

NATIONAL QUALITY FORUM

Measure Submission and Evaluation Worksheet 5.0

This form contains the information submitted by measure developers/stewards, organized according to NQF's measure evaluation criteria and process. The evaluation criteria, evaluation guidance documents, and a blank online submission form are available on the [submitting standards web page](#).

NQF #: 0097 NQF Project: Care Coordination Project
(for Endorsement Maintenance Review) Original Endorsement Date: May 01, 2007 Most Recent Endorsement Date: May 01, 2007
BRIEF MEASURE INFORMATION
De.1 Measure Title: Medication Reconciliation
Co.1.1 Measure Steward: National Committee for Quality Assurance
De.2 Brief Description of Measure: Percentage of patients aged 65 years and older discharged from any inpatient facility (e.g. hospital, skilled nursing facility, or rehabilitation facility) and seen within 60 days following discharge in the office by the physician providing on-going care who had a reconciliation of the discharge medications with the current medication list in the medical record documented.
2a1.1 Numerator Statement: Patients who had a reconciliation of the discharge medications with the current medication list in the medical record documented The medical record must indicate that the physician is aware of the inpatient facility discharge medications and will either keep the inpatient facility discharge medications or change the inpatient facility discharge medications or the dosage of a inpatient facility discharge medication.
2a1.4 Denominator Statement: All patients aged 65 years and older discharged from any inpatient facility (e.g. hospital, skilled nursing facility, or rehabilitation facility) and seen within 60 days following discharge in the office by the physician providing on-going care
2a1.8 Denominator Exclusions: N/A
1.1 Measure Type: Process 2a1. 25-26 Data Source: Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Registry, Paper Records 2a1.33 Level of Analysis: Clinician : Group/Practice, Clinician : Individual, Integrated Delivery System, Population : County or City
1.2-1.4 Is this measure paired with another measure? No
De.3 If included in a composite, please identify the composite measure (<i>title and NQF number if endorsed</i>): N/A

STAFF NOTES (<i>issues or questions regarding any criteria</i>)
Comments on Conditions for Consideration:
Is the measure untested? Yes <input type="checkbox"/> No <input type="checkbox"/> If untested, explain how it meets criteria for consideration for time-limited endorsement:
1a. Specific national health goal/priority identified by DHHS or NPP addressed by the measure (<i>check De.5</i>): 5. Similar/related endorsed or submitted measures (<i>check 5.1</i>): Other Criteria:

Staff Reviewer Name(s):

1. IMPACT, OPPORTUNITY, EVIDENCE - IMPORTANCE TO MEASURE AND REPORT

Importance to Measure and Report is a threshold criterion that must be met in order to recommend a measure for endorsement. All three subcriteria must be met to pass this criterion. See [guidance on evidence](#).

Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria)

1a. High Impact: H M L I

(The measure directly addresses a specific national health goal/priority identified by DHHS or NPP, or some other high impact aspect of healthcare.)

De.4 Subject/Topic Areas (Check all the areas that apply):

De.5 Cross Cutting Areas (Check all the areas that apply): Care Coordination, Safety : Medication Safety

1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers, Patient/societal consequences of poor quality

1a.2 If "Other," please describe:

1a.3 Summary of Evidence of High Impact (Provide epidemiologic or resource use data):

Implementing routine medication reconciliation after discharge from an inpatient facility is an important step in ensuring the continuity of patient care. Estimates suggest that 46% of medication errors occur on admission or discharge from a hospital (Pronovost 2003). Elderly patients possess several factors, including chronic conditions and increased drug utilization, which makes them particularly prone to adverse drug events resulting from multiple care settings (Marcum 2010).

Hospital medication records for admitted patients are often incomplete. A comparison of medication histories maintained by the hospital for admitted patients with community pharmacy records revealed that the hospital's records omitted 26% of the medications in use. This study also found that 61% of all patients had one or more drugs that were not registered with the hospital. As a result, patients are discharged from the hospital without being continued on some of their chronic medications, possibly inadvertently. (Lau 2000). Significant changes can occur to a patient's medications during hospitalization; a study by Beers et al. found that 45% of all discharge medications were initiated during hospitalization (1989).

The process of resolving discrepancies in a patient's medication list reduces the risk of adverse drug interactions being overlooked and helps physicians minimize the duplication and complexity of the patient's medication regimen (Wenger 2004). This in turn may increase patient adherence to the medication regimen and reduce hospital readmission rates. A study by Gillespie et al utilized a randomized pharmacist-led medication review process of hospitalized patients and demonstrated a subsequent 16% reduction in all visits to the hospital and a 47% reduction in visits to the emergency department (Gillespie 2009).

1a.4 Citations for Evidence of High Impact cited in 1a.3: • Pronovost P, Weast B, Schwarz M, et al. Medication Reconciliation: A Practical Tool to Reduce the Risk of Medication Errors. J Crit Care. 2003;18(4):201-5.

• Marcum ZA, Handler SM, Boyce R, et al. Medication Misadventures in the Elderly: A Year in Review. Am J Geriatr Pharmacother. 2010; 8(1):77-83.

• Lau HS, Florax C, Porsius AJ, De Boer A. The completeness of medication histories in hospital medical records of patients admitted to general internal medicine wards. Br J Clin Pharmacol. 2000;49(6):597-603.

• Beers MH, Dang J, Hasegawa J, Tamai IY. Influence of hospitalization on drug therapy in the elderly. J Am Geriatr Soc. 1989;37(8):679-83.

