



## Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to subcriterion 1b).

### Brief Measure Information

**NQF #: 0243**

**Corresponding Measures:**

**De.2. Measure Title:** Stroke and Stroke Rehabilitation: Screening for Dysphagia

**Co.1.1. Measure Steward:** American Academy of Neurology

**De.3. Brief Description of Measure:** Percentage of patients aged 18 years and older with a diagnosis of ischemic stroke or intracranial hemorrhage who receive any food, fluids or medication by mouth (PO) for whom a dysphagia screening was performed prior to PO intake in accordance with a dysphagia screening tool approved by the institution in which the patient is receiving care

**1b.1. Developer Rationale:** Unmanaged oropharyngeal dysphagia is associated with an increased risk of airway obstruction, aspiration pneumonia, death, malnutrition, and a decreased quality of life.(1)

The presence of dysphagia has been associated with an increased risk for pulmonary complications and even mortality. There is emerging evidence that early detection of dysphagia in patients with acute stroke reduces not only these complications but also reduces length of hospital stay and overall healthcare expenditures.(2)

1. American Speech Language Hearing Association. (2004). Knowledge and Skills Needed by Speech-Language Pathologists Performing Videofluoroscopic Swallowing Studies [Knowledge and Skills]. Available from [www.asha.org/policy](http://www.asha.org/policy).

2. Martino R, Foley N, Bhogal S, Diamant N, et al. Dysphagia After Stroke: Incidence, Diagnosis, and Pulmonary Complications. *Stroke* 2005;36:2756-2763.

**S.4. Numerator Statement:** Patients for whom a dysphagia screening was performed prior to PO intake in accordance with a dysphagia screening tool approved by the institution in which the patient is receiving care

**S.7. Denominator Statement:** All patients aged 18 years and older with a diagnosis of ischemic stroke or intracranial hemorrhage who receive any food, fluids or medication by mouth (PO)

**S.10. Denominator Exclusions:** The PCPI distinguishes between measure exceptions and measure exclusions. Exclusions arise when patients who are included in the initial patient or eligible population for a measure do not meet the denominator criteria specific to the intervention required by the numerator. Exclusions are absolute and apply to all patients and therefore are not part of clinical judgment within a measure. For this measure, exclusions include patients that expired during the inpatient stay. Exclusions, including applicable value sets, are included in the measure specifications.

Exceptions are used to remove patients from the denominator of a performance measure when a patient does not receive a therapy or service AND that therapy or service would not be appropriate due to specific reasons; otherwise, the patient would meet the denominator criteria. Exceptions are not absolute, and the application of exceptions is based on clinical judgment, individual patient characteristics, or patient preferences. The PCPI exception methodology uses three categories of exception reasons for which a patient may be removed from the denominator of an individual measure. These measure exception categories are not uniformly relevant across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. Examples are provided in the measure exception language of instances that may constitute an exception and are intended to serve as a guide to clinicians. For this measure, exceptions include medical reason(s) or patient reason(s) for not conducting dysphagia screening prior to patient taking any foods, fluids or medication by mouth. Where examples of exceptions are included in the measure language, value sets for these examples are developed and are included in the eSpecifications. Although this methodology does not require the external reporting of more detailed exception data, the PCPI recommends that physicians document the specific reasons for exception in patients' medical records for purposes of optimal patient management and audit-

readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities for quality improvement.

**De.1. Measure Type:** Process

**S.23. Data Source:** Claims, Electronic Health Records, Other, Registry Data

**S.26. Level of Analysis:** Clinician : Group/Practice, Clinician : Individual

**IF Endorsement Maintenance – Original Endorsement Date:** May 01, 2007 **Most Recent Endorsement Date:** Nov 01, 2012

**IF this measure is included in a composite, NQF Composite#/title:**

**IF this measure is paired/grouped, NQF#/title:**

**De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results?** This measure is not included in a composite.

## 1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. **Measures must be judged to meet all subcriteria to pass this criterion and be evaluated against the remaining criteria.**

