American Gastroenterological Association Institute/Physician Consortium for Performance Improvement®/National Committee for Quality Assurance

Gastroesophageal Reflux Disease (GERD)
Physician Performance Measurement Set

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Intended Audience and Patient Population:

These measures are intended for gastroenterologists, and any other physician managing the on-going care of patients with Gastroesophageal Reflux Disease (GERD).

These clinical performance measures are designed for individual quality improvement. Some of the measures may also be appropriate for accountability if appropriate sample sizes and implementation rules are achieved.

Accountability Measures:

#1: Assessment for alarm symptoms
#2: Endoscopy for patients with alarm symptoms
#3: Biopsy for Barrett's esophagus
#4: Barium swallow – inappropriate use
#5: Medication Therapy - Assessment of GERD Symptoms

GERD
Measure #1: Assessment for Alarm Symptoms

This measure may be used as an Accountability measure

Clinical Performance Measure
Numerator: Patients who were assessed for the presence or absence of the following alarm symptoms: involuntary weight loss, dysphagia, and GI bleeding **Denominator**: All patients aged 18 years and older with the diagnosis of GERD, seen for an initial evaluation **Denominator Exclusion:** Documentation of medical reason(s) for not assessing for alarm symptoms **Measure:** Percentage of patients aged 18 years and older with diagnosis of GERD, seen for an initial evaluation, who were assessed for the presence or absence of the following alarm symptoms: involuntary weight loss, dysphagia, and GI bleeding
The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure: Further diagnostic testing (including endoscopy, proton pump inhibitor (PPI) trial, ambulatory pH monitoring, or other tests) is recommended in the following: ▪ Patients with ***alarm symptoms*** (referral for further testing should be immediate). Alarm symptoms are those that suggest cancer. Alarm symptoms include dysphagia, odynophagia, weight loss, hematemesis, black or bloody stools, chest pain, or choking (acid reflux causing coughing, hoarseness, or shortness of breath). (VHA[1]) Alarm features should be sought in all patients presenting with dyspepsia. If alarm features are present, endoscopy should be performed (suggested time frames for urgency of endoscopy are provided with each of the alarm features listed). (ICSI[2]) (Class A, C)
Rationale for the measure: To determine a treatment plan for a patient with GERD, the physician should assess and document whether or not the patient has alarm symptoms. These symptoms are suggestive of possible cancer, and should be addressed with further diagnostic testing when present. Data are not readily available as to whether or not physicians are routinely assessing for alarm signs at the initial evaluation of a patient with GERD.

GERD

Measure #2: Upper endoscopy for patients with alarm symptoms

This measure may be used as an Accountability measure

Clinical Performance Measure
Numerator: Patients who were either referred for an upper endoscopy or had an upper endoscopy performed **Denominator**: All patients aged 18 years and older with a diagnosis of GERD, seen for an initial evaluation, with documentation of at least one alarm symptom (*involuntary weight loss, dysphagia, or GI bleeding)* **Denominator Exclusion:** Documentation of medical reason(s) for not referring for or not performing an upper endoscopy Documentation of patient reason(s) for not referring for or not performing an upper endoscopy Documentation of system reason(s) for not referring for or not performing an upper endoscopy **Measure:** Percentage of patients aged 18 years and older seen for an initial evaluation of GERD with at least one alarm symptom who were either referred for upper endoscopy or had an upper endoscopy performed
The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure: Further diagnostic testing (including endoscopy, proton pump inhibitor (PPI) trial, ambulatory pH monitoring, or other tests) is recommended in the following: ▪ Patients with ***alarm symptoms*** (referral for further testing should be immediate). Alarm symptoms are those that suggest cancer. Alarm symptoms include dysphagia, odynophagia, weight loss, hematemesis, black or bloody stools, chest pain, or choking (acid reflux causing coughing, hoarseness, or shortness of breath). (VHA) Send patients with dyspepsia plus one of the following alarm features for urgent endoscopic evaluation. Suggested time frames for the urgency of endoscopy are provided with each of the alarm features listed. (ICSI[3]) (Class A, C) Melena (*within 1 day if ill*) Hematemesis (*within 1 day if ill*) Persistent vomiting (*7-10 days*) Anemia (*7-10 days*) Acute onset of total dysphagia (*within 1 day*) Weight loss greater than 5% (involuntary) (*7-10 days*)
Rationale for the measure: This measure addresses the issue of when to perform an endoscopy by assessing whether an endoscopy was done for a patient with at least one alarm symptom. Alarm symptoms could indicate cancer, and further imaging is needed to rule out the diagnosis of cancer or other conditions.

