

ABIM Foundation  
American College of Physicians  
Society of Hospital Medicine  
The Physician Consortium for Performance Improvement®

***Care Transitions***  
**Performance Measurement Set**

**(Phase I: Inpatient Discharges & Emergency Department Discharges)**

**Status: For Public Comment**  
**2009**

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## Care Transitions

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## Executive Summary: Toward Improving Outcomes for Patients Undergoing Transitions in Care

The ABIM Foundation, American College of Physicians, Society of Hospital Medicine, and Physician Consortium for Performance Improvement (PCPI) jointly formed a Care Transitions Work Group (CTWG) to identify and define quality measures toward improving outcomes for patients undergoing transitions in care (see diagram at end of this section).

### National Priority Area

This goal to improve outcomes during transitions in care is a priority identified by several national organizations, including:

- National Quality Forum (NQF) National Priorities Partnership (see NPP *National Priorities & Goals*, [www.nationalprioritiespartnership.org](http://www.nationalprioritiespartnership.org))
- PCPI (see *Physician Consortium for Performance Improvement 2008 Report*)
- Centers for Medicare and Medicaid Services (see *CMS Fact Sheet: 9<sup>th</sup> Statement of Work (SOW)*, [www.cms.hhs.gov](http://www.cms.hhs.gov))
- The Joint Commission (see *National Patient Safety Goals*, [www.jointcommission.org](http://www.jointcommission.org)) and Joint Commission International

### Current Reasons for Prioritizing Improvement in Care Transitions

- Gaps in care - eg, the report finding that the availability of a discharge summary at the first post-discharge visit is only 12-34%, affecting the quality of care in approximately 25% of follow-up visits (*JAMA* 2007)
- High costs - eg, the Institute of Medicine estimate that medication errors harm 1.5 million people each year in the United States, at an annual cost of at least \$3.5 billion (*NY Times* 2006), and one study finding that 60% of these medication errors occur during times of transition (*J Clin Outcomes Manag* 2001)

### Indicators of Success in Improving Outcomes

The CTWG has identified several indicators of success in improving outcomes for patients undergoing transitions in care, including:

1. Reduction in adverse drug events
2. Reduction in patient harm related to medical errors of omission and commission
3. Reduction in unnecessary healthcare encounters (eg, hospital readmissions)
4. Reduction in redundant tests and procedures
5. Achievement of patient goals and preferences (eg, functional status, comfort care)
6. Improved patient understanding of and adherence to treatment plan

### Setting Targets for Success and Tracking Progress with Outcomes Measures

National targets (eg, reducing adverse drug events during care transitions by X% in X years) have not yet been established. Individual provider groups and collaboratives have established their own targets. In order to track progress toward outcomes, outcomes measures should be implemented and tracked.

Several outcomes measures have previously been developed and are NQF-endorsed™, including:

3-Item Care Transition Measure (CTM-3)	Coleman/Univ. of Colorado-Denver
30-Day All-Cause Risk Standardized Readmission Rate Following Heart Failure Hospitalization	CMS
30-Day All-Cause Risk Standardized Readmission Rate Following Acute Myocardial Infarction (AMI) Hospitalization	CMS

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30-Day All-Cause Risk Standardized Readmission Rate Following Pneumonia Hospitalization	CMS
All-Cause Readmission Index (total inpatient readmissions within 30 days from discharge to any hospital)	PacifiCare

### Process Measures Linked to Successful Outcomes

Evidence suggests several processes that may improve patient outcomes, and that are linked to the identified indicators of success:

1. Timely transfer of information across settings and professionals involved in care transitions
2. Effective coordination of transition across settings and professionals
3. Timely delivery of care
4. Improve patient understanding of and adherence to treatment plan
5. Improve patient awareness of emergency provider contact information
6. Improve patient engagement in care

### Care Transitions Work Group Recommendations

**Process measures:** Several processes of care, demonstrated to improve outcomes during care transitions, should be added to the existing portfolio of measures; a subset of these process measures that address closely related aspects of care transitions (measures 1, 2, and 3) should be bundled:

#### Measures 1-3 (inpatient discharges to home or any other site of care) – Proposed as bundled set:

1. Reconciled Medication List Received by Discharged Patients
2. Transition Record with Specified Elements Received by Discharged Patients
3. Timely Transmission of Transition Record (to facility or primary physician for follow up care)
4. Transition Record with Specified Elements Received by Discharged Patients -- Emergency Department discharges
5. Timeliness of Post-Discharge Care for Heart Failure Patients

**Intermediate step to an identified indicator of success:** Through participation in upcoming stakeholder meetings convened by the Agency for Healthcare Research and Quality (AHRQ), the CTWG will work toward the following intermediate objective:

6. To promote improved patient understanding of and adherence to the post-discharge treatment plan through the addition of appropriate questions to the CAHPS® Hospital Survey (HCAHPS).

### Data Sources

The PCPI advocates that performance measures be integrated into electronic health record systems (EHRS) so that data for measurement and improvement are part of the fabric of care. EHRS also may be the source for external reporting. One venue for advancing this work is the AMA/NCQA/HIMSS Electronic Health Record Association (EHRA) Collaborative (see [www.ama-assn.org/go/collaborative](http://www.ama-assn.org/go/collaborative)). During the public comment period for this

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measurement set, staff will work with HIT technology providers to identify and specify the potential integration of these measures within EHRs. Because administrative claims are currently available sources of data, specifications for administrative claims are provided here.

### Testing and Implementation of the Measurement Set

The draft Care Transitions measures are being made available for public comments without prior testing. The PCPI recognizes the importance of testing all of its measures and encourages testing of the Care Transitions measurement set by organizations or individuals positioned to do so. Interested parties are encouraged to review the *Measure Testing Protocol for PCPI Measures*, which was approved by the PCPI in 2007 and is available on the PCPI web site (see Position Papers at [www.physicianconsortium.org](http://www.physicianconsortium.org)), and to contact PCPI staff. The PCPI will welcome the opportunity to promote the initial testing of these measures and to ensure that any results available from testing are used to refine the measures before implementation.

### Measurement as a Tool for Improvement:

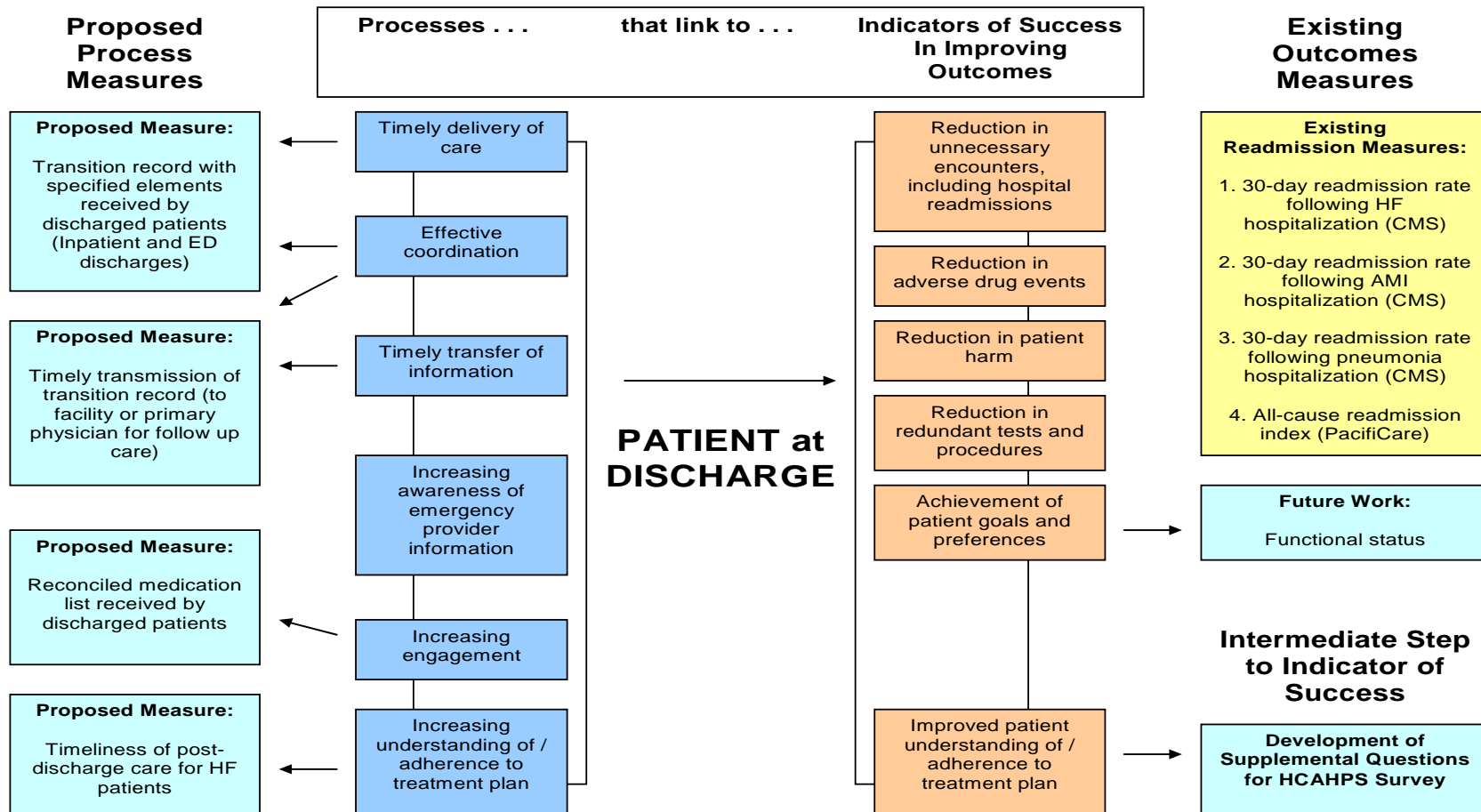
Performance measurement serves as an important component in a quality improvement strategy but performance measurement alone will not achieve the desired goal of improving patient care. Measures can have their greatest effect when they are used judiciously and linked directly to operational steps that clinicians, patients, and health plans can apply in practice to improve care. To that end, the PCPI will work with quality improvement collaboratives and other initiatives to ensure that these measures are implemented with the goal of improved patient care.

