait Tim	ne:	0.00		0.00	0.00	
Intra-Service Time:			40.00			1	
Immediate Post Service	e-Time:	<u>0.00</u>		·			
Post Operative Visits		Total Min**	CPT Code and I	Number of V	<u>Visits</u>		
Critical Care time/visit(s):	<u>0.00</u>	99291x 0.00 99	9292x 0.00			
Other Hospital time/vis	it(s):	<u>0.00</u>	99231x 0.00 99	9232x 0.00	99233x 0.0	0	

CPT Code: 99495

Most Recent

Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0.0 99217x 0.00
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00 13x 0.00 14x 0.00 15x 0.00
Prolonged Services:	<u>0.00</u>	99354x 0.00 55x 0.00 56x 0.00 57x 0.00
Sub Obs Care:	<u>0.00</u>	99224x 0.00 99225x 0.00 99226x 0.00

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? Yes

KEY REFERENCE SERVICE:

Key CPT Code	<u>Global</u>	Work RVU	Time Source
99214	XXX	1.50	RUC Time

<u>CPT Descriptor</u> Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A detailed history; A detailed examination; Medical decision making of moderate complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 25 minutes face-to-face with the patient and/or family.

KEY MPC COMPARISON CODES:

Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review.

MPC CPT Code 1	<u>Global</u> Wo	ork RVU	Time Source	Medicare Utilization
99214	XXX	1.50	CMS Time File	81,311,416
CPT Descriptor 1 Office of	or other outpatier	nt visit for th	e evaluation and manage	ment of an established patient, which
requires at least 2 of these	3 key componer	nts: A detaile	d history; A detailed exa	mination; Medical decision making of
moderate complexity. Coun	seling and/or coo	rdination of c	are with other providers c	r agencies are provided consistent with
the nature of the problem(s) and the patient's	s and/or famil	ly's needs. Usually, the pr	esenting problem(s) are of moderate to
high severity. Physicians ty	pically spend 25 r	ninutes face-t	o-face with the patient and	d/or family.

				Most Recent
MPC CPT Code 2	<u>Global</u>	Work RVU	Time Source	Medicare Utilization
99204	XXX	2.43	RUC Time	8,599,074

<u>CPT Descriptor 2</u> Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: A comprehensive history; A comprehensive examination; Medical decision making of moderate complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 45 minutes face-to-face with the patient and/or family.

Other Reference CPT Code	<u>Global</u>	Work RVU	Time Source
70554	XXX	2.11	RUC Time

<u>CPT</u> Descriptor Magnetic resonance imaging, brain, functional MRI; including test selection and administration of repetitive body part movement and/or visual stimulation, not requiring physician or psychologist administration

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Source of Time RUC Time

<u>TIME ESTIMATES (Median)</u>	CPT Code: 99495	Key Reference CPT Code: <u>99214</u>
Median Pre-Service Time	0.00	5.00
Median Intra-Service Time	40.00	25.00
Median Immediate Post-service Time	0.00	10.00
Median Critical Care Time	0.0	0.00
Median Other Hospital Visit Time	0.0	0.00
Median Discharge Day Management Time	0.0	0.00
Median Office Visit Time	0.0	0.00
Prolonged Services Time	0.0	0.00
Median Subsequent Observation Care Time	0.0	0.00
Median Total Time	40.00	40.00
Other time if appropriate		

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

Mental Effort and Judgment (Mean)

	3.57	54	3.5	of	number	the	and/or	diagnosis	possible	of	number	The
management options that must be considered							ered	st be consid	ns that mu	ptioı	gement o	mana

The amount and/or complexity of medical records, diagnostic tests,	3.93	3.75
and/or other information that must be reviewed and analyzed		
Urgency of medical decision making	3.54	3.39

Technical Skill/Physical Effort (Mean)

Technical skill required	3.25	3.14
Physical effort required	2.96	2.96
Psychological Stress (Mean)		
The risk of significant complications, morbidity and/or mortality	3.86	3.64
Outcome depends on the skill and judgment of physician	3.90	3.64
Estimated risk of malpractice suit with poor outcome	3.62	3.39
INTENSITY/COMPLEXITY MEASURES	<u>CPT Code</u>	<u>Reference</u> <u>Service 1</u>

Time Segments (Mean)

Pre-Service intensity/complexity

Post-Service intensity/complexity	

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

CPT Code: 99495

Note that for these codes the term "physician" refers to "physician or other qualified health professional."

There were 110 responses to the randomly distributed survey request. The following societies participated in distributing the survey; American Geriatrics Society (AGS), American Academy of Pediatrics (AAP), American College of Cardiologists (ACC), American Academy of Family Physicians (AAFP), American Academy of Neurology (AAN), American Thoracic Society (ATS), American Association of Clinical Endocrinologists (AACE), American College of Rheumatology (ACR), American College of Physicians (ACP), American Osteopathic Association (AOA), American College of Chest Physicians (ACCP), American Association of Nurse Practitioners (AANP), American Nursing Association (ANA) and The Endocrine Society (TES). These societies represent, physicians including MDs and DOs, physician assistants and nurse practitioners. The summary tables included contain total, as well as, breakout survey results. The survey tools were modified adding emphasis and additional questions for clarifying time in terms of clinical staff and physician time, the modified survey tool was approved by the research subcommittee.

Background

A multi-specialty and multi-discipline expert panel ("panel") reviewed the surveys and developed the following rationale for the recommended work values for the Transitional Care Management (TCM) and complex chronic care coordination (CCCC) codes.

The TCM and CCCC codes are conceptually new services and have not previously been surveyed. These are services provided to patients with multiple conditions who require coordination of care that is provided by clinical staff under the supervision of a physician, as well as care provided directly by the physician. The care is predominantly non-face-to-face (NFTF) but, in some cases, also includes face-to-face (FTF) care. The panel also kept in mind that the TCM and CCCC codes do not include physician or clinical staff time or work performed for unrelated activities. For example, NFTF and FTF care provided for an acute respiratory infection or abdominal pain that occurs during the month a TCM or CCCC code is reported are not included in the TCM or CCCC code and are reported separately.

Detailed spreadsheets are provided with the breakout data for those that performed the service as well as those that stated they did not perform the service. Additionally provided are breakouts of values by specialty, by provider type (MD/DO, PA or NP) as well as those survey respondents who completed both the TCM and CCCC surveys to review the rank order of those results. Please refer to those separate spreadsheets provided for details.

Transitional Care Management (TCM) Codes

CPT Code: 99495 The TCM codes describe the physician work and clinical staff time required to provide TCM for patients discharged from a facility to a non-facility setting. The care begins immediately after the patient is discharged. There is no overlap with discharge care reported under 99238, 99239 or other facility discharge codes. The TCM codes require that:

- contact be made with the patient or caregiver within 2 business days of discharge,
- the patient be seen within 7 or 14 days of discharge (99495 and 99496 respectively), and
- Moderate/complex or complex decision making (99495 and 99496 respectively) be involved.

All of the clinical staff time and physician NFTF work related to TCM for 30 days after discharge and the clinical staff time and physician work related to the FTF visit are included in the TCM code. Because all FTF and NFTF time is included in the service, all time is intraservice time, and there is no pre or post service time. Importantly, the total time includes all related clinical staff and physician time for 30 days after discharge.

The expert panel believes that most of the NFTF care is delivered by clinical staff under physician supervision and that the FTF visit involves both care delivered by the physician and the clinical staff under supervision of the physician.

Reference Services

Respondents chose 99214, RVU 1.50 and total time of 40 minutes (5/25/10) as the key reference service for 99495 and as the service that was most similar to the FTF portion of 99495.

For 99496, respondents chose 99350, Complex home visit, with an RVU of 3.28 and total time of 110 minutes (15/75/20) as the key reference service and 99215, with an RVU of 2.11 and total time of 65 minutes (15/35/15), as the most similar FTF visit.

Recommendation and Rationale

We are recommending the survey median work RVUs and physician times for 99495 and 99496. We are also recommending the 75th percentile for clinical staff time for these codes.

After reviewing these data the expert panel felt that the ratio of physician to clinical staff time were not entirely consistent with how the panel believed the services to be performed. The panel felt that a number of respondents may have been performing the clinical staff work themselves. On the other hand, the median survey physician times for the entire TCM service were very close to the times for the service felt to be most similar to the face to face portion of the TCM codes, so it was unclear how much time the respondents allocated to their non-face to face work.

After further review of the survey data, it is clear that the time and work of the face to face portion of these services are different from that of 99214 and 99215. More specifically, the face to face time for the TCM codes is likely different from the typical face to face time for 99214 and 99215. In addition, it also appears that the physician non face to face time is largely spent supervising the clinical staff. After discussion with the prefacilitation committee we believe that 40 and 60 minutes accurately capture the total physician times for these services.

In considering physician time we also took into account the ratio of physician time to clinical staff time. We believe that the respondents underestimated the clinical staff time therefore, we are requesting the 75th percentile for non-face to face clinical staff time. These times of 45 and 60 minutes create appropriate ratios of total physician time to total clinical staff time. These ratios are 92/40 minutes for 99495 and 115/60 for 99496.

Turning to the physician work, we looked at a number of comparator codes and found the following pertinent comparison services which support the survey median RVU (see table below and provided in a separate spreadsheet):

The most pertinent comparison services are codes:

СРТ	Description	wRVU	Total Time
99204	Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: A comprehensive history; A comprehensive examination; Medical decision making of moderate complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 45 minutes face-to- face with the natient and/or family	2.43	45 minutes (5/30/10)
70554	Magnetic resonance imaging, brain, functional MRI; including test selection and administration of repetitive body part movement and/or visual stimulation, not requiring physician or psychologist administration	2.11	60 minutes (15/35/10)
74174	Computed tomographic angiography, abdomen and pelvis, with contrast material(s), including noncontrast images, if performed, and image postprocessing	2.20	40 minutes (5/30/5)
79403	Radiopharmaceutical therapy, radiolabeled monoclonal antibody by intravenous infusion	2.25	75 minutes (30/30/15)
88189	Flow cytometry, interpretation; 16 or more markers	2.23	40 minutes (5/40/5)

99495 TCM, visit moderate decision making, within 14 days

In summary the expert panel recommends a work RVU of 2.11 and 40 minutes, our median survey results.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)



The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.
CPT Code: 99495 Multiple codes allow flexibility to describe exactly what components the procedure included. Multiple codes are used to maintain consistency with similar codes. Historical precedents. Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) The TCM codes are conceptually new services, see spreadsheet attached for detailed utilization including offset projections.

UTILIZATION ASSUMPTIONS

These figures are supported by multiple peer-reviewed articles and by MEDPAC analyses. We are happy to provide additional, more specific details

• TCM is likely to be provided to 20-22% of Medicare discharges - or 2.1 million times; the codes can only be reported for care delivered to a significant minority of Medicare beneficiaries; most Medicare beneficiaries discharged from the hospital will not be eligible for this service

• We anticipate that this level of service could be achieved within a year or two; adoption will increase as some physician practices that currently do not have the capability to perform TCM, develop that capability.

• Based on Medicare claims data showing that 44% of discharges are seen within 14 days of a facility discharge, we estimate that 80% of these services are already being reported under 99214 or 99215; of the 44% of post-discharge patients currently being seen, we believe that many of them are patients who are eligible for TCM; therefore, physicians will merely substitute a TCM service for the 99214 or 99215 they are currently reporting

• In the interest of being conservative, we estimate 20% of TCM services will be new services provided to patients who are not being seen; however, we believe this estimate is on the high side

• Therefore, according to the above estimates, the additional cost of TCM services are as follows

o 80% of the time, the additional cost is limited to the incremental cost of the non-face-to-face service (i.e., payment for TCM - payment for 99214 or 99215 = additional cost to Medicare)

o 20% of the time the entire service is a new cost (i.e., the entire payment for TCM is an additional cost to Medicare)

• 20% of the 2.1 million people who receive TCM services will be readmitted within 30 days - about 420,000 readmissions; this is based on multiple articles publishing data on the number of readmissions within 30 days

• 40-50% of the 2.1 million people who get TCM services will have an ED visit within 30 days - about 850,000; this is a conservative estimate based on published data

• Of the 420,000 readmissions from this population, 20% will be avoided because of TCM - this means that 84,000 hospitalizations will not occur because of TCM; this is based on a number of published articles citing such a reduction as typical when TCM is provided

• Of the 850,000 ED visits, about 50%, or 425,000, will be avoided due to TCM; similar to the above

• Therefore the savings due to TCM under Medicare Part B are - at minimum - the avoided physician services for initial hospital visits, subsequent hospital visits, hospital discharges and ED visits that would be furnished to the 84,000 patients who would have been readmitted and the 425,000 who would have gone to the ED

o For hospitalizations, the mean stay for most medical DRGs is 3-4 days. This means that for each avoided hospitalization, payment for an initial hospital visit (99222 or 99223 for these complex patients), subsequent hospital visits (99232 x2 and 99231x1) and a hospital discharge (99238) will be avoided

o For ED visits, utilization shows that for the vast majority of ED visits, physicians report 99284 and 99285 and we believe that one of those services will be avoided each time and ED visit is avoided

o This savings analysis does not include savings for other avoided Part B services such as consultations, diagnostic study interpretation, etc. furnished in conjunction with an admission or ED visit.

o This savings does not include avoidance of additional office visits that are currently being furnished because TCM is not being provided (e.g., seeing a patients two or three times in the two or three weeks after discharge)

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Internal Medicine	How often? Commonly
Specialty Family Pratice	How often? Commonly
Specialty Geriatrics	How often? Commonly

Estimate the number of times this service might be provided nationally in a one-year period? 0 If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate.

Specialty Geriatrics	Frequency 0	Percentage 0.00 %
Specialty Family Practice	Frequency 0	Percentage 0.00 %
Specialty Internal Medicine	Frequency 0	Percentage 0.00 %

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 1,300,032 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate.

Specialty Geriatrics	Frequency 0	Percentage 0.00 %
Specialty Family Practice	Frequency 0	Percentage 0.00 %
Specialty Internal Medicine	Frequency 0	Percentage 0.00 %

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix <u>will not</u> change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 99214

Additional Information

Clinical Staff

MD, DO, PA, NP

Yes or No	Patient comes in for office visit(s)	Patient is admitted to the hospital	Perfo witho to se	orm work out code report rvices	Tir 1	ne is paid for as a medical director	Other (please specify)		
Yes or	If Survey Par	ticipant Answ	ered 0 (z	ero) for any	/ one	of the three	TCM codes, they were also asked		
NO	additional information for clarification.								
Inose	that answered	(U) Zero to							
	performance i								
	Response	Percentage							
Yes	<mark>38</mark>	<mark>36%</mark>							
No	67	64%							
Total	105	100%							
			A	dditional	nfor	mation Ser	vices		
	Tell us more:	Patient Comes In	P Ad	Patient N Admitted		Patient Admitted		Code To Report	Paid as Med Director
	Response	32		11		31	3		
2.d	. TCM Perfo	f or Pe	rsonally						
Respons	ibility Refe	rence lo.	ponse	oonse Percentage					

40%

60%

100%

44

66

110

1

2

Total

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:99496 Tracking Number G2

Original Specialty Recommended RVU: **3.15** Presented Recommended RVU: **3.05** RUC Recommended RVU: **3.05**

Global Period: XXX

CPT Descriptor:

Transitional Care Management Services with the following required elements:

- Communication (direct contact, telephone, electronic) with the patient and/or caregiver within 2 business days of discharge
- Medical decision making of high complexity during the service period
- Face-to-face visit, within 7 calendar days of discharge

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey:

Typical Patient (99496) (Child)

A 6-month-old child born at 25 weeks gestation with a diagnosis of chronic lung disease on home oxygen, diuretics, bronchodilators and high caloric formula is discharged from the hospital after admission for respiratory failure. Typical patient (99496) (Adult)

A 93-year-old man is discharged after hospitalization for a myocardial infarction, complicated by hyperglycemia and delirium.

Percentage of Survey Respondents who found Vignette to be Typical: 90%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 0%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 0%

Description of Pre-Service Work:

Description of Intra-Service Work:

These services are for an established patient whose medical and/or psychosocial problems require high complexity medical decision making during transitions in care from an inpatient hospital setting (including acute hospital, rehabilitation hospital, long-term acute care hospital), partial hospital, observation status in a hospital, or skilled nursing facility/nursing facility, to the patient's community setting (home, domiciliary, rest home, or assisted living). TCM commences upon the date of discharge and continues for the next 29 days.

TCM is comprised of one face-to-face visit within the specified timeframes, in combination with non-face-to-face services that may be performed by the physician or other qualified health care professional and/or licensed clinical staff under his/her direction.

CPT Code: 99496

Non-face-to-face services provided by clinical staff, under the direction of the physician or other qualified health care professional, may include:

- communication (with patient, family members, guardian or caretaker, surrogate decision makers, and/or other professionals) regarding aspects of care;
- communication with home health agencies and other community services utilized by the patient;
- patient and/or family/caretaker education to support self-management, independent living, and activities of daily living;
- assessment and support for treatment regimen adherence and medication management;
- identification of available community and health resources;
- facilitating access to care and services needed by the patient and/or family.

Non-face-to-face services provided by the physician or other qualified health care provider may include:

- obtaining and reviewing the discharge information (eg, discharge summary, as available, or continuity of care documents);
- reviewing need for or follow-up on pending diagnostic tests and treatments;
- interaction with other qualified health care professionals who will assume or reassume care of the patient's system specific problems;
- education of patient, family, guardian, and/or caregiver;
- establishment or reestablishment of referrals and arranging for needed community resources;
- assistance in scheduling any required follow-up with community providers and services.

Description of Post-Service Work:

SURVEY DAT	A						
RUC Meeting Da	ite (mm/yyyy)	10/2012					
Presenter(s):	Robert Zorowit Carlson, RN, J	z, MD (AGS) D (ANA), and	, Thomas Weida (AAFP), Mary Newman, MD (ACP), Eileen Steven Krug, MD (AAP).				
Specialty(s):	 American Geriatrics Society (AGS), American Academy of Pediatrics (AAP), American College of Cardiologists (ACC), American Academy of Family Physicians (AAFP), American Academy of Neurology (AAN), American Thoracic Society (ATS), American Association of Clinical Endocrinologists (AACE), American College of Rheumatology (ACR), American College of Physicians (ACP), American Osteopathic Association (AOA), American College of Chest Physicians (ACCP), American Academy of Family Physicians (AAFP), American Nursing Association (ANA), American Academy of Physician Assistants (AAPA) and The Endocrine Society (TES). 						
CPT Code: 99496							
Sample Size:	Size: 8305 Resp N:			Respo	onse: 1.3 %		
Description of Sample:	tion of Random						
			Low	25 th pctl	Median*	75th pctl	<u>High</u>
Service Performance Rate			0.00	0.00	10.00	40.00	600.00
Survey RVW:			0.99	2.25	3.05	4.00	8.00
Pre-Service Evaluation Time:					0.00		
Pre-Service Posit	ioning Time:				0.00		
Pre-Service Scrub	o, Dress, Wait Tin	ne:			0.00		
Intra-Service Tir	ne:		3.00	31.00	60.00	74.00	210.00
Immediate Post	Service-Time:	<u>0.00</u>					
Post Operative Visits Total Min**		CPT Code	e and Num	ber of Visit	S		
Critical Care time/visit(s): <u>0.00</u>			99291x 0	.00 99292	2x 0.00		
Other Hospital t	ime/visit(s):	0.00	99231x 0	.00 99232	2x 0.00 9	9233x 0.00	
Discharge Day N	Mgmt:	0.00	99238x 0	. 00 99239x	0.00	99217x 0.00	
Office time/visit	(s):	0.00	99211x 0	.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00
Prolonged Servi	ices:	<u>0.00</u>	99354x 0	.00 55x C	.00 56x 0	.00 57x 0.0	00
Sub Obs Care:		0.00	99224x 0	.00 99225	5x 0.00 9	9226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: XXX Global Code

CPT Code:	99496		Recommended Physician Work RVU: 3.05				
			Specialty Recommended Service Time	Pre-Reco e Pre Ti	pecialty ommended me Package	Adjustments/Recomm Pre-Service Tim	nended e
Pre-Service Evaluation Ti	me:		0.00		0.00	0.00	
Pre-Service Positioning T	ime:		0.00		0.00	0.00	
Pre-Service Scrub, Dress,	, Wait Tim	ne:	0.00		0.00	0.00	
Intra-Service Time:			60.00				
Immediate Post Service	e-Time:	<u>0.00</u>					
Post Operative Visits		Total Min**	CPT Code and	Number of V	<u>/isits</u>		
Critical Care time/visit(s):	<u>0.00</u>	99291x 0.00 9	9292x 0.00			
Other Hospital time/vis	it(s):	<u>0.00</u>	99231x 0.00 9	9232x 0.00	99233x 0.0	D	

CPT Code: 99496

Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0.0 99217x 0.00
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00 13x 0.00 14x 0.00 15x 0.00
Prolonged Services:	<u>0.00</u>	99354x 0.00 55x 0.00 56x 0.00 57x 0.00
Sub Obs Care:	<u>0.00</u>	99224x 0.00 99225x 0.00 99226x 0.00

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? Yes

KEY REFERENCE SERVICE:

Key CPT Code	<u>Global</u>	Work RVU	Time Source
99350	XXX	3.28	RUC Time

<u>CPT Descriptor</u> Home visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A comprehensive interval history; A comprehensive examination; Medical decision making of moderate to high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. The patient may be unstable or may have developed a significant new problem requiring immediate physician attention. Physicians typically spend 60 minutes face-to-face with the patient and/or family.