**1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form**  
0243\_Evidence\_MSF5.0\_Data.doc

### 1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- disparities in care across population groups.

**1b.1. Briefly explain the rationale for this measure** (e.g., the benefits or improvements in quality envisioned by use of this measure)  
Unmanaged oropharyngeal dysphagia is associated with an increased risk of airway obstruction, aspiration pneumonia, death, malnutrition, and a decreased quality of life.(1)

The presence of dysphagia has been associated with an increased risk for pulmonary complications and even mortality. There is emerging evidence that early detection of dysphagia in patients with acute stroke reduces not only these complications but also reduces length of hospital stay and overall healthcare expenditures.(2)

1. American Speech Language Hearing Association. (2004). Knowledge and Skills Needed by Speech-Language Pathologists Performing Videofluoroscopic Swallowing Studies [Knowledge and Skills]. Available from [www.asha.org/policy](http://www.asha.org/policy).

2. Martino R, Foley N, Bhogal S, Diamant N, et al. Dysphagia After Stroke: Incidence, Diagnosis, and Pulmonary Complications. *Stroke* 2005;36:2756-2763.

**1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis.** (This is required for endorsement maintenance. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included). This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.

Dysphagia is a commonly documented morbidity after stroke, but its reported frequencies are widely discrepant, ranging between 19% and 81%.(1)

This measure was used in the 2007-2012 CMS Physician Quality Reporting Initiative/System claims, registry and group reporting options. There is a gap in care as shown by this data; 68.30% of patients reported on did not meet the measure.(2)

10th percentile: 0.00%

25th percentile: 0.00%

50th percentile: 16.67%  
75th percentile: 50.00%  
90th percentile: 100.00%

Exception Rate: 13.25%

CMS 2010 Reporting Experience(3)  
Average Performance Rate per Eligible Professional  
2009: 76.7%  
2010: 84.3%

It is important to note that PQRS is currently a voluntary reporting program, with about 24% of eligible professionals participating in 2010, and performance rates may not be nationally representative.

**1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.**

1. Martino R, Foley N, Bhogal S, Diamant N, et al. Dysphagia After Stroke: Incidence, Diagnosis, and Pulmonary Complications. *Stroke* 2005;36:2756-2763.

2. Confidential CMS PQRI 2008 Performance Information by Measure. Jan-Sept TAP file

3. CMS 2010 Physician Quality Reporting System and eRx Experience Report. Accessed at: <http://www.CMS.gov/PQRS>.

**1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. (This is required for endorsement maintenance. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.**

No disparities have been identified, specifically related to dysphagia screening among stroke patients.

**1b.5. If no or limited data on disparities from the measure as specified is reported in 1b4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations.**

N/A

**1c. High Priority** (previously referred to as High Impact)

The measure addresses:

- a specific national health goal/priority identified by DHHS or the National Priorities Partnership convened by NQF; OR
- a demonstrated high-priority (high-impact) aspect of healthcare (e.g., affects large numbers of patients and/or has a substantial impact for a smaller population; leading cause of morbidity/mortality; high resource use (current and/or future); severity of illness; and severity of patient/societal consequences of poor quality).

**1c.1. Demonstrated high priority aspect of healthcare**

Affects large numbers, A leading cause of morbidity/mortality

**1c.2. If Other:**

**1c.3. Provide epidemiologic or resource use data that demonstrates the measure addresses a high priority aspect of healthcare. List citations in 1c.4.**

An estimated 7,000,000 Americans > or = 20 years of age have had a stroke. Overall stroke prevalence during this period is an estimated 3.0%.(1)

Stroke is the leading cause of serious long-term disability in the United States.(1)