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### Link to Outcomes:

The proposed measures focus on safe and effective transitions between care settings; in particular, they address transitions from the inpatient setting or emergency department to the ambulatory setting (eg, home/self care) or other sites of care. The proposed measures are intended to be complementary to existing outcomes measures.

Setting: Patients discharged from an inpatient facility (eg, hospital inpatient or observation, skilled nursing facility or rehabilitation facility)



## **Purpose of Measurement Set:**

In 2008, the Physician Consortium for Performance Improvement® (PCPI) convened the Ad Hoc Committee on Priorities. This committee was charged with developing recommendations about the future activities of the PCPI in light of the National Quality Forum (NQF) National Priorities Partnership initiative. To accomplish this, the Ad Hoc Committee assessed the past and current work of the PCPI, gathered information about the priorities of the stakeholders participating in the NQF initiative, and surveyed multiple stakeholders and PCPI members to determine their views of the role of the PCPI. The resulting Ad Hoc Committee recommendations are intended to advance the work of the PCPI and increase the relevance of its work to multiple stakeholders, all of whom share the central goal of making a positive impact on the health of patients and the outcomes of care. Care coordination (care transitions, communication, care planning, and follow up) was identified as one of the priority areas on which the PCPI should focus.

In addition, the NQF National Priorities Partnership convened a group of 28 organizations who are committed to improving the quality of healthcare in the United States. This partnership identified six priority areas where there is compelling evidence that opportunities exist to produce sizable improvements in health and healthcare. Care Coordination was identified as one of these priority areas.

This set of measures developed by the American Board of Internal Medicine Foundation, the American College of Physicians, the Society of Hospital Medicine and the PCPI is the first of a multi-phase project on care coordination. The measures contained within this document focus on safe and effective transitions between care settings and, in particular, from the inpatient setting or emergency department to the ambulatory setting (eg, home/self care) or other sites of care. Future work will be undertaken to address other areas that fall within the umbrella of care coordination. In addition, all PCPI work groups are charged with developing measures related to care coordination.

The Care Transitions Work Group identified several indicators of success in improving outcomes for patients undergoing transitions in care (see “Link to Outcomes” diagram in preceding section). The proposed measures address several processes of care that are linked to the identified indicators of success (measures 1-5). The measure set also describes an intermediate step (measure 6) to promote improved patient understanding of and adherence to the post-discharge treatment plan, which will provide the basis for a future performance measure.

These clinical performance measures are designed for practitioner and/or system level quality improvement to achieve better outcomes for patients undergoing transitions of care. Unless otherwise indicated, the measures are also appropriate for accountability if the appropriate methodological, statistical, and implementation rules are achieved.

The measure titles listed below may be used for quality improvement and accountability:

- Measure #1: Reconciled Medication List Received by Discharged Patients
- Measure #2: Transition Record with Specified Elements Received by Discharged Patients (Inpatient setting)
- Measure #3: Timely Transmission of Transition Record (to facility or primary physician for follow up care)
- Measure #4: Transition Record with Specified Elements Received by Discharged Patients (ED setting)
- Measure #5: Timeliness of Post-Discharge Care for Heart Failure Patients

An intermediate step is proposed for the following measure title, with no measure proposed at this time:

Measure #6: Patient Understanding of Post-Discharge Care Needed

Measures 1, 2, and 3 in the draft Care Transitions measurement set address closely related aspects of the transition in care for patients discharged from an inpatient facility and are therefore intended for use as a “bundled” set. Users will be instructed to always measure performance for all three of these measures, rather than using any of the measures independently. Comments on this “bundled” measurement approach are being solicited during the Public Comment period.

The measure titles listed below are included in the “bundled” set:

Measure #1: Reconciled Medication List Received by Discharged Patients

Measure #2: Transition Record with Specified Elements Received by Discharged Patients (Inpatient setting)

Measure #3: Timely Transmission of Transition Record (to facility or primary physician for follow up care)

### **Intended Audience, Care Setting, and Patient Population**

The PCPI encourages use of these measures by physicians, other health professionals, and healthcare systems, where appropriate, to manage the transition of care for all patients, regardless of age, discharged from an inpatient facility (eg, hospital inpatient or observation, skilled nursing facility, rehabilitation facility) or emergency department to care in a post-acute inpatient facility (eg, skilled nursing facility, rehabilitation facility, home health care) or ambulatory care setting.

These measures are meant to be used to calculate performance and/or reporting at the practitioner or system level. Performance measurement serves as an important component in a quality improvement strategy but performance measurement alone will not achieve the desired goal of improving patient care. Measures can have their greatest effect when they are used judiciously and linked directly to operational steps that clinicians, patients, and health plans can apply in practice to improve care.

### **Importance of Topic**

#### ***Incidence and Prevalence***

- A study by Coleman and colleagues tracked post-hospital transitions for 30 days in a large, nationally representative sample of Medicare beneficiaries. Transitions in this study were defined as transfers to or from an acute hospital, skilled nursing or rehabilitation facility, or home with or without home health care. Between 12 and 25 percent of all care patterns were categorized as complicated, requiring return to higher intensity care settings. Overall, 46 unique care patterns were identified during the 30-day time period. Sixty-one percent of care episodes resulted in one transition, 18 percent in 2 transitions, 9 percent in 3 transitions, 4 percent in 4 or more transitions, and 8 percent resulted in death.<sup>1</sup>
- Twenty-three percent of hospitalized patients over the age of 65 are discharged to another institution, and 11.6 percent are discharged with home health care.<sup>2</sup>
- An estimated 19 percent of patients discharged from a hospital to a skilled nursing facility (SNF) are readmitted to the hospital within 30 days.<sup>3</sup>
- Transfers from nursing homes to acute-care hospitals comprise 8.5 percent of all Medicare admissions to acute-care hospitals; about 40 percent of these hospitalizations occur within 90 days of nursing home admission. Eighty-four percent of these patients are discharged from the hospital back to their nursing home of origin.<sup>4</sup>
- Jack and colleagues conducted a randomized trial of 749 discharged patients. A nurse discharge advocate worked with 368 patients to arranged follow up appointments, confirm medication reconciliation, and conduct patient education via a take home booklet. The patients also received

a call from a clinical pharmacist 2 to 4 days after discharge to reinforce the discharge plan and review medications. This patient population had a 30 percent decrease in hospital utilization 30 days after discharge, reported a higher degree of preparedness for discharge and had higher rates of PCP follow up within 30 days of discharge.<sup>5</sup>

### **Cost**

- In 2006, there were over 39 million hospital discharges; of those, 13 percent of these patients are repeatedly hospitalized and use 60 percent of the healthcare resources.<sup>6</sup>
- A 2007 report by the Medicare Payment Advisory Commission estimated approximately 18 percent of admissions result in readmissions within 30 days, costing CMS \$15 billion.<sup>7</sup>
- The Institute of Medicine estimated that medication errors harm 1.5 million people each year in the United States, at an annual cost of at least \$3.5 billion.<sup>8</sup>

### **Gaps in Care:**

- Sabogal and colleagues found that uncoordinated transitions between sites of care, even within the same institution, and between caregivers increase hospital readmissions, medical errors, duplication of services, and waste of resources.<sup>9</sup>
- Moore and colleagues examined three types of discontinuity of care among older patients transferred from the hospital: medication, test result follow-up, and initiation of a recommended work-up. They found that nearly 50 percent of hospitalized patients experienced at least one discontinuity and that patients who did not have a recommended work-up initiated were six times more likely to be re-hospitalized.<sup>10</sup>
- A prospective, cross-sectional study by Roy and colleagues found that approximately 40 percent of patients have pending test results at the time of discharge and that 10 percent of these require some action; yet, outpatient physicians and patients are unaware of these results.<sup>11</sup>

### Emergency Department Visits

- The 2008 National Health Statistics Report determined that 2.3 million (2 percent) emergency department visits are from patients who were discharged from the hospital within the previous 7 days.<sup>12</sup>

The report also cited the following:

- ten percent of the 2.3 million emergency department visits were for complications related to their recent hospitalization and
- The uninsured are 3 times more likely to visit the emergency department.

### Medication errors

- An estimated 60 percent of medication errors occur during times of transition: upon admission, transfer, or discharge of a patient.<sup>13</sup>
- During care transitions, patients receive medications from different prescribers who rarely have access to patients' comprehensive medication list.<sup>14</sup>
- Forster and colleagues found that 19 percent of discharged patients experienced an associated adverse event within three weeks of leaving the hospital; 66 percent of these were adverse drug events.<sup>15</sup>

- An observational study by Coleman and colleagues showed that 14 percent of elderly patients had one or more medication discrepancies and that, within that group of patients, 14 percent were re-hospitalized at 30 days compared to 6 percent of the patients who did not experience a medication discrepancy.<sup>16</sup>

### Lapses in communication

- A literature summary published in *JAMA* in 2007 found that direct communication between hospital physicians and primary care physicians occurs infrequently (in 3%-20% of cases studied) and that the availability of a discharge summary at the first post-discharge visit is low (12%-34%) and did not improve greatly even after 4 weeks (51%-77%), affecting the quality of care in approximately 25% of follow-up visits.<sup>17</sup>
- Studies by van Walraven and colleagues documented failures in information transfer after discharge as well as the frequent incompleteness and inaccuracy of the information transferred.<sup>18,19</sup>
- 9% to 48% of readmissions judged preventable; 12% to 75% of all readmissions can be prevented by patient education, pre-discharge assessment and domiciliary aftercare.<sup>20</sup>

### Disparities

We are not aware of any publications or evidence outlining disparities in this area.

### **Measure Harmonization**

The PCPI attempts to harmonize measures with other existing measures to the extent feasible. Measure #5 in the Care Transitions measurement set (Timeliness of Post-Discharge Care for Heart Failure Patients) is harmonized with the Joint Commission Heart Failure - Discharge Instructions measure, matching the specifications for the health care professionals with whom a follow-up visit may be scheduled. No harmonization was necessary for other measures in this measurement set.