KEY MPC COMPARISON CODES:

Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review.

MPC CPT Code 1	<u>Global</u> Wo	ork RVU	Time Source	Medicare Utilization
99215	XXX	2.11	RUC Time	9,665,755
CPT Descriptor 1 Office	or other outpatien	t visit for th	ne evaluation and mana	gement of an established patient, which
requires at least 2 of these	e 3 key components	s: A comprel	hensive history; A comp	rehensive examination; Medical decision
making of high complex	tity. Counseling a	nd/or coordi	nation of care with ot	her providers or agencies are provided
consistent with the nature	of the problem(s)	and the patie	ent's and/or family's need	ls. Usually, the presenting problem(s) are
of moderate to high severi	ty. Physicians typic	ally spend 4	0 minutes face-to-face w	vith the patient and/or family.
C				Most Recent

MPC CPT Code 2	<u>Global</u>	Work RVU	Time Source	Medicare Utilization
77427	XXX	3.37	RUC Time	1,198,291

CPT Descriptor 2 Radiation treatment management, 5 treatments

Other Reference CPT Code	<u>Global</u>	Work RVU	Time Source
90962	XXX	3.15	RUC Time

<u>CPT Descriptor</u> End-stage renal disease (ESRD) related services monthly, for patients 20 years of age and older; with 1 face-to-face physician visit per month

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 25 % of respondents: 22.7 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 99496	Key Reference CPT Code: <u>99350</u>
Median Pre-Service Time	0.00	15.00
Median Intra-Service Time	60.00	75.00
Median Immediate Post-service Time	0.00	20.00
Median Critical Care Time	0.0	0.00
Median Other Hospital Visit Time	0.0	0.00
Median Discharge Day Management Time	0.0	0.00
Median Office Visit Time	0.0	0.00
Prolonged Services Time	0.0	0.00
Median Subsequent Observation Care Time	0.0	0.00
Median Total Time	60.00	110.00
Other time if appropriate		

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

Mental Effort and Judgment (Mean)

The number of possible diagnosis and/or the number of	4.76	4.54
management options that must be considered		
The amount and/or complexity of medical records, diagnostic tests,	4.76	4.46
and/or other information that must be reviewed and analyzed		I
· · · · · ·		
Urgency of medical decision making	4 36	4 04
orgeney of medical decision making	7.00	7.0 7

Technical Skill/Physical Effort (Mean)

Technical skill required	4.04	3.96
Physical effort required	3.36	3.38
Psychological Stress (Mean)		
The risk of significant complications, morbidity and/or mortality	4.72	4.35
Outcome depends on the skill and judgment of physician	4.64	4.26
Estimated risk of malpractice suit with poor outcome	4.08	3.96
INTENSITY/COMPLEXITY MEASURES	<u>CPT Code</u>	<u>Reference</u> Service 1

Time Segments (Mean)

Pre-Service intensity/complexity		
Intra-Service intensity/complexity	4.83	4.57

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.

Note that for these codes the term "physician" refers to "physician or other qualified health professional."

There were 110 responses to the randomly distributed survey request. The following societies participated in distributing the survey; American Geriatrics Society (AGS), American Academy of Pediatrics (AAP), American College of Cardiologists (ACC), American Academy of Family Physicians (AAFP), American Academy of Neurology (AAN), American Thoracic Society (ATS), American Association of Clinical Endocrinologists (AACE), American College of Rheumatology (ACR), American College of Physicians (ACP), American Osteopathic Association (AOA), American College of Chest Physicians (ACCP), American Association of Nurse Practitioners (AANP), American Nursing Association (ANA) and The Endocrine Society (TES). These societies represent, physicians including MDs and DOs, physician assistants and nurse practitioners. The summary tables included contain total, as well as, breakout survey results. The survey tools were modified adding emphasis and additional questions for clarifying time in terms of clinical staff and physician time, the modified survey tool was approved by the research subcommittee.

Background

A multi-specialty and multi-discipline expert panel ("panel") reviewed the surveys and developed the following rationale for the recommended work values for the Transitional Care Management (TCM) and complex chronic care coordination (CCCC) codes.

The TCM and CCCC codes are conceptually new services and have not previously been surveyed. These are services provided to patients with multiple conditions who require coordination of care that is provided by clinical staff under the supervision of a physician, as well as care provided directly by the physician. The care is predominantly non-face-to-face (NFTF) but, in some cases, also includes face-to-face (FTF) care. The panel also kept in mind that the TCM and CCCC codes do not include physician or clinical staff time or work performed for unrelated activities. For example, NFTF and FTF care provided for an acute respiratory infection or abdominal pain that occurs during the month a TCM or CCCC code is reported are not included in the TCM or CCCC code and are reported separately.

Detailed spreadsheets are provided with the breakout data for those that performed the service as well as those that stated they did not perform the service. Additionally provided are breakouts of values by specialty, by provider type (MD/DO, PA or NP) as well as those survey respondents who completed both the TCM and CCCC surveys to review the rank order of those results. Please refer to those separate spreadsheets provided for details.

Transitional Care Management (TCM) Codes

The TCM codes describe the physician work and clinical staff time required to provide TCM for patients discharged from a facility to a non-facility setting. The care begins immediately after the patient is

CPT Code: 99496

discharged. There is no overlap with discharge care reported under 99238, 99239 or other facility discharge codes. The TCM codes require that:

- contact be made with the patient or caregiver within 2 business days of discharge,
- the patient be seen within 7 or 14 days of discharge (99495 and 99496 respectively), and
- Moderate/complex or complex decision making (99495 and 99496 respectively) be involved.

All of the clinical staff time and physician NFTF work related to TCM for 30 days after discharge and the clinical staff time and physician work related to the FTF visit are included in the TCM code. Because all FTF and NFTF time is included in the service, all time is intraservice time, and there is no pre or post service time. Importantly, the total time includes all related clinical staff and physician time for 30 days after discharge.

The expert panel believes that most of the NFTF care is delivered by clinical staff under physician supervision and that the FTF visit involves both care delivered by the physician and the clinical staff under supervision of the physician.

Reference Services

Respondents chose 99214, RVU 1.50 and total time of 40 minutes (5/25/10) as the key reference service for 99495 and as the service that was most similar to the FTF portion of 99495.

For 99496, respondents chose 99350, Complex home visit, with an RVU of 3.28 and total time of 110 minutes (15/75/20) as the key reference service and 99215, with an RVU of 2.11 and total time of 65 minutes (15/35/15), as the most similar FTF visit.

Recommendation and Rationale

We are recommending the survey median work RVUs and physician times for 99495 and 99496. We are also recommending the 75th percentile for clinical staff time for these codes.

After reviewing these data the expert panel felt that the ratio of physician to clinical staff time were not entirely consistent with how the panel believed the services to be performed. The panel felt that a number of respondents may have been performing the clinical staff work themselves. On the other hand, the median survey physician times for the entire TCM service were very close to the times for the service felt to be most similar to the face to face portion of the TCM codes, so it was unclear how much time the respondents allocated to their non-face to face work.

After further review of the survey data, it is clear that the time and work of the face to face portion of these services are different from that of 99214 and 99215. More specifically, the face to face time for the TCM codes is likely different from the typical face to face time for 99214 and 99215. In addition, it also appears that the physician non face to face time is largely spent supervising the clinical staff. After discussion with the prefacilitation committee we believe that 40 and 60 minutes accurately capture the total physician times for these services.

In considering physician time we also took into account the ratio of physician time to clinical staff time. We believe that the respondents underestimated the clinical staff time therefore, we are requesting the 75th percentile for non-face to face clinical staff time. These times of 45 and 60 minutes create appropriate ratios of total physician time to total clinical staff time. These ratios are 92/40 minutes for 99495 and 115/60 for 99496.

CPT Code: 99496 Turning to the physician work, we looked at a number of comparator codes and found the following pertinent comparison services which support the survey median RVU (see table below and provided in a separate spreadsheet):

The most pertinent comparison services are codes:

СРТ	Description	wRVU	Total Time
99205	Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: A comprehensive history; A comprehensive examination; Medical decision making of high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 60 minutes face-to-face with the patient and/or family.	3.17	67 minutes (7/45/15)
90962	End-stage renal disease (ESRD) related services monthly, for patients 20 years of age and older; with 1 face-to-face physician visit per month	3.15	63 minutes Total Time
77427	Radiation treatment management, 5 treatments	3.37	87 minutes (7/70/10)
95978	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, battery status, electrode selectability and polarity, impedance and patient compliance measurements), complex deep brain neurostimulator pulse generator/transmitter, with initial or subsequent programming; first hour	3.50	70 minutes (5/60/5)

99496 TCM, visit high decision making, within 7 days

In summary the expert panel recommends a work RVU of 3.05 and 60 minutes, our median survey results.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

Multiple codes are used to maintain consistency with similar codes.

The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.



Multiple codes allow flexibility to describe exactly what components the procedure included.

Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) The TCM codes are conceptually new services, see spreadsheet attached for detailed utilization including offset projections.

UTILIZATION ASSUMPTIONS

These figures are supported by multiple peer-reviewed articles and by MEDPAC analyses. We are happy to provide additional, more specific details

TCM is likely to be provided to 20-22% of Medicare discharges - or 2.1 million times; the codes can only be reported for care delivered to a significant minority of Medicare beneficiaries; most Medicare beneficiaries discharged from the hospital will not be eligible for this service

We anticipate that this level of service could be achieved within a year or two; adoption will increase as some physician practices that currently do not have the capability to perform TCM, develop that capability.

Based on Medicare claims data showing that 44% of discharges are seen within 14 days of a facility discharge, we estimate that 80% of these services are already being reported under 99214 or 99215; of the 44% of post-discharge patients currently being seen, we believe that many of them are patients who are eligible for TCM; therefore, physicians will merely substitute a TCM service for the 99214 or 99215 they are currently reporting

In the interest of being conservative, we estimate 20% of TCM services will be new services provided to patients who are not being seen; however, we believe this estimate is on the high side

Therefore, according to the above estimates, the additional cost of TCM services are as follows

80% of the time, the additional cost is limited to the incremental cost of the non-face-to-face service (i.e., payment 0 for TCM - payment for 99214 or 99215 = additional cost to Medicare)

20% of the time the entire service is a new cost (i.e., the entire payment for TCM is an additional cost to Medicare) 0

20% of the 2.1 million people who receive TCM services will be readmitted within 30 days - about 420,000 readmissions; this is based on multiple articles publishing data on the number of readmissions within 30 days

40-50% of the 2.1 million people who get TCM services will have an ED visit within 30 days - about 850,000; this is a conservative estimate based on published data

Of the 420,000 readmissions from this population, 20% will be avoided because of TCM - this means that 84,000 hospitalizations will not occur because of TCM; this is based on a number of published articles citing such a reduction as typical when TCM is provided

• Of the 850,000 ED visits, about 50%, or 425,000, will be avoided due to TCM; similar to the above

• Therefore the savings due to TCM under Medicare Part B are - at minimum - the avoided physician services for initial hospital visits, subsequent hospital visits, hospital discharges and ED visits that would be furnished to the 84,000 patients who would have been readmitted and the 425,000 who would have gone to the ED

o For hospitalizations, the mean stay for most medical DRGs is 3-4 days. This means that for each avoided hospitalization, payment for an initial hospital visit (99222 or 99223 for these complex patients), subsequent hospital visits (99232 x2 and 99231x1) and a hospital discharge (99238) will be avoided

o For ED visits, utilization shows that for the vast majority of ED visits, physicians report 99284 and 99285 and we believe that one of those services will be avoided each time and ED visit is avoided

o This savings analysis does not include savings for other avoided Part B services such as consultations, diagnostic study interpretation, etc. furnished in conjunction with an admission or ED visit.

o This savings does not include avoidance of additional office visits that are currently being furnished because TCM is not being provided (e.g., seeing a patients two or three times in the two or three weeks after discharge)

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Internal Medicine	How often? Commonly
Specialty Family Pratice	How often? Commonly
Specialty Geriatrics	How often? Commonly

Estimate the number of times this service might be provided nationally in a one-year period? 2700000 If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate.

Specialty Geriatrics	Frequency 0	Percentage 0.00 %
Specialty Family Practice	Frequency 0	Percentage 0.00 %
Specialty Internal Medicine	Frequency 0	Percentage 0.00 %

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 866,688 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate.

Specialty Geriatrics	Frequency 0	Percentage 0.00 %
Specialty Family Practice	Frequency 0	Percentage 0.00 %
Specialty Internal Medicine	Frequency 0	Percentage 0.00 %

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix <u>will not</u> change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 99215

Additional Information

Yes or No	Patient comes in for office visit(s)	Patient is admitted to the hospital	Perform work without code to report services	Time is paid for as a medical director	Other (please specify)									
Yes or No	If Survey Participant Answered 0 (zero) for any one of the three TCM codes, they were also asked additional information for clarification.													
Those	that answered performance ra	(0) Zero to ate												
	Response	Percentage												
Yes	<mark>38</mark>	<mark>36%</mark>												
No	67	64%												
Total	105	100%												
			Additional I	nformation Ser	vices									
	Tell us more:	Patient Comes In	Patient Admitted	No Code To Report	Paid as Med Director									
	Response	32	11	31	3									

2.d. TCM Performed by Staff or Personally											
Responsibility	Reference No.	Response	Percentage								
Clinical Staff	1	44	40%								
MD, DO, PA, NP	2	66	60%								
	Total	110	100%								

ISSUE: Transitional Care Management Services

TAB: 8 Revised 10-5-2012

						RVW			RVW Total PRE INTRA OR OWN TIME - MONTH					ONTH	IMMD	CLIN	ICAL S	STAFF TIME -30 DAYS				
Source	СРТ	SHORT DESC	Resp	IWPUT	MIN	25th	MED	75th	MAX	Time	EVAL	MIN	25th	MED	75th	MAX	POST	MIN	25th	MED	75th	MAX
REF	99214	E/M established pt, 2 of 3 key elements, presenting problem moderate to high severity, Physicians typically spend 25 minutes face-to-face with the patient and/or family.	29	0.047			1.50			40	5			25			10					
REF F2F Visit	99214	E/M established pt, 2 of 3 key elements, presenting problem moderate to high severity, Physicians typically spend 25 minutes face-to-face with the patient and/or family.	39	0.047			1.50			40	5			25			10					
SVY-T	99495	TCM Services w/ moderate medical decision complexity; Face to face visit within 14 days	110	0.053	0.75	1.75	2.11	3.19	7.00	40		2	30	40	60	120		1	20	30	45	120
	99204	Office or other outpatient visit for the E/M of a new patient, Medical decision making of moderate		0.070			2.43			45	5			30			10					
	70554	Magnetic resonance imaging, brain, functional MRI; including test selection and administration of repetitive		0.044			2.11			60	15			35			10					
	74174	Computed tomographic angiography, abdomen and pelvis, with contrast material(s), including noncontrast		0.066			2.20			40	5			30			5					
	79403	Radiopharmaceutical therapy, radiolabeled monoclonal antibody by intravenous infusion		0.041			2.25			75	30			30			15					
	88189	Flow cytometry, interpretation; 16 or more markers		0.050			2.23			50	5			40			5					
REC G1	99495	TCM Services w/ moderate medical decision complexity; Face to face visit within 14 days		0.053			2.11			40				40								

						RVW				RVW				RVW				RVW			Total	PRE	INTE	INTRA OR OWN TIME - MONTH					CLIN	ICAL S	FAFF TIME -30 DAYS		
Source	СРТ	SHORT DESC	Resp	IWPUT	MIN	25th	MED	75th	МАХ	Time	EVAL	MIN	25th	MED	75th	MAX	POST	MIN	25th	MED	75th	MAX											
REF	99350	Home visit for the E/M of an established patient, which requires at least 2 of these 3 key componentsPhysicians typically spend 60 minutes face-to-face with the patient and/or family.	25	0.033			3.28			110	15			75			20																
REF F2F Visit	99215	Office or other outpatient visit for the E/M of an established patient, which requires at least 2 of these 3 key components: A comprehensive history;Physicians typically spend 40 minutes face-to-face with the patient and/or family.	45	0.047			2.11			55	5			35			15																
SVY-T	99496	TCM Services w/ high medical decision complexity; Face to face visit within 7 days	110	0.051	0.99	2.25	3.05	4.00	8.00	60		3	31	60	74	210		2	30	40	60	180											
	99205	E/M New Patient 60 minutes F2F		0.059			3.17			67	7			45			15																
	90962	ESRD monthly, for patients 20 years of age and older; with 1 face-to-face physician visit per month		0.050			3.15			63				63																			
	77427	Radiation treatment management, 5 treatments		0.043			3.37			87	7			70			10																
	95978	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, battery status, electrode selectability and polarity, impedance and patient compliance measurements), complex deep brain neurostimulator pulse generator/transmitter		0.055			3.50			70	5			60			5																
REC G2	99496	TCM Services w/ high medical decision complexity; Face to face visit within 7 days		0.051			3.05			60				60																			

05 TCM Utilization Spreadsheet 10-6-2012

Tab 8 - TCM Utilization Calculation

2011 Medica	re Data RUC	Database							
Discharge Code	% Qualify by CPT criteria	Frequency Total Discharges	% Qualify Pool Frequency	Estimated % Utilization See Assumptions	Projected Total Utilization	2	004 Medicare Charges - Discharges	2010 Medicare Charges - Discharges	
						\$	102,648,000	\$ 116,852,000	
						\$	18,066,048	17.6%	percent is MedPAC estimation
99217	0.44	850,133	374,059	0.476	178,052	\$	20,119,008	19.6%	related to readmissions per Jenks a
99234	0.44	64,388	28,331	0.476	13,485	Brea	akdown Utilizatior	Assumption	
99235	0.44	150,972	66,428	0.476	31,620		19.6%	Readmissions per Je	nks Model
99236	0.44	159,966	70,385	0.476	33,503		5%	Does not know patie	nt is discharged
99238	0.44	4,827,036	2,123,896	0.476	1,010,974		5%	Not able to Contact	n 2 days of dischage
99239	0.44	3,756,450	1,652,838	0.476	786,751		5%	Pt can not be seen ir	time frame as too sick
99315	0.44	277,796	122,230	0.476	58,182		8%	Patient did not meet	complexity to bill code
99316	0.44	258,558	113,766	0.476	54,152		5%	Other Issues related	to meeting elements of the new co
Total		10,345,299	4,551,932		2,166,719		47.6%	Subtotal	
MedPAC Disc	hages			0.176				•	
Jenks Model	Dischages			0.196]				
					-				0.2

2013 Code	Estimate% Utilization split* between the codes	Distribution Between Codes	Assumption for yearly is 1/3 of all the procedures are Medicare	Yearly National	Total Medicare Currently Reported as an Office Visit 80%	Total Medicare Distribution Between Codes	Total New Medicare Volume D20-I20	Readmission Rat Cohort & TCM Sav both 20 percer
99495	0.60	1,300,032	3	3,900,095	1,040,025	1,040,025	260,006	0.2
99496	0.40	866,688	3	2,600,063	693,350	693,350	173,338	0.2
Total	100%	2,166,719	3	6,500,158	1,733,376	1,733,376	433,344	433
		Vasuka	Andinana	Veerlui				
		Yearly I	viedicare	Yearly I	National			80
Specialty	Percentage breakdown	99495 TCM, 14 day visit, moderate to high complexity	99496 TCM, 7 day visit, high complexity	99495 TCM, 14 day visit, moderate to high complexity	99496 TCM, 7 day visit, high complexity			80
Specialty Internal Medicine	Percentage breakdown 0.40	99495 TCM, 14 day visit, moderate to high complexity 520,013	99496 TCM, 7 day visit, high complexity 346,675	99495 TCM, 14 day visit, moderate to high complexity 1,560,038	99496 TCM, 7 day visit, high complexity 1,040,025			80
Specialty Internal Medicine Family Practice	Percentage breakdown 0.40 0.40	99495 TCM, 14 day visit, moderate to high complexity 520,013 520,013	99496 TCM, 7 day visit, high complexity 346,675 346,675	99495 TCM, 14 day visit, moderate to high complexity 1,560,038 1,560,038	99496 TCM, 7 day visit, high complexity 1,040,025 1,040,025			80
Specialty Internal Medicine Family Practice Geriatrics	Percentage breakdown 0.40 0.40 0.20	99495 TCM, 14 day visit, moderate to high complexity 520,013 520,013 260,006	99496 TCM, 7 day visit, high complexity 346,675 346,675 173,338	99495 TCM, 14 day visit, moderate to high complexity 1,560,038 1,560,038 780,019	99496 TCM, 7 day visit, high complexity 1,040,025 1,040,025 520,013			80

*Split is based on the 2010 44% / 26% Medicare Data

Projected Offs	set			
Total	Projected # of	Projected # of ER	Projected Avoided	Projected Avoided
Medicare	Rehospitalization	Visits 30% of Total	Rehospitalization 20%	Emergency
Yearly	20% of Total	Yearly	Yearly	Department Yearly
2,166,719	433,344	650,016	86,669	130,003

Visit codes: 99213, 99214, 99215 distributed equally, 1/3 each.