Impairments of swallowing are associated with a high risk of pneumonia. Some patients cannot receive food or fluids because of impairments in swallowing or mental status. Patients with infarctions of the brain stem, multiple strokes, major hemispheric lesions,

or depressed consciousness are at the greatest risk for aspiration. Swallowing impairments are associated with an increased risk of death. An abnormal gag reflex, impaired voluntary cough, dysphonia, incomplete oral-labial closure, a high NIHSS score, or cranial nerve palsies should alert the physician to the risk. A preserved gag reflex may not indicate safety with swallowing. An assessment of the ability to swallow is important before the patient is allowed to eat or drink.(1)

Unmanaged oropharyngeal dysphagia is associated with an increased risk of airway obstruction, aspiration pneumonia, death, malnutrition, and a decreased quality of life. The prevalence of dysphagia among individuals older than 50 years ranges from 16% to 22%. (2)

Dysphagia is an important complication of stroke. It has been described as an independent predictor of stroke mortality, disability, and institutionalization. Poststroke sequelae associated with dysphagia, such as malnutrition and aspiration pneumonia, are also predictors of poor outcome after stroke.(3)

Dysphagia is one of the most common sequelae following acute stroke and head injury, affecting as many as 50% of patients. Emerging evidence now suggests that dysphagia screening in acute stroke survivors provides a statistically significant relative risk reduction (RRR) for pneumonia of more than 80%; a statistically significant RRR in mortality of 70%; a reduction in percutaneous endoscopic gastrostomy tube (PEG) insertion; and a reduction in healthcare costs. (4)

#### 1c.4. Citations for data demonstrating high priority provided in 1a.3

1. Roger VL, Go AS, Lloyd-Jones DM, Benjamin EJ, et al. Heart Disease and Stroke Statistics-2012 Update: A Report from the American Heart Association. *Circulation* 2012;125:e2-e220.

2. Adams HP, del Zoppo G, Alberts MJ, Bhatt DL, et al. Guidelines for the Early Management of Adults with Ischemic Stroke: A Guideline From the American Heart Association/American Stroke Association Stroke Council, Clinical Cardiology Council, Cardiovascular Radiology and Intervention Council, and the Atherosclerotic Peripheral Vascular Disease and Quality of Care Outcomes in Research Interdisciplinary Working Groups: The American Academy of Neurology affirms the value of this guideline as an educational tool for neurologists. *Stroke* 2007;38:1655-1711.

2. American Speech-Language-Hearing Association. (2004). Knowledge and Skills Needed by Speech-Language Pathologists Performing Videofluoroscopic Swallowing Studies [Knowledge and Skills]. Available from [www.asha.org/policy](http://www.asha.org/policy).

3. Gonzalez-Fernandez M, Kuhlemeier KV, Palmer JB. Racial Disparities in the Development of Dysphagia After Stroke: Analysis of the California (MIRCal) and New York (SPARCS) Inpatient Databases. *Arch Phys Med Rehabil* 2008;89:1358-1365.

4. Gupta H, Banerjee A. Early Detection and Management of Dysphagia in Acute Stroke. Available at: [http://www.maxhealthcare.in/services\\_facilities/our\\_departments/mer/pdfs/medical\\_journals/feb2010/05-Early\\_Detection\\_Management\\_Dysphagia.pdf](http://www.maxhealthcare.in/services_facilities/our_departments/mer/pdfs/medical_journals/feb2010/05-Early_Detection_Management_Dysphagia.pdf).

**1c.5. If a PRO-PM (e.g. HRQoL/functional status, symptom/burden, experience with care, health-related behaviors), provide evidence that the target population values the measured PRO and finds it meaningful. (Describe how and from whom their input was obtained.)**

## 2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **Measures must be judged to meet the subcriteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.**

**2a.1. Specifications** The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

**De.5. Subject/Topic Area** (check all the areas that apply):

Neurology, Neurology : Stroke/Transient Ischemic Attack (TIA)

**De.6. Non-Condition Specific** (check all the areas that apply):

Health and Functional Status : Change

**S.1. Measure-specific Web Page** (Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)

The updated specifications for this measure are attached with this form. Additional measure information can be found at [www.physicianconsortium.org](http://www.physicianconsortium.org).