### **Testing and Implementation of the Measurement Set**

This measurement set is being made available for public comments without any prior testing of the measures. The PCPI recognizes the importance of testing all of its measures and encourages testing of the Care Transitions measurement set by organizations or individuals positioned to do so. The *Measure Testing Protocol for PCPI Measures* was approved by the PCPI in 2007 and is available on the PCPI web site (see Position Papers at [www.physicianconsortium.org](http://www.physicianconsortium.org)); interested parties are encouraged to review this document and to contact PCPI staff. The PCPI will welcome the opportunity to promote the initial testing of these measures and to ensure that any results available from testing are used to refine the measures before implementation.

# DRAFT Measure #1: Reconciled Medication List Received by Discharged Patients

(Inpatient Discharges to Home/Self Care or Any Other Site of Care)

(practitioner-level or system-level measure)

*Care Transitions*

## Measure Description

Percentage of patients, regardless of age, discharged from an inpatient facility to home or any other site of care, or their caregiver(s), who received a reconciled medication list at the time of discharge including, at a minimum, *all* of the specified elements

## Measure Components

<b>Numerator Statement</b>	<p>Patients or their caregiver(s) who received a reconciled medication list at the time of discharge including, at a minimum, medications in the following categories:</p> <ul style="list-style-type: none"> <li>➤ <b><i>Discontinued</i></b> Medications that should be discontinued or held after discharge, AND</li> <li>➤ <b><i>Continued</i></b>* Medications (including any prescribed <i>before</i> inpatient stay and any started <i>during</i> inpatient stay) that patient should continue to take after discharge, AND</li> <li>➤ <b><i>New</i></b>* Newly prescribed medications that patient should begin taking after discharge</li> </ul> <p>* Prescribed dosage, instructions, and intended duration must be included for each <i>continued</i> and <i>new</i> medication listed</p> <p><b>Numerator Instruction:</b> Given the complexity of the medication reconciliation process and variability across inpatient facilities in the documentation of that process, this measure does not require that the medication list be organized according to the three specified medication categories, provided that the status of each medication (discontinued, continued, or new) is identified within the list.</p>
<b>Denominator Statement</b>	<p>All patients, regardless of age, discharged from an inpatient facility (eg, hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to home/self care or any other site of care</p>
<b>Denominator Exclusions</b>	<p>Patients who expired Patients who left against medical advice (AMA)</p>
<b>Supporting Guideline &amp; Other References</b>	<p>The following evidence statements are quoted <u>verbatim</u> from the referenced clinical guidelines.</p> <p><b><i>Transition record</i></b> All transitions must include a transition record. There is a minimal set of data elements that should always be part of the transition record:</p> <ul style="list-style-type: none"> <li>- Principal diagnosis and problem list</li> <li>- Medication list (reconciliation) including OTC/ herbals, allergies and drug interactions</li> <li>- Clearly identifies the medical home/transferring coordinating physician/institution and their contact information</li> </ul>

- Patient's cognitive status
  - Test results/pending results
- (TOCCC, 2008)<sup>21</sup>

**Medication reconciliation**

Reconcile discharge orders with the nursing medication administration record:

After discharge from the hospital, a patient may continue taking some medications at home, but not perhaps all of them. Therefore, it is extremely important to compare the discharge medication orders with the nursing medication administration record (MAR) to check for any discrepancies. If a medication the patient has been receiving in the hospital is not in the discharge orders, and there is no adequate documentation indicating why that medication has been omitted, then a nurse or pharmacist should contact the patient's physician to verify whether or not the patient should discontinue use of the medication.

- Create a standardized form that lists all the medications the patient has been receiving in the hospital, and include space on the form for physicians to document the reasons for omitting certain medications upon discharge from the hospital. Physicians can also use this form for ordering medications.
- Attach the pre-admission medication list to the discharge orders form — the patient may need to discontinue some medications that were being taken at home.
- Provide the patient with a comprehensive list of all medications — those being taken before admission plus the new medications from the discharge orders. Clearly indicate the name of each drug, its purpose, and the instructions for taking the medication, as well as any instructions for discontinuing use. (IHI)<sup>22</sup>

**NPSG.08.01.01**

A process exists for comparing the [patient]'s current medications with those ordered for the [patient] while under the care of the [organization].

1. At the time the patient enters the hospital or is admitted, a complete list of the medications the patient is taking at home (including dose, route, and frequency) is created and documented. The patient and, as needed, the family are involved in creating this list.
2. The medications ordered for the patient while under the care of the hospital are compared to those on the list created at the time of entry to the hospital or admission.
3. Any discrepancies (that is, omissions, duplications, adjustments, deletions, additions) are reconciled and documented while the patient is under the care of the hospital.
4. When the patient's care is transferred within the hospital (for example, from the ICU to a floor), the current provider(s) informs the receiving provider(s) about the up-to-date reconciled medication list and documents the communication. (See also NPSG.02.05.01, EP 2)

Note: Updating the status of a patient's medications is also an important component of all patient care hand-offs. (Joint Commission National Patient Safety Goals, 2009)<sup>23</sup>

**NPSG.08.02.01**

When a [patient] is referred to or transferred from one [organization] to another, the complete and reconciled list of medications is communicated to the next provider of service, and the communication is documented. Alternatively, when a [patient] leaves the [organization]'s care to go directly to his or her home, the complete and reconciled list of medications is provided to the [patient]'s known primary care provider, the original referring provider, or a known next provider of service.

Note: When the next provider of service is unknown or when no known formal relationship is planned with a next provider, giving the [patient] and, as needed, the family the list of reconciled medications is sufficient.

1. The patient's most current reconciled medication list is communicated to the next provider of service, either within or outside the hospital. The communication between providers is documented.

	<p>2. At the time of transfer, the transferring hospital informs the next provider of service how to obtain clarification on the list of reconciled medications. (Joint Commission National Patient Safety Goals, 2009)</p> <p><b>NPSG.08.03.01</b> When a [patient] leaves the [organization]'s care, a complete and reconciled list of the [patient]'s medications is provided directly to the [patient] and, as needed, the family, and the list is explained to the [patient] and/or family.</p> <p>1. When the patient leaves the hospital's care, the current list of reconciled medications is provided and explained to the patient and, as needed, the family. This interaction is documented. Note: Patients and families are reminded to discard old lists and to update any records with all medication providers or retail pharmacies. (Joint Commission National Patient Safety Goals, 2009)<sup>23</sup></p>
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### Measure Importance

<b>Relationship to desired outcome</b>	The Institute of Medicine estimated that medication errors harm 1.5 million people each year in the United States, at an annual cost of at least \$3.5 billion. Many of these medication errors (approximately 60% in one study) occur during times of transition, when patients receive medications from different prescribers who lack access to patients' comprehensive medication list. Providing patients with a comprehensive, reconciled medication list at each care transition (eg, inpatient discharge) may improve patients' ability to manage their medication regimen properly and reduce the number of medication errors. A recent study in Sweden found that providing elderly patients with a structured, comprehensive summary of their medications at discharge significantly reduced the risk of adverse clinical consequences due to medication errors. <sup>24</sup>
<b>Opportunity for Improvement</b>	One observational study showed that 14% of elderly patients had one or more medication discrepancies and that, within that group of patients, 14% were re-hospitalized at 30 days compared to 6% of the patients who did not experience a medication discrepancy. Another study found that 19% of discharged patients experienced an associated adverse event within three weeks of leaving the hospital; 66% of these were adverse drug events.
<b>Exclusion Justification</b>	Patients who expired and patients who left against medical advice (AMA) are categorized by inpatient facilities as having been "discharged" (with specific discharge status codes) and must therefore be excluded from the denominators for these measures. The Care Transitions Work Group acknowledges that it may be feasible to provide patients who leave AMA with a medication list and transition record (and to transmit this information to the facility/physician providing follow-up care), but not necessarily with the level of detail specified in these measures.
<b>Harmonization with Existing Measures</b>	Harmonization with existing measures was not applicable to this measure.

### Measure Designation

<b>Measure purpose</b>	<ul style="list-style-type: none"> <li>• Quality Improvement</li> <li>• Accountability</li> </ul>
<b>Type of measure</b>	<ul style="list-style-type: none"> <li>• Process</li> </ul>
<b>Level of Measurement</b>	<ul style="list-style-type: none"> <li>• Individual practitioner</li> <li>• System</li> </ul>
<b>Care setting</b>	<ul style="list-style-type: none"> <li>• Discharge from inpatient facility</li> </ul>

- Data source**
- Administrative data
  - Medical record
  - Electronic health record system
  - Prospective data collection flowsheet

## Technical Specifications: Administrative Data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

The specifications listed below are those needed for performance calculation. Additional CPT II codes may be required depending on how measures are implemented. (Reporting vs. Performance)

<b>Denominator (Eligible Population)</b>	<p>All patients, regardless of age, discharged from an inpatient facility (eg, hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to home/self care or any other site of care</p> <p>UB-04 (Field 4 - Type of Bill):</p> <ul style="list-style-type: none"> <li>• 0111 (Hospital, Inpatient, Admit through Discharge Claim)</li> <li>• 0121 (Hospital, Inpatient - Medicare Part B only, Admit through Discharge Claim)</li> </ul>
<b>Numerator</b>	<p>Patients or their caregiver(s) who received a reconciled medication list at the time of discharge including, at a minimum, medications in the following categories:</p> <ul style="list-style-type: none"> <li>➤ <u>Discontinued</u> Medications that should be discontinued or held after discharge, AND</li> <li>➤ <u>Continued</u>* Medications (including any prescribed <i>before</i> inpatient stay and any started <i>during</i> inpatient stay) that patient should continue to take after discharge, AND</li> <li>➤ <u>New</u>* Newly prescribed medications that patient should begin taking after discharge</li> </ul> <p>* Prescribed dosage, instructions, and intended duration must be included for each <u>continued</u> and <u>new</u> medication listed</p> <p><u>Numerator Instruction:</u> Given the complexity of the medication reconciliation process and variability across inpatient facilities in the documentation of that process, this measure does not require that the medication list be organized according to the three specified medication categories, provided that the status of each medication (discontinued, continued, or new) is identified within the list.</p> <p>CPT Category II code (in development): 1XXXF: Patient or caregiver received a reconciled medication list at the time of discharge.</p>
<b>Denominator Exclusions</b>	<p>Patients who expired Patients who left against medical advice (AMA)</p> <p>UB-04 (Field 17 - Discharge Status):</p> <ul style="list-style-type: none"> <li>• 07 - Left against medical advice or discontinued care</li> <li>• 20 - Expired</li> </ul>

## **Technical Specifications: Electronic Health Record System**

The PCPI has as a goal the integration of its measure into electronic health record systems (EHRS) so that data for measurement and improvement are part of the fabric of care. EHRS also may be the source for external reporting. One venue for advancing this work is the AMA/NCQA/HIMSS Electronic Health Record Association (EHRA) Collaborative (see [www.ama-assn.org/go/collaborative](http://www.ama-assn.org/go/collaborative)). During the public comment period for this measurement set, staff will work with HIT technology providers to identify and specify the potential integration of these measures within EHRS.