2,166,719

6,500,158

article

odes as well as slow adoption



Transitional Care Management (TCM) UTILIZATION ASSUMPTIONS

These figures are supported by multiple peer-reviewed articles and by MEDPAC analyses. We are happy to provide additional, more specific details

- TCM is likely to be provided to 20-22% of Medicare discharges or 2.1 million times; the codes can only be reported for care delivered to a significant minority of Medicare beneficiaries; most Medicare beneficiaries discharged from the hospital will not be eligible for this service
- We anticipate that this level of service could be achieved within a year or two; adoption will increase as some physician practices that currently do not have the capability to perform TCM, develop that capability.
- Based on Medicare claims data showing that 44% of discharges are seen within 14 days of a facility discharge, we estimate that 80% of these services are already being reported under 99214 or 99215; of the 44% of post-discharge patients currently being seen, we believe that many of them are patients who are eligible for TCM; therefore, physicians will merely substitute a TCM service for the 99214 or 99215 they are currently reporting
- In the interest of being conservative, we estimate20% of TCM services will be new services provided to patients who are not being seen; however, we believe this estimate is on the high side
- Therefore, according to the above estimates, the additional cost of TCM services are as follows
 - 80% of the time, the additional cost is limited to the incremental cost of the non-face-to-face service (i.e., payment for TCM payment for 99214 or 99215 = additional cost to Medicare)
 - 20% of the time the entire service is a new cost (i.e., the entire payment for TCM is an additional cost to Medicare)
- 20% of the 2.1 million people who receive TCM services will be readmitted within 30 days about 420,000 readmissions; this is based on multiple articles publishing data on the number of readmissions within 30 days
- 40-50% of the 2.1 million people who get TCM services will have an ED visit within 30 days about 850,000; this is a conservative estimate based on published data
- Of the 420,000 readmissions from this population, 20% will be avoided because of TCM this means that 84,000 hospitalizations will not occur because of TCM; this is based on a number of published articles citing such a reduction as typical when TCM is provided
- Of the 850,000 ED visits, about 50%, or 425,000, will be avoided due to TCM; similar to the above
- Therefore the savings due to TCM under Medicare Part B are at minimum the avoided physician services for initial hospital visits, subsequent hospital visits, hospital discharges and ED visits that would be furnished to the 84,000 patients who would have been readmitted and the 425,000 who would have gone to the ED
 - For hospitalizations, the mean stay for most medical DRGs is 3-4 days. This means that for each avoided hospitalization, payment for an initial hospital visit (99222 or 99223 for these complex patients), subsequent hospital visits (99232 x2 and 99231x1) and a hospital discharge (99238) will be avoided

- For ED visits, utilization shows that for the vast majority of ED visits, physicians report 99284 and 99285 and we believe that one of those services will be avoided each time and ED visit is avoided
- This savings analysis does not include savings for other avoided Part B services such as consultations, diagnostic study interpretation, etc. furnished in conjunction with an admission or ED visit.
- This savings does not include avoidance of additional office visits that are currently being furnished because TCM is not being provided (e.g., seeing a patients two or three times in the two or three weeks after discharge)

Tab 8 & 9 Utilization (October 5, 2012)

Readmission and Care Transitions References

Jencks S.F. et al, *Rehospitalizations among Patients in the Medicare Fee-for-Service Program*, NEJM 2009; 360: 1418-1428

Using 2003-2004 data 19.6% of admissions had a 30day readmission. 34% and over 50% were readmitted at 90 days and 1 year respectively. Only 10% of the readmissions were planned. Unplanned readmissions cost Medicare \$17.4 B in 2004. For 50.2% of all 30 day readmissions there was no interval physician bill for an office visit service.

MedPAC June 2007, Promoting Greater Efficiency in Medicare, Chapter 5

30 day readmission rates are 17.6%. 30 day preventable readmission rates are 13.3%, i.e. most readmits are preventable. Readmission rates vary widely among hospitals suggesting there are actions that can be taken to prevent readmissions. Programs for readmission reduction are cited.

Naylor, M. et al, Comprehensive Discharge Planning and Home Follow-up of Hospitalized Elders: A Randomized Clinical Trial, JAMA 1999, 281:613-620

The transitional care management intervention of advanced practice nurse managers who also performed home visits reduced 24 week readmission rates from 37.1% to 20.3% and expenditures from \$1.2M to \$0.6M in the intervention group as compared to the control group.

Coleman, E. et al., *The Care Transitions Intervention: Results of a Randomized Controlled Trial*, Arch Int Med, 2006; 166:1822-1828.

Training for patient and caregivers reduced 30day readmission rates from 11.9% to 8.3% and 90 day rates from 22.5% to 16.7%

Naylor, M. et al., The Importance of Transitional Care in Achieving Health Reform, Health Affairs 2011; 30:746-754.

A summary of many studies that demonstrate positive effects on readmission and other factors by care transitions management.

RUC Comment Letter on 2013 Proposed Rule

CMS assumed that nearly every discharge from a facility would be followed with a reporting of this new TCM service. This would lead to 10 million claims and nearly \$1 billion in payments. 26% of discharges had a reported office, home or domiciliary E/M reported within 7 days and by 14 days the number rose to 44%. This was based upon an analysis of the 2010 5% carrier file.

Gerard Anderson, Testimony to Senate Aging Committee Regarding the Geriatric Assessment and Chronic Care Coordination Act of 2007.

23% of Medicare Beneficiaries have 5 or more chronic conditions and account for 2/3 of Medicare expenditures. They see an average of 13 physicians annually and fill 50 prescriptions. They are 100 times more likely to have a preventable hospitalization than a beneficiary with no chronic conditions. (Dr Anderson was then Professor of Health Policy and Management at John's Hopkins and formerly was program director for the RWJ Foundation Initiative "Partnerships for Solutions: Better Lives for People with Chronic Conditions".) Similar numbers are have been noted by CBO and are cited in many articles.

- We assume 10M discharges. We assume no more than 20% of discharges will get this service due to ramp up and selection of only higher risk patients. Additional limiting factors include that the TCM provider was not aware of the discharge in time to make the required initial contact, that the patient was unable to be seen in the office, etc. Most practices today lack nurse care managers.
 - 2M services split 60% 99495 and 40% 99496
- We assume that the average readmission probability is distributed across these patients, even though they are higher risk. We use 20% readmission probability over 30 days even though the intervention affects readmission risk beyond 30 days. (Naylor, Coleman)
 - Expected readmissions for patients who receive TCM without effect of TCM is 400K
- We assume TCM will reduce readmissions 20% i.e. 5% absolute reduction in Medicare readmissions due to TCM. (Naylor, Coleman and personal communication with Coleman re TCM as described in CPT).
 - 80K readmissions prevented.
 - For every prevented admission we expect 0.75 less 99285, 0.25 less 99284, 0.5 less 99222, 0.5 less 99223, 4 fewer 99232 (average of more than one physician and LOS of 3 days), 1 less 99238.
- We assume 100% of 99495 would have had a 99214 reported and 100% of 99496 would have had a 99215 or 99214 reported split evenly.
 - o 1.6M fewer 99214, 400K fewer 99215
- We also anticipate a reduction of ED visits within the 30days. We do not have data of post discharge ED use, but estimate that 5% of TCM services and the availability of nurse care managers will reduce ED use. (Some PCMH early reports support this.) We assume those discharged home, while complex ED services, will be less complex than those admitted.
 - \circ 100K less ED services split 75% 99284 and 25% 99285.

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Non Facility Direct Inputs

CPT Long Descriptor:

	Transitional Care Management Services with the following required elements:
99495	• Communication (direct contact, telephone, electronic) with the patient and/or caregiver within 2 business days of discharge
	 Medical decision making of at least moderate complexity during the service period
	• Face-to-face visit, within 14 calendar days of discharge
	Transitional Care Management Services with the following required elements:
99496	• Communication (direct contact, telephone, electronic) with the patient and/or caregiver within 2 business days of discharge
	• Medical decision making of high complexity during the service period
	• Face-to-face visit, within 7 calendar days of discharge

Global Period: XXX Meeting Date: October 2012

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee:

A consensus panel of experts from the surveying societies, including physicians, nurses, and physician assistants, met by phone and email to develop the inputs.

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale:

The consensus panel of experts chose the same comparison code as chosen by the survey respondents for new code 99490X, CPT 99214. For new code 99491X, the specialties have chosen 99215 as the comparison code, reflecting that 99491X involves medical decision making of high complexity, as does 99215 and consistent with the survey responses.

Please describe in detail the clinical activities of your staff:

Pre-Service Clinical Labor Activities:

Review/read X-ray, lab, pathology reports, discharge care plan

Service Clinical Labor Activities:

Activities face-to-face during visit:

- Greet patient/provide gowning
- Obtain vital signs
- Prep and position patient
- Review history, systems, and medications
- Prepare room, equipment, supplies

- Assist physician during exam
- Education/instruction/counseling
- Coordinate home or outpatient care
- Clean room/equipment

Post-Service Clinical Labor Activities:

Activities associated with face-to-face visit:

• Phone calls between visits with patient, family, pharmacy

Activities NOT associated with face-to-face visit:

- communication (with patient, family members, guardian or caretaker, surrogate decision makers, and/or other professionals) regarding aspects of care,
- communication with home health agencies and other community services utilized by the patient,
- patient and/or family/caretaker education to support self-management, independent living, and activities of daily living,
- assessment and support for treatment regimen adherence and medication management,
- identification of available community and health resources,
- facilitating access to care and services needed by the patient and/or family

	Α	В	С	D	E	F	G	Н		J	K
1				REFERENCE CODES RE		REFERENCE CODES					
2				9921	99214		99215		495	994	496
	Meeting Date: October 2012 Transitional Care Management	CMS		Office outpatient visit for the E/MOffice visit for the E/M of an established patient. Medical decision making of moderate complexity. Usually, 		Transitional Managemen communica pt/caregiven days, MDM moderate, F w/in 14 cale of discharge	Care nt Services; tion with w/in 2 bus at least F2F visit endar days	Management Services communication with pt/caregiver w/in 2 bus days, MDM of high complexity, F2F visit w/in 7 calendar days o discharge			
3		Code	Staff Type	patient and/or lanning		patient and/or	ianny.				
4	LOCATION			Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility
5	GLOBAL PERIOD			XXX		XXX		XXX		XXX	
6	TOTAL CLINICAL LABOR TIME	L042A	RN/LPN	53.0	0.0	63.0	0.0	92.0	0.0	115.0	0.0
7	TOTAL PRE-SERV CLINICAL LABOR TIME	L042A	RN/LPN	3.0	0.0	4.0	0.0	3.0	0.0	4.0	0.0
8	TOTAL SERVICE PERIOD CLINICAL LABOR TIME	L042A	RN/LPN	44.0	0.0	51.0	0.0	44.0	0.0	51.0	0.0
9	TOTAL POST-SERV CLINICAL LABOR TIME	L042A	RN/LPN	6.0	0.0	8.0	0.0	45.0	0.0	60.0	0.0
10	PRE-SERVICE							1	1		
11	Start: Following visit when decision for surgery or procedu	ire made									
12	Complete pre-service diagnostic & referral forms										
13	Coordinate pre-surgery services										
14	Schedule space and equipment in facility										
15	Provide pre-service education/obtain consent										
16	Follow-up phone calls & prescriptions										
	Other Clinical Activity - specify: Review/read X-ray, lab,			2				2		4	
17	pathology reports	L037D	RN/LPN/MTA	3		4		3		4	
18	End: When patient enters office/facility for surgery/procedu	re									
19	SERVICE PERIOD										
20	Start: When patient enters office/facility for surgery/procedu	ure:									
21	Greet patient, provide gowning, ensure appropriate medical records are available	L037D	RN/LPN/MTA	3		3		3		3	
22	Obtain vital signs	L037D	RN/LPN/MTA	5		5		5		5	
23	Provide pre-service education/obtain consent										
24	Prepare room, equipment, supplies	L037D	RN/LPN/MTA	2		2		2		2	
25	Setup scope (non facility setting only)										
26	Prepare and position patient/ monitor patient/ set up IV	L037D	RN/LPN/MTA	2		2		2		2	
27	Sedate/apply anesthesia										
28	Intra-service										
29	Assist physician in performing procedure	L037D	RN/LPN/MTA	5		6		5		6	
30	Post-Service										
31	Monitor pt. following service/check tubes, monitors, drains										
32	Clean room/equipment by physician staff	L037D	RN/LPN/MTA	3		3		3		3	
33	Clean Scope										
34	Clean Surgical Instrument Package										
35	Complete diagnostic forms, lab & X-ray requisitions										
36	Review/read X-ray, lab, and pathology reports									ļ	
37	Check dressings & wound/ home care instructions /coordinate office visits /prescriptions	L037D	RN/LPN/MTA	11		15		11		15	
38	Other Clinical Activity - <i>specify: Review history, systems, and medications</i>	L037D	RN/LPN/MTA	13		15		13		15	

AMA Specialty Society Recommendation

	A	В	С	D	E	F	G	Н	I	J	K
1				REFERENCE	CODES	REFERENCE CODES		S			
2				9921	4	99215		99495		99	496
	Meeting Date: October 2012 Transitional Care Management	CMS		Office outpatient vis of an established pa Medical decision ma moderate complexit the presenting probl moderate to high se Physicians typically minutes face-to-face	it for the E/M atient. aking of y. Usually, lem(s) are of everity. spend 25 e with the	Office visit for established pa decision makin complexity.Us presenting pro- moderate to h Physicians typ minutes face-t	the E/M of an atient.Medical ng of high ually, the oblem(s) are of igh severity. iically spend 40 o-face with the	Transitional Managemen communica pt/caregiver days, MDM moderate, F w/in 14 cale of discharge	Care nt Services; tion with w/in 2 bus at least 2F visit endar days	Transitiona Manageme communica pt/caregive days, MDM complexity, w/in 7 caler discharge	l Care nt Services; tion with r w/in 2 bus of high F2F visit ndar days of
3		Code	Staff Type	patient and/or family	/.	patient and/or	family.				
4	LOCATION			Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility
5	GLOBAL PERIOD			XXX		XXX		XXX		XXX	
43	POST-SERVICE Period				•	-		•			
44	Start: Patient leaves office/facility										
45	Conduct phone calls/call in prescriptions	L037D	RN/LPN/MTA	6		8		0		0	
52	Total Office Visit Time			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
53	Other Clinical Activity - specify:										
54	communication (with patient, family members, guardian or caretaker, surrogate decision makers, and/or other professionals) regarding aspects of care; communication with home health agencies and other community services utilized by the patient; patient and/or family/caretaker education to support self-management, independent living, and activities of daily living; assessment and support for treatment regimen adherence and medication management; identification of available community and health resources; facilitating access to care and services needed by the patient and/or family	L042A	RN/LPN					45		60	
55	End: with last office visit before end of global period										
56	MEDICAL SUPPLIES	CODE	UNIT								
57	pack, minimum multi-specialty visit	SA048	pack								
58	pack, E/M visit	SA047	pack	1				1		1	
59	EQUIPMENT	CODE								-	
60	table, exam	EF023		44		51		44		51	
61	otoscope-ophthalmoscope	EQ189		44		51		44		51	

	A	В	С	D	E	F	G	Н		J	K
1				REFERENCE	REFERENCE CODES R		REFERENCE CODES				
2				9921	99214		99215		495	994	196
	Meeting Date: October 2012 Transitional Care Management	CMS		Office outpatient vision of an established para Medical decision marked moderate complexit the presenting problem moderate to high se Physicians typically minutes face-to-face	it for the E/M tient. aking of y. Usually, em(s) are of verity. spend 25 e with the	Office visit for established pa decision makin complexity.Usi presenting pro- moderate to hi Physicians typ minutes face-t	Office visit for the E/M of an established patient.Medical decision making of high complexity.Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 40 minutes face-to-face with the		Management Services; communication with pt/caregiver w/in 2 bus days, MDM at least moderate, F2F visit w/in 14 calendar days of discharge		Care nt Services; tion with w/in 2 bus of high F2F visit ndar days of
3		Code	Staff Type	patient and/or family	/	patient and/or	family.				
4	LOCATION			Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility
5	GLOBAL PERIOD			XXX		XXX		XXX		XXX	
6	TOTAL CLINICAL LABOR TIME			53.0	0.0	63.0	0.0	92.0	45.0	125.0	70.0
7	TOTAL PRE-SERV CLINICAL LABOR TIME	L042A	RN/LPN/MTA	3.0	0.0	4.0	0.0	3.0	0.0	4.0	0.0
8	TOTAL SERVICE PERIOD CLINICAL LABOR TIME	L042A	RN/LPN/MTA	44.0	0.0	51.0	0.0	44.0	0.0	51.0	0.0
9	TOTAL POST-SERV CLINICAL LABOR TIME	L042A	RN/LPN	6.0	0.0	8.0	0.0	45.0	45.0	70.0	70.0
10	PRE-SERVICE										
11	Start: Following visit when decision for surgery or procedu	ire made								, ,	
12	Complete pre-service diagnostic & referral forms										
13	Coordinate pre-surgery services										
14	Schedule space and equipment in facility										
15	Provide pre-service education/obtain consent										
16	Follow-up phone calls & prescriptions										
	Other Clinical Activity - specify: Review/read X-ray, lab,			2		4		· ·		4	
17	pathology reports	L037D	RIN/LPIN/IVITA	3		4		3		4	
18	End: When patient enters office/facility for surgery/procedu	re									
19	SERVICE PERIOD										
20	Start: When patient enters office/facility for surgery/procedu	ure:									
21	Greet patient, provide gowning, ensure appropriate medical records are available	L037D	RN/LPN/MTA	3		3		3		3	
22	Obtain vital signs	L037D	RN/LPN/MTA	5		5		5		5	
23	Provide pre-service education/obtain consent										
24	Prepare room, equipment, supplies	L037D	RN/LPN/MTA	2		2		2		2	
25	Setup scope (non facility setting only)										
26	Prepare and position patient/ monitor patient/ set up IV	L037D	RN/LPN/MTA	2		2		2		2	
27	Sedate/apply anesthesia										
28	Intra-service										
29	Assist physician in performing procedure	L037D	RN/LPN/MTA	5		6		5		6	
30	Post-Service										
31	Monitor pt. following service/check tubes, monitors, drains										
32	Clean room/equipment by physician staff	L037D	RN/LPN/MTA	3		3		3		3	
33	Clean Scope										
34	Clean Surgical Instrument Package										
35	Complete diagnostic forms, lab & X-ray requisitions										
36	Review/read X-ray, lab, and pathology reports										
37	Check dressings & wound/ home care instructions /coordinate office visits /prescriptions	L037D	RN/LPN/MTA	11		15		11		15	
38	Other Clinical Activity - specify: Review history, systems, and medications	L037D	RN/LPN/MTA	13		15		13		15	