**S.2a. If this is an eMeasure**, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)

This is not an eMeasure Attachment:

**S.2b. Data Dictionary, Code Table, or Value Sets** (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

No data dictionary Attachment:

**S.3. For endorsement maintenance**, please briefly describe any changes to the measure specifications since last endorsement date and explain the reasons.

**S.4. Numerator Statement** (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome)

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

Patients for whom a dysphagia screening was performed prior to PO intake in accordance with a dysphagia screening tool approved by the institution in which the patient is receiving care

**S.5. Time Period for Data** (What is the time period in which data will be aggregated for the measure, e.g., 12 mo, 3 years, look back to August for flu vaccination? Note if there are different time periods for the numerator and denominator.)

Once during each hospital stay during measurement period

**S.6. Numerator Details** (All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

Definitions:

Dysphagia Screening – May include, but is not limited to videofluoroscopic swallow evaluation (VSE), fiberoptic endoscopic evaluation of swallowing (FEES), modified barium swallow, structured bedside swallowing assessment.

Numerator Instructions: Patients “who receive any food, fluids or medication by mouth” may be identified by the absence of an NPO (nothing by mouth) order.

NUMERATOR NOTE: The correct combination of numerator code(s) must be reported on the claim form in order to properly report this measure. The “correct combination” of codes may require the submission of multiple numerator codes

For Claims:

Dysphagia Screening Conducted

(Two CPT II codes [6010F & 6015F] are required on the claim form to submit this numerator option)

CPT II 6010F: Dysphagia screening conducted prior to order for or receipt of any foods, fluids or medication by mouth

AND

CPT II 6015F: Patient receiving or eligible to receive foods, fluids or medication by mouth

For EHR:

eSpecification currently under development.

**S.7. Denominator Statement** *(Brief, narrative description of the target population being measured)*

All patients aged 18 years and older with a diagnosis of ischemic stroke or intracranial hemorrhage who receive any food, fluids or medication by mouth (PO)

**S.8. Target Population Category** *(Check all the populations for which the measure is specified and tested if any):*

Elderly

**S.9. Denominator Details** *(All information required to identify and calculate the target population/denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)*

Patients aged = 18 years on date of encounter

AND

Diagnosis for ischemic stroke or intracranial hemorrhage (ICD-9-CM): 430, 431, 432.0, 432.1, 432.9, 433.01, 433.11, 433.21, 433.31, 433.81, 433.91, 434.01, 434.11, 434.91

Diagnosis for ischemic stroke or intracranial hemorrhage (ICD-10-CM): I60.00, I60.01, I60.02, I60.10, I60.11, I60.12, I60.20, I60.21, I60.22, I60.30, I60.31, I60.32, I60.4, I60.50, I60.51, I60.52, I60.6, I60.7, I60.8, I60.9, I61.0, I61.1, I61.2, I61.3, I61.4, I61.5, I61.6, I61.8, I61.9, I62.00, I62.01, I62.02, I62.03, I62.1, I62.9, I63.00, I63.011, I63.012, I63.019, I63.02, I63.031, I63.032, I63.039, I63.09, I63.10, I63.111, I63.112, I63.119, I63.12, I63.131, I63.132, I63.139, I63.19, I63.20, I63.211, I63.212, I63.219, I63.22, I63.231, I63.232, I63.239, I63.29, I63.30, I63.311, I63.312, I63.319, I63.321, I63.322, I63.329, I63.331, I63.332, I63.339, I63.341, I63.342, I63.349, I63.39, I63.40, I63.411, I63.412, I63.419, I63.421, I63.422, I63.429, I63.431, I63.432, I63.439, I63.441, I63.442, I63.449, I63.49, I63.50, I63.511, I63.512, I63.519, I63.521, I63.522, I63.529, I63.531, I63.532, I63.539, I63.541, I63.542, I63.549, I63.59, I63.6, I63.8, I63.9