## **Technical Specifications: Prospective Data Collection Flowsheet**

Prospective data collection flowsheets are developed for measure sets after they are approved.

# DRAFT Measure #2: Transition Record with Specified Elements Received by Discharged Patients

(Inpatient Discharges to Home/Self Care or Any Other Site of Care)

(system-level measure)

Care Transitions

## Measure Description

Percentage of patients, regardless of age, discharged from an inpatient facility to home or any other site of care, or their caregiver(s), who received a written transition record at the time of discharge including, at a minimum, *all* of the specified elements

## Measure Components

<p><b>Numerator Statement</b></p>	<p>Patients or their caregiver(s) who received a written transition record* at the time of discharge including, at a minimum, <i>all</i> of the following elements:</p> <ul style="list-style-type: none"> <li>• Reason for inpatient admission, AND</li> <li>• Major procedures and tests performed during inpatient stay and summary of results, AND</li> <li>• Principal diagnosis at discharge, AND</li> <li>• Advance care plan (or documented reason for not providing same),* AND</li> <li>• Current medication list,* AND</li> <li>• Studies pending at discharge (eg, laboratory, radiological) <u>and contact information for obtaining results</u>, AND</li> <li>• <u>24-hour/7-day contact information including physician for emergencies related to inpatient stay</u>, AND</li> <li>• Patient instructions, <u>including plan for follow-up care</u>, AND</li> <li>• <u>Primary physician or other health care professional designated for follow-up care*</u></li> </ul> <p><i>Elements <u>underlined</u> above need <b>not</b> be included in transition record for patients discharged to any care site or discharge status (including hospice or home health service) <b>other than</b> home care/self care</i></p> <p><i>*Numerator element definitions:</i></p> <ul style="list-style-type: none"> <li>• <i>Transition record: a core, standardized set of data elements related to patient's diagnosis, treatment, and care plan that is discussed with and provided to patient at each transition of care, and transmitted to the facility/physician/other health care professional providing follow-up care</i></li> <li>• <i>Advance care plan: advance directives (eg, written statement of patient wishes regarding future use of life-sustaining medical treatment) or surrogate decision maker documented</i></li> <li>• <i>Documented reason for not providing advance care plan: documentation that advance care plan was discussed but patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan, OR documentation as appropriate that the patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning as it would be viewed as harmful to the patient's beliefs and thus harmful to the physician-patient relationship</i></li> <li>• <i>Current medication list: all medications to be taken by patient after discharge, including all <u>continued</u> and <u>new</u> medications</i></li> <li>• <i>Primary physician or other health care professional designated for follow-up care: may be designated primary care physician (PCP), medical specialist, or other physician or health care professional</i></li> </ul>
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<b>Denominator Statement</b>	All patients, regardless of age, discharged from an inpatient facility (eg, hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to home/self care or any other site of care
<b>Denominator Exclusions</b>	Patients who expired Patients who left against medical advice (AMA)
<b>Supporting Guideline &amp; Other References</b>	<p>The following evidence statements are quoted <u>verbatim</u> from the referenced clinical guidelines.</p> <p><b><u>Transition record</u></b> All transitions must include a transition record. There is a minimal set of data elements that should always be part of the transition record:</p> <ul style="list-style-type: none"> <li>- Principal diagnosis and problem list</li> <li>- Medication list (reconciliation) including OTC/ herbals, allergies and drug interactions</li> <li>- Clearly identifies the medical home/transferring coordinating physician/institution and their contact information</li> <li>- Patient's cognitive status</li> <li>- Test results/pending results</li> </ul> <p>(TOCCC, 2008)<sup>21</sup></p> <p>Patients and/or their family/caregivers must receive, understand and be encouraged to participate in the development of their transition record which should take into consideration the patient's health literacy, insurance status and be culturally sensitive. (TOCCC, 2008)</p> <p><b>Standard PC.04.02.01</b> When a [patient] is discharged or transferred, the [organization] gives information about the care, treatment, and services provided to the [patient] to other service providers who will provide the [patient] with care, treatment, or services.</p> <ol style="list-style-type: none"> <li>1. At the time of the patient's discharge or transfer, the hospital informs other service providers who will provide care, treatment, or services to the patient about the following: <ul style="list-style-type: none"> <li>- The reason for the patient's discharge or transfer</li> <li>- The patient's physical and psychosocial status</li> <li>- A summary of care, treatment, and services it provided to the patient</li> <li>- The patient's progress toward goals</li> <li>- A list of community resources or referrals made or provided to the patient</li> </ul> (See also PC.02.02.01, EP 1) (Joint Commission, 2009) </li> </ol> <p><b>Standard PC.04.01.05</b> Before the [organization] discharges or transfers a [patient], it informs and educates the [patient] about his or her follow-up care, treatment, and services.</p> <ol style="list-style-type: none"> <li>1. When the hospital determines the patient's discharge or transfer needs, it promptly shares this information with the patient.</li> <li>2. Before the patient is discharged, the hospital informs the patient of the kinds of continuing care, treatment, and services he or she will need.</li> <li>3. When the patient is discharged or transferred, the hospital provides the patient with information about why he or she is being discharged or transferred.</li> <li>5. Before the patient is transferred, the hospital provides the patient with information about any alternatives to the transfer.</li> <li>7. The hospital educates the patient about how to obtain any continuing care, treatment, and services that he or she will need.</li> </ol>

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|  | 8. The hospital provides written discharge instructions in a manner that the patient and/or the patient's family or caregiver can understand. (See also RI.01.01.03, EP 1) (Joint Commission, 2009) <sup>23</sup> |
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## Measure Importance

<b>Relationship to desired outcome</b>	Providing detailed discharge information enhances patients' preparation to self-manage post-discharge care and comply with treatment plans. Additionally, randomized trials have shown that many hospital readmissions can be prevented by patient education, predischarge assessment, and domiciliary aftercare. One recent study found that patients participating in a hospital program providing detailed, personalized instructions at discharge, including a review of medication routines and assistance with arranging follow-up appointments, had 30% fewer subsequent emergency visits and hospital readmissions than patients who received usual care at discharge.
<b>Opportunity for Improvement</b>	A prospective, cross-sectional study of discharged patients found that approximately 40% have pending test results at the time of discharge and that 10% of these require some action; yet outpatient physicians and patients are unaware of these results. A more recent literature summary found that discharge summaries often lacked information important for follow-up care, including diagnostic test results (missing in 33-63% of summaries), treatment or hospital course (7-22%), discharge medications (2-40%), test results pending at discharge (65%), and follow-up plans (2-43%).
<b>Exclusion Justification</b>	Patients who expired and patients who left against medical advice (AMA) are categorized by inpatient facilities as having been "discharged" (with specific discharge status codes) and must therefore be excluded from the denominators for these measures. The Care Transitions Work Group acknowledges that it may be feasible to provide patients who leave AMA with a medication list and transition record (and to transmit this information to the facility/physician providing follow-up care), but not necessarily with the level of detail specified in these measures.
<b>Harmonization with Existing Measures</b>	Harmonization with existing measures was not applicable to this measure.

## Measure Designation

<b>Measure purpose</b>	<ul style="list-style-type: none"> <li>• Quality Improvement</li> <li>• Accountability</li> </ul>
<b>Type of measure</b>	<ul style="list-style-type: none"> <li>• Process</li> </ul>
<b>Level of Measurement</b>	<ul style="list-style-type: none"> <li>• System</li> </ul>
<b>Care setting</b>	<ul style="list-style-type: none"> <li>• Discharge from inpatient facility</li> </ul>
<b>Data source</b>	<ul style="list-style-type: none"> <li>• Administrative data</li> <li>• Medical record</li> <li>• Electronic health record system</li> <li>• Prospective data collection flowsheet</li> </ul>

## Technical Specifications: Administrative Data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

The specifications listed below are those needed for performance calculation. Additional CPT II codes

may be required depending on how measures are implemented. (Reporting vs. Performance)