AMA Specialty Society Recommendation

	A	В	С	D	E	F	G	Н	I	J	K
1				REFERENCE	CODES	REFERENCE CODES		S			
2				9921	4	99215		99495		99496	
				Office outpatient vis	it for the E/M	Office visit for the E/M of an		Transitional Care		Transitional Care	
				of an established pa	atient.	established pa	atient.Medical	Manageme	nt Services;	Manageme	nt Services;
				Medical decision ma	aking of	decision makii	ng of nign	communica	uon with w/in 2 hus	communica	uon with r w/in 2 hus
	Meeting Date: October 2012			the presenting prob	lem(s) are of	presenting pro	oblem(s) are of	days, MDM	at least	days, MDM	of high
	Transitional Care Management			moderate to high se	verity.	moderate to h	igh severity.	moderate, F	F2F visit	complexity,	F2F visit
				Physicians typically	spend 25	Physicians typ	ically spend 40	w/in 14 cale	endar days	w/in 7 caler	ndar days of
		CMS		minutes face-to-face	e with the	minutes face-t	o-face with the	of discharge	9	discharge	
3		Code	Staff Type	patient and/or family	/.	patient and/or	family.				
4	LOCATION			Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility
5	GLOBAL PERIOD			XXX		XXX		XXX		XXX	
43	POST-SERVICE Period		-	-	-					_	-
44	Start: Patient leaves office/facility										
45	Conduct phone calls/call in prescriptions	L037D	RN/LPN/MTA	6		8		0		0	
52	Total Office Visit Time			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
53	Other Clinical Activity - specify:										
54	communication (with patient, family members, guardian or caretaker, surrogate decision makers, and/or other professionals) regarding aspects of care; communication with home health agencies and other community services utilized by the patient; patient and/or family/caretaker education to support self-management, independent living, and activities of daily living; assessment and support for treatment regimen adherence and medication management; identification of available community and health resources; facilitating access to care and services needed by the patient and/or family	L042A	RN/LPN					45	45	70	70
55	End: with last office visit before end of global period										
56	MEDICAL SUPPLIES	CODE	UNIT					1			
57	pack, minimum multi-specialty visit	SA048	pack								
58	pack, E/M visit	SA047	pack	1				1		1	
59	EQUIPMENT	CODE									
60	table, exam	EF023		44		51		44		51	
61	otoscope-ophthalmoscope	EQ189		44		51		44		51	

AMA/Specialty Society RVS Update Committee Summary of Recommendations

October 2012

Complex Chronic Care Coordination Services

In response to the July 2011 Notice of Proposed Rulemaking, the CPT Editorial Panel and the AMA/Specialty Society RVS Update Committee created the Chronic Care Coordination Workgroup (C3W) to specifically address the Centers for Medicare and Medicaid Services request to ensure that care coordination services were described and valued within the Evaluation and Management services. The C3W requested that CPT consider creation of codes to describe transitional care management and monthly complex chronic care coordination services. In May 2012, the CPT Editorial Panel created three new codes to describe complex chronic care coordination services that are patient centered management and support services. These services are provided by physicians and, other qualified health care professionals to an individual who resides at home or in a domiciliary, rest home or assisted living facility, per calendar month.

Complex chronic care coordination (CCCC) services are provided to patients who typically have multiple co-morbidities and frequently, multiple medications requiring ongoing non face-to-face care coordination, the choice of code is driven by the clinical staff time over the period of a calendar month. Unlike transitional care management (TCM) services, a recent hospital discharge is not required, but the typical patient has several chronic conditions, sees multiple care providers, requires a variety of therapeutic and diagnostic services and has a management plan that requires frequent revisions. While the goal of TCM is to prevent re-hospitalization, the goal of CCCC is broader. The goals are to efficiently integrate care, maximize the patient's potential function and well-being and prevent hospitalization.

CPT code 99487 is reported for CCCC when there is no face-to-face visit during the calendar month. CPT Code 99488 is reported for CCCC when there is a face-to-face visit during the calendar month. Both CPT codes 99487 and 99488 specify 60 minutes of clinical staff time in the descriptor. Lastly, CPT code 99489 is an add-on code for each additional 30 minutes of clinical staff time for non face-to-face CCCC, which is reported with either codes 99487 or 99488.

CCCC codes 99487, 99488 and 99489 have an XXX global period. All physician and staff time appear in the intra-service time because any services provided during the 30 day service period are, by definition intra-service time. The CPT introductory language specifically describes the physician and clinical staff activities included in these services.

99487 Complex chronic care coordination services; first hour of clinical staff time directed by a physician or other qualified health care professional with no face-to-face visit, per calendar month

The RUC reviewed the survey results from 147 multi-specialty physicians and other qualified health care professionals for CPT code 99487. In order to maintain the proper rank order in relation to 99488 (described below), the specialty society indicated and the RUC agreed that the survey 25th percentile work RVU of 1.00 and 25th percentile time of 26 minutes are more accurate than the median survey results. The 25th percentile time also placed this service in the proper ratio compared to the clinical staff time of 60 minutes. The RUC compared 99487 to 99367 *Medical team conference with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more; participation by physician* (work RVU = 1.10 and 40 minutes total time) and determined that 99487 is slightly more intense to perform. The RUC compared 99487 to GXXXX3 *Coordination of care across all of a patient's healthcare needs, provided in a Tier 3 medical home, per month* (RUC Recommended work RVU = 0.35 for 9.2 minutes of service; or a weighted work RVU per minute of .0382) and determined that the work, time and intensity are almost identical, therefore computing a work RVU of 1.00. **The RUC recommends a work RVU of 1.00 and 26 minutes intra-service time for CPT code 99487**.

99488 Complex chronic care coordination services; first hour of clinical staff time directed by a physician or other qualified health care professional with one face-to-face visit, per calendar month

The RUC reviewed the survey results from 147 multi-specialty physicians and other qualified health care professionals for CPT code 99488. The RUC agreed with the survey respondents that the Evaluation and Management service that is most similar to the face-to-face portion of the CCCC service is 99215 *Office or other outpatient visit for the evaluation and management of an established patient* (work RVU = 2.11, 35 minutes intratime, 55 minutes total time). CPT Code 99215 is used as a proxy to understand the complexity of the patient receiving the service. The RUC understands that the time of the face-to-face portion of this service may be different from that of a typical 99215. The RUC agreed that the survey median work RVU of 2.50 and 60 minutes of intra-service time appropriately accounts for the work required to perform this office visit and the 30 days of complex chronic care coordination services of CPT code 99488.

The RUC compared CPT code 99488 to the key reference service 99350 *Home visit for the evaluation and management of an established patient* (work RVU = 3.28 and 75 minutes intra-service time) and determined that the work and time required to perform the reference service is higher due to higher intra-service time. The RUC compared the service to 99496 *Transitional Care Management services with high medical decision complexity; face-to-face visit within 7 days* (RUC recommended work RVU = 3.05 and 60 minutes intra-service time), also reviewed at this meeting. The RUC determined that the physician work required to perform 99488 is less intense than 99496 for two reasons: (1) the CCCC codes require moderate or highly complex medical decision making, whereas 99496 TCM, 7 days only requires highly complex medical decision making and (2) the patient's condition is well known to the physician due to ongoing CCCC. In the case of TCM codes, the patient's condition post-discharge is not known to the physician, making the patient similar to a new patient.

The RUC compared the 60 minutes median intra-service time in relation to the 107 minutes of total clinical staff time and determined that was appropriate. The RUC assumed the face-to-face portion of this service requires approximately 35 minutes, the same as 99215, which allows 25 minutes to perform the non face-to-face care over the calendar month.

To support the median work RVU of 2.50 and intra-service time of 60 minutes, the RUC compared 99488 to the services listed below, which require similar work, time and intensity. The relativity between code 99488 and these services is appropriate. The RUC recommends a work RVU of 2.50 and 60 minutes of intra-service time for CPT code 99488.

СРТ	Descriptor	Pre-	Intra-	Post-	Work
Code		time	time	time	RVU
74262	Computed tomographic (CT) colonography, diagnostic, including image postprocessing; with contrast material(s)	5	45	7	2.50
	including non-contrast images, if performed				
95954	Pharmacological or physical activation requiring physician attendance during EEG recording of activation phase (eg,	5	60	5	2.45
	thiopental activation test)				
99326	Domiciliary or rest home visit for the evaluation and management of a new patient, which requires these 3 key	15	45	17	2.63
	components				
90947	Dialysis procedure other than hemodialysis (eg, peritoneal dialysis, hemofiltration, or other continuous renal	10	50	10	2.52
	replacement therapies) requiring repeated physician evaluations, with or without substantial revision of dialysis				
	prescription				
99488	CCCC services; first hour of clinical staff time one face-to-face visit, per calendar month		60		2.50

99489 Complex chronic care coordination services; each additional 30 minutes of clinical staff time directed by a physician or other qualified health care professional, per calendar month (List separately in addition to code for primary procedure)

The RUC reviewed the survey results from 147 multi-specialty physicians and other qualified health care professionals for CPT code 99489. In order to maintain the proper rank order in relation to 99487, the specialty society indicated, and the RUC agreed, that 99489 is half of the physician work and time. A work RVU of 0.50 and 13 minutes intra-service time place this service in the proper ratio compared to the clinical staff time of 30 minutes. The RUC compared 99489 to GXXXX3 *Coordination of care across all of a patient's healthcare needs, provided in a Tier 3 medical home, per month* (RUC Recommended work RVU = 0.35 for 9.2 minutes of service; or a weighted work RVU per minute of .0382) and determined that the work, time and intensity are almost identical, therefore computing a work RVU of 0.50. The RUC also compared 99489 to 99212 *Office or other outpatient visit for the evaluation and management of an established patient* (work RVU = 0.48 and 10 minutes intra-service time) and determined that the work, time and intensity maintain the appropriate relativity. **The RUC recommends a work RVU of 0.50 and 13 minutes intra-service time for CPT code 99489**.

2013 Utilization Estimates:

The specialty societies indicated that the estimated utilization for these services will be approximately 9 million per year, representing 10% of all moderate to high complexity established office visits (99214 and 99215). The specialties also estimate that 55% of the CCCC services will be managed without a face-to-face visit using the code 99487. The estimates are projected to be: CPT code 99487 = 5,003,744, code 99488 = 3,730,064, and code 99489 = 363,909. It is estimated that fewer than 5% of patients will require in excess of 60 minutes of nurse manager non face-to-face time in one calendar month. The attached spreadsheet explains the methodology used by the specialty societies to arrive at these assumptions.

New Technology/New Services List:

The specialty society requests and the RUC agrees that CPT codes 99487, 99488, 99489 should be added to the new technology/new services list.

Practice Expense:

The RUC reviewed the direct practice expense inputs and accepted the changes as modified by the Practice Expense Subcommittee. Specifically, any duplication between the clinical staff pre and post service time of the Evaluation/Management Service and the care coordination time was removed from the recommendations. The RUC also understands that electronic medical record systems are considered to be indirect costs and, therefore, these costs are not included in the direct cost recommendations.

Complex Chronic Care Coordination Services

Complex chronic care coordination services are patient centered management and support services provided by physicians, other qualified health care professionals and clinical staff to an individual who resides at home or in a domiciliary, rest home or assisted living facility. These services typically involve clinical staff implementing a care plan directed by the physician or other qualified health care professional. These services address the coordination of care by multiple disciplines and community service agencies. The reporting individual provides or oversees the management and/or coordination of services, as needed, for all medical conditions, psychosocial needs and activities of daily living.

Patients who require complex chronic care coordination services may be identified by algorithms that utilize reported conditions and services (eg, predictive modeling risk score or repeat admissions or emergency department use) or by clinician judgment. Typical patients have 1 or more chronic continuous or episodic health conditions expected to last at least 12 months, or until the death of the patient, that place the patient at significant risk of death, acute exacerbation/decompensation or functional decline. Because of the complex nature of their diseases and morbidities, these patients commonly require the coordination of a number of specialties and services. Patients may have medical and psychiatric behavioral co-morbidities (eg, dementia and chronic obstructive pulmonary disease or substance abuse and diabetes) that complicate their care. Social support weaknesses or access to care difficulties may cause a need for these services. Medical, functional, and/or psychosocial problems that require medical decision making of moderate or high complexity and extensive clinical staff support are expected. Medical decision making as defined in the Evaluation and Management (E/M) guidelines is not only applied to the face-to-face services, but is determined by the nature of the problems addressed by the reporting individual during the month. A plan of care should be documented and shared with the patient and/or caregiver.

Codes 99487-99489 are reported only **once** per calendar month and include all non-face-to-face complex chronic care coordination services and none or 1 face-to-face office or other outpatient, home, or domiciliary visit. Codes 99487-99489 may only be reported by the single physician or other qualified health care professional who assumes the care coordination role with a particular patient for the calendar month.

Code selection is as follows:

99487 is reported when, during the calendar month, there is no face-to-face visit with the physician or other qualified health care professional and at least 31 minutes of clinical staff time is spent in care coordination activities. Code 99488 is reported when, during the calendar month, there is a face-to-face visit with the physician or other qualified health care professional and at least 31 minutes of clinical staff time is spent in care coordination activities.

The face-to-face and non-face-to-face time spent by the clinical staff in communicating with the patient and/or family, caregivers, other professionals and agencies; revising, documenting and implementing the care plan; or teaching self management is used in determining the complex chronic care coordination clinical staff time for the month. Note: Do not count any clinical staff time on the date of the first visit or on a day when the physician or qualified health care professional reports an E/M service (office or other outpatient services 99211-99215, domiciliary, rest home services 99334-99337, home services 99347-99350). Care coordination activities performed by clinical staff may include:

- communication (with patient, family members, guardian or caretaker, surrogate decision makers, and/or other professionals) regarding aspects of care;
- communication with home health agencies and other community services utilized by the patient;
- <u>collection of health outcomes data and registry documentation;</u>
- patient and/or family/caretaker education to support self-management, independent living, and activities of daily living;
- assessment and support for treatment regimen adherence and medication management;
- identification of available community and health resources;
- <u>facilitating access to care and services needed by the patient and/or family;</u>
- development and maintenance of a comprehensive care plan.

If a face-to-face visit was provided during the month by the physician or other qualified health care professional, report 99488. Additional E/M services beyond the first visit may be reported separately by the same physician or other qualified health care professional during the same calendar month. Complex care coordination services include care plan oversight services (99339, 99340, 99374-99378), prolonged services without direct patient contact (99358, 99359), anticoagulant management (99363, 99364), medical team conferences (99366-99368), education and training (98960-98962, 99071, 99078), telephone services (98966-98968, 99441-99443), on-line medical evaluation (98969, 99444), preparation of special reports (99080), analysis of data (99090, 99091), transitional care management services (99495, 99496), medication therapy management services (99605-99607), and if performed, these services may not be reported separately during the month for which 99487-99489 are reported. All other services may be reported. Do not report 99487-99489 if reporting ESRD services (90951-90970) during the same month. If the complex chronic care coordination services are performed within the postoperative period of a reported surgery, the same individual may not report 99487-99489.

Complex chronic care coordination can be reported in any calendar month during which the clinical staff time requirements are met. If care coordination resumes after a discharge during a new month, start a new period or report transitional care management services (99495, 99496) as appropriate. If discharge occurs in the same month, continue the reporting period or report transitional care management services. Do not report 99487-99489 for any post-discharge complex chronic care coordination services for any days within 30 days of discharge, if reporting 99495, 99496.

Total Duration of Staff Care Coordination Services	Code(s)
Less than 30 minutes	Not reported separately
31 to 74 minutes (31 minutes-1 hr. 14 min)	99487 or 99488 X 1
75-104 minutes (1 hr. 15 min- 1 hr. 44 min)	99487 or 99488 X 1 and 99489 X 1
105 minutes or more (1 hr. 45 min. or more)	99487 or 99488 X 1 and 99489 X 2 or more for each additional 30 minutes

CPT Code	Tracking	CPT Descriptor	Global	Work RVU
(•New)	Number		Period	Recommend-
· · ·				ation
●99487	F1	Complex chronic care coordination services; first hour of clinical staff time directed by a physician or other qualified health care professional with no face-to-face visit, per calendar month	XXX	1.00
•99488	F2	first hour of clinical staff time directed by a physician or other qualified health care professional with one face-to-face visit, per calendar month	XXX	2.50
•99489	F3	 each additional 30 minutes of clinical staff time directed by a physician or other qualified health care professional, per calendar month (List separately in addition to code for primary procedure) (Report 99489 in conjunction with 99487, 99488) (Do not report 99487-99489 during the same month with 90951-90970, 98960-98962, 98966-98969, 99071, 99078, 99080, 99090, 99091, 99339, 99340, 99358, 99359, 99363, 99364, 99366-99368, 99374-99378, 99441-99444, 99495, 99496, 99605-99607) 	ZZZ	0.50

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:99487 Tracking Number F1

Original Specialty Recommended RVU: **1.50** Presented Recommended RVU: **1.00** RUC Recommended RVU: **1.00**

Global Period: XXX

CPT Descriptor:

Complex chronic care coordination services; first hour of clinical staff time directed by a physician or other qualified health care professional with no face-to-face visit, per calendar month

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey:

Typical Patient (99487) (Child)

A 6-year-old child with spastic quadriplegia, gastrostomy, gastroesophageal reflux with recurrent bouts of aspiration pneumonia and reactive airway disease, chronic seizure disorder, failure to thrive and severe neurodevelopment delay. He receives home occupational, physical and speech therapy services.

Typical patient (99487) (Adult)

An 83-year-old woman with congestive heart failure and early cognitive dysfunction, who has been hospitalized twice in the prior 12 months, is becoming increasingly confused and refuses an office visit. She has a certified nursing assistant supervised by a home care agency, participates in a remote weight and vital signs monitoring program and sees a cardiologist and neurologist.

Percentage of Survey Respondents who found Vignette to be Typical: 88%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 0%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 0%

Description of Pre-Service Work:

Description of Intra-Service Work:

Complex chronic care coordination services are patient centered management and support services provided by physicians, other qualified health care professionals and clinical staff to an individual who resides at home or in a domiciliary, rest home or assisted living facility. These services typically involve clinical staff implementing a care plan directed by the physician or other qualified health care professional. These services address the coordination of care by multiple disciplines and community service agencies. The reporting individual provides or oversees the management and/or coordination of services, as needed, for all medical conditions, psychosocial needs and activities of daily living.

Patients who require complex chronic care coordination services may be identified by algorithms that utilize reported conditions and services (eg, predictive modeling risk score or repeat admissions or emergency department use) or by clinician judgment. Typical patients have 1 or more chronic continuous or episodic health conditions expected to last at least 12 months, or until the death of the patient, that place the patient at significant risk of death, acute

CPT Code: 99487

exacerbation/decompensation or functional decline. Because of the complex nature of their diseases and morbidities, these patients commonly require the coordination of a number of specialties and services. Patients may have medical and psychiatric behavioral co-morbidities (eg, dementia and chronic obstructive pulmonary disease or substance abuse and diabetes) that complicate their care. Social support weaknesses or access to care difficulties may cause a need for these services. Medical, functional, and/or psychosocial problems that require medical decision making of moderate or high complexity and extensive clinical staff support are expected. Medical decision making as defined in the Evaluation and Management (E/M) guidelines is not only applied to the face-to-face services, but is determined by the nature of the problems addressed by the reporting individual during the month. A plan of care should be documented and shared with the patient and/or caregiver.