AND

Patient encounter during the reporting period (CPT): 99218, 99219, 99220, 99221, 99222, 99223, 99234, 99235, 99236, 99281, 99282, 99283, 99284, 99285, 99291

AND

CPT II 6015F: Patient receiving or eligible to receive foods, fluids or medication by mouth

For EHR:

eSpecification currently under development

**S.10. Denominator Exclusions** *(Brief narrative description of exclusions from the target population)*

The PCPI distinguishes between measure exceptions and measure exclusions. Exclusions arise when patients who are included in the initial patient or eligible population for a measure do not meet the denominator criteria specific to the intervention required by the numerator. Exclusions are absolute and apply to all patients and therefore are not part of clinical judgment within a measure. For this measure, exclusions include patients that expired during the inpatient stay. Exclusions, including applicable value sets, are included in the measure specifications.

Exceptions are used to remove patients from the denominator of a performance measure when a patient does not receive a therapy or service AND that therapy or service would not be appropriate due to specific reasons; otherwise, the patient would meet the

denominator criteria. Exceptions are not absolute, and the application of exceptions is based on clinical judgment, individual patient characteristics, or patient preferences. The PCPI exception methodology uses three categories of exception reasons for which a patient may be removed from the denominator of an individual measure. These measure exception categories are not uniformly relevant across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. Examples are provided in the measure exception language of instances that may constitute an exception and are intended to serve as a guide to clinicians. For this measure, exceptions include medical reason(s) or patient reason(s) for not conducting dysphagia screening prior to patient taking any foods, fluids or medication by mouth. Where examples of exceptions are included in the measure language, value sets for these examples are developed and are included in the eSpecifications. Although this methodology does not require the external reporting of more detailed exception data, the PCPI recommends that physicians document the specific reasons for exception in patients' medical records for purposes of optimal patient management and audit-readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities for quality improvement.

**S.11. Denominator Exclusion Details** *(All information required to identify and calculate exclusions from the denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)*

For Claims:

Exclusions- All patients that expired during inpatient stay are excluded

Exceptions-

Two CPT II codes [6010F-xP & 6015F] are required on the claim form to submit this numerator option

Report CPT Category II code with modifier:

6010F with 1P: Documentation of medical reason(s) for not conducting dysphagia screening prior to taking any foods, fluids or medication by mouth (eg, patient expired during inpatient stay, patient without any focal findings and not thought to be having a stroke when initially evaluated, other medical reason(s))

OR

6010F with 2P: Documentation of patient reason(s) for not performing a dysphagia screening prior to taking any foods, fluids or medication by mouth (eg, patient left against medical advice, other patient reason(s))

AND

CPT II 6015F: Patient receiving or eligible to receive foods, fluids or medication by mouth

For EHR:

eSpecification currently under development

**S.12. Stratification Details/Variables** *(All information required to stratify the measure results including the stratification variables, definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b)*

We encourage the results of this measure to be stratified by race, ethnicity, primary language, and administrative sex.

**S.13. Risk Adjustment Type** (Select type. Provide specifications for risk stratification in S.12 and for statistical model in S.14-15)

No risk adjustment or risk stratification

If other:

**S.14. Identify the statistical risk model method and variables** *(Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development and testing should be addressed with measure testing under Scientific Acceptability)*

Not applicable

**S.15. Detailed risk model specifications** *(must be in attached data dictionary/code list Excel or csv file. Also indicate if available at measure-specific URL identified in S.1.)*

*Note: Risk model details (including coefficients, equations, codes with descriptors, definitions), should be provided on a separate worksheet in the suggested format in the Excel or csv file with data dictionary/code lists at S.2b.*

**S.15a. Detailed risk model specifications** *(if not provided in excel or csv file at S.2b)*

**S.16. Type of score:**

Rate/proportion

If other:

**S.17. Interpretation of Score** (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

Better quality = Higher score

**S.18. Calculation Algorithm/Measure Logic** (Describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.)

To calculate performance rates:

- 1) Find the patients who meet the initial patient population (ie, the general group of patients that the performance measure is designed to address).
- 2) From the patients within the initial patient population criteria, find the patients who qualify for the denominator (ie, the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial patient population and denominator are identical.
- 3) From the patients within the denominator, find the patients who qualify for the numerator (ie, the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator.
- 4) From the patients who did not meet the numerator criteria, determine if the physician has documented that the patient meets any criteria for denominator exception when exceptions have been specified [for this measure: medical reason(s)]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. –Although exception cases are removed from the denominator population for the performance calculation, the number of patients with valid exceptions should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure.