• Wenger NS and Young R. Working paper: Quality Indicators of Continuity and Coordination of Care for Vulnerable Elder Persons. Rand: August 2004.

• Gillespie U, Alassaad A, Henrohn D, et al. A Comprehensive Pharmacist Intervention to Reduce Morbidity in Patients 80 Years or Older. Arch Intern Med. 2009;169:894-900.

1b. Opportunity for Improvement: H M L I

(There is a demonstrated performance gap - variability or overall less than optimal performance)

1b.1 Briefly explain the benefits (improvements in quality) envisioned by use of this measure:

The intent of this measure is to reduce complications resulting from drug interactions, omissions, or duplications in elderly patients after discharge from an inpatient facility. Communication between the inpatient facility and the patient's primary caregiver is often delayed and incomplete, which may result in duplication of medications or the administration of medications with potentially harmful interactions (Williams 1990). Numerous evaluations have established that medication reconciliation is an effective tool to reduce preventable adverse drug events, which is associated with 1 of 5 injuries or deaths. (Pronovost 2003, IHI 2011) In one study, the percentage of patients affected by adverse drug events fell from 36.9% to 9.3% with the use of medication reviews (IOM 2011). This intervention may also ease the financial burden that medication errors place on the medical system; a study utilizing a pharmacist-led medication review concluded that there was a \$230 decrease in cost per patient (Gillespie 2009).

- Williams EI and Filton F. General practitioner response to elderly patients discharged from hospital. *BMJ*. 1990; 300:159-161.
- Pronovost P, Weast B, Schwarz M, et al. Medication Reconciliation: A Practical Tool to Reduce the Risk of Medication Errors. *J Crit Care*. 2003 Dec;18(4):201-5.
- Institute for Healthcare Improvement (IHI). Reconcile Medications at All Transition Points: Reconcile Medications in Outpatient Settings. Available at: <http://www.ihl.org/knowledge/Pages/Changes/ReconcileMedicationsatAllTransitionPoints.aspx>. Accessed December 2011.
- Committee on Quality Health Care in America. Institute of Medicine. *To err is human: building a safer health system*. Washington, D.C: National Academy Press. 2002.
- Gillespie U, Alassaad A, Henrohn D, et al. A Comprehensive Pharmacist Intervention to Reduce Morbidity in Patients 80 Years or Older. *Arch Intern Med*. 2009;169:894-900.

1b.2 Summary of Data Demonstrating Performance Gap (*Variation or overall less than optimal performance across providers*): **[For Maintenance – Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.]**

Recent PQRI data also shows opportunity for improvement in this area.

2008 PQRI data. Mean: 22.71%. National clinical performance rates: 10th percentile: 0.00%; 25th percentile: 3.70%, 50th percentile: 29.85%, 75th percentile: 50.65%, 90th percentile: 75.86%.

2007 PQRI data. Mean: 22.55%. National clinical performance rates: 25th percentile: 2.56%; 50th percentile: 22.73%, 75th percentile: 50.0%.

It is important to note that physicians participating in PQRI in 2007 represented a small proportion of the eligible physicians (0.39% for this measure) and therefore the measure performance rate may not accurately reflect the ability of the general physician population to attain quality performance; the performance gap may be greater than indicated by this data.

Performance among the small proportion of eligible physician who participate in PQRI is found to vary. As a result, opportunities for improvement exist for these early participants. In addition, continued reporting and tracking of measure performance and variation is required as familiarity with PQRI increases and an increasing number of physicians participate.

1b.3 Citations for Data on Performance Gap: **[For Maintenance – Description of the data or sample for measure results reported in 1b.2 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included]**

Section 1b.2 references data from the most recent two years of measurement for PQRI. The data in Section 1b.2 includes percentiles and mean. There were 1,190 provider submissions for this measure/rate, representing 32,673 patients, in 2007, and 62,534, in 2008, the most recent years for which both provider and patient data were available. Confidential CMS PQRI 2008 Performance Information by Measure. Jan-Sept TAP file.

1b.4 Summary of Data on Disparities by Population Group: **[For Maintenance –Descriptive statistics for performance results for this measure by population group]**

The measure is not stratified by patient groups or cohorts that could potentially be affected by disparities in care. NCOA has participated with IOM and others in attempting to include information on disparities in measure data collection. However, at the present time, this data, at all levels (claims data, paper chart review, and electronic records), is not coded in a standard manner, and is incompletely captured. There are no consistent standards for what entity (physician, group, plan, and employer) should capture and report this data. While "requiring" reporting of the data could push the field forward, it has been our position that doing so would create substantial burden without generating meaningful results. We believe that the measure specifications should NOT require this unless absolutely necessary since the data needed to determine disparities cannot be ascertained from the currently available sources.

1b.5 Citations for Data on Disparities Cited in 1b.4: **[For Maintenance – Description of the data or sample for measure results**

NQF #0097 Medication Reconciliation

reported in 1b.4 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included]
N/A

1c. Evidence (Measure focus is a health outcome OR meets the criteria for quantity, quality, consistency of the body of evidence.)
Is the measure focus a health outcome? Yes No **If not a health outcome**, rate the body of evidence.