GERD

Measure #3: Biopsy for Barrett's esophagus

This measure may be used as an Accountability measure

Clinical Performance Measure
Numerator: Patients who had a forceps esophageal biopsy performed **Denominator**: All patients aged 18 years and older with a diagnosis of GERD or heartburn whose endoscopy report indicates a suspicion of Barrett's esophagus **Denominator Exclusion:** Documentation of medical reason(s) for not performing a forceps esophageal biopsy **Measure:** Percentage of patients aged 18 years and older with a diagnosis of GERD or heartburn whose endoscopy report indicates a suspicion of Barrett's esophagus who had a forceps esophageal biopsy performed
The following clinical recommendation statements are quoted <u>verbatim</u> from the referenced clinical guidelines and represent the evidence base for the measure: Endoscopy is the technique of choice used to identify suspected Barrett's esophagus and to diagnose complications of GERD. Biopsy must be added to confirm the presence of Barrett's epithelium and to evaluate for dysplasia. (ACG[Error! Bookmark not defined.]) (Level III)
Rationale for the measure: The official diagnosis of Barrett's esophagus is confirmed by a pathologist. Therefore, if Barrett's esophagus is suspected upon endoscopic examination, a biopsy should be performed by the endoscopist and sent to pathology for diagnosis.

GERD

Measure #4: Barium swallow – inappropriate use

This measure may be used as an Accountability measure

Clinical Performance Measure
Numerator: Patients who did not have Barium swallow test ordered **Denominator**: All patients aged 18 years and older seen for an initial evaluation of GERD **Denominator Exclusion:** Documentation of medical reason(s) for ordering a Barium swallow test **Measure:** Percentage of patients aged 18 years and older seen for an initial evaluation of GERD who did not have a Barium swallow test ordered
The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure: Barium radiology has limited usefulness in the diagnosis of GERD and thus is not recommended. (UMHS[4]) (Grade B)
Rationale for the measure: This measure was written as an avoidance measure so that the performance goal is 100%, consistent with the other measures. Data elements required for the measure can be captured and the measure is actionable by the physician.

GERD

Measure #5: Chronic Medication Therapy - Assessment of GERD Symptoms

This measure may be used as an Accountability measure

Clinical Performance Measure
Numerator: Patients who had an assessment of their GERD symptoms within 12 months of initiation of therapy **Denominator:** All patients aged 18 years and older patients with a diagnosis of GERD who have been prescribed continuous proton pump inhibitor (PPI) or histamine H_2 receptor antagonist (H_2RA) therapy ** Continuous therapy is defined as proton pump inhibitor (PPI) or histamine H2 receptor antagonist (H2RA) therapy lasting twelve months or more to treat GERD* **Denominator exclusions:** Documentation of medical reason(s) for not assessing GERD symptoms within 12 months of initiation of therapy **Measure:** All patients aged 18 years and older with the diagnosis of GERD who have been prescribed chronic proton pump inhibitor (PPI) or histamine H_2 receptor antagonist (H_2RA) therapy who received an assessment of their GERD symptoms within 12 months Percentage of patients aged 18 years and older with the diagnosis of GERD who have been prescribed continuous proton pump inhibitor (PPI) or histamine H2 receptor antagonist (H2RA) therapy who received an assessment of their GERD symptoms within 12 months
The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure: Because GERD is a chronic condition, continuous therapy to control symptoms and prevent complications is appropriate. (ACG**Error! Bookmark not defined.**) (Level I) Nonresponders to adequate trials of drug therapy, particularly PPI therapy, should have their symptoms reassessed, undergo endoscopy if it was not previously done, and be considered for additional diagnostic work-up. (VHA/DOD) (OQ III, Grade C) Inadequate response to a 4- to 8- week course of standard-dose PPI may indicate longer treatment is needed, more severe disease, or incorrect diagnosis. If there is an inadequate response to a course of standard-dose PPI (the recommended duration of therapy for PPIs in the treatment of GERD is 4 to 8 weeks), extend treatment with either the same or double dose of PPI. (VHA/DOD) (OQ I, Grade B)
Rationale for the measure: Many patients with GERD remain on medication therapy for years, and experts suspect that not all patients are being reassessed on a regular basis to determine whether the medication is still needed. This measure attempts to capture whether or not a patient on chronic medication have their GERD symptoms are assessed at least annually. Research indicates that patients on chronic therapy are able to have their dose modified or reduced based on the presence or absence of symptoms.