Description of Post-Service Work:

SURVEY DAT	TA						
RUC Meeting Da	ite (mm/yyyy)	10/2012					
Presenter(s):	Robert Zorow Carlson, RN,	itz, MD (AGS) JD (ANA), Ste	, Thomas V ven Krug,	Weida (AAFI MD (AAP) a	P), Mary Nev nd Joel Brill,	wman, MD (A MD (AGA).	CP), Eileen
Specialty(s):	American Ger College of Ca American Aca Association of (ACR), Americ (AOA), Americ Physicians (A Physician Ass Endocrine So (ASGE).	iatrics Society rdiologists (AC idemy of Neur f Clinical Endo can College of can College of AFP), America istants (AAPA ciety (TES) an	y (AGS), Ar CC), Ameri ology (AAN perinologist f Physician f Chest Phy an Nursing A), America Id the Ame	merican Aca can Academ N), American s (AACE), A s (ACP), Ar ysicians (AC Association on Gastroent rican Societ	demy of Pec by of Family I n Thoracic So merican Col nerican Oste CP), Americ (ANA), Ame erological As y of Gastroir	liatrics (AAP) Physicians (A pociety (ATS), lege of Rheu eopathic Asso an Academy erican Academy erican Academ ssociation (Ad itestinal Endo	, American AFP), American matology ociation of Family my of GA), The oscopy
CPT Code:	99487						
Sample Size:	8896 R	esp N:	147	Respo	onse: 1.6 %		
Description of Sample:	Random						
			Low	25 th pctl	Median*	75th pctl	<u>High</u>
Service Perform	ance Rate		0.00	0.00	10.00	35.00	3000.00
Survey RVW:			0.00	1.00	1.50	2.00	25.00
Pre-Service Evalu	ation Time:				0.00		
Pre-Service Posit	ioning Time:				0.00		
Pre-Service Scrut	o, Dress, Wait Ti	me:			0.00		
Intra-Service Tir	ne:		0.00	26.00	45.00	60.00	600.00
Immediate Post	Service-Time:	<u>0.00</u>					
Post Operative	Visits	Total Min**	CPT Cod	e and Num	nber of Visit	S	
Critical Care tim	e/visit(s):	0.00	99291x 0	0.00 99292	2x 0.00		
Other Hospital t	ime/visit(s):	0.00	99231x 0).00 99232	2x 0.00 99	9233x 0.00	
Discharge Day I	Ngmt:	0.00	99238x 0	.00 99239x	0.00	99217x 0.00	
Office time/visit	(s):	0.00	99211x 0	0.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00
Prolonged Servi	ices:	0.00	99354x 0	.00 55x ().00 56x 0	.00 57x 0.	00
Sub Obs Care:		0.00	99224x 0	0.00 99225	5x 0.00 9	9226x 0.00	

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: XXX Global Code

CPT Code:	99487		Recommended Physician Work RVU: 1.00		
'			Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time
Pre-Service Evaluation Time:			0.00	0.00	0.00
Pre-Service Positioning Time:			0.00	0.00	0.00
Pre-Service Scrub, Dress, Wait Time:			0.00	0.00	0.00
Intra-Service Time:			26.00		
Immediate Post Service	e-Time:	<u>0.00</u>		•	
Post Operative Visits Total Min**			CPT Code and Number of Visits		
Critical Care time/visit(s):	<u>0.00</u>	99291x 0.00 99292x 0.00			
-------------------------------	-------------	---			
Other Hospital time/visit(s):	<u>0.00</u>	99231x 0.00 99232x 0.00 99233x 0.00			
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0.0 99217x 0.00			
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00 13x 0.00 14x 0.00 15x 0.00			
Prolonged Services:	<u>0.00</u>	99354x 0.00 55x 0.00 56x 0.00 57x 0.00			
Sub Obs Care:	<u>0.00</u>	99224x 0.00 99225x 0.00 99226x 0.00			

CPT Code: 99487

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? Yes

KEY REFERENCE SERVICE:

Key CPT Code	<u>Global</u>	Work RVU	Time Source
99374	XXX	1.10	RUC Time

<u>CPT Descriptor</u> Physician supervision of a patient under care of home health agency (patient not present) in home, domiciliary or equivalent environment (eg, Alzheimer's facility) requiring complex and multidisciplinary care modalities involving regular physician development and/or revision of care plans, review of subsequent reports of patient status, review of related laboratory and other studies, communication (including telephone calls) for purposes of assessment or care decisions with health care professional(s), family member(s), surrogate decision maker(s) (eg, legal guardian) and/or key caregiver(s) involved in patient's care, integration of new information into the medical treatment plan and/or adjustment of medical therapy, within a calendar month; 15-29 minutes.

KEY MPC COMPARISON CODES:

Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review.

				Most Recent
MPC CPT Code 1	<u>Global</u> <u>V</u>	<u>Vork RVU</u>	Time Source	Medicare Utilization
99214	XXX	1.50	CMS Time File	81,311,416
CPT Descriptor 1 Office	or other outpati	ent visit for the	evaluation and manage	gement of an established patient, which
requires at least 2 of the	se 3 key compon	ents: A detailed	history; A detailed ex	amination; Medical decision making of
moderate complexity. Co	unseling and/or co	pordination of ca	re with other providers	or agencies are provided consistent with
the nature of the problem	(s) and the patien	t's and/or family	's needs. Usually, the p	presenting problem(s) are of moderate to
high severity. Physicians	typically spend 25	5 minutes face-to	-face with the patient a	nd/or family.
				Most Recent
MPC CPT Code 2	<u>Global</u>	Work RVU	Time Source	Medicare Utilization
<u>CPT Descriptor 2</u>				

Other Reference CPT Code	<u>Global</u>	Work RVU	Time Source
93281	XXX	0.90	RUC Time

<u>CPT Descriptor</u> Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent programmed values with physician analysis, review and report; multiple lead pacemaker system

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 38

% of respondents: 25.8 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 99487	Key Reference CPT Code: <u>99374</u>	Source of Time RUC Time
Median Pre-Service Time	0.00	5.00	
Median Intra-Service Time	26.00	20.00]
Median Immediate Post-service Time	0.00	9.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	
Median Office Visit Time	0.0	0.00	
Prolonged Services Time	0.0	0.00	
Median Subsequent Observation Care Time	0.0	0.00	
Median Total Time	26.00	34.00	
Other time if appropriate			

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

3.42

Mental Effort and Judgment (Mean)

The number	of pos	ssible	diagnosis	and/or	the	number	of	3.66	3.63
management	options th	nat mus	t be consid	ered					

The amount and/or complexity of medical records, diagnostic tests,	4.00	3.79
and/or other information that must be reviewed and analyzed		
5		

Urgency of medical decision making	3.34	
Orgency of medical decision making	5.34	L

Technical Skill/Physical Effort (Mean)

Technical skill required	3.24	3.26
Physical effort required	3.00	3.13
Psychological Stress (Mean)		
The risk of significant complications, morbidity and/or mortality	3.79	3.76
Outcome depends on the skill and judgment of physician	3.92	3.76
Estimated risk of malpractice suit with poor outcome	3.37	3.41
INTENSITY/COMPLEXITY MEASURES	CPT Code	Reference
		<u>Service 1</u>

Time Segments (Mean)

Pre-Service intensity/complexity	
	 I

	,,	r	CPT Code: 99487
Intra-Service intensity/complexity	3.61	3.55	
Post-Service intensity/complexity			

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

Complex Chronic Care Coordination Codes (CCCC)

There were 147 responses to the survey request. The following societies participated in distributing the survey; American Geriatrics Society (AGS), American Academy of Pediatrics (AAP), American College of Cardiologists (ACC), American Academy of Family Physicians (AAFP), American Academy of Neurology (AAN), American Thoracic Society (ATS), American Association of Clinical Endocrinologists (AACE), American College of Rheumatology (ACR), American College of Physicians (ACP), American Osteopathic Association (AOA), American College of Chest Physicians (ACCP), American Association of Nurse Practitioners (AANP), American Nursing Association (ANA), American Gastroenterological Association (AGA), The Endocrine Society (TES) and the American Society of Gastrointestinal Endoscopy (ASGE). These societies represent, physicians including MDs and DOs, physician assistants and nurse practitioners. The summary tables included contain total, as well as, breakout survey results. The survey tools were modified adding emphasis for clarifying time in terms of clinical staff and physician time; the modified survey tool was approved by the research subcommittee.

Background

A multi-specialty and multi-discipline expert panel ("panel") reviewed the surveys and developed the following rationale for the recommended work values for the Transitional Care Management (TCM) and complex chronic care coordination (CCCC) codes.

The TCM and CCCC codes are conceptually new services and have not previously been surveyed. These are services provided to patients with multiple conditions who require coordination of care that is provided by clinical staff under the supervision of a physician, as well as care provided directly by the physician. The care is predominantly non-face-to-face (NFTF) but, in some cases, also includes face-to-face (FTF) care. The panel kept in mind that any FTF visit included in these services was not a traditional E/M service and that the E/M documentations guidelines for history, physical and medical decision making would not apply. As an example, a FTF visit included in a TCM or CCCC service might consist largely of evaluating functional and cognitive status, adverse reactions to medications, medication reconciliation and education rather than performing a traditional history or physical exam.

The panel also kept in mind that the TCM and CCCC codes do not include physician or clinical staff time or work performed for unrelated activities. For example, NFTF and FTF care provided for an acute respiratory infection or abdominal pain that occurs during the month a TCM or CCCC code is reported are not included in the TCM or CCCC code and are reported separately.

There is one major difference between the CCCC and TCM codes - the reporting criteria for the CCCC codes are based on clinical staff time - not physician time. Therefore, the CCCC codes should only be billed for the most complex patients who require a case manager to coordinate care for all the patient's medical problems. Codes 99487 and 99489 do not include any FTF services. If a patient is seen during a calendar month when the code can be reported (i.e., sufficient clinical staff time is spent on NFTF care), then 99488 is reported. Most of the physician work for 99487 and 99489 is spent in supervising clinical staff, although some may be for direct patient care.

Similar to the TCM codes, all physician time in the CCCC codes is considered intraservice time, because it includes all time spent in a calendar month.

The panel also noted that the respondents have never valued codes that involve care coordination and oversight of staff services that are essential components to these types of care. Because of this, and as described in more detail below, the expert panel believes the surveys are flawed in some aspects. First, respondents had to estimate both physician time and staff time for each TCM and CCCC service. Even though many respondents reported that they provide these services, it appeared that they did not properly account for the amount of clinical staff time required for each service and that they did not account for all of the physician time or work involved in NFTF supervision.

Reference Services

For 99487, the key reference services were codes:

- 99374, Physician supervision of a patient under care of home health agency (patient not present) in home, domiciliary or equivalent environment (eg, Alzheimer's facility) requiring complex and multidisciplinary care modalities involving regular physician development and/or revision of care plans, review of subsequent reports of patient status, review of related laboratory and other studies, communication (including telephone calls) for purposes of assessment or care decisions with health care professional(s), family member(s), surrogate decision maker(s) (eg, legal guardian) and/or key caregiver(s) involved in patient's care, integration of new information into the medical treatment plan and/or adjustment of medical therapy, within a calendar month; 15-29 minutes with a work RVU of 1.1 and total time of 34 minutes (5/20/9) and
- 99214 Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A detailed history; A detailed examination; Medical decision making of moderate complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 25 minutes face-to-face with the patient and/or family with a work RVU of 1.5 and total time of 40 minutes (5/25/10).

The survey median RVU for 99487 was 1.50 with a total time of 45 minutes and with a survey 25th percentile work 1.00 and total time 26 minutes.

For 99489, the key reference services were code 99367 *Medical team conference with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more* with an RVU of 1.10 and total time of 40 minutes (5/30/5) and code 99214 with a work RVU of 1.50 and total time of 40 minutes (5/25/10). The survey median RVU for 99489 was 1.10 with a total time of 30 minutes.

For 99488, which include a FTF visit, the key reference service was code 99350, *Home visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A comprehensive interval history; A comprehensive examination; Medical decision making of moderate to high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. The patient may be unstable or may have developed a significant new problem requiring immediate physician attention. Physicians typically spend 60 minutes face-to-face with the patient and/or family with an RVU of 3.28 and total time of 110 minutes (15/75/20).*

The FTF service chosen as most similar to the FTF service included in 99488 was code 99215 Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A comprehensive history; A comprehensive examination; Medical decision making of high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 40 minutes face-to-face with the patient and/or family with an RVU of 2.11 and total time of 65 minutes (15/35/15).

The survey median RVU for 99488 was 2.50 with a total time of 60 minutes.

Recommendation and Rationale

The expert panel determined that the first service to value in this family was 99488, so it could be placed in the proper rank order with the TCM codes, both of which also have FTF visits included. Once this was accomplished, then 99487 and 99489 could be valued relative to 99488.

Our expert panel reviewed the data and tried to place 99488 into proper rank order with the two TCM codes just reviewed. However, this was difficult to do because the survey median physician time for 99488 of 60 minutes was only 5 minutes more than the total time of 99215, the E/M selected as most like the face to face portion of 99488 - seemingly leaving little time for non face to face supervision of the clinical staff. Moreover, the total time was identical to the total median survey time for 99496 which had a median RVU of 3.05. In addition, our expert panel believed that the respondents overestimated physician time and work for the two non face to face codes.

After much discussion, we are making the recommendations contained in the attachments. For 99488, we are recommending the survey median physician time and work. The recommended physician time of 60 minutes places it in proper ratio with the total clinical staff time of 107 minutes. Even if the face to face portion of 99488 takes 35 minutes, the same as 99215, that still leaves 25 minutes for non-face to face care over the calendar month.

With respect to the physician work, we believe the service is less intense than 99496 for two reasons: (1) the CCCC codes require moderate OR highly complex medical decision making, whereas 99496 only requires highly complex medical decision making and (2) because the patient's condition is well known to the physician due to ongoing CCCC. In the case of TCM codes, the patient's condition post-discharge is not known to the physician, making the patient similar to a new patient.

In order to maintain proper rank order, for 99487, the survey 25th percentiles for time and physician work - 26 minutes and 1.0 RVUs are a more accurate estimate than the medians and result in the proper ratio of physician to clinical staff time of 26/60. In

order to maintain these ratios, the physician time for 99489 should be 13 minutes - for a ratio of 13/30 and the physician work for 99489 should be 0.5 RVUS which is half the amount for 99487. The most pertinent comparison services for 99487 are codes:

СРТ	Description	wRVU	Total Time
99374	Physician supervision of a patient under care of home health agency (patient not present) in home, domiciliary or equivalent environment (eg, Alzheimer's facility) requiring complex and multidisciplinary care modalities involving regular physician development and/or revision of care plans, review of subsequent reports of patient status, review of related laboratory and other studies, communication (including telephone calls) for purposes of assessment or care decisions with health care professional(s), family member(s), surrogate decision maker(s) (eg, legal guardian) and/or key caregiver(s) involved in patient's care, integration of new information into the medical treatment plan and/or adjustment of medical therapy, within a calendar month; 15-29 minutes	1.10	(Preintra/post) 34 minutes (5/20/9)
99367	Medical team conference with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more; participation by physician	1.10	40 minutes (5/30/5)
GXXXX3	Medical Home Project Tier 3 (times 3)	1.05	27.6 minutes (all Intra-time)
93281	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent programmed values with physician analysis, review and report; multiple lead pacemaker system	0.90	30 minutes (5/20/5)
76813	Ultrasound, pregnant uterus, real time with image documentation, first trimester fetal nuchal translucency measurement, transabdominal or transvaginal approach; single or first gestation	1.18	35 minutes (5/20/10)

99487 CCCC, first hour CST, no F2F visit

In summary, the expert panel recommends the 25th percentile survey work RVU of 1.00 and 25th service survey time totaling 26 minutes.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

- The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.
- Multiple codes allow flexibility to describe exactly what components the procedure included.
- Multiple codes are used to maintain consistency with similar codes.
- Historical precedents.
- Other reason (please explain)
- 2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) The CCCC codes are conceptually new services, see attached spreadsheet for details.

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Internal Medicine	How often? Commonly
Specialty Family Practice	How often? Commonly
Specialty Geriatrics	How often? Commonly

Estimate the number of times this service might be provided nationally in a one-year period? 0 If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate. We estimated that less than 10 percent of the 99214 and 99215 visits might qualify to bill the service, second we estimated that even if the service qualified, 50 percent of less might actually receive the service. We then split that total amoung the three codes assuming the 99487 would have slightly more volume than the 99488 code and much less common would a provider qualify to bill the 99489.

Specialty Internal Medicine	Frequency 0	Percentage 0.00 %
Specialty Family Practice	Frequency 0	Percentage 0.00 %
Specialty Geriatrics	Frequency 0	Percentage 0.00 %

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 5,003,744 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. For Medicare we assume 1/3 of the total population.

Specialty Internal Medicine	Frequency 0	Percentage 0.00 %
Specialty Family Practice	Frequency 0	Percentage 0.00 %
Specialty Geriatrics	Frequency 0	Percentage 0.00 %

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix <u>will not</u> change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 99374

Additional Information

Response

33

Yes or No	or Comes in for office to t visit(s)		Perform work without code to report services	Time is paid for as a medical director	Other (please specify)				
Yes or	If Survey Part	ticipant Answe	red 0 (zero) for any	one of the three	CCCC codes, they were also asked				
Inose	that answered	(U) Zero to							
	performance r	ate							
	Response	Percentage							
Yes	<mark>51</mark>	<mark>37%</mark>							
No	87	63%							
Total	138	100%							
			Additional I	nformation Ser	vices				
	Tell us more:	Patient Comes In	Patient Admitted	No Code To Report	Paid as Med Director				

15

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8

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:99488 Tracking Number F2

Original Specialty Recommended RVU: **3.15** Presented Recommended RVU: **2.50** RUC Recommended RVU: **2.50**

Global Period: XXX

CPT Descriptor: Complex chronic care coordination services; first hour of clinical staff time directed by a physician or other qualified health care professional with one face-to-face visit, per calendar month

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey:

Typical Patient (99488) (Child)

A 12-year-old child has severe atopic disease and recurrent asthma, which has led to multiple emergency department visits, hospital admissions, lost school days and behavioral adjustment reactions.

Typical patient (99488) (Adult)

A 92-year-old man living an assisted living facility with Parkinson's disease, mild dementia, depression and diabetes mellitus continues to lose weight and remains withdrawn. The patient's family resides out of state and an attendant sees the patient for 3 hours daily.

Percentage of Survey Respondents who found Vignette to be Typical: 91%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 0%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 0%

Description of Pre-Service Work:

Description of Intra-Service Work:

Complex chronic care coordination services are patient centered management and support services provided by physicians, other qualified health care professionals and clinical staff to an individual who resides at home or in a domiciliary, rest home or assisted living facility. These services typically involve clinical staff implementing a care plan directed by the physician or other qualified health care professional. These services address the coordination of care by multiple disciplines and community service agencies. The reporting individual provides or oversees the management and/or coordination of services, as needed, for all medical conditions, psychosocial needs and activities of daily living.