Quantity: H M L I Quality: H M L I Consistency: H M L I

Quantity	Quality	Consistency	Does the measure pass subcriterion1c?
M-H	M-H	M-H	Yes <input type="checkbox"/>
L	M-H	M	Yes <input type="checkbox"/> IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise No <input type="checkbox"/>
M-H	L	M-H	Yes <input type="checkbox"/> IF potential benefits to patients clearly outweigh potential harms: otherwise No <input type="checkbox"/>
L-M-H	L-M-H	L	No <input type="checkbox"/>

Health outcome – rationale supports relationship to at least one healthcare structure, process, intervention, or service	Does the measure pass subcriterion1c? Yes <input type="checkbox"/> IF rationale supports relationship
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1c.1 Structure-Process-Outcome Relationship (Briefly state the measure focus, e.g., health outcome, intermediate clinical outcome, process, structure; then identify the appropriate links, e.g., structure-process-health outcome; process- health outcome; intermediate clinical outcome-health outcome):

To our knowledge there are no systematic reviews of the effect of medication reconciliation alone on health outcomes for older adults. However, individual studies have shown a decrease in medication errors when medication reconciliation among other transition interventions are implemented (Bayoumi 2009; Coleman 2003; Gillespie 2009; Nassaralla 2007; Geurts 2012; Midlov 2012). Hospital admissions are associated with unintentional discontinuation of medication for chronic conditions (Bell 2011) and medication errors (Stafford 2011; IOM 2006). Medication reconciliation post-discharge is an important step to catch potentially harmful omissions or changes in prescribed medications, particularly in elderly patients that are prescribed a greater quantity and variety of medications (Leape 1991). Although the magnitude of the effect of medication reconciliation alone on patient outcomes is not well studied, there is agreement among experts the potential benefits outweigh the harm (Coleman 2003; Pronovost 2003; IOM 2002; IOM 2006). Medication reconciliation post-discharge is recommended by the Joint commission patient safety goals (Kienle 2008), the American Geriatric Society (Coleman 2003), Society of Hospital Medicine (Kripalani 2007; Grenwald 2010), ACOVE (Assessing Care of Vulnerable Elders; Knight 2001), and the task force on medicines partnership (2005). Additionally, measurement of medication reconciliation post-discharge has been cited by the National Quality Forum and the National Priorities Partnership as a measurement priority area (NQF 2010).

1c.2-3 Type of Evidence (Check all that apply):

Selected individual studies (rather than entire body of evidence)

1c.4 Directness of Evidence to the Specified Measure (State the central topic, population, and outcomes addressed in the body of evidence and identify any differences from the measure focus and measure target population):

The evidence directly relates to the topic of medication reconciliation, though it varies in the measurement population age range (adult, geriatric).

1c.5 Quantity of Studies in the Body of Evidence (Total number of studies, not articles): 6

1c.6 Quality of Body of Evidence (Summarize the certainty or confidence in the estimates of benefits and harms to patients across studies in the body of evidence resulting from study factors. Please address: a) study design/flaws; b) directness/indirectness of the evidence to this measure (e.g., interventions, comparisons, outcomes assessed, population included in the evidence); and c) imprecision/wide confidence intervals due to few patients or events): Medication reconciliation post-discharge is widely regarded as good practice. Interventions which have targeted reducing adverse medication events have combined medication reconciliation with other care coordination and transition interventions. Therefore the body of evidence directly linking medication reconciliation with patient outcomes is moderate. While all studies have shown a positive effect of

medication reconciliation on reducing medication errors, very few have had the power to show an effect on outcomes such as morbidity and mortality. Despite this limitation, there is general expert consensus that the benefits of medication reconciliation outweigh the harms.

1c.7 Consistency of Results across Studies (*Summarize the consistency of the magnitude and direction of the effect*): All studies have shown a positive effect of medication reconciliation on reducing medication errors. Studies have shown mixed results when examining the effect of medication reconciliation on morbidity and mortality. No studies have shown any harm to the patient from medication reconciliation.

1c.8 Net Benefit (*Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms*):

The studies show that medication reconciliation reduces the probability of discrepancies in the patient's medication regimen.

1c.9 Grading of Strength/Quality of the Body of Evidence. Has the body of evidence been graded? No

1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: N/A

1c.11 System Used for Grading the Body of Evidence: Other

1c.12 If other, identify and describe the grading scale with definitions: The evidence has not been graded.

1c.13 Grade Assigned to the Body of Evidence: N/A

1c.14 Summary of Controversy/Contradictory Evidence: N/A

1c.15 Citations for Evidence other than Guidelines(*Guidelines addressed below*):

Bayoumi I, Howard M, Holbrook Am, Schabert I. Interventions to improve medication reconciliation in primary care. *Ann Pharmacother.* 2009; 43:1667-75.

Coleman EA, Boulton CE on behalf of the American Geriatrics Society Health Care Systems Committee. Improving the Quality of Transitional Care for Persons with Complex Care Needs. *Journal of the American Geriatrics Society.* 2003;51(4):556-557.

Gillespie U, Alassaad A, Henrohn D, et al. A Comprehensive Pharmacist Intervention to Reduce Morbidity in Patients 80 Years or Older. *Arch Intern Med.* 2009;169:894-900.

Nassaralla CL, Naessens JM, Chaudhry R, et al. Implementation of a medication reconciliation process in an ambulatory internal medicine clinic. *Qual Saf Health Care* 2007; 16: 90-94.

Geurts MM, Talsma J, Brouwers JR, de Gier JJ. Medication Review and Reconciliation with Cooperation between Pharmacist and General Practitioner and the Benefit for the Patient: a Systematic Review. *Br J Clin Pharmacol.* 2012. Epub ahead of print. Jan 13.