**S.19. Calculation Algorithm/Measure Logic Diagram URL or Attachment** (You also may provide a diagram of the Calculation Algorithm/Measure Logic described above at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

**S.20. Sampling** (If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)

IF a PRO-PM, identify whether (and how) proxy responses are allowed.

Not applicable. The measure does not require sampling or a survey.

**S.21. Survey/Patient-reported data** (If measure is based on a survey, provide instructions for conducting the survey and guidance on minimum response rate.)

IF a PRO-PM, specify calculation of response rates to be reported with performance measure results.

**S.22. Missing data** (specify how missing data are handled, e.g., imputation, delete case.)

Required for Composites and PRO-PMs.

**S.23. Data Source** (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.24.

Claims, Electronic Health Records, Other, Registry Data

**S.24. Data Source or Collection Instrument** (Identify the specific data source/data collection instrument e.g. name of database, clinical registry, collection instrument, etc.)

IF a PRO-PM, identify the specific PROM(s); and standard methods, modes, and languages of administration.

Not applicable

**S.25. Data Source or Collection Instrument** (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

**S.26. Level of Analysis** (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

Clinician : Group/Practice, Clinician : Individual

**S.27. Care Setting** (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

Inpatient/Hospital, Other

If other: Emergency Department

**S.28. COMPOSITE Performance Measure** - Additional Specifications (Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)

**2a. Reliability** – See attached Measure Testing Submission Form

**2b. Validity** – See attached Measure Testing Submission Form

0243\_MeasureTesting\_MS5.0\_Data.doc

### 3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

#### 3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

##### 3a.1. Data Elements Generated as Byproduct of Care Processes.

generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition

If other:

#### 3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

**3b.1. To what extent are the specified data elements available electronically in defined fields?** (i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields)

ALL data elements are in defined fields in electronic health records (EHRs)

**3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources.**

**3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL.**

Attachment:

#### 3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

**3c.1. Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.**  
**IF a PRO-PM, consider implications for both individuals providing PROM data (patients, service recipients, respondents) and those whose performance is being measured.**  
 This measure was found to be reliable and feasible for implementation.

**3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified (e.g., value/code set, risk model, programming code, algorithm).**

## 4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

### 4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

#### 4.1. Current and Planned Use

*NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.*

Planned	Current Use (for current use provide URL)
Public Reporting	
Quality Improvement (Internal to the specific organization)	

#### 4a.1. For each CURRENT use, checked above, provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included

**4a.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons?** (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)

**4a.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement.** (Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)

### 4b. Improvement

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

**4b.1. Progress on Improvement. (Not required for initial endorsement unless available.)**

Performance results on this measure (current and over time) should be provided in 1b.2 and 1b.4. Discuss:

- Progress (trends in performance results, number and percentage of people receiving high-quality healthcare)
- Geographic area and number and percentage of accountable entities and patients included

**4b.2. If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.**

**4c. Unintended Consequences**

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

**4c.1. Were any unintended negative consequences to individuals or populations identified during testing; OR has evidence of unintended negative consequences to individuals or populations been reported since implementation? If so, identify the negative unintended consequences and describe how benefits outweigh them or actions taken to mitigate them.**

*We are not aware of any unintended consequences related to this measurement.*

**5. Comparison to Related or Competing Measures**

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

**5. Relation to Other NQF-endorsed Measures**

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.