Evidence classification / rating scheme

Veterans Health Administration (VHA)/Department of Defense (DoD) Evidence Rating Scale

Quality of Evidence (QE)

Level I	Evidence obtained from at least one properly randomized controlled trial.
Level II-1	Evidence obtained from well-designed controlled trials without randomization.
Level II-2	Evidence obtained from well-designed cohort or case-controlled analytic studies, preferably from more than one center or research group.
Level II-3	Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments could also be regarded as this type of evidence.
Level III	Opinion of respected authorities, based on clinical experience, descriptive studies and case reports, or reports of expert committees

Overall Quality (OQ)

Level I	Good	High-grade evidence (I or II-1) directly linked to health outcome
Level II	Fair	High-grade evidence (I or II-1) linked to intermediate outcome OR Moderate-grade evidence (II-2 or II-3) directly linked to health outcome
Level III	Poor	Level III evidence or no linkage of evidence to health outcome
Level IV	—	Insufficient evidence

Grade for Strength of the Recommendation

Grade A	A strong recommendation that the intervention is always indicated and acceptable
Grade B	A recommendation that the intervention may be useful/effective
Grade C	A recommendation that the intervention may be considered
Grade D	A recommendation that a procedure may be considered not useful/effective, or may be harmful
Grade I	Insufficient evidence to recommend for or against—the clinician will use their clinical judgment

Institute for Clinical Systems Improvement (ICSI)[2]

Classes of Research Reports:

Primary Reports of New Data Collection:

Class A: Randomized, controlled trial
Class B: Cohort study
Class C: Nonrandomized trial with concurrent or historical controls; Case-control study, Study of sensitivity and specificity of a diagnostic test; Population-based descriptive study
Class D: Cross-sectional study, case series, case report

Reports that Synthesize or Reflect upon Collections of Primary Reports:

Class M: Meta-analysis; Systematic review; Decision analysis; Cost-effectiveness analysis
Class R: Consensus statement; Consensus report; Narrative review
Class X: Medical opinion

American College of Gastroenterology (ACG) Rating of Levels of Evidence**Error! Bookmark not defined.**

Level I	Strong evidence from at least one published systematic review of multiple well-designed randomized controlled trials
Level II	Strong evidence from at least one published properly designed randomized controlled trial of appropriate size and in appropriate clinical setting
Level III	Evidence from published well-designed trials without randomization, single group prepost, cohort, time series or matched case-controlled studies
Level IV	Evidence from well-designed nonexperimental studies from more than one center or research group or opinion of respected authorities, based on clinical evidence, descriptive studies, or reports of expert consensus committees

University of Michigan Health System (UMHS) Evidence Grading System
Levels of evidence reflect the best available literature in support of an intervention or test:
A=randomized controlled trials
B=controlled trials, no randomization
C=observational trials
D=opinion of expert pane

References

[1] VHA/DoD Clinical Practice Guideline for the Management of Adults with Gastroesophageal Reflux Disease in Primary Care Practice. Washington, DC: Pharmacy Benefits Management Strategic Healthcare Group and the Medical Advisory Panel, Veterans Health Administration, Department of Veterans Affairs, and the Pharmacoeconomic Center, Department of Defense. March 12, 2003. PBM-MAP Publication No. 03-0016.
[2] Institute for Clinical Systems Improvement (ICSI). Initial management of dyspepsia and GERD. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2006 July
[3] Institute for Clinical Systems Improvement (ICSI). Initial management of dyspepsia and GERD. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2006 July
[4] University of Michigan Health System (UMHS). Guidelines for clinical care. Management of gastroesophageal reflux disease (GERD). March 2002. Available at: www.cme.med.UMHS.edu/pdf/guideline/gerd.pdf.