Patients who require complex chronic care coordination services may be identified by algorithms that utilize reported conditions and services (eg, predictive modeling risk score or repeat admissions or emergency department use) or by clinician judgment. Typical patients have 1 or more chronic continuous or episodic health conditions expected to last at least 12 months, or until the death of the patient, that place the patient at significant risk of death, acute exacerbation/decompensation or functional decline. Because of the complex nature of their diseases and morbidities, these patients commonly require the coordination of a number of specialties and services. Patients may have medical and psychiatric behavioral co-morbidities (eg, dementia and chronic obstructive pulmonary disease or substance abuse and

CPT Code: 99488

diabetes) that complicate their care. Social support weaknesses or access to care difficulties may cause a need for these services. Medical, functional, and/or psychosocial problems that require medical decision making of moderate or high complexity and extensive clinical staff support are expected. Medical decision making as defined in the Evaluation and Management (E/M) guidelines is not only applied to the face-to-face services, but is determined by the nature of the problems addressed by the reporting individual during the month. A plan of care should be documented and shared with the patient and/or caregiver

Description of Post-Service Work:

SURVEY DAT	ΓΑ						
RUC Meeting Da	ate (mm/yyyy)	10/2012					
Presenter(s):	Robert Zorowi Carlson, RN, J	tz, MD (AGS) JD (ANA), Ste	, Thomas ^v ven Krug,	Weida (AAFI MD (AAP) a	P), Mary Nev nd Joel Brill,	wman, MD (A MD (AGA).	CP), Eileen
Specialty(s):Called A, Harris C, Harris C							
CPT Code:	99488						
Sample Size:	8896 Resp N: 147 Response: 1.6 %						
Description of Sample:	Random						
			Low	25 th pctl	Median*	75th pctl	<u>High</u>
Service Perform	ance Rate		0.00	1.00	15.00	50.00	1000.00
Survey RVW:			0.00	1.50	2.50	3.50	30.00
Pre-Service Evalu	ation Time:				0.00		
Pre-Service Posit	ioning Time:				0.00		
Pre-Service Scrut	o, Dress, Wait Tir	ne:			0.00		
Intra-Service Tir	ne:		0.00	40.00	60.00	90.00	800.00
Immediate Post	Service-Time:	0.00					
Post Operative	Visits	Total Min**	CPT Cod	e and Num	ber of Visit	S	
Critical Care tim	ne/visit(s):	<u>0.00</u>	99291x 0	. 00 99292	2x 0.00		
Other Hospital t	ime/visit(s):	<u>0.00</u>	99231x 0	. 00 99232	2x 0.00 9	9233x 0.00	
Discharge Day I	Mgmt:	<u>0.00</u>	99238x 0	. 00 99239x	0.00	99217x 0.00	
Office time/visit	(s):	<u>0.00</u>	99211x 0	.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00
Prolonged Serv	ices:	<u>0.00</u>	99354x 0	.00 55x ().00 56x 0	.00 57x 0.0	00
Sub Obs Care:	Sub Obs Care: 0.00 99224x 0.00 99225x 0.00 99226x 0.00						

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: XXX Global Code

CPT Code: 9	9488		Recommended Physician Work RVU: 2.50					
			Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time			
Pre-Service Evaluation Time:			0.00	0.00	0.00			
Pre-Service Positioning T	ime:		0.00	0.00	0.00			
Pre-Service Scrub, Dress,	Wait Tin	ne:	0.00	0.00	0.00			
Intra-Service Time:			60.00					
Immediate Post Service	e-Time:	<u>0.00</u>		•				
Post Operative Visits		Total Min**	CPT Code and Num	ber of Visits				

Critical Care time/visit(s):	<u>0.00</u>	99291x 0.00 99292x 0.00
Other Hospital time/visit(s):	<u>0.00</u>	99231x 0.00 99232x 0.00 99233x 0.00
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0.0 99217x 0.00
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00 13x 0.00 14x 0.00 15x 0.00
Prolonged Services:	<u>0.00</u>	99354x 0.00 55x 0.00 56x 0.00 57x 0.00
Sub Obs Care:	<u>0.00</u>	99224x 0.00 99225x 0.00 99226x 0.00

CPT Code: 99488

Most Recent

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? Yes

KEY REFERENCE SERVICE:

Key CPT Code	<u>Global</u>	Work RVU	Time Source
99350	XXX	3.28	RUC Time

<u>CPT Descriptor</u> Home visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A comprehensive interval history; A comprehensive examination; Medical decision making of moderate to high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. The patient may be unstable or may have developed a significant new problem requiring immediate physician attention. Physicians typically spend 60 minutes face-to-face with the patient and/or family.

KEY MPC COMPARISON CODES:

Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review.

				Wiest Recent
MPC CPT Code 1	<u>Global</u>	<u>Work RVU</u>	Time Source	Medicare Utilization
99215	XXX	2.11	CMS Time File	9,665,755
CPT Descriptor 1 Office	or other outpati	ient visit for the	evaluation and man	agement of an established patient, which
requires at least 2 of these	e 3 key compone	nts: A comprehe	nsive history; A com	prehensive examination; Medical decision
making of high complex	kity. Counseling	and/or coordina	tion of care with o	ther providers or agencies are provided
consistent with the nature	of the problem(s	s) and the patient	's and/or family's nee	eds. Usually, the presenting problem(s) are
of moderate to high severi	ity. Physicians ty	pically spend 40	minutes face-to-face	with the patient and/or family.
				Most Recent
MPC CPT Code 2	Global	Work RVU	Time Source	Medicare Utilization

CPT Descriptor 2

Other Reference CPT Code	Global	Work RVU	Time Source
74262	XXX	2.50	RUC Time

<u>CPT Descriptor</u> Computed tomographic (CT) colonography, diagnostic, including image postprocessing; with contrast material(s) including non-contrast images, if performed

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 29 % of respondents: 19.7 %

Source of Time RUC Time

<u>TIME ESTIMATES (Median)</u>	CPT Code: 99488	Key Reference CPT Code: <u>99350</u>	
Median Pre-Service Time	0.00	15.00	
Median Intra-Service Time	60.00	75.00	
Median Immediate Post-service Time	0.00	20.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	
Median Office Visit Time	0.0	0.00	
Prolonged Services Time	0.0	0.00	
Median Subsequent Observation Care Time	0.0	0.00	
Median Total Time	60.00	110.00	
Other time if appropriate			

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key Reference code)

Mental Effort and Judgment (Mean)

The	number	of	possible	diagnosis	and/or	the	number	of	4.41	4.21
mana	management options that must be considered									

The amount and/or complexity of medical records, diagnostic tests, and/or other information that must be reviewed and analyzed	4.55	4.34
Urganay of medical desision making	3.03	3 03
Urgency of medical decision making	3.93	3.93

Technical Skill/Physical Effort (Mean)

Technical skill required	4.07	3.86
Physical effort required	3.69	3.75
Psychological Stress (Mean)		
The risk of significant complications, morbidity and/or mortality	4.41	4.24
Outcome depends on the skill and judgment of physician	4.41	4.34
Estimated risk of malpractice suit with poor outcome	3.83	3.69
INTENSITY/COMPLEXITY MEASURES	CPT Code	<u>Reference</u>
		Service I

Time Segments (Mean)

Pre-Service intensity/complexity

CDT Codo: 00488

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

Complex Chronic Care Coordination Codes (CCCC)

There were 147 responses to the survey request. The following societies participated in distributing the survey; American Geriatrics Society (AGS), American Academy of Pediatrics (AAP), American College of Cardiologists (ACC), American Academy of Family Physicians (AAFP), American Academy of Neurology (AAN), American Thoracic Society (ATS), American Association of Clinical Endocrinologists (AACE), American College of Rheumatology (ACR), American College of Physicians (ACP), American Osteopathic Association (AOA), American College of Chest Physicians (ACCP), American Association of Nurse Practitioners (AANP), American Nursing Association (ANA), American Gastroenterological Association (AGA), The Endocrine Society (TES) and the American Society of Gastrointestinal Endoscopy (ASGE). These societies represent, physicians including MDs and DOs, physician assistants and nurse practitioners. The summary tables included contain total, as well as, breakout survey results. The survey tools were modified adding emphasis for clarifying time in terms of clinical staff and physician time; the modified survey tool was approved by the research subcommittee.

Background

A multi-specialty and multi-discipline expert panel ("panel") reviewed the surveys and developed the following rationale for the recommended work values for the Transitional Care Management (TCM) and complex chronic care coordination (CCCC) codes.

The TCM and CCCC codes are conceptually new services and have not previously been surveyed. These are services provided to patients with multiple conditions who require coordination of care that is provided by clinical staff under the supervision of a physician, as well as care provided directly by the physician. The care is predominantly non-face-to-face (NFTF) but, in some cases, also includes face-to-face (FTF) care. The panel kept in mind that any FTF visit included in these services was not a traditional E/M service and that the E/M documentations guidelines for history, physical and medical decision making would not apply. As an example, a FTF visit included in a TCM or CCCC service might consist largely of evaluating functional and cognitive status, adverse reactions to medications, medication reconciliation and education rather than performing a traditional history or physical exam.

The panel also kept in mind that the TCM and CCCC codes do not include physician or clinical staff time or work performed for unrelated activities. For example, NFTF and FTF care provided for an acute respiratory infection or abdominal pain that occurs during the month a TCM or CCCC code is reported are not included in the TCM or CCCC code and are reported separately.

There is one major difference between the CCCC and TCM codes - the reporting criteria for the CCCC codes are based on clinical staff time - not physician time. Therefore, the CCCC codes should only be billed for the most complex patients who require a case manager to coordinate care for all the patient's medical problems. Codes 99487 and 99489 do not include any FTF services. If a patient is seen during a calendar month when the code can be reported (i.e., sufficient clinical staff time is spent on NFTF care), then 99488 is reported. Most of the physician work for 99487 and 99489 is spent in supervising clinical staff, although some may be for direct patient care.

Similar to the TCM codes, all physician time in the CCCC codes is considered intraservice time, because it includes all time spent in a calendar month.

The panel also noted that the respondents have never valued codes that involve care coordination and oversight of staff services that are essential components to these types of care. Because of this, and as described in more detail below, the expert panel believes the surveys are flawed in some aspects. First, respondents had to estimate both physician time and staff time for each TCM and CCCC service. Even though many respondents reported that they provide these services, it appeared that they did not properly account for the amount of clinical staff time required for each service and that they did not account for all of the physician time or work involved in NFTF supervision.

Reference Services

For 99487, the key reference services were codes:

- 99374, Physician supervision of a patient under care of home health agency (patient not present) in home, domiciliary or equivalent environment (eg, Alzheimer's facility) requiring complex and multidisciplinary care modalities involving regular physician development and/or revision of care plans, review of subsequent reports of patient status, review of related laboratory and other studies, communication (including telephone calls) for purposes of assessment or care decisions with health care professional(s), family member(s), surrogate decision maker(s) (eg, legal guardian) and/or key caregiver(s) involved in patient's care, integration of new information into the medical treatment plan and/or adjustment of medical therapy, within a calendar month; 15-29 minutes with a work RVU of 1.1 and total time of 34 minutes (5/20/9) and
- 99214 Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A detailed history; A detailed examination; Medical decision making of moderate complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 25 minutes face-to-face with the patient and/or family with a work RVU of 1.5 and total time of 40 minutes (5/25/10).

The survey median RVU for 99487 was 1.50 with a total time of 45 minutes and with a survey 25th percentile work 1.00 and total time 26 minutes.

For 99489, the key reference services were code 99367 *Medical team conference with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more* with an RVU of 1.10 and total time of 40 minutes (5/30/5) and code 99214 with a work RVU of 1.50 and total time of 40 minutes (5/25/10). The survey median RVU for 99489 was 1.10 with a total time of 30 minutes.

For 99488, which include a FTF visit, the key reference service was code 99350, *Home visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A comprehensive interval history; A comprehensive examination; Medical decision making of moderate to high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. The patient may be unstable or may have developed a significant new problem requiring immediate physician attention. Physicians typically spend 60 minutes face-to-face with the patient and/or family with an RVU of 3.28 and total time of 110 minutes (15/75/20).*

The FTF service chosen as most similar to the FTF service included in 99488 was code 99215 Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A comprehensive history; A comprehensive examination; Medical decision making of high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 40 minutes face-to-face with the patient and/or family with an RVU of 2.11 and total time of 65 minutes (15/35/15).

Recommendation and Rationale

The expert panel determined that the first service to value in this family was 99488, so it could be placed in the proper rank order with the TCM codes, both of which also have FTF visits included. Once this was accomplished, then 99487 and 99489 could be valued relative to 99488.

Our expert panel reviewed the data and tried to place 99488 into proper rank order with the two TCM codes just reviewed. However, this was difficult to do because the survey median physician time for 99488 of 60 minutes was only 5 minutes more than the total time of 99215, the E/M selected as most like the face to face portion of 99488 - seemingly leaving little time for non-face to face supervision of the clinical staff. Moreover, the total time was identical to the total median survey time for 99496 which had a median RVU of 3.05. In addition, our expert panel believed that the respondents overestimated physician time and work for the two non-faces to face codes.

After much discussion, we are making the recommendations contained in the attachments. For 99488, we are recommending the survey median physician time and work. The recommended physician time of 60 minutes places it in proper ratio with the total clinical staff time of 107 minutes. Even if the face to face portion of 99488 takes 35 minutes, the same as 99215, that still leaves 25 minutes for non-face to face care over the calendar month.

With respect to the physician work, we believe the service is less intense than 99496 for two reasons: (1) the CCCC codes require moderate OR highly complex medical decision making, whereas 99496 only requires highly complex medical decision making and (2) because the patient's condition is well known to the physician due to ongoing CCCC. In the case of TCM codes, the patient's condition post-discharge is not known to the physician, making the patient similar to a new patient.

In order to maintain proper rank order, for 99487, the survey 25th percentiles for time and physician work - 26 minutes and 1.0 RVUs are a more accurate estimate than the medians and result in the proper ratio of physician to clinical staff time of 26/60. In order to maintain these ratios, the physician time for 99489 should be 13 minutes - for a ratio of 13/30 and the physician work for 99489 should be 0.5 RVUS which is half the amount for 99487.

The most pertinent comparison services for 99488 are codes:

			CPT Code: 994
СРТ	Description	wRVU	Total Time (Pre/intra/post)
74262	Computed tomographic (CT) colonography, diagnostic, including image postprocessing; with contrast material(s) including non-contrast images, if performed	2.50	57 minutes (5/45/7 minutes)
95954	Pharmacological or physical activation requiring physician attendance during EEG recording of activation phase (eg, thiopental activation test)	2.45	70 minutes (5/60/5)
99326	Domiciliary or rest home visit for the evaluation and management of a new patient, which requires these 3 key components: A detailed history; A detailed examination; and Medical decision making of moderate complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 45 minutes with the patient and/or family or caregiver.	2.63	77 minutes (15/45/17)
90947	Dialysis procedure other than hemodialysis (eg, peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies) requiring repeated physician evaluations, with or without substantial revision of dialysis prescription	2.52	70 minutes (10/50/10)

99488 CCCC, first hour CST, with (1) F2F visit

In summary, the expert panel recommends the median survey work RVU of 2.5 and median service survey time totaling 60 minutes.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: No

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

- Multiple codes allow flexibility to describe exactly what components the procedure included.
- Multiple codes are used to maintain consistency with similar codes.
- Historical precedents.
- Other reason (please explain)
- 2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) The CCCC codes are conceptually new services, see attached spreadsheet for details.

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Internal Medicine	How often? Commonly	CPT Code: 99488
Specialty Family Practice	How often? Commonly	
Specialty Geriatrics	How often? Commonly	

Estimate the number of times this service might be provided nationally in a one-year period? 0 If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate. We estimated that less than 10 percent of the 99214 and 99215 visits might qualify to bill the service, second we estimated that even if the service qualified, 50 percent of less might actually receive the service. We then split that total amoung the three codes assuming the 99487 would have slightly more volume than the 99488 code and much less common would a provider qualify to bill the 99489.

00400

Specialty Internal Medicine	Frequency 0	Percentage 0.00 %
Specialty Family Practice	Frequency 0	Percentage 0.00 %
Specialty Geriatrics	Frequency 0	Percentage 0.00 %

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 3,730,064 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. For Medicare we assume 1/3 of the total population.

Specialty Geriatrics	Frequency 0	Percentage 0.00 %
Specialty Family Practice	Frequency 0	Percentage 0.00 %
Specialty Internal Medicine	Frequency 0	Percentage 0.00 %

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix <u>will not</u> change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 99215

Additional Information

Yes or No	Patient comes in for office visit(s)	Patient is admitted to the hospital	Perform work without code to report services	Time is paid for as a medical director	Other (please specify)
Yes or No	If Survey Part additional inf	ticipant Answe ormation for c	ered 0 (zero) for any larification.	one of the three	CCCC codes, they were also asked
Those	that answered performance r	(0) Zero to ate			
	Response	Percentage			
Yes	<mark>51</mark>	<mark>37%</mark>			
No	87	63%			
Total	138	100%			
			Additional I	Information Ser	vices
	Tell us more:	Patient Comes In	Patient Admitted	No Code To Report	Paid as Med Director
	Response	33	15	49	8

AMA/SPECIALTY SOCIETY RVS UPDATE PROCESS SUMMARY OF RECOMMENDATION

CPT Code:99489 Tracking Number F3

Global Period: ZZZ

Original Specialty Recommended RVU: 0.75 Presented Recommended RVU: 0.50 RUC Recommended RVU: 0.50

CPT Descriptor: Complex chronic care coordination services; each additional 30 minutes of clinical staff time directed by a physician or other qualified health care professional, per calendar month (List separately in addition to code for primary procedure) (Report 99489 in conjunction with 99487, 99488)

CLINICAL DESCRIPTION OF SERVICE:

Vignette Used in Survey:

Typical patient (99489) (Adult)

A 92-year-old man living an assisted living facility with Parkinson's disease, mild dementia, depression and diabetes mellitus continues to lose weight and remains withdrawn. The patient's family resides out of state and an attendant sees the patient for 3 hours daily. The clinical staff has already spent 74 minutes in the month performing care coordination services and now spends additional time.

Percentage of Survey Respondents who found Vignette to be Typical: 82%

Site of Service (Complete for 010 and 090 Globals Only)

Percent of survey respondents who stated they perform the procedure; In the hospital 0%, In the ASC 0%, In the office 0%

Percent of survey respondents who stated they typically perform this procedure in the hospital, stated the patient is; Discharged the same day 0%, Overnight stay-less than 24 hours 0%, Overnight stay-more than 24 hours 0%

Percent of survey respondents who stated that if the patient is typically kept overnight also stated that they perform an E&M service later on the same day 0%

Moderate Sedation

Is moderate sedation inherent to this procedure in the Hospital/ASC setting? No Percent of survey respondents who stated moderate sedation is typical in the Hospital/ASC setting? 0%

Is moderate sedation inherent to this procedure in the office setting? No Percent of survey respondents who stated moderate sedation is typical in the office setting? 0%

Description of Pre-Service Work:

Description of Intra-Service Work: Complex chronic care coordination services are patient centered management and support services provided by physicians, other qualified health care professionals and clinical staff to an individual who resides at home or in a domiciliary, rest home or assisted living facility. These services typically involve clinical staff implementing a care plan directed by the physician or other qualified health care professional. These services address the coordination of care by multiple disciplines and community service agencies. The reporting individual provides or oversees the management and/or coordination of services, as needed, for all medical conditions, psychosocial needs and activities of daily living.

Patients who require complex chronic care coordination services may be identified by algorithms that utilize reported conditions and services (eg, predictive modeling risk score or repeat admissions or emergency department use) or by clinician judgment. Typical patients have 1 or more chronic continuous or episodic health conditions expected to last at least 12 months, or until the death of the patient, that place the patient at significant risk of death, acute exacerbation/decompensation or functional decline. Because of the complex nature of their diseases and morbidities, these patients commonly require the coordination of a number of specialties and services. Patients may have medical and psychiatric behavioral co-morbidities (eg, dementia and chronic obstructive pulmonary disease or substance abuse and

CPT Code: 99489

diabetes) that complicate their care. Social support weaknesses or access to care difficulties may cause a need for these services. Medical, functional, and/or psychosocial problems that require medical decision making of moderate or high complexity and extensive clinical staff support are expected. Medical decision making as defined in the Evaluation and Management (E/M) guidelines is not only applied to the face-to-face services, but is determined by the nature of the problems addressed by the reporting individual during the month. A plan of care should be documented and shared with the patient and/or caregiver.