*Yes*

**5.1a. List of related or competing measures (selected from NQF-endorsed measures)**

**5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.**

**5a. Harmonization**

The measure specifications are harmonized with related measures;

**OR**

The differences in specifications are justified

**5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):**

**Are the measure specifications completely harmonized?**

**5a.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.**

**5b. Competing Measures**

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

**OR**

Multiple measures are justified.

**5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):**  
**Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)**

## Appendix

**A.1 Supplemental materials may be provided in an appendix.** All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.

**Attachment:**

## Contact Information

**Co.1 Measure Steward (Intellectual Property Owner):** American Academy of Neurology

**Co.2 Point of Contact:** Amy, Bennett, [abennett@aan.com](mailto:abennett@aan.com), 612-928-6072-

**Co.3 Measure Developer if different from Measure Steward:** American Academy of Neurology

**Co.4 Point of Contact:** Amy, Bennett, [abennett@aan.com](mailto:abennett@aan.com), 612-928-6072-

## Additional Information

**Ad.1 Workgroup/Expert Panel involved in measure development**

**Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.**

List of Work Group Members:

Joseph Drozda, Jr., MD (Co-Chair) (methodology)

Robert G. Holloway, MD, MPH (Co-Chair) (neurology)

David Seidenwurm, MD (Co-chair) (neuroradiology)

David N. Alexander, MD (neurology, vascular neurology, spinal cord injury)

M. Carolyn Baum, PhD, OTR/L (occupational therapy)

Christopher Bever, Jr., MD, MBA (neurology)

Thomas P. Bleck, MD, FCCM (internal medicine, critical care, neurology, vascular neurology, clinical neurophysiology)

John Y. Choi, MD, MPH (neurology)

Janet Y. Forbes, MD (internal medicine)

Millie Hepburn-Smith, MSN, RN, ACNS-BC (neuroscience nursing)

Judith Hinchey, MD, MS (neurology)

Peggy Jones (patient representative)

Irene Katzan, MD (neurology)

Adam Kelly, MD (neurology)

Rahul K. Khare, MD, MS, FACEP (emergency medicine)

Michael Lev, MD (radiology)

David Likosky, MD, SFHM (neurology, internal medicine, vascular neurology)

Constantine Moschonas, MD (neurology)

Suresh Mukherji, MD, FACR (neuroradiology)

Robert C. Mullen, MPH (speech-language pathology)

Charles Prestigiacomo, MD (neurological surgery)

Eric Russell, MD, FACR (radiology/neuroradiology)

Pina C. Sanelli, MD, MPH (radiology/neuroradiology)

Daniel Triezenberg, MD (family medicine)

Patrick Turski, MD, FACR (neuroradiology)

Richard Zorowitz, MD (physical medicine and rehabilitation)

PCPI measures are developed through cross-specialty, multi-disciplinary work groups. All medical specialties and other health care professional disciplines participating in patient care for the clinical condition or topic under study must be equal contributors to the measure development process. In addition, the PCPI strives to include on its work groups individuals representing the perspectives of patients, consumers, private health plans, and employers. This broad-based approach to measure development ensures buy-in on the measures from all stakeholders and minimizes bias toward any individual specialty or stakeholder group. All work groups have at least two co-chairs who have relevant clinical and/or measure development expertise and who are responsible for ensuring that consensus is achieved and that all perspectives are voiced.

**Measure Developer/Steward Updates and Ongoing Maintenance**

**Ad.2 Year the measure was first released:** 2006

**Ad.3 Month and Year of most recent revision:** 05, 2012

**Ad.4 What is your frequency for review/update of this measure?** Please see section Ad.9

**Ad.5 When is the next scheduled review/update for this measure?** 09, 2013

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**Ad.8 Additional Information/Comments:** Coding/Specifications updates occur annually. The PCPI has a formal measurement review process that stipulates regular (usually on a three-year cycle, when feasible) review of the measures. The process can also be activated if there is a major change in scientific evidence, results from testing or other issues are noted that materially affect the integrity of the measure.