Midlov P, Bahrani L, Seyfali M, Hoglund P, Rickhag E, Eriksson T. The effect of medication reconciliation in elderly patients at hospital discharge. *Int J Clin Pharm.* 2012. Epub ahead of print. Feb 2012.

Bell CM, Brener SS, Gunraj N, Huo C, Bierman AS, Scales DC, Bajcar J, Szarenstein M, Urbach DR. Association of ICU or hospital admission with unintentional discontinuation of medication for chronic diseases. *JAMA.* 2011; 306:840-7.

Stafford L, Stafford A, Hughes J, Angley M, Berezniaki L, Peterson G. Drug-related problems identified in post-discharge medication reviews for patients taking warfarin. *Int J Clin Pharm.* 2011;33:621-6.

Institute of Medicine (IOM). Preventing Medication Errors. National Academies Press, Washington D.C. 2006.

Leape LL, Brennan TA, et al. The Nature of Adverse Events in Hospitalized Patients. *N Engl J Med.* 1991;324(6):377-84.

Pronovost P, Weast B, Schwarz M, et al. Medication Reconciliation: A Practical Tool to Reduce the Risk of Medication Errors. J Crit Care. 2003;18(4):201-5.

Institute of Medicine (IOM): Committee on Quality Health Care in America. Washington, D.C: National Academy Press. 2002.

Joint Commission. National Patient Safety Goals. 2012. Available at: http://www.jointcommission.org/standards_information/npsgs.aspx

Kienle P, Uselton JP. Mainting Compliance with Joint Commission Medication Management Standards. Patient Safety and Quality Healthcare. 2008; July/August.

Kripalani S, Jackson At, Schnipper JL, Coleman EA. Promoting effective transitions of care at hospital discharge: a review of key issues for hospitals. J Hosp Med. 2007; 2:314-23.

Grennwald JL, Halasyamani L, Greene J, LaCivita C, Stucky E, benjamine B, Reid W, Griffin FA, Vaida AJ, Williams MV. Making inpatient medication reconciliation patient centered, clinically relevant, and implementable: A consensus statement on key principles and necessary first steps. J Hosp Med. 2010;5:477-85.

Knight, E.L., J. Avorn. Quality indicators for appropriate medication use in vulnerable elders. Ann. Intern. Med. 2001. 703-10.

Task Force on Medicines Partnership. The National Collaborative medicines Management Services Programme. Room for Review. A Guide to Medication Review. London, 2002. Accessed via: <http://www.medicines-partnership.org/medication-review>, viewed September 2005.

National Quality Forum (NQF), Preferred Practices and Performance Measures for Measuring and Reporting Care Coordination: A Consensus Report, Washington, DC: NQF; 2010.

National Quality Forum (NQF). National Voluntary Consensus Standards for Medication Management: A Consensus Report. Washington, DC: NQF; 2010.

1c.16 Quote verbatim, the specific guideline recommendation (Including guideline # and/or page #):
N/A

1c.17 Clinical Practice Guideline Citation: N/A

1c.18 National Guideline Clearinghouse or other URL: N/A

1c.19 Grading of Strength of Guideline Recommendation. Has the recommendation been graded? No

1c.20 If guideline recommendation graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias:

1c.21 System Used for Grading the Strength of Guideline Recommendation: Other

1c.22 If other, identify and describe the grading scale with definitions: N/A

1c.23 Grade Assigned to the Recommendation: N/A

1c.24 Rationale for Using this Guideline Over Others: N/A

Based on the NQF descriptions for rating the evidence, what was the developer's assessment of the quantity, quality, and consistency of the body of evidence?

1c.25 Quantity: Low 1c.26 Quality: Low 1c.27 Consistency: Moderate

Was the threshold criterion, *Importance to Measure and Report*, met?

(1a & 1b must be rated moderate or high and 1c yes) Yes No

Provide rationale based on specific subcriteria:

For a new measure if the Committee votes NO, then STOP.

For a measure undergoing endorsement maintenance, if the Committee votes NO because of 1b. (no opportunity for improvement), it may be considered for continued endorsement and all criteria need to be evaluated.

2. RELIABILITY & 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. (evaluation criteria)

Measure testing must demonstrate adequate reliability and validity in order to be recommended for endorsement. Testing may be conducted for data elements and/or the computed measure score. Testing information and results should be entered in the appropriate field. Supplemental materials may be referenced or attached in item 2.1. See [guidance on measure testing](#).

S.1 Measure Web Page (In the future, NQF will require measure stewards to provide a URL link to a web page where current detailed specifications can be obtained). Do you have a web page where current detailed specifications for this measure can be obtained? Yes

S.2 If yes, provide web page URL: <http://www.ama-assn.org/ama1/pub/upload/mm/pcpi/geriatrics-ws.pdf>

2a. RELIABILITY. Precise Specifications and Reliability Testing: H M L I

2a1. Precise Measure Specifications. (The measure specifications precise and unambiguous.)

2a1.1 Numerator Statement (Brief, narrative description of the measure focus or what is being measured about the target population, e.g., cases from the target population with the target process, condition, event, or outcome):

Patients who had a reconciliation of the discharge medications with the current medication list in the medical record documented

The medical record must indicate that the physician is aware of the inpatient facility discharge medications and will either keep the inpatient facility discharge medications or change the inpatient facility discharge medications or the dosage of a inpatient facility discharge medication.