Description of Post-Service Work:

SURVEY DAT	CA						
RUC Meeting Da	te (mm/yyyy)	10/2012					
Presenter(s):	Robert Zorow Carlson, RN,	Robert Zorowitz, MD (AGS), Thomas Weida (AAFP), Mary Newman, MD (ACP), Eileen Carlson, RN, JD (ANA), Steven Krug, MD (AAP) and Joel Brill, MD (AGA)					CP), Eileen
Specialty(s):	American Geriatrics Society (AGS), American Academy of Pediatrics (AAP), American College of Cardiologists (ACC), American Academy of Family Physicians (AAFP), American Academy of Neurology (AAN), American Thoracic Society (ATS), American Association of Clinical Endocrinologists (AACE), American College of Rheumatology (ACR), American College of Physicians (ACP), American Osteopathic Association (AOA), American College of Chest Physicians (ACCP), American Academy of Family Physicians (AAFP), American Nursing Association (ANA), American Academy of Physician Assistants (AAPA), American Gastroenterological Association (AGA), The Endocrine Society (TES) and the American Society of Gastrointestinal Endoscopy (ASGE).						
CPT Code:	99489						
Sample Size:	8896 F	lesp N:	147 Response: 1.6 %				
Description of Sample:	Random						
			Low	25 th pctl	Median*	75th pctl	High
Service Performance Rate			0.00	0.00	9.00	30.00	1500.00
Survey RVW:			0.00	0.75	1.10	1.66	55.00
Pre-Service Evalu	ation Time:				0.00		
Pre-Service Positi	ioning Time:				0.00		
Pre-Service Scrub	o, Dress, Wait T	ime:			0.00		
Intra-Service Tir	ne:		0.00	20.00	30.00	45.00	400.00
Immediate Post	Service-Time:	<u>0.00</u>					
Post Operative Visits Total Min** CPT Code and Number of Visits							
Critical Care tim	e/visit(s):	0.00 99291x 0.00 99292x 0.00					
Other Hospital time/visit(s): 0.00 99231x 0.00 99232x 0.00 99233x 0.00							
Discharge Day N	Mgmt:	<u>0.00</u>	99238x 0).00 99239x	0.00	99217x 0.00	
Office time/visit	(s):	<u>0.00</u>	99211x 0	0.00 12x 0.0	0 13x 0.00 1	4x 0.00 15x	0.00
Prolonged Servi	ces:	<u>0.00</u>	99354x 0).00 55x C).00 56x 0	0.00 57x 0.0	00
Sub Obs Care: 0.00 99224x 0.00 99225x 0.00 99226x 0.00							

**Physician standard total <u>minutes per E/M visit</u>: 99291 (70); 99292 (30); 99231 (20); 99232 (40); 99233 (55); 99238(38); 99239 (55); 99217 (38); 99211 (7); 99212 (16); 99213 (23); 99214 (40); 99215 (55); 99224 (20); 99225 (40); 99226 (55); 99354 (60); 99355 (30); 99356 (60); 99357 (30)

Specialty Society Recommended Data

Please, pick the pre-service time package that best corresponds to the data which was collected in the survey process: ZZZ Global Code

CPT Code:	99489		Recommended Physician Work RVU: 0.50				
			Specialty Recommended Pre- Service Time	Specialty Recommended Pre Time Package	Adjustments/Recommended Pre-Service Time		
Pre-Service Evaluation Time:			0.00	0.00	0.00		
Pre-Service Position	re-Service Positioning Time: 0.00 0.00			0.00			
Pre-Service Scrub, Dress, Wait Time:		0.00	0.00	0.00			
Intra-Service Time) :		13.00				
Immediate Post S	ervice-Time:	<u>0.00</u>		•			
Post Operative Vis	<u>sits</u>	Total Min**	CPT Code and Num	ber of Visits			

Critical Care time/visit(s):	<u>0.00</u>	99291x 0.00 99292x 0.00
Other Hospital time/visit(s):	<u>0.00</u>	99231x 0.00 99232x 0.00 99233x 0.00
Discharge Day Mgmt:	<u>0.00</u>	99238x 0.0 99239x 0.0 99217x 0.00
Office time/visit(s):	<u>0.00</u>	99211x 0.00 12x 0.00 13x 0.00 14x 0.00 15x 0.00
Prolonged Services:	<u>0.00</u>	99354x 0.00 55x 0.00 56x 0.00 57x 0.00
Sub Obs Care:	<u>0.00</u>	99224x 0.00 99225x 0.00 99226x 0.00

CPT Code: 99489

Modifier -51 Exempt Status

Is the recommended value for the new/revised procedure based on its modifier -51 exempt status? No

New Technology/Service:

Is this new/revised procedure considered to be a new technology or service? No

KEY REFERENCE SERVICE:

Key CPT Code	Global	Work RVU	Time Source
99367	XXX	1.10	RUC Time

<u>CPT Descriptor</u> Medical team conference with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more; participation by physician

KEY MPC COMPARISON CODES:

Compare the surveyed code to codes on the RUC's MPC List. Reference codes from the MPC list should be chosen, if appropriate that have relative values higher and lower than the requested relative values for the code under review.

				Most Recent
MPC CPT Code 1	<u>Global</u> Wo	ork RVU	Time Source	Medicare Utilization
99213	XXX	0.97	RUC Time	99,960,280
CPT Descriptor 1 Office of	r other outpatier	nt visit for th	ne evaluation and manage	gement of an established patient, which
requires at least 2 of these	3 key compone	ents: An exp	anded problem focused	history; An expanded problem focused
examination; Medical decis	sion making of lo	ow complexi	ty. Counseling and coor	dination of care with other providers or
agencies are provided cons	istent with the n	ature of the	problem(s) and the pati	ent's and/or family's needs. Usually, the
presenting problem(s) are o	f low to moderat	e severity. Pł	nysicians typically spend	15 minutes face-to-face with the patient
and/or family				
				Most Recent

				WIOSt Recent
MPC CPT Code 2	<u>Global</u>	Work RVU	Time Source	Medicare Utilization
99212	XXX	0.48	RUC Time	18,383,704

<u>CPT Descriptor 2</u> Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A problem focused history; A problem focused examination; Straightforward medical decision making. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are self limited or minor. Physicians typically spend 10 minutes face-to-face with the patient and/or family.

Other Reference CPT Code	<u>Global</u>	Work RVU	Time Source
11045	ZZZ	0.50	RUC Time

<u>CPT Descriptor</u> Debridement, subcutaneous tissue (includes epidermis and dermis, if performed); each additional 20 sq cm, or part thereof (List separately in addition to code for primary procedure)

RELATIONSHIP OF CODE BEING REVIEWED TO KEY REFERENCE SERVICE(S):

Compare the pre-, intra-, and post-service time (by the median) and the intensity factors (by the mean) of the service you are rating to the key reference services listed above. Make certain that you are including existing time data (RUC if available, Harvard if no RUC time available) for the reference code listed below.

Number of respondents who choose Key Reference Code: 31

% of respondents: 21.0 %

<u>TIME ESTIMATES (Median)</u>	CPT Code: 99489	Key Reference CPT Code: <u>99367</u>	Source of Time RUC Time
Median Pre-Service Time	0.00	5.00	
Median Intra-Service Time	13.00	30.00]
Median Immediate Post-service Time	0.00	5.00	
Median Critical Care Time	0.0	0.00	
Median Other Hospital Visit Time	0.0	0.00	
Median Discharge Day Management Time	0.0	0.00	
Median Office Visit Time	0.0	0.00	
Prolonged Services Time	0.0	0.00	
Median Subsequent Observation Care Time	0.0	0.00	
Median Total Time	13.00	40.00	
Other time if appropriate			

INTENSITY/COMPLEXITY MEASURES (Mean)

(of those that selected Key **Reference code**)

ntal Effort and Judg nont (Mean) . .

INTENSITY/COMPLEXITY MEASURES	<u>CPT Code</u>	Reference
Estimated risk of malpractice suit with poor outcome	3.23	3.23
Outcome depends on the skill and judgment of physician	3.94	3.61
The risk of significant complications, morbidity and/or mortality	3.84	3.58
Psychological Stress (Mean)		
Physical effort required	2.87	2.84
Technical skill required	3.35	3.32
Technical Skill/Physical Effort (Mean)		
Urgency of medical decision making	3.50	3.40
The amount and/or complexity of medical records, diagnostic tests, and/or other information that must be reviewed and analyzed	3.87	3.74
The number of possible diagnosis and/or the number of management options that must be considered	3.65	3.42
Hentar Enort and oud_ment (1010un)		

Service 1

Time Segments (Mean)

Pre-Service intensity/complexity

CPT Code: 00480

Additional Rationale and Comments

Describe the process by which your specialty society reached your final recommendation. *If your society has used an IWPUT analysis, please refer to the Instructions for Specialty Societies Developing Work Relative Value Recommendations for the appropriate formula and format.*

Complex Chronic Care Coordination Codes (CCCC)

There were 147 responses to the survey request. The following societies participated in distributing the survey; American Geriatrics Society (AGS), American Academy of Pediatrics (AAP), American College of Cardiologists (ACC), American Academy of Family Physicians (AAFP), American Academy of Neurology (AAN), American Thoracic Society (ATS), American Association of Clinical Endocrinologists (AACE), American College of Rheumatology (ACR), American College of Physicians (ACP), American Osteopathic Association (AOA), American College of Chest Physicians (ACCP), American Association of Nurse Practitioners (AANP), American Nursing Association (ANA), American Gastroenterological Association (AGA), The Endocrine Society (TES) and the American Society of Gastrointestinal Endoscopy (ASGE). These societies represent, physicians including MDs and DOs, physician assistants and nurse practitioners. The summary tables included contain total, as well as, breakout survey results. The survey tools were modified adding emphasis for clarifying time in terms of clinical staff and physician time; the modified survey tool was approved by the research subcommittee.

Background

A multi-specialty and multi-discipline expert panel ("panel") reviewed the surveys and developed the following rationale for the recommended work values for the Transitional Care Management (TCM) and complex chronic care coordination (CCCC) codes.

The TCM and CCCC codes are conceptually new services and have not previously been surveyed. These are services provided to patients with multiple conditions who require coordination of care that is provided by clinical staff under the supervision of a physician, as well as care provided directly by the physician. The care is predominantly non-face-to-face (NFTF) but, in some cases, also includes face-to-face (FTF) care. The panel kept in mind that any FTF visit included in these services was not a traditional E/M service and that the E/M documentations guidelines for history, physical and medical decision making would not apply. As an example, a FTF visit included in a TCM or CCCC service might consist largely of evaluating functional and cognitive status, adverse reactions to medications, medication reconciliation and education rather than performing a traditional history or physical exam.

The panel also kept in mind that the TCM and CCCC codes do not include physician or clinical staff time or work performed for unrelated activities. For example, NFTF and FTF care provided for an acute respiratory infection or abdominal pain that occurs during the month a TCM or CCCC code is reported are not included in the TCM or CCCC code and are reported separately.

There is one major difference between the CCCC and TCM codes - the reporting criteria for the CCCC codes are based on clinical staff time - not physician time. Therefore, the CCCC codes should only be billed for the most complex patients who require a case manager to coordinate care for all the patient's medical problems. Codes 99487 and 99489 do not include any FTF services. If a patient is seen during a calendar month when the code can be reported (i.e., sufficient clinical staff time is spent on NFTF care), then 99488 is reported. Most of the physician work for 99487 and 99489 is spent in supervising clinical staff, although some may be for direct patient care.

Similar to the TCM codes, all physician time in the CCCC codes is considered intraservice time, because it includes all time spent in a calendar month.

The panel also noted that the respondents have never valued codes that involve care coordination and oversight of staff services that are essential components to these types of care. Because of this, and as described in more detail below, the expert panel believes the surveys are flawed in some aspects. First, respondents had to estimate both physician time and staff time for each TCM and CCCC service. Even though many respondents reported that they provide these services, it appeared that they did not properly account for the amount of clinical staff time required for each service and that they did not account for all of the physician time or work involved in NFTF supervision.

Reference Services

For 99487, the key reference services were codes:

- 99374, Physician supervision of a patient under care of home health agency (patient not present) in home, domiciliary or equivalent environment (eg, Alzheimer's facility) requiring complex and multidisciplinary care modalities involving regular physician development and/or revision of care plans, review of subsequent reports of patient status, review of related laboratory and other studies, communication (including telephone calls) for purposes of assessment or care decisions with health care professional(s), family member(s), surrogate decision maker(s) (eg, legal guardian) and/or key caregiver(s) involved in patient's care, integration of new information into the medical treatment plan and/or adjustment of medical therapy, within a calendar month; 15-29 minutes with a work RVU of 1.1 and total time of 34 minutes (5/20/9) and
- 99214 Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A detailed history; A detailed examination; Medical decision making of moderate complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 25 minutes face-to-face with the patient and/or family with a work RVU of 1.5 and total time of 40 minutes (5/25/10).

The survey median RVU for 99487 was 1.50 with a total time of 45 minutes and with a survey 25th percentile work 1.00 and total time 26 minutes.

For 99489, the key reference services were code 99367 *Medical team conference with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more* with an RVU of 1.10 and total time of 40 minutes (5/30/5) and code 99214 with a work RVU of 1.50 and total time of 40 minutes (5/25/10). The survey median RVU for 99489 was 1.10 with a total time of 30 minutes.

For 99488, which include a FTF visit, the key reference service was code 99350, *Home visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A comprehensive interval history; A comprehensive examination; Medical decision making of moderate to high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. The patient may be unstable or may have developed a significant new problem requiring immediate physician attention. Physicians typically spend 60 minutes face-to-face with the patient and/or family with an RVU of 3.28 and total time of 110 minutes (15/75/20).*

The FTF service chosen as most similar to the FTF service included in 99488 was code 99215 Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A comprehensive history; A comprehensive examination; Medical decision making of high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 40 minutes face-to-face with the patient and/or family with an RVU of 2.11 and total time of 65 minutes (15/35/15).

Recommendation and Rationale

The expert panel determined that the first service to value in this family was 99488, so it could be placed in the proper rank order with the TCM codes, both of which also have FTF visits included. Once this was accomplished, then 99487 and 99489 could be valued relative to 99488.

Our expert panel reviewed the data and tried to place 99488 into proper rank order with the two TCM codes just reviewed. However, this was difficult to do because the survey median physician time for 99488 of 60 minutes was only 5 minutes more than the total time of 99215, the E/M selected as most like the face to face portion of 99488 - seemingly leaving little time for non-face to face supervision of the clinical staff. Moreover, the total time was identical to the total median survey time for 99496 which had a median RVU of 3.05. In addition, our expert panel believed that the respondents overestimated physician time and work for the two non-faces to face codes.

After much discussion, we are making the recommendations contained in the attachments. For 99488, we are recommending the survey median physician time and work. The recommended physician time of 60 minutes places it in proper ratio with the total clinical staff time of 107 minutes. Even if the face to face portion of 99488 takes 35 minutes, the same as 99215, that still leaves 25 minutes for non-face to face care over the calendar month.

With respect to the physician work, we believe the service is less intense than 99496 for two reasons: (1) the CCCC codes require moderate OR highly complex medical decision making, whereas 99496 only requires highly complex medical decision making and (2) because the patient's condition is well known to the physician due to ongoing CCCC. In the case of TCM codes, the patient's condition post-discharge is not known to the physician, making the patient similar to a new patient.

In order to maintain proper rank order, for 99487, the survey 25th percentiles for time and physician work - 26 minutes and 1.0 RVUs are a more accurate estimate than the medians and result in the proper ratio of physician to clinical staff time of 26/60. In order to maintain these ratios, the physician time for 99489 should be 13 minutes - for a ratio of 13/30 and the physician work for 99489 should be 0.5 RVUS which is half the amount for 99487.

The most pertinent comparison services for 99489 are codes:

			CPT Code: 9948
СРТ	Description	wRVU	Total Time (Pre/intra/post)
99212	Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A problem focused history; A problem focused examination; Straightforward medical decision making. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are self-limited or minor. Physicians typically spend 10 minutes face-to-face with the patient and/or family.	0.48	16 minutes (2/10/4 minutes)
GXXXX3	Medical Home Project Tier 3 (times 1.5)	0.53	13.8 minutes (all intra-time)
11045	Debridement, subcutaneous tissue (includes epidermis and dermis, if performed); each additional 20 sq cm, or part thereof (List separately in addition to code for primary procedure)	0.50	15 minutes (all intra-time)
15276	Application of skin substitute graft to face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits, total wound surface area up to 100 sq cm; each additional 25 sq cm wound surface area, or part thereof (List separately in addition to code for primary procedure)	0.50	10 minutes (all intra-time)

99489 CCCC, each additional 30 minutes (add-on code)

In summary, the expert panel recommends ½ the value and time of 99487 to preserve rank order with a work RVU of 0.50 and 13 minutes total time.

SERVICES REPORTED WITH MULTIPLE CPT CODES

1. Is this code typically reported on the same date with other CPT codes? If yes, please respond to the following questions: Yes

Why is the procedure reported using multiple codes instead of just one code? (Check all that apply.)

ļ	\boxtimes

The surveyed code is an add-on code or a base code expected to be reported with an add-on code. Different specialties work together to accomplish the procedure; each specialty codes its part of the physician work using different codes.

Multiple codes allow flexibility to describe exactly what components the procedure included.

Multiple codes are used to maintain consistency with similar codes.

Historical precedents.

Other reason (please explain)

2. Please provide a table listing the typical scenario where this code is reported with multiple codes. Include the CPT codes, global period, work RVUs, pre, intra, and post-time for each, summing all of these data and accounting for relevant multiple procedure reduction policies. If more than one physician is involved in the provision of the total service, please indicate which physician is performing and reporting each CPT code in your scenario.

FREQUENCY INFORMATION

How was this service previously reported? (if unlisted code, please ensure that the Medicare frequency for this unlisted code is reviewed) The CCCC codes are conceptually new services, see attached spreadshet for details.

How often do physicians <u>in your specialty</u> perform this service? (ie. commonly, sometimes, rarely) If the recommendation is from multiple specialties, please provide information for each specialty.

Specialty Internal Medicine	How often? Sometimes
Specialty Family Practice	How often? Sometimes
Specialty Geriatrics	How often? Sometimes

Estimate the number of times this service might be provided nationally in a one-year period? 0 If the recommendation is from multiple specialties, please provide the frequency and <u>percentage</u> for each specialty. Please explain the rationale for this estimate. We estimated that less than 10 percent of the 99214 and 99215 visits might qualify to bill the service, second we estimated that even if the service qualified, 50 percent of less might actually receive the service. We then split that total amoung the three codes assuming the 99487 would have slightly more volume than the 99488 code and much less common would a provider qualify to bill the 99489.

Specialty Internal Medicine	Frequency 0	Percentage 0.00 %
Specialty Family Practice	Frequency 0	Percentage 0.00 %
Specialty Geriatrics	Frequency 0	Percentage 0.00 %

Estimate the number of times this service might be **provided to Medicare patients** nationally in a one-year period? 363,909 If this is a recommendation from multiple specialties please estimate frequency <u>and percentage</u> for each specialty. Please explain the rationale for this estimate. For Medicare we estiamted 1/3 of the total population.