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<b>Denominator (Eligible Population)</b>	<p>All patients, regardless of age, discharged from an inpatient facility (eg, hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to home/self care or any other site of care</p> <p>UB-04 (Field 4 - Type of Bill):</p> <ul style="list-style-type: none"><li>• 0111 (Hospital, Inpatient, Admit through Discharge Claim)</li><li>• 0121 (Hospital, Inpatient - Medicare Part B only, Admit through Discharge Claim)</li></ul>
<b>Numerator</b>	<p>Patients or their caregiver(s) who received a written transition record* at the time of discharge including, at a minimum, <i>all</i> of the following elements:</p> <ul style="list-style-type: none"><li>• Reason for inpatient admission, AND</li><li>• Major procedures and tests performed during inpatient stay and summary of results, AND</li><li>• Principal diagnosis at discharge, AND</li><li>• Advance care plan (or documented reason for not providing same),* AND</li><li>• Current medication list,* AND</li><li>• Studies pending at discharge (eg, laboratory, radiological) <u>and contact information for obtaining results</u>, AND</li><li>• <u>24-hour/7-day contact information including physician for emergencies related to inpatient stay</u>, AND</li><li>• Patient instructions, <u>including plan for follow-up care</u>, AND</li><li>• <u>Primary physician or other health care professional designated for follow-up care*</u></li></ul> <p><i>Elements <u>underlined</u> above need <b>not</b> be included in transition record for patients discharged to any care site or discharge status (including hospice or home health service) <b>other than</b> home care/self care</i></p> <p><i>*Numerator element definitions:</i></p> <ul style="list-style-type: none"><li>• <i>Transition record: a core, standardized set of data elements related to patient's diagnosis, treatment, and care plan that is discussed with and provided to patient at each transition of care, and transmitted to the facility/physician/other health care professional providing follow-up care</i></li><li>• <i>Advance care plan: advance directives (eg, written statement of patient wishes regarding future use of life-sustaining medical treatment) or surrogate decision maker documented</i></li><li>• <i>Documented reason for not providing advance care plan: documentation that advance care plan was discussed but patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan, OR documentation as appropriate that the patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning as it would be viewed as harmful to the patient's beliefs and thus harmful to the physician-patient relationship</i></li><li>• <i>Current medication list: all medications to be taken by patient after discharge, including all <u>continued</u> and <u>new</u> medications</i></li><li>• <i>Primary physician or other health care professional designated for follow-up care: may be designated primary care physician (PCP), medical specialist, or other physician or health care professional</i></li></ul> <p>CPT Category II code (in development): 1XXXF: Patient or caregiver received a written transition record including all specified elements at the time of discharge.</p>
<b>Denominator Exclusions</b>	<p>Patients who expired Patients who left against medical advice (AMA)</p> <p>UB-04 (Field 17 - Discharge Status):</p> <ul style="list-style-type: none"><li>• 07 - Left against medical advice or discontinued care</li><li>• 20 - Expired</li></ul>

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## **Technical Specifications: Electronic Health Record System**

The PCPI has as a goal the integration of its measure into electronic health record systems (EHRS) so that data for measurement and improvement are part of the fabric of care. EHRS also may be the source for external reporting. One venue for advancing this work is the AMA/NCQA/HIMSS Electronic Health Record Association (EHRA) Collaborative (see [www.ama-assn.org/go/collaborative](http://www.ama-assn.org/go/collaborative)). During the public comment period for this measurement set, staff will work with HIT technology providers to identify and specify the potential integration of these measures within EHRS.

## **Technical Specifications: Prospective Data Collection Flowsheet**

Prospective data collection flowsheets are developed for measure sets after they are approved.

# DRAFT Measure #3: Timely Transmission of Transition Record

## (Inpatient Discharges to Home/Self Care or Any Other Site of Care)

(system-level measure)  
*Care Transitions*

### Measure Description

Percentage of patients, regardless of age, discharged from an inpatient facility to home or any other site of care for whom a written transition record was transmitted to the facility or primary physician or other health care professional designated for follow-up care on the day of discharge

### Measure Components

<b>Numerator Statement</b>	<p>Patients for whom a written transition record* was transmitted* to the facility or primary physician or other health care professional designated for follow-up care* on the day of discharge</p> <p><i>*Numerator element definitions:</i></p> <ul style="list-style-type: none"> <li>• <i>Transition record: a core, standardized set of data elements related to patient's diagnosis, treatment, and care plan that is discussed with and provided to patient at each transition of care, and transmitted to the facility/physician/other health care professional providing follow-up care</i></li> <li>• <i>Transmitted: transition record may be transmitted to the facility or physician or other health care professional designated for follow-up care via fax, secure e-mail, or mutual access to an electronic health record (EHR)</i></li> <li>• <i>Primary physician or other health care professional designated for follow-up care: may be designated primary care physician (PCP), medical specialist, or other physician or health care professional</i></li> </ul>
<b>Denominator Statement</b>	All patients, regardless of age, discharged from an inpatient facility (eg, hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to home/self care or any other site of care
<b>Denominator Exclusions</b>	<p>Patients who expired</p> <p>Patients who left against medical advice</p>
<b>Supporting Guideline &amp; Other References</b>	<p>The following evidence statements are quoted <u>verbatim</u> from the referenced clinical guidelines.</p> <p><b>Coordinating Clinicians</b>            Communication and information exchange between the Medical Home and the receiving provider should occur in an amount of time that will allow the receiving provider to effectively treat the patient.            This communication should ideally occur whenever patients are at a transition of care; eg, at discharge from the inpatient setting.            The timeliness of this communication should be consistent with the patient's clinical presentation and, in the case of a patient being discharged, the urgency of the follow-up required.            Communication and information exchange between the MH and the physician may be in the form of a call, voicemail, fax, or other secure, private, and accessible means, including mutual access to an EHR. (TOCCC, 2008)</p> <p><b>Standard PC.02.02.01</b>            The [organization] coordinates the [patient]'s care, treatment, and services based on the [patient]'s needs.</p> <p>1. The hospital has a process to receive or share patient information when the patient is</p>

referred to other internal or external providers of care, treatment, and services. (See also PC.04.02.01, EP 1) (The Joint Commission, 2009)

**Standard PC.04.02.01**

When a [patient] is discharged or transferred, the [organization] gives information about the care, treatment, and services provided to the [patient] to other service providers who will provide the [patient] with care, treatment, or services.

1. At the time of the patient's discharge or transfer, the hospital informs other service providers who will provide care, treatment, or services to the patient about the following:
  - The reason for the patient's discharge or transfer
  - The patient's physical and psychosocial status
  - A summary of care, treatment, and services it provided to the patient
  - The patient's progress toward goals
  - A list of community resources or referrals made or provided to the patient(See also PC.02.02.01, EP 1) (Joint Commission, 2009)

**Safe Practice #8: Communication of Critical Information**

Ensure that care information is transmitted and appropriately documented in a timely manner and in a clearly understandable form to patients and to all of the patient's healthcare providers/professionals, within and between care settings, who need that information to provide continued care. (National Quality Forum Safe Practices, 2006)<sup>25</sup>

**Safe Practice #11: Discharge Systems**

A "discharge plan" must be prepared for each patient at the time of hospital discharge, and a concise discharge summary must be prepared for and relayed to the clinical caregiver accepting responsibility for postdischarge care in a timely manner.

Organizations must ensure that there is confirmation of the receipt of the discharge information by the independent licensed practitioner who will assume the responsibility for care after discharge.

- A discharge summary must be provided to the clinical provider who accepts the patient's care after hospital discharge. At a minimum, the discharge summary should include the following:
  - the reason for hospitalization;
  - significant findings;
  - procedures performed and care, treatment, and services provided to the patient
  - the patient's condition at discharge
  - information provided to the patient and family
  - a comprehensive and reconciled medication list; and
  - a list of acute medical issues and tests and studies for which confirmed results were unavailable at the time of discharge that require follow-up

The organization should ensure and document the receipt of the discharge information by caregivers who assume responsibility for postdischarge care. This confirmation may occur via telephone, fax, e-mail response, or other electronic response using health information technologies. (National Quality Forum Safe Practices, 2006)

## Measure Importance

<b>Relationship to desired outcome</b>	The availability of the patient's discharge information at the first post-discharge physician visit improves the continuity of care and may be associated with a decreased risk of rehospitalization.
<b>Opportunity for Improvement</b>	A recent literature summary found that direct communication between hospital physicians and primary care physicians occurred infrequently (in 3-20% of cases studied) and that the availability of a discharge summary at the first post-discharge visit was low (12-34%) and did not improve greatly even after 4 weeks

(51-77%), affecting the quality of care in approximately 25% of follow-up visits.

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**Exclusion Justification** Patients who expired and patients who left against medical advice (AMA) are categorized by inpatient facilities as having been “discharged” (with specific discharge status codes) and must therefore be excluded from the denominators for these measures. The Care Transitions Work Group acknowledges that it may be feasible to provide patients who leave AMA with a medication list and transition record (and to transmit this information to the facility/physician providing follow-up care), but not necessarily with the level of detail specified in these measures.

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**Harmonization with Existing Measures** Harmonization with existing measures was not applicable to this measure.

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## Measure Designation

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<b>Measure purpose</b>	<ul style="list-style-type: none"><li>• Quality Improvement</li><li>• Accountability</li></ul>
<b>Type of measure</b>	<ul style="list-style-type: none"><li>• Process</li></ul>
<b>Level of Measurement</b>	<ul style="list-style-type: none"><li>• System</li></ul>
<b>Care setting</b>	<ul style="list-style-type: none"><li>• Discharge from inpatient facility</li></ul>
<b>Data source</b>	<ul style="list-style-type: none"><li>• Administrative data</li><li>• Medical record</li><li>• Electronic health record system</li><li>• Prospective data collection flowsheet</li></ul>

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## Technical Specifications: Administrative Data

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Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

The specifications listed below are those needed for performance calculation. Additional CPT II codes may be required depending on how measures are implemented. (Reporting vs. Performance)

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**Denominator (Eligible Population)** All patients, regardless of age, discharged from an inpatient facility (eg, hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to home/self care or any other site of care

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UB-04 (Field 4 - Type of Bill):

- 0111 (Hospital, Inpatient, Admit through Discharge Claim)
  - 0121 (Hospital, Inpatient - Medicare Part B only, Admit through Discharge Claim)
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**Numerator** Patients for whom a written transition record\* was transmitted\* to the facility or primary physician or other health care professional designated for follow-up care\* on the day of discharge

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*\*Numerator element definitions:*

- *Transition record: a core, standardized set of data elements related to patient’s diagnosis, treatment, and care plan that is discussed with and provided to patient at each transition of care, and transmitted to the facility/physician/other health care professional providing follow-up care*
- *Transmitted: transition record may be transmitted to the facility or physician or other health care professional designated for follow-up care via fax, secure e-mail, or mutual access to an electronic health record (EHR)*
- *Primary physician or other health care professional designated for follow-up care: may be designated primary care physician (PCP), medical specialist, or other physician or health care professional*

CPT Category II code (in development):  
5XXXF: Patient transition record transmitted to the facility or primary physician designated for follow-up care on the day of discharge.