2a1.2 Numerator Time Window (The time period in which the target process, condition, event, or outcome is eligible for inclusion):

Ambulatory visits within 60 days of a discharge from an inpatient facility

2a1.3 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, codes with descriptors, and/or specific data collection items/responses):

CPT II Category II code 1111F: Discharge medications reconciled with the current medication list in the outpatient medical record

Level 1 EHR specifications in development

2a1.4 Denominator Statement (Brief, narrative description of the target population being measured):

All patients aged 65 years and older discharged from any inpatient facility (e.g. hospital, skilled nursing facility, or rehabilitation facility) and seen within 60 days following discharge in the office by the physician providing on-going care

2a1.5 Target Population Category (Check all the populations for which the measure is specified and tested if any): Adult/Elderly Care

2a1.6 Denominator Time Window (The time period in which cases are eligible for inclusion):

Discharges from an inpatient facility within the last 60 days (eg, hospital, skilled nursing facility, or rehabilitation facility)

2a1.7 Denominator Details (All information required to identify and calculate the target population/denominator such as definitions, codes with descriptors, and/or specific data collection items/responses):

CPT service codes

99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336,

99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99387, 99397, 99401, 99402, 99403, 99404

AND

CPT Category II code 1110F: Patient discharged from an inpatient facility (eg, hospital, skilled nursing facility, or rehabilitation facility) within the last 60 days

OR

Documentation in the medical record of a discharge from an inpatient facility within the last 60 days

Note: only patients who were discharged from an inpatient facility within the last 60 days will be included in the denominator of this measure.

2a1.8 Denominator Exclusions (Brief narrative description of exclusions from the target population):

N/A

2a1.9 Denominator Exclusion Details (All information required to identify and calculate exclusions from the denominator such as definitions, codes with descriptors, and/or specific data collection items/responses):

N/A

2a1.10 Stratification Details/Variables (All information required to stratify the measure results including the stratification variables, codes with descriptors, definitions, and/or specific data collection items/responses):

N/A

2a1.11 Risk Adjustment Type (Select type. Provide specifications for risk stratification in 2a1.10 and for statistical model in 2a1.13): No risk adjustment or risk stratification **2a1.12 If "Other," please describe:**

2a1.13 Statistical Risk Model and Variables (Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development should be addressed in 2b4.):

N/A

2a1.14-16 Detailed Risk Model Available at Web page URL (or attachment). Include coefficients, equations, codes with descriptors, definitions, and/or specific data collection items/responses. Attach documents only if they are not available on a webpage and keep attached file to 5 MB or less. NQF strongly prefers you make documents available at a Web page URL. Please supply login/password if needed:

2a1.17-18. Type of Score: Rate/proportion

2a1.19 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

2a1.20 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.):

Calculation for Performance

For performance purposes, this measure is calculated by creating a fraction with the following components: Numerator and Denominator.

Step 1: Determine the eligible population. The eligible population is all the patients aged 65 years and older.

Step 2: Determine number of patients meeting the denominator criteria as specified in Section 2a1.7 above.

Step 3: Determine the number of patients who meet the numerator criteria as specified in section 2a1.3 above. The numerator includes all patients who had a reconciliation of the discharge medications with the current medication list in the outpatient medical record documented

Step 4: Calculate the rate by dividing the total from Step 3 by the total from Step 2

2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:

Attachment

[PCPI Sample Calculation Algorithm.pdf](#)

2a1.24 **Sampling (Survey) Methodology.** If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):

N/A

2a1.25 **Data Source** (Check all the sources for which the measure is specified and tested). If other, please describe:

[Administrative claims](#), [Electronic Clinical Data](#), [Electronic Clinical Data : Electronic Health Record](#), [Electronic Clinical Data : Laboratory](#), [Electronic Clinical Data : Registry](#), [Paper Records](#)

2a1.26 **Data Source/Data Collection Instrument** (Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.): [None](#)

2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment:

2a1.30-32 Data Dictionary/Code Table Web Page URL or Attachment:

URL

<http://www.ama-assn.org/ama1/pub/upload/mm/pcpi/geriatrics-ws.pdf>

2a1.33 **Level of Analysis** (Check the levels of analysis for which the measure is specified and tested): [Clinician : Group/Practice](#), [Clinician : Individual](#), [Integrated Delivery System](#), [Population : County or City](#)

2a1.34-35 **Care Setting** (Check all the settings for which the measure is specified and tested): [Ambulatory Care : Clinic/Urgent Care](#), [Ambulatory Care : Clinician Office](#)

2a2. **Reliability Testing.** (Reliability testing was conducted with appropriate method, scope, and adequate demonstration of reliability.)

2a2.1 **Data/Sample** (Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):

[AMA-PCPI Testing Project](#)

Four practice sites representing various types, locations and sizes were identified to participate in testing the measures. One practice with paper medical records and three practices with EHR participated in this testing project

- o The number of geriatricians per site ranged from 1-16 in number
- o The sites were located in four different regions of the United States
- o Patient visit volume per site ranged from 500 – 1,000 geriatric patients per month
- o Site 1 (Paper): 2,500 patients
- o Site 2 (EHR): 1,800 patients
- o Site 3 (EHR): 3,700 outpatients/2,000 LTC patients
- o Site 4 (EHR): 2,500 patients

A random sample of 70 geriatric patient charts were identified per site; resulting in approximately 220 patient records for purposes of this study.

Sample limited to Medicare patient office visits with dates of service between January 1, 2009- December 31, 2009.