Specialty Geriatrics	Frequency 0	Percentage 0.00 %
Specialty Family Practice	Frequency 0	Percentage 0.00 %
Specialty Internal Medicine	Frequency 0	Percentage 0.00 %

Do many physicians perform this service across the United States? Yes

Professional Liability Insurance Information (PLI)

If the surveyed code is an existing code and the specialty believes the specialty utilization mix <u>will not</u> change, enter the surveyed existing CPT code number

If this code is a new/revised code or an existing code in which the specialty utilization mix <u>will</u> change, please select another crosswalk based on a similar specialty mix. 99374

Yes or No	Patient comes in for office visit(s)	Patient is admitted to the hospital	Perform work without code to report services	Time is paid for as a medical director	Other (please specify)								
Yes or No	If Survey Participant Answered 0 (zero) for any one of the three CCCC codes, they were also asked additional information for clarification.												
Those	that answered performance ra	(0) Zero to ate											
	Response	Percentage											
Yes	<mark>51</mark>	<mark>37%</mark>											
No	87	63%											
Total	138	100%											
			Additional I	nformation Ser	vices								
	Tell us more:	Patient Comes In	Patient Admitted	No Code To Report	Paid as Med Director								
	Response 33		15	49	8								

ISSUE: Complex Chronic Care Coordination Services

						RVW			Total	PRE	INTRA OR OWN TIME - MONTH			ONTH	IMMD		
Source	СРТ	Short DESC	Resp	IWPUT	MIN	25th	MED	75th	MAX	Time	EVAL	MIN	25th	MED	75th	MAX	POST
REF	99214	E/M established pt, 2 of 3 key elements, presenting problem moderate to high severity, Physicians typically spend 25 minutes face-to-face with the patient and/or family.	38	0.047			1.50			40	5			25			10
SVY-T	99487	CCCC Services; first hour of clinical staff time; NO face-to- face visit, per calendar month	147	0.033	0.00	1.00	1.50	2.00	25.00	45		0	26	45	60	600	
	99374	Physician supervision of a patient under care of home health agency (patient not present) in home, domiciliary or equivalent environment (eg, Alzheimer's facility) within a calendar month; 15-29 minutes		0.039			1.10			34	5			20			9
	99367	Medical team conference with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more; participation by physician		0.029			1.10			40	5			30			5
	GXXXX3	Medical Home Project Tier 3		0.038			0.35			9.2				9.2			
	GXXXX3	Medical Home Project Tier 3		0.038			1.05			27.6				27.6			
	93281	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent programmed values with physician analysis, review and report; multiple lead pacemaker system		0.034			0.90			30	5			20.0			5
	76813	Ultrasound, pregnant uterus, real time with image documentation, first trimester fetal nuchal translucency measurement, transabdominal or transvaginal approach; single or first gestation		0.042			1.18			35	5			20.0			10
REC F1	99487	CCCC Services; first hour of clinical staff time; NO face-to- face visit, per calendar month		0.038		1.00		26				26					

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 10/5/2012
 Version

					RVW		Total	PRE	INTE	RAOR	OWN TI	ME - M	ONTH	IMMD			
Source	СРТ	Short DESC	Resp	IWPUT	MIN	25th	MED	75th	MAX	Time	EVAL	MIN	25th	MED	75th	MAX	POST
REF	99350	Physician supervision of a patient under care home health (patient not present) requiring complex and multidisciplinary care modalities, a calendar month; 15-29 minutes	29	0.033			3.28			110	15			75			20
REF F2F Visit	99215	Office or other outpatient visit for the E/M of an established patient, which requires at least 2 of these 3 key components: A comprehensive history;Physicians typically spend 40 minutes face-to-face with the patient and/or family.	41	0.047			2.11			55	5			35			15
SVY- T	99488	CCCC Services; first hour of clinical staff time; ONE face-to-face visit, per calendar month	147	0.042	0.00	1.50	2.50	3.50	30.00	60		0	40	60	90	800	
	74262	Computed tomographic (CT) colonography, diagnostic, including image postprocessing; with contrast material(s) including non-contrast images, if performed		0.050			2.50			57	5			45			7
	95954	Pharmacological or physical activation requiring physician attendance during EEG recording of activation phase (eg, thiopental activation test)		0.037			2.45			70	5			60			5
	99326	Domiciliary or RMV for the E/M of a new patient, Medical decision making of moderate complexity. Physicians typically spend 45 minutes with the patient and/or family or caregiver.		0.043			2.63			77	15			45			17
	90947	Dialysis procedure other than hemodialysis (eg, peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies) requiring repeated physician evaluations, with or without substantial revision of dialysis prescription		0.041			2.52			70	10			50			10
REC F2	99488	CCCC Services; first hour of clinical staff time; ONE face-to-face visit, per calendar month		0.042			2.50)		60				60			
0	0.07						RVV	V		Total	PRE	INTE	RAOR		ME - M(ONTH	
Source	CPT	Short DESC	Resp		MIN			75th	MAX	Time	EVAL	MIN	25th	MED	75th	MAX	POST
		F/M established nt 2 of 3 key elements presenting			WIIN	25th	MED										
REF	99214	E/M established pt, 2 of 3 key elements, presenting problem moderate to high severity, Physicians typically spend 25 minutes face-to-face with the patient and/or family.	28	0.047	MIN	25th	1.50			40	5			25			10
REF REF	99214 99367	E/M established pt, 2 of 3 key elements, presenting problem moderate to high severity, Physicians typically spend 25 minutes face-to-face with the patient and/or family. Medical team conference with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more; participation by physician	28 31	0.047		25th	мер 1.50 1.10			40 40	5			25 30			10 5
REF REF SVY- T	99214 99367 99489	E/M established pt, 2 of 3 key elements, presenting problem moderate to high severity, Physicians typically spend 25 minutes face-to-face with the patient and/or family. Medical team conference with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more; participation by physician CCCC Services; each additional 30 minutes of clinical staff time, per calendar month	28 31 147	0.047 0.029 0.037	0.00	0.75	1.50 1.10 1.10	1.66	55.00	40 40 30	5	0	20	25 30 30	45	400	10 5
REF REF SVY- T	99214 99367 99489 99212	E/M established pt, 2 of 3 key elements, presenting problem moderate to high severity, Physicians typically spend 25 minutes face-to-face with the patient and/or family. Medical team conference with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more; participation by physician CCCC Services; each additional 30 minutes of clinical staff time, per calendar month Office outpatient visit for the E/M Straightforward medical decision making.Physicians typically spend 10 minutes face-to-face	28 31 147	0.047 0.029 0.037 0.035	0.00	0.75	1.50 1.10 1.10 0.48	1.66	55.00	40 40 30 16	5 5 2	0	20	25 30 30 10.0	45	400	10 5 4
REF REF SVY- T	99214 99367 99489 99212 GXXXX3	E/M established pt, 2 of 3 key elements, presenting problem moderate to high severity, Physicians typically spend 25 minutes face-to-face with the patient and/or family. Medical team conference with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more; participation by physician CCCC Services; each additional 30 minutes of clinical staff time, per calendar month Office outpatient visit for the E/M Straightforward medical decision making.Physicians typically spend 10 minutes face-to-face Medical Home Project Tier 3	28 31 147	0.047 0.029 0.037 0.035 0.038	0.00	0.75	 MED 1.50 1.10 1.10 0.48 0.53 	1.66	55.00	40 40 30 16 13.8	5 2	0	20	25 30 30 10.0 13.8	45	400	10 5 4
REF REF SVY- T	99214 99367 99489 99212 GXXXX3 11045	E/M established pt, 2 of 3 key elements, presenting problem moderate to high severity, Physicians typically spend 25 minutes face-to-face with the patient and/or family. Medical team conference with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more; participation by physician CCCC Services; each additional 30 minutes of clinical staff time, per calendar month Office outpatient visit for the E/M Straightforward medical decision making.Physicians typically spend 10 minutes face-to-face Medical Home Project Tier 3 Debridement, subcutaneous tissue (includes epidermis and dermis, if performed); each additional 20 sq cm, or part thereof (List separately in addition to code for primary procedure)	28 31 147	0.047 0.029 0.037 0.035 0.038 0.033	0.00	0.75	 MED 1.50 1.10 1.10 0.48 0.53 0.50 	1.66	55.00	40 40 30 16 13.8 15	5 2	0	20	25 30 30 10.0 13.8 15	45	400	10 5 4
REF REF SVY-T	99214 99367 99489 99212 GXXXX3 11045 15276	E/M established pt, 2 of 3 key elements, presenting problem moderate to high severity, Physicians typically spend 25 minutes face-to-face with the patient and/or family. Medical team conference with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more; participation by physician CCCC Services; each additional 30 minutes of clinical staff time, per calendar month Office outpatient visit for the E/M Straightforward medical decision making.Physicians typically spend 10 minutes face-to-face Medical Home Project Tier 3 Debridement, subcutaneous tissue (includes epidermis and dermis, if performed); each additional 20 sq cm, or part thereof (List separately in addition to code for primary procedure) Application of skin substitute graft to face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits, total wound surface area up to 100 sq cm; each additional 25 sq cm wound surface area, or part thereof (List separately in addition to code for primary procedure)	28 31 147	0.047 0.029 0.037 0.035 0.038 0.033	0.00	0.75	MED 1.50 1.10 1.10 0.48 0.53 0.50 0.50	1.66	55.00	40 40 30 16 13.8 15 10	5	0	20	25 30 30 10.0 13.8 15 10	45	400	10 5 4
REF REF SVY-T	99214 99367 99489 99212 GXXXX3 11045 15276 99489	E/M established pt, 2 of 3 key elements, presenting problem moderate to high severity, Physicians typically spend 25 minutes face-to-face with the patient and/or family. Medical team conference with interdisciplinary team of health care professionals, patient and/or family not present, 30 minutes or more; participation by physician CCCC Services; each additional 30 minutes of clinical staff time, per calendar month Office outpatient visit for the E/M Straightforward medical decision making.Physicians typically spend 10 minutes face-to-face Medical Home Project Tier 3 Debridement, subcutaneous tissue (includes epidermis and dermis, if performed); each additional 20 sq cm, or part thereof (List separately in addition to code for primary procedure) Application of skin substitute graft to face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits, total wound surface area up to 100 sq cm; each additional 25 sq cm wound surface area, or part thereof (List separately in addition to code for primary procedure) CCCC Services; each additional 30 minutes of clinical staff time, per calendar month	28 31 147	0.047 0.029 0.037 0.035 0.033 0.033 0.050 0.050		0.75	MED 1.50 1.10 1.10 0.48 0.53 0.50 0.50 0.50	1.66	55.00	40 40 30 16 13.8 15 10 13	5 2	0	20	25 30 30 10.0 13.8 15 10 13	45	400	10 5 4

06 Utilization Spreadsheet 10-6-2012

Tab 9 - CCCC

Utilization Calculation

2011 Medica				
CPT Code	Estimated % Qualify by CPT criteria	Frequency Projected Total	% Qualify Pool Frequency	Projected Total Utilization for CCCC Family
99214	0.10	81,311,416	8,131,142	
99215	0.10	9,665,755	966,576	9,097,717
Total		90,977,171	9,097,717	

2013 Code	Estimate% Utilization split* between the codes	Distribution between codes	Assumption for yearly is 1/3 of all the procedures are Medicare	Yearly National	Percent Projected Avoidance	Medicare Avoided 99213, 99214 or 99215 Visits	Total Yearly Avoided 99213, 99214 or 99215 Visits			
99487	0.55	5,003,744	3	15,011,233	20%	1,000,749	3,002,247			
99488	0.41	3,730,064	3	11,190,192	100%	3,730,064	11,190,192			
99489	0.04	363,909	3	1,091,726	20%	72,782	218,345			
Total	100%	9,097,717	3	27,293,151		4,803,595	14,410,784			
•		Yearly N	1edicare	Breakdown not projected of each of the saved visits, assume equal distributio						
Specialty	Percentage breakdown	99487 CCCC 60 min w/o visit	99488 CCCC 60 min with visit	99489 CCCC each add 30 min						

Specialty	breakdown	w/o visit	with visit	30 min				
Internal Medicine	0.40	2,001,498	1,492,026	145,563				
Family Practice	0.40	2,001,498	1,492,026	145,563				
Geriatrics	0.20	1,000,749	746,013	72,782				
Total	100%	5,003,744	3,730,064	363,909				
		9,097,717						

Note: We expect to see ER and Hospitalization Reduction not accounted for in these projections.

Tab 9CPT Code: 99487, 99488, 99489Specialty Society('s) AAFP, AAN, ANA, AAP, AACE, ACC, ACCP, ACP, ACRh, AGA, AGS, AOA,
ASGE, ATS, TES

AMA/Specialty Society Update Process Practice Expense Summary of Recommendation Non Facility Direct Inputs

CPT Long Descriptor:

99487 Complex chronic care coordination services; first hour of clinical staff time directed by a physician or other qualified health care professional with no face-to-face visit, per calendar month
99488 Complex chronic care coordination services; first hour of clinical staff time directed by a physician or other qualified health care professional with one face-to-face visit, per calendar month
99489 Complex chronic care coordination services; each additional 30 minutes of clinical staff time directed by a physician or other physician or other qualified health care professional, per calendar month
99489 Complex chronic care coordination services; each additional 30 minutes of clinical staff time directed by a physician or other qualified health care professional, per calendar month (List separately in addition to code for primary procedure)

Global Period: 99487 and 99488: XXX, 99489: ZZZ Meeting Date: October 2012

Please provide a brief description of the process used to develop your recommendation and the composition of your Specialty Society Practice Expense Committee:

A consensus panel of experts from the surveying societies, including physicians, nurses, and physician assistants, met by phone and email to develop the inputs.

A reference code must be provided for comparison to the practice expense inputs on your spreadsheet. Please provide a rationale for the selection of reference codes. Comparison Code Rationale: 99488: The reference code for the face-to-face visit portion of the visit is 99214.

Please describe in detail the clinical activities of your staff: **99488 only, activities for face-to-face visit:**

Pre-Service Clinical Labor Activities:

Review/read X-ray, lab, pathology reports, care plan <u>Service</u> Clinical Labor Activities: Activities face-to-face during visit:

- Greet patient/provide gowning
- Obtain vital signs
- Prep and position patient
- Review history, systems, and medications
- Prepare room, equipment, supplies
- Assist physician during exam
- Education/instruction/counseling
- Coordinate home or outpatient care
- Clean room/equipment

Post-Service Clinical Labor Activities:

Activities associated with face-to-face visit:

• Phone calls between visits with patient, family, pharmacy

For 99487, 99488 & 99489, activities NOT associated with the-face-to-face visit:

<u>Pre-Service</u> Clinical Labor Activities: <u>Service</u> Clinical Labor Activities: Care coordination activities performed by clinical staff may include:

- communication (with patient, family members, guardian or caretaker, surrogate decision makers, and/or other professionals) regarding aspects of care,
- communication with home health agencies and other community services utilized by the patient,
- collection of health outcomes data and registry documentation,
- patient and/or family/caretaker education to support self-management, independent living, and activities of daily living,
- assessment and support for treatment regimen adherence and medication management,
- identification of available community and health resources,
- facilitating access to care and services needed by the patient and/or family, development and maintenance of a comprehensive care plan

Post-Service Clinical Labor Activities:

AMA Specialty Society Recommendation

	A	В	С	D	E	F	G	Н	I	J	К
1				REFERENCE CODE							
2				992	14	994	87	994	88	99	489
				Office OP visit fo	or the E/M	Complex chroni	c care	Complex chronic	care	Complex chroni	c care
				the presenting p	problem(s) are	hour of clinical staff time		hour of clinical	staff time	additional 30 mi	nutes of
				of moderate to h	high severity.	directed by a ph	iysician or	directed by a physician or other qualified health care		clinical staff tir	ne directed by a
				Physicians typic	ally spend 25	other qualified h	ealth care			physician or oth	er qualified
	Meeting Date: October 2012			<mark>minutes F2F wit</mark>	h the patient	professional wit	h <u>no</u> F2F	professional with	n <u>one F2F</u>	health care prof	essional, per
	Complex Chronic Care Coordination			and/or family.		visit, per calen	dar month	<u>visit</u> , per calend	ar month	calendar mont	n (List separately
										in addition to co	de for primary
		CMS								procedure)	
2		Code	Staff Type								
3		oouc	otan rype								
4	LOCATION			Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility
5	GLOBAL PERIOD			XXX		XXX		XXX		ZZZ	
6	TOTAL CLINICAL LABOR TIME	L042A	RN/LPN	53.0	0.0	60.0	0.0	107.0	0.0	30.0	0.0
7	TOTAL PRE-SERV CLINICAL LABOR TIME	1 0424	RN/I PN	3.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0
-				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	TOTAL SERVICE PERIOD CLINICAL LABOR TIME	L042A	RN/LPN	44.0	0.0	60.0	0.0	104.0	0.0	30.0	0.0
9	TOTAL POST-SERV CLINICAL LABOR TIME	L042A	RN/LPN	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	PRE-SERVICE										
11	Start: Following visit when decision for surgery or procedure mad	е									
12	Complete pre-service diagnostic & referral forms										
13	Coordinate pre-surgery services										
14	Schedule space and equipment in facility										
15	Provide pre-service education/obtain consent										
16	Follow-up phone calls & prescriptions	ļ									
47	Other Clinical Activity - specify: Review/read X-ray, lab, pathology	L037D	RN/LPN/MTA	3				3			
1/	reports										
18	End: When patient enters office/facility for surgery/procedure										
20	SERVICE PERIOD Start: When nations office/facility for surgeny/procedure:										
20	Greet patient provide downing, ensure appropriate medical records										
21	are available	L037D	RN/LPN/MTA	3				3			
22	Obtain vital signs	L037D	RN/LPN/MTA	5				5			
23	Provide pre-service education/obtain consent										
24	Prepare room, equipment, supplies	L037D	RN/LPN/MTA	2				2			
25	Setup scope (non facility setting only)										
26	Prepare and position patient/ monitor patient/ set up IV	L037D	RN/LPN/MTA	2				2			
27	Sedate/apply anesthesia										
28	Assist physician in performing procedure			5				5			
30		L037D		5				5			
31	Monitor pt. following service/check tubes, monitors, drains										
32	Clean room/equipment by physician staff			3				3			
33	Clean Scope										
34	Clean Surgical Instrument Package										
35	Complete diagnostic forms, lab & X-ray requisitions										
36	Review/read X-ray, lab, and pathology reports										
27	Uneck dressings & wound/ home care instructions /coordinate office	L037D	RN/LPN/MTA	11				11			
31	Other Clinical Activity - specify: Review/read X-ray, lab, pathology										
38	reports	L037D	RN/LPN/MTA	13				13			
	Care coordination activities performed by clinical staff may include:						L		L		
	communication (with patient, family members, guardian or caretaker,										
	surrogate decision makers, and/or other professionals) regarding										
	aspects of care; communication with home health agencies and										
	other community services utilized by the patient; collection of health										
	outcomes data and registry documentation; patient and/or										
	family/caretaker education to support self-management, independent										
	treatment regimen adherence and medication management:	10404									
	identification of available community and health resources:	L04ZA	RN/LPN			60		60		30	
	facilitating access to care and services needed by the patient and/or										
	family, development and maintenance of a comprehensive care plan										
39											
40	Dischrg mgmt same day (0.5 x 99238) (enter 6 min)	ļ		n/a		n/a		n/a		n/a	
41	Dischrg mgmt (1.0 x 99238) (enter 12 min)			n/a		n/a		n/a		n/a	
42	Discorg mgmt (1.0 x 99239) (enter 15 min)			n/a		n/a		n/a		n/a	
43	LIIU. Palielli leaves Ullice										

AMA Specialty Society Recommendation

	A	В	С	D	E	F	G	Н	I	J	K	
1				REFERENCE CODE								
2				99214		99487		99488		99489		
				Office OP visit for	or the E/M	Complex chron	ic care	Complex chronic	care	Complex chronic care		
				established pati	ent. Usually,	coordination se	rvices; first	coordination services; first		coordination services; each		
				the presenting p	roblem(s) are	hour of clinica	of clinical staff time hour of clinical staff time		staff time	additional 30 minutes of		
				of moderate to h	igh severity.	directed by a physician or		ed by a physician or directed by a physician or othe		er clinical staff time directed by a		
	Maating Data, October 2012			Physicians typic	ally spend 25	other qualified I	nealth care	qualified health o	are	physician or other qualified		
	Complex Chronic Core Coordination			minutes F2F wit	h the patient	professional wit	th <u>no</u> F2F	professional with	n <u>one F2F</u>	health care professional, per		
				and/or family.		visit, per calen	idar month	<u>visit</u> , per calend	lar month	calendar month (List separately		
										in addition to code for primary		
										procedure)		
		CMS	o									
3		Code	Staff Type									
4	LOCATION			Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	Non Fac	Facility	
5	GLOBAL PERIOD			XXX		XXX		XXX		ZZZ		
44	POST-SERVICE Period											
45	Start: Patient leaves office/facility											
46	Conduct phone calls/call in prescriptions	L037D	RN/LPN/MTA	6				0				
	End: with last office visit before end of global period											
55	Lind. With hast office visit before that of global period											
56	MEDICAL SUPPLIES	CODE	UNIT									
57	pack, minimum multi-specialty visit	SA048	pack									
58	pack, EM visit	SA047	pack	1				1				
59	EQUIPMENT	CODE										
60	otoscope-ophthalmoscope (wall unit)	EQ189		44				44				
61	table, exam	EF023		44				44				

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