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**Denominator Exclusions** Patients who expired  
Patients who left against medical advice (AMA)

UB-04 (Field 17 - Discharge Status):

- 07 - Left against medical advice or discontinued care
- 20 - Expired

### **Technical Specifications: Electronic Health Record System**

The PCPI has as a goal the integration of its measure into electronic health record systems (EHRS) so that data for measurement and improvement are part of the fabric of care. EHRS also may be the source for external reporting. One venue for advancing this work is the AMA/NCQA/HIMSS Electronic Health Record Association (EHRA) Collaborative (see [www.ama-assn.org/go/collaborative](http://www.ama-assn.org/go/collaborative)). During the public comment period for this measurement set, staff will work with HIT technology providers to identify and specify the potential integration of these measures within EHRS.

### **Technical Specifications: Prospective Data Collection Flowsheet**

Prospective data collection flowsheets are developed for measure sets after they are approved.

# DRAFT Measure #4: Transition Record with Specified Elements Received by Discharged Patients

(Emergency Department Discharges to Ambulatory Care [Home/Self Care])

(practitioner-level or system-level measure)

## *Care Transitions*

### Measure Description

Percentage of patients, regardless of age, discharged from an emergency department (ED) to ambulatory care, or their caregiver(s), who received a written transition record at the time of ED discharge including, at a minimum, *all* of the specified elements

### Measure Components

<b>Numerator Statement</b>	<p>Patients or their caregiver(s) who received a written transition record at the time of emergency department (ED) discharge including, at a minimum, <i>all</i> of the following elements:</p> <ul style="list-style-type: none"> <li>• Reason for emergency department (ED) visit, AND</li> <li>• Major procedures and tests performed during ED visit, AND</li> <li>• Principal diagnosis at discharge, AND</li> <li>• Patient instructions, including plan for follow-up care, AND</li> <li>• Primary physician or other health care professional designated for follow-up care,* AND</li> <li>• List of medications that patient should take after ED discharge, including new medications and changes to continued medications, with intended duration for each</li> </ul> <p><i>*Numerator element definition:</i></p> <ul style="list-style-type: none"> <li>• <i>Primary physician or other health care professional designated for follow-up care: may be designated primary care physician (PCP), medical specialist, or other physician or health care professional</i></li> </ul>
<b>Denominator Statement</b>	All patients, regardless of age, discharged from an emergency department (ED) to ambulatory care (home/self care)
<b>Denominator Exclusions</b>	<p>Patients who expired</p> <p>Patients who left against medical advice (AMA)</p>
<b>Supporting Guideline &amp; Other References</b>	<p>The following evidence statements are quoted <u>verbatim</u> from the referenced clinical guidelines.</p> <p>The Emergency Department (ED) represents a unique subset of potential transitions of care. The transition potential can generally be described as outpatient to outpatient or outpatient to inpatient depending on whether or not the patient is admitted to the hospital. The outpatient to outpatient transition is represented by a number of potential variables. Patients with a medical home may be referred in to the ED by the medical home or they may self refer. A significant number of patients do not have a physician and self refer to the ED. The disposition from the ED, either outpatient to outpatient or outpatient to inpatient is similarly represented by a number of variables. Discharged patients may or may not have a medical home, may or may not need a specialist and may or may not require urgent (&lt;24 hours) follow-up. Admitted patients may or may not have a medical home and may or may not require specialty care. This variety of variables precludes a single approach to ED transitions of care coordination. The determination as to which scenarios will be appropriate for standards development (Coordinating Clinicians and Transitions Responsibility) will require further contributions from ACEP and SAEM and review by the Steering Committee. (TOCCC, 2008)<sup>21</sup></p>

## Measure Importance

<b>Relationship to desired outcome</b>	Providing a detailed transition record at the time of ED discharge enhances the patient's preparation to self-manage post-discharge care and comply with the post-discharge treatment plan.
<b>Opportunity for Improvement</b>	Several studies have documented gaps in the provision or explanation of emergency department discharge instructions, compromising patient understanding of their post-discharge treatment instructions. <sup>26,27</sup>
<b>Exclusion Justification</b>	Patients who expired and patients who left against medical advice (AMA) are categorized by inpatient facilities as having been "discharged" (with specific discharge status codes) and must therefore be excluded from the denominators for these measures. The Care Transitions Work Group acknowledges that it may be feasible to provide patients who leave AMA with a medication list and transition record (and to transmit this information to the facility/physician providing follow-up care), but not necessarily with the level of detail specified in these measures.
<b>Harmonization with Existing Measures</b>	Harmonization with existing measures was not applicable to this measure.

## Measure Designation

<b>Measure purpose</b>	<ul style="list-style-type: none"> <li>• Quality Improvement</li> <li>• Accountability</li> </ul>
<b>Type of measure</b>	<ul style="list-style-type: none"> <li>• Process</li> </ul>
<b>Level of Measurement</b>	<ul style="list-style-type: none"> <li>• Individual practitioner</li> <li>• System</li> </ul>
<b>Care setting</b>	<ul style="list-style-type: none"> <li>• Discharge from emergency department</li> </ul>
<b>Data source</b>	<ul style="list-style-type: none"> <li>• Administrative data</li> <li>• Medical record</li> <li>• Electronic health record system</li> <li>• Prospective data collection flowsheet</li> </ul>

## Technical Specifications: Administrative Data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

The specifications listed below are those needed for performance calculation. Additional CPT II codes may be required depending on how measures are implemented. (Reporting vs. Performance)

<b>Denominator (Eligible Population)</b>	All patients, regardless of age, discharged from an emergency department (ED) to ambulatory care (home/self care)
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UB-04 (Field 4 - Type of Bill):

- 0131 (Hospital, Outpatient, Admit through Discharge Claim)

AND

UB-04 (Field 17 - Discharge Status):

- 01 - Discharged to home care or self care (routine discharge)
- 06 - Discharged/transferred to home under care of organized home health service org. in anticipation of covered skilled care

AND

UB-04 (Field 42 - Revenue Code):

- 0450 - Emergency Room

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**Numerator**

Patients or their caregiver(s) who received a written transition record at the time of emergency department (ED) discharge including, at a minimum, *all* of the following elements:

- Reason for emergency department (ED) visit, AND
- Major procedures and tests performed during ED visit, AND
- Principal diagnosis at discharge, AND
- Patient instructions, including plan for follow-up care, AND
- Primary physician or other health care professional designated for follow-up care,\* AND
- List of medications that patient should take after ED discharge, including new medications and changes to continued medications, with intended duration for each

*\*Numerator element definition:*

- *Primary physician or other health care professional designated for follow-up care: may be designated primary care physician (PCP), medical specialist, or other physician or health care professional*

CPT Category II code (in development):

1XXXE: Patient or caregiver received a written transition record including all specified elements at the time of ED discharge.

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**Denominator  
Exclusions**

Patients who expired

Patients who left against medical advice (AMA)

UB-04 (Field 17 - Discharge Status):

- 07 - Left against medical advice or discontinued care
- 20 - Expired

## **Technical Specifications: Electronic Health Record System**

The PCPI has as a goal the integration of its measure into electronic health record systems (EHRs) so that data for measurement and improvement are part of the fabric of care. EHRs also may be the source for external reporting. One venue for advancing this work is the AMA/NCQA/HIMSS Electronic Health Record Association (EHRA) Collaborative (see [www.ama-assn.org/go/collaborative](http://www.ama-assn.org/go/collaborative)). During the public comment period for this measurement set, staff will work with HIT technology providers to identify and specify the potential integration of these measures within EHRs.

## **Technical Specifications: Prospective Data Collection Flowsheet**

Prospective data collection flowsheets are developed for measure sets after they are approved.

# DRAFT Measure #5: Timeliness of Post-Discharge Care for Heart Failure Patients

(Inpatient Discharges to Ambulatory Care [Home/Self Care])

(system-level measure)

*Care Transitions*

## Measure Description

Percentage of patients, regardless of age, discharged from an inpatient facility to ambulatory care with a principal discharge diagnosis of heart failure, who were scheduled by the discharging facility for a follow-up visit with a physician OR advanced practice nurse OR physician assistant to take place within 7 days of discharge

## Measure Components

<b>Numerator Statement</b>	Patients who were scheduled by the discharging facility for a follow-up visit with a physician OR advanced practice nurse OR physician assistant to take place within 7 days of discharge		
<b>Denominator Statement</b>	All patients, regardless of age, discharged from an inpatient facility (eg, hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to ambulatory care (home/self care) with a principal discharge diagnosis of heart failure		
<b>Denominator Exclusions</b>	Patients who expired Patients who left against medical advice (AMA)		
<b>Supporting Guideline &amp; Other References</b>	<p>The following evidence statements are quoted <u>verbatim</u> from the referenced clinical guidelines.</p> <p>All providers and clinicians will work collaboratively with patients to reduce 30-day readmission rates.</p> <p style="padding-left: 40px;">To get there, a process for discharge planning, beginning with patients diagnosed with the CMS 9<sup>th</sup> SOW targets (heart failure, AMI, and pneumonia), and which focuses on self-care and includes plans for a post-discharge visit to the clinician, will be implemented by all providers and clinicians.</p> <p style="padding-left: 40px;">(National Priorities Partnership (NPP), Proposed Goals, 2008)<sup>28</sup></p> <p>It is recommended that criteria in [Table] be met before a patient with heart failure (HF) is discharged from the hospital. (Strength of Evidence = C)</p> <p>[Table]: Discharge Criteria for Patients with HF</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">Recommended for all HF patients</td> <td style="width: 50%; padding: 5px;"> <ul style="list-style-type: none"> <li>● Exacerbating factors addressed</li> <li>● At least near optimal volume status achieved</li> <li>● Transition from intravenous to oral diuretic successfully completed</li> <li>● Patient and family education completed</li> <li>● At least near optimal pharmacologic therapy achieved</li> <li>● Follow-up clinic visit scheduled, usually for 7-10 days after discharge</li> </ul> </td> </tr> </table> <p>(Heart Failure Society of America, 2006)<sup>29</sup></p>	Recommended for all HF patients	<ul style="list-style-type: none"> <li>● Exacerbating factors addressed</li> <li>● At least near optimal volume status achieved</li> <li>● Transition from intravenous to oral diuretic successfully completed</li> <li>● Patient and family education completed</li> <li>● At least near optimal pharmacologic therapy achieved</li> <li>● Follow-up clinic visit scheduled, usually for 7-10 days after discharge</li> </ul>
Recommended for all HF patients	<ul style="list-style-type: none"> <li>● Exacerbating factors addressed</li> <li>● At least near optimal volume status achieved</li> <li>● Transition from intravenous to oral diuretic successfully completed</li> <li>● Patient and family education completed</li> <li>● At least near optimal pharmacologic therapy achieved</li> <li>● Follow-up clinic visit scheduled, usually for 7-10 days after discharge</li> </ul>		