2a2.2 **Analytic Method** (Describe method of reliability testing & rationale):

Data analysis included:

- Percent agreement between patient records and physician reporting.
- Kappa statistic of reliability

Kappa: Strength of Agreement Guidelines

- o 0.00: Poor
- o 0.01 – 0.20: Slight
- o 0.21 – 0.40: Fair
- o 0.41 – 0.60: Moderate
- o 0.61 – 0.80: Substantial
- o 0.81 – 0.99: Almost perfect

2a2.3 Testing Results (*Reliability statistics, assessment of adequacy in the context of norms for the test conducted*):

Overall, this measure is highly reliable.

Medication Reconciliation:

N, % Agreement, Kappa, (95% CI)

Numerator Reliability: 62, 98.33%, 0.97, (0.90- 1.00)

Denominator Reliability: 62, 96.77%, Kappa is non-calculable*

Overall Reliability: 62, 98.39%, 0.97, (0.90- 1.00)

*This is an example of the limitation of the Kappa statistic. While the agreement can be 90% or greater, if one classification category dominates, kappa can be significantly reduced or not calculable. (<http://www.ajronline.org/cgi/content/full/184/5/1391>)

2b. VALIDITY. Validity, Testing, including all Threats to Validity: H M L I

2b1.1 Describe how the measure specifications (*measure focus, target population, and exclusions*) **are consistent with the evidence cited in support of the measure focus** (*criterion 1c*) **and identify any differences from the evidence:**

The measure focuses on medication reconciliation in the elderly population. The evidence is consistent with the focus and scope of this measure.

2b2. Validity Testing. (*Validity testing was conducted with appropriate method, scope, and adequate demonstration of validity.*)

2b2.1 Data/Sample (*Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*):

As described in section 2a2.1, a total of 220 patient records were abstracted to complete inter-rater reliability testing of the measure concept.

An expert panel was used to assess face validity of the measure based on this data sample. This panel consists of 33 members, whose specialties include internal medicine, geriatrics, anesthesia, orthopedic surgery, physical medicine & rehabilitation, neurology, palliative medicine, urology, geriatric psychiatry, emergency medicine, nephrology, radiation oncology, ophthalmology, medical epidemiology, methodology, hospital medicine, family medicine, and bioethics.

The full list of panel members is provided under the section Additional Information, Ad.1. Workgroup/Expert Panel Involved in Measure Development.

2b2.2 Analytic Method (*Describe method of validity testing and rationale; if face validity, describe systematic assessment*):

All NQQA/AMA-PCPI performance measures are assessed for content validity by expert Work Group members during the development process. Additional input on the content validity of draft measures is obtained through a 30-day public comment period and by also soliciting comments from a panel of consumer, purchaser, and patient representatives convened by the PCPI specifically for this purpose. All comments received are reviewed by the expert Work Group and the measures adjusted as needed. Other external review groups (i.e. focus groups) may be convened if there are any remaining concerns related to the content validity of the measures.

2b2.3 Testing Results (*Statistical results, assessment of adequacy in the context of norms for the test conducted; if face validity, describe results of systematic assessment*):

The aforementioned panel was asked to rate their agreement with the following statement:

"The scores obtained from the measure as specified will accurately differentiate quality across providers."

Scale 1-5, where 1=Strongly Disagree; 3=Neither Disagree nor Agree; 5=Strongly Agree

The results of the expert panel rating of the validity statement were as follows: N = 23; Mean rating = 4.00 and 73.91% of respondents either agree or strongly agree that this measure can accurately distinguish good and poor quality.

Frequency Distribution of Ratings

- (1) Strongly disagree - 1 panel member
- (2) Disagree – 1 panel member
- (3) Neither disagree nor agree - 4 panel members
- (4) Agree – 8 panel members
- (5) Strongly agree- 9 panel members

POTENTIAL THREATS TO VALIDITY. (*All potential threats to validity were appropriately tested with adequate results.*)

2b3. Measure Exclusions. (*Exclusions were supported by the clinical evidence in 1c or appropriately tested with results demonstrating the need to specify them.*)

2b3.1 Data/Sample for analysis of exclusions (*Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*):

There are no documented exceptions for this measure.

2b3.2 Analytic Method (*Describe type of analysis and rationale for examining exclusions, including exclusion related to patient preference*):

N/A

2b3.3 Results (*Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses*):

N/A

2b4. Risk Adjustment Strategy. (*For outcome measures, adjustment for differences in case mix (severity) across measured entities was appropriately tested with adequate results.*)

2b4.1 Data/Sample (*Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*):

N/A

2b4.2 Analytic Method (*Describe methods and rationale for development and testing of risk model or risk stratification including selection of factors/variables*):

N/A

2b4.3 Testing Results (*Statistical risk model: Provide quantitative assessment of relative contribution of model risk factors; risk model performance metrics including cross-validation discrimination and calibration statistics, calibration curve and risk decile plot, and assessment of adequacy in the context of norms for risk models. Risk stratification: Provide quantitative assessment of relationship of risk factors to the outcome and differences in outcomes among the strata*):

N/A

2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment: N/A

2b5. Identification of Meaningful Differences in Performance. (*The performance measure scores were appropriately analyzed and discriminated meaningful differences in quality.*)

2b5.1 Data/Sample (*Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*):

NQF #0097 Medication Reconciliation

This measure was used in the CMS Physician Quality Reporting Initiative/System (PQRI/S), in the claims option (2007, 2008, 2010) and the registry option (2009, 2010) as #46 Medication Reconciliation.

The performance data provided in 2b5.3 is taken from the cases reported in CMS PQRI program for 2007 and 2008, the most recent data available.

2b5.2 Analytic Method (*Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance*):

For the CMS Physician Quality Reporting Initiative 2007 and 2008, the inter-quartile range (IQR) was calculated to determine the performance on this measure.

2b5.3 Results (*Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance*):

2008 PQRI data. Mean: 22.71%. National clinical performance rates: 10th percentile: 0.00%; 25th percentile: 3.70%, 50th percentile: 29.85%, 75th percentile: 50.65%, 90th percentile: 75.86%.

The inter-quartile range (IQR) provides a measure of the dispersion of performance. The IQR is 46.95 and indicates that 50% of physicians have performance on this measure ranging from 3.70% and 50.65%. At least 10% of physicians reporting have no patients meeting the measure.

2007 PQRI data. Mean: 22.55%. National clinical performance rates: 25th percentile: 2.56%; 50th percentile: 22.73%, 75th percentile: 50.0%.

It is important to note that physicians participating in PQRI in 2007 represented a small proportion of the eligible physicians (0.39% for this measure) and therefore the measure performance rate may not accurately reflect the ability of the general physician population to attain quality performance; the performance gap may be greater than indicated by this data.

Performance among the small proportion of eligible physician who participate in PQRI is found to vary. As a result, opportunities for improvement exist for these early participants. In addition, continued reporting and tracking of measure performance and variation is required as familiarity with PQRI increases and an increasing number of physicians participate.

2b6. Comparability of Multiple Data Sources/Methods. (*If specified for more than one data source, the various approaches result in comparable scores.*)

2b6.1 Data/Sample (*Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*):

This measure has not been compared across data sources.

2b6.2 Analytic Method (*Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure*):

N/A

2b6.3 Testing Results (*Provide statistical results, e.g., correlation statistics, comparison of rankings; assessment of adequacy in the context of norms for the test conducted*):

N/A

2c. Disparities in Care: H M L I NA (*If applicable, the measure specifications allow identification of disparities.*)

2c.1 If measure is stratified for disparities, provide stratified results (*Scores by stratified categories/cohorts*): The measure is not stratified by patient groups or cohorts that could potentially be affected by disparities in care nor are we aware of any existing research identifying disparities in care that may be relevant to this measure.

2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:

N/A

2.1-2.3 Supplemental Testing Methodology Information:

Steering Committee: Overall, was the criterion, *Scientific Acceptability of Measure Properties*, met?

(Reliability and Validity must be rated moderate or high) Yes No

Provide rationale based on specific subcriteria:

If the Committee votes No, STOP

3. USABILITY

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)

C.1 Intended Purpose/ Use (Check all the purposes and/or uses for which the measure is intended): Public Reporting, Quality Improvement (Internal to the specific organization), Quality Improvement with Benchmarking (external benchmarking to multiple organizations)

3.1 Current Use (Check all that apply; for any that are checked, provide the specific program information in the following questions): Public Reporting, Professional Certification or Recognition Program, Quality Improvement (Internal to the specific organization)

3a. Usefulness for Public Reporting: H M L I

(The measure is meaningful, understandable and useful for public reporting.)

3a.1. Use in Public Reporting - disclosure of performance results to the public at large (If used in a public reporting program, provide name of program(s), locations, Web page URL(s)). If not publicly reported in a national or community program, state the reason AND plans to achieve public reporting, potential reporting programs or commitments, and timeline, e.g., within 3 years of endorsement: [For **Maintenance** – If not publicly reported, describe progress made toward achieving disclosure of performance results to the public at large and expected date for public reporting; provide rationale why continued endorsement should be considered.]

This measure is currently being used in the CMS Physician Quality Reporting System for 2011, and will provide information about clinician participation to the public. This measure was also used in the 2009 and 2010 CMS PQRS programs. The results from the 2009 and 2010 programs can be found on the CMS website: http://www.cms.gov/PQRS/01_Overview.asp#TopOfPage

3a.2. Provide a rationale for why the measure performance results are meaningful, understandable, and useful for public reporting. If usefulness was demonstrated (e.g., focus group, cognitive testing), describe the data, method, and results: The successful use in PQRS supports the feasibility and usability of the measure specification on a national scale and the results indicate that there is still room for improvement in this critical patient safety area.

3.2 Use for other Accountability Functions (payment, certification, accreditation). If used in a public accountability program, provide name of program(s), locations, Web page URL(s): This measure has been used in the CMS Physician Quality Reporting Initiative (<https://www.cms.gov/PQRS/>)

3b. Usefulness for Quality Improvement: H M L I

(The measure is meaningful, understandable and useful for quality improvement.)

3b.1. Use in QI. If used in quality improvement program, provide name of program(s), locations, Web page URL(s): [For **Maintenance** – If not used for QI, indicate the reasons and describe progress toward using performance results for improvement].

The measure specifications are made freely available on the PCPI website and through the implementation efforts of medical specialty societies.

3b.2. Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement. If usefulness was demonstrated (e.g., QI initiative), describe the data, method and results:

The successful use in PQRS supports the feasibility and usability of the measure specification on a national scale.

Overall, to what extent was the criterion, *Usability*, met? H M L I

Provide rationale based on specific subcriteria:

4. FEASIBILITY

Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)

4a. Data Generated as a Byproduct of Care Processes: H M L I

4a.1-2 How are the data elements needed to compute measure scores generated? (Check all that apply).

Data used in the measure are:

generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition, Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims), Abstracted from a record by someone other than person obtaining original information (e.g., chart abstraction for quality measure or registry)

4b. Electronic Sources: H M L I

4b.1 Are the data elements needed for the measure as specified available electronically (Elements that are needed to compute measure scores are in defined, computer-readable fields): Some data elements are in electronic sources

4b.2 If ALL data elements are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources: NCQA is working on developing EHR specified measures to capture this information.