	<p>This section highlights key components of an ideal transition home [for patients with heart failure] and specifies individual changes that can be tested.</p> <p>Post-Acute Care Follow-Up</p> <ol style="list-style-type: none"> <li>High-risk patients: Prior to discharge, schedule a face-to-face follow-up visit (home care visit, care coordination visit, or physician office visit) to occur within 48 hours after discharge.</li> <li>Moderate risk patients: Prior to discharge, schedule a follow-up phone call within 48 hours and schedule a physician office visit within 5 days.</li> </ol> <p>(IHI, 2007)<sup>30</sup></p>
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## Measure Importance

<b>Relationship to desired outcome</b>	Heart failure (HF) is one of the most common reasons people are admitted to a hospital—and the most common reason for readmission. A retrospective study of HF patients found a correlation between documentation of compliance with the discharge instructions required in the Joint Commission HF core measures (addressing activity level, diet, discharge medications, follow-up appointment, weight monitoring, and what to do if symptoms worsen) and reduced readmission rates. <sup>31</sup>
<b>Opportunity for Improvement</b>	<p>Between 29 to 47 percent of elderly HF patients are readmitted for their condition within three to six months of an initial hospitalization.<sup>32</sup></p> <p>Elders with heart failure have the highest rehospitalization rate of all adult patient groups, with estimated annual total direct healthcare expenditures exceeding \$24.3 billion. This patient group is representative of the growing segment of the U.S. population living longer with chronic health problems and experiencing breakdowns in care during multiple transitions from hospital to home that negatively affect their quality of life and consume substantial healthcare resources.<sup>33</sup></p>
<b>Exclusion Justification</b>	Patients who expired and patients who left against medical advice (AMA) are categorized by inpatient facilities as having been “discharged” (with specific discharge status codes) and must therefore be excluded from the denominators for these measures. The Care Transitions Work Group acknowledges that it may be feasible to provide patients who leave AMA with a medication list and transition record (and to transmit this information to the facility/physician providing follow-up care), but not necessarily with the level of detail specified in these measures.
<b>Harmonization with Existing Measures</b>	<p>This measure is harmonized with the Joint Commission <u>Heart Failure - Discharge Instructions</u> measure, matching the specifications for the health care professionals (physician, advanced practice nurse, or physician assistant) with whom a follow-up visit may be scheduled.</p> <p>Additionally, an American College of Cardiology/American Heart Association/PCPI work group on heart failure will begin deliberations soon to evaluate and update a comprehensive set of inpatient and outpatient measures for heart failure. The Care Transitions measure for heart failure patients is intended to be complementary with that forthcoming activity.</p>

## Measure Designation

<b>Measure purpose</b>	<ul style="list-style-type: none"> <li>• Quality Improvement</li> <li>• Accountability</li> </ul>
<b>Type of measure</b>	<ul style="list-style-type: none"> <li>• Process</li> </ul>
<b>Level of Measurement</b>	<ul style="list-style-type: none"> <li>• System</li> </ul>

<b>Care setting</b>	• Discharge from inpatient facility
<b>Data source</b>	<ul style="list-style-type: none"> <li>• Administrative data</li> <li>• Medical record</li> <li>• Electronic health record system</li> <li>• Prospective data collection flowsheet</li> </ul>

## Technical Specifications: Administrative Data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

The specifications listed below are those needed for performance calculation. Additional CPT II codes may be required depending on how measures are implemented. (Reporting vs. Performance)

<b>Denominator (Eligible Population)</b>	All patients, regardless of age, discharged from an inpatient facility (eg, hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to ambulatory care (home/self care) with a principal discharge diagnosis of heart failure
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ICD-9-CM Diagnosis Codes:

402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9

AND

UB-04 (Field 4 - Type of Bill):

- 0111 (Hospital, Inpatient, Admit through Discharge Claim)
- 0121 (Hospital, Inpatient - Medicare Part B only, Admit through Discharge Claim)

AND

UB-04 (Field 17 - Discharge Status):

- 01 - Discharged to home care or self care (routine discharge)

<b>Numerator</b>	Patients who were scheduled by the discharging facility for a follow-up visit with a physician OR advanced practice nurse OR physician assistant to take place within 7 days of discharge
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CPT Category II code (in development):

5XXXF: Patient scheduled by the discharging facility for a follow-up visit with a physician OR advanced practice nurse OR physician assistant to take place within 7 days of discharge

<b>Denominator Exclusions</b>	Patients who expired Patients who left against medical advice (AMA)
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UB-04 (Field 17 - Discharge Status):

- 07 - Left against medical advice or discontinued care
- 20 - Expired

## Technical Specifications: Electronic Health Record System

The PCPI has as a goal the integration of its measure into electronic health record systems (EHRS) so that data for measurement and improvement are part of the fabric of care. EHRS also may be the source for external reporting. One venue for advancing this work is the AMA/NCQA/HIMSS

Electronic Health Record Association (EHRA) Collaborative (see [www.ama-assn.org/go/collaborative](http://www.ama-assn.org/go/collaborative)). During the public comment period for this measurement set, staff will work with HIT technology providers to identify and specify the potential integration of these measures within EHRs.

## **Technical Specifications: Prospective Data Collection Flowsheet**

Prospective data collection flowsheets are developed for measure sets after they are approved.

# DRAFT Measure #6: Patient Understanding of Post-Discharge Care Needed

## (Inpatient Discharges to Home/Self Care or Any Other Site of Care)

(system-level measure)  
*Care Transitions*

### Measure Description

(See below)

### Measure Components

In lieu of a performance measure at this time, the Care Transitions Work Group (CTWG) has agreed upon the following intermediate objective:

**To promote improved patient understanding of and adherence to the post-discharge treatment plan through the addition of appropriate questions to the CAHPS<sup>®</sup> Hospital Survey (HCAHPS).**

Available evidence indicates that many patients lack an understanding of their medication regimen and other instructions provided at discharge, affecting their ability to comply with post-discharge treatment plans. The CTWG agrees that this is an important topic for performance measurement and improvement. However, the CTWG also acknowledges that assessing patient understanding will require the use of a patient survey instrument at the time of discharge (or within a short post-discharge period) and that, given the current and widespread use of HCAHPS, the introduction of an additional survey instrument is not desirable.

Agency for Healthcare Research and Quality (AHRQ) staff have indicated that a Health Literacy (HL) supplement to HCAHPS is under development and have invited AMA-PCPI/CTWG staff to participate in upcoming stakeholder meetings to provide guidance on the development of the supplemental item set for HCAHPS. Preliminary discussion with AHRQ staff has also indicated that several questions pertaining to patient receipt and understanding of discharge instructions (including discharge medications and plans for follow-up care) are under consideration for inclusion in the HL supplement. Development of a performance measure for this topic is therefore deferred until development of the HCAHPS HL supplement and plans for its implementation have been completed.

<b>Numerator Statement</b>	Numerator and denominator statements and exclusions (if appropriate) will be developed by the Care Transitions Work Group after completion and implementation of the HCAHPS Health Literacy Supplement, as described above.
<b>Denominator Statement</b>	
<b>Denominator Exclusions</b>	
<b>Supporting Guideline &amp; Other References</b>	<p>The following evidence statements are quoted <u>verbatim</u> from the referenced clinical guidelines.</p> <p>Patients and/or their family/caregivers must receive, understand and be encouraged to participate in the development of their transition record which should take into consideration the patient's health literacy, insurance status and be culturally sensitive. (TOCCC, 2008)</p> <p><b>Standard PC.04.01.05</b> Before the [organization] discharges or transfers a [patient], it informs and educates the [patient] about his or her follow-up care, treatment, and services.</p>

	<p>8. The hospital provides written discharge instructions in a manner that the patient and/or the patient's family or caregiver can understand. (See also RI.01.01.03, EP 1) (Joint Commission, 2009)</p> <p><b>Standard RI.01.01.03</b> The hospital respects the patient's right to receive information in a manner he or she understands.</p> <ol style="list-style-type: none"> <li>1. The hospital provides information in a manner tailored to the patient's age, language, and ability to understand.</li> <li>2. The hospital provides interpreting and translation services, as necessary.</li> <li>3. The hospital communicates with the patient who has vision, speech, hearing, or cognitive impairments in a manner that meets the patient's needs. (Joint Commission, 2009)</li> </ol> <p>Providers will continually strive to improve care and achieve quality by facilitating and carefully considering feedback from all patients regarding coordination of their care. To get there, all providers and clinicians will gather input using a valid and reliable tool (e.g., the Care Transition Measure (CTM3))* for all discharged patients. (National Priorities Partnership (NPP), Proposed Goals, 2008)</p> <p>* NQF-endorsed™ Care Transitions Measure (CTM-3):<sup>34</sup></p> <ul style="list-style-type: none"> <li>• The hospital staff took my preferences and those of my family or caregiver into account in deciding what my health care needs would be when I left the hospital.</li> <li>• When I left the hospital, I had a good understanding of the things I was responsible for in managing my health.</li> <li>• When I left the hospital, I clearly understood the purpose for taking each of my medications.</li> </ul>
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## Measure Importance

<b>Relationship to desired outcome</b>	Patients' ability to comply with post-discharge treatment plans is compromised if they lack an understanding of instructions provided to them at discharge regarding their follow-up care and medications.
<b>Opportunity for Improvement</b>	One study of discharged patients found that 41% were able to state their diagnoses, 37% were able to state the purpose of their medications, and 14% knew the common side effects of all their medications. <sup>35</sup> A more recent study of patients discharged from an internal medicine residency service found that fewer than two-thirds could identify the name, dosage, or purpose of their new medications; only 11% could recall being told of any adverse side effects. <sup>36</sup>
<b>Exclusion Justification</b>	(To be provided upon further development of this measure.)
<b>Harmonization with Existing Measures</b>	This measure will be harmonized to the extent feasible with questions in the Health Literacy supplement to the HCAHPS survey (under development) and the existing Care Transitions Measure (CTM-3), as described above.

## Measure Designation

<b>Measure purpose</b>	• (No measure proposed at this time)
<b>Type of measure</b>	• (No measure proposed at this time)
<b>Level of Measurement</b>	• System
<b>Care setting</b>	• Discharge from inpatient facility
<b>Data source</b>	<ul style="list-style-type: none"> <li>• Administrative data</li> <li>• Medical record</li> <li>• Electronic health record system</li> <li>• Prospective data collection flowsheet</li> </ul>

## References

- <sup>1</sup> Coleman EA, Min S, Chomiak A, Kramer AM. 2004. Post-hospital care transitions: patterns, complications, and risk identification. *Health Services Research* 39:1449-1465.
- <sup>2</sup> Agency for Healthcare Research and Quality (ARHQ). 1999. *Outcomes by Patient and Hospital Characteristics for All Discharges*. Available at: <http://www.ahrq.gov/HCUPnet.asp>.
- <sup>3</sup> Kramer A, Eilertsen T, Lin M, Hutt E. 2000. Effects of nurse staffing on hospital transfer quality measures for new admissions. Pp. 9.1-9.22. *Inappropriateness of Minimum Nurse Staffing Ratios for Nursing Homes*. Health Care Financing Administration.
- <sup>4</sup> Hutt E, Ecord M, Eilertsen TB, et al. Precipitants of emergency room visits and acute hospitalization in short-stay Medicare nursing home residents. *J Am Geriatr Soc* 2001; 50: 223-229.
- <sup>5</sup> Jack BW, Chetty VK, Anthony D, et al. A reengineered hospital discharge program to decrease rehospitalization. *Ann Intern Med* 2009; 150:178-187.
- <sup>6</sup> Agency for Healthcare Research and Quality (ARHQ). 2006. *Outcomes by Patient and Hospital Characteristics for All Discharges*. Available at: <http://www.ahrq.gov/HCUPnet.asp>.
- <sup>7</sup> Medicare Payment Advisory Commission. A data book: Healthcare spending and the medicare program. June 2007. Available at: [http://www.medpac.gov/documents/Jun07DataBook\\_Entire\\_report.pdf](http://www.medpac.gov/documents/Jun07DataBook_Entire_report.pdf).
- <sup>8</sup> Harris G. *Report finds a heavy toll from medication errors*, N.Y. Times (July 21, 2006). Available at: <http://www.nytimes.com/2006/07/21/health/21drugerrors.html?ex=1311134400&en=8f34018d05534d7a&ei=5088&partner=rssnyt&emc=rss>
- <sup>9</sup> Sabogal F, Coots-Miyazaki M, Lett JE. Effective care transitions interventions: Improving patient safety and healthcare quality. *CAHQ Journal* 2007 (Quarter 2).
- <sup>10</sup> Moore C, Wisnevesky J, Williams S, McGinn T. 2003. Medical errors related to discontinuity of care from an inpatient to an outpatient setting. *Journal of General Internal Medicine* 18:646-651.
- <sup>11</sup> Roy CL, Poon EG, Karson AS, et al. Patient safety concerns arising from test results that return after hospital discharge. *Ann Intern Med* 2005;143(2):121-128.
- <sup>12</sup> Burt CW, McCaig LF, Simon AE. Emergency department visits by persons recently discharged from US hospitals. National Health Statistics Reports, July 24, 2008; Number 6.
- <sup>13</sup> Rozich JD & Resar, RK. 2001. Medication safety: One organization's approach to the challenge. *J. Clin. Outcomes Manag.* 8:27-34.
- <sup>14</sup> Partnership for Solutions. 2002. *Chronic Conditions: Making the Case for Ongoing Care*. Baltimore MD: The Johns Hopkins University.
- <sup>15</sup> Forster AJ, Murff HJ, Peterson JF, et al. The incidence and severity of adverse events affecting patients after discharge from the hospital. *Ann Intern Med* 2003;138(3):161-167.
- <sup>16</sup> Coleman EA, Smith JD, Raha D, Min SJ. Posthospital medication discrepancies: prevalence and contributing factors. *Arch Intern Med* 2005;165(16):1842-1847.
- <sup>17</sup> Kripalani S, LeFevre F, Phillips CO, et al. Deficits in communication and information transfer between hospital-based and primary care physicians: implications for patient safety and continuity of care. *JAMA* 2007;297(8):831-841.
- <sup>18</sup> van Walraven C, Seth R, Austin PC, Laupacis A. 2002. Effect of discharge summary availability during post-discharge visits on hospital readmission. *Journal of General Internal Medicine* 17:186-192.
- <sup>19</sup> van Walraven C, Seth R, Laupacis A. 2002. Dissemination of discharge summaries. Not reaching follow-up physicians. *Canadian Family Physician* 48:737-742.
- <sup>20</sup> Benbassat J, Taragin M. Hospital readmissions as a measure of quality of healthcare. *Archives Internal Medicine* 2000; 160:1074-81.
- <sup>21</sup> Snow V, Beck D, Budnitz T., Miller DC, Potter J, Wears RL, Weiss KB, Williams MV. Transitions of Care Consensus Policy Statement: American College of Physicians-Society of General Internal Medicine-Society of Hospital Medicine-American Geriatrics Society-American College of Emergency Physicians-Society of Academic Emergency Medicine. 2008. (submitted for publication)
- <sup>22</sup> Institute for Healthcare Improvement. Reconcile medications at all transition points: Reconcile discharge orders with the nursing medication administration record. Available at: <http://www.ihl.org/IHI/Topics/PatientSafety/MedicationSystems/Changes>.
- <sup>23</sup> Joint Commission on Accreditation of Healthcare Organizations. *2009 Hospital Accreditation Standards*. Oakbrook Terrace, IL: Joint Commission Resources, Inc.
- <sup>24</sup> Midlöv P et. al. Clinical outcomes from the use of Medication Report when elderly patients are discharged from hospital. *Pharm World Sci.* 2008;30:840-845.

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- <sup>25</sup> National Quality Forum. Safe Practices for Better Healthcare 2006 Update, A Consensus Report. <http://www.qualityforum.org/pdf/projects/safe-practices/SafePractices2006UpdateFINAL.pdf>. Published 2007. Accessed February 10, 2009.
- <sup>26</sup> Rudd RE, et al. An overview of medical and public health literature addressing literacy issues: an annotated bibliography. Cambridge, MA: Harvard School of Public Health; 2008. Available at <http://www.hsph.harvard.edu/healthliteracy/litreview.pdf>
- <sup>27</sup> Matlow AG, et al. A study of provider-caregiver communication in paediatric ambulatory care. *Paediatr Child Health*. 2006 April; 11(4): 217-221.
- <sup>28</sup> National Priorities Partnership. *National Priorities and Goals: Aligning Our Efforts to Transform America's Healthcare*. Washington, DC: National Quality Forum; 2008. <http://www.nationalprioritiespartnership.org/AboutNPP.aspx> . Accessed February 10, 2009.
- <sup>29</sup> Adams KF, et al. Heart Failure Society of America 2006 Comprehensive Heart Failure Practice Guideline. *Journal of Cardiac Failure*. 2006 Feb;12(1):100 [Table 12.7].
- <sup>30</sup> Nielsen GA, Bartely A, Coleman E, Resar R, Rutherford P, Souw D, Taylor J. *Transforming Care at the Bedside How-to Guide: Creating an Ideal Transition Home for Patients with Heart Failure*. Cambridge, MA: Institute for Healthcare Improvement; 2008. Available at <http://www.ihl.org>.
- <sup>31</sup> VanSuch M, Naessens JM, Stroebel RJ, Huddleston JM, Williams AR. Effect of discharge instructions on readmission of hospitalised patients with heart failure: do all of the Joint Commission on Accreditation of Healthcare Organizations heart failure core measures reflect better care? *Qual Saf Health Care*. 2006 Dec;15(6):414-7
- <sup>32</sup> M. Jessup and K. M. McCauley, *Heart Failure: Providing Optimal Care* (First Edition), Published Online: 16 Nov 2007.
- <sup>33</sup> Heart Disease and Stroke Statistics - 2003 Update. Dallas: American Heart Association, 2003. Cited in: Naylor, et. al., Transitional care of older adults hospitalized with heart failure: A randomized, controlled trial. *JAGS* 52:675-684, 2004.
- <sup>34</sup> Coleman EA, Mahoney E, Parry C. 2004d. Assessing the quality of preparation for posthospital care from the patient's perspective: The care transitions measure (CTM). *Medical Care* 43(3) 246-255.
- <sup>35</sup> Makaryus AN, Friedman EA. Patients' understanding of their treatment plans and diagnosis at discharge. *Mayo Clin Proc*. 2005 Aug;80(8):991-994.
- <sup>36</sup> Maniaci MJ, Heckman MG, Dawson NL. Functional health literacy and understanding of medications at discharge. *Mayo Clin Proc*. 2008 May;83(5):554-558.