4c. Susceptibility to Inaccuracies, Errors, or Unintended Consequences: H M L I

4c.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measurement identified during testing and/or operational use and strategies to prevent, minimize, or detect. If audited, provide results:

NCQA recognizes that, despite the clear specifications defined for HEDIS measures, data collection and calculation methods may vary, and other errors may taint the results, diminishing the usefulness of HEDIS data for managed care organization (MCO) comparison. In order for HEDIS to reach its full potential, NCQA conducts an independent audit of all HEDIS collection and reporting processes, as well as an audit of the data which are manipulated by those processes, in order to verify that HEDIS specifications are met. NCQA has developed a precise, standardized methodology for verifying the integrity of HEDIS collection and calculation processes through a two-part program consisting of an overall information systems capabilities assessment followed by an evaluation of the MCO's ability to comply with HEDIS specifications (. NCQA-certified auditors using standard audit methodologies will help enable purchasers to make more reliable "apples-to-apples" comparisons between health plans. The HEDIS Compliance Audit addresses the following functions:

The HEDIS Compliance Audit addresses the following functions:

- 1) information practices and control procedures
- 2) sampling methods and procedures
- 3) data integrity
- 4) compliance with HEDIS specifications
- 5) analytic file production
- 6) reporting and documentation

4d. Data Collection Strategy/Implementation: H M L I

A.2 Please check if either of the following apply (regarding proprietary measures): Proprietary measure

4d.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 (e.g., fees for use of proprietary measures):

The specific costs for implementing or using this measure have not been measured, however the successful use in a national reporting program (PQRS) support the feasibility and utility of the measure concept.

Overall, to what extent was the criterion, *Feasibility*, met? H M L I

Provide rationale based on specific subcriteria:

OVERALL SUITABILITY FOR ENDORSEMENT

Does the measure meet all the NQF criteria for endorsement? Yes No

Rationale:

If the Committee votes No, STOP.

If the Committee votes Yes, the final recommendation is contingent on comparison to related and competing measures.

5. COMPARISON TO RELATED AND 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 before a final recommendation is made.

5.1 If there are related measures (*either same measure focus or target population*) or competing measures (*both the same measure focus and same target population*), list the NQF # and title of all related and/or competing measures:

0553 : Care for Older Adults – Medication Review

0554 : Medication Reconciliation Post-Discharge

0646 : Reconciled Medication List Received by Discharged Patients (Discharges from an Inpatient Facility to Home/Self Care or Any Other Site of Care)

5a. Harmonization

5a.1 If this measure has EITHER the same measure focus OR the same target population as [NQF-endorsed measure\(s\)](#): Are the measure specifications completely harmonized? **No**

5a.2 If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden:
See 5b.1 for more details.

5b. Competing Measure(s)

5b.1 If this measure has 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*):
Measure 0097 is conducted at the physician level. This measure assesses medication reconciliation post hospital discharge which occurs during an outpatient visit with a physician. The denominator for this measure is all patients 65+ discharged from the hospital with an ambulatory care visit within 60 days of discharge. Patients without a visit to an ambulatory care visit are not included in the denominator.

Related Measures:

Measure 0553 is conducted at health plan level. This measure assesses annual outpatient medication review by a prescribing practitioner and is not driven by a hospital discharge. The denominator for this measure is all patients aged 65+.

Measure 0554 is conducted at the health plan level. This measure assesses medication reconciliation by a RN or prescribing practitioner within 30 days of hospital discharge. The denominator for this measure is all patients 65+ discharged from the hospital. All patients regardless of ambulatory care visit are included in the denominator.

Measure 0646 is conducted at the facility level. This measure assesses whether the patient received a reconciled medication list at the time of discharge. The denominator for this measure is all patients, regardless of age, discharged from the hospital. This measure is not dependent on an ambulatory care provider reconciling the medication list.

Additive value of related measures:

The AMA and NCOA have worked together to assess how the three medication reconciliation measures can be harmonized and

NQF #0097 Medication Reconciliation

continue to address performance gaps at different levels of care. Care-coordination measures by nature must address care across levels of accountability. The three medication reconciliation measures submitted to NQF for re-endorsement address measure reconciliation at three levels of accountability and across three points of care. Together all three measures represent shared accountability for medication reconciliation across facilities, health plans and physicians.

Defining the process of medication reconciliation (this will determine the numerator)

- Patients should be educated about changes to medication list (Measure #646)
- Outpatient record should be updated as appropriate with the discharge medication list and reviewed for potential harm (Measure #0554)
- The physician responsible for patient care should review the discharge medication list for appropriateness over the long-term treatment of the patient and their multiple conditions (Measure #0097)

What is the point of care for medication reconciliation (this will determine the denominator)?

- At discharge (Measure #646)
- Within 30 days of discharge (Measure #0554)
- At outpatient follow-up visit within 60 days of discharge (Measure #0097)

Evidence of performance gap and relation to risk of adverse events

- Many medication errors 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. (Measure #0646).
- Geriatric patients in particular are more likely to have multiple comorbid conditions and be receiving multiple medications, making them more at risk of having an adverse medication event. Therefore there is a need to have a higher level of reconciliation for these patients. (Measures #0554 and #0097).

CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner): National Committee for Quality Assurance, 1100 13th Street NW, Suite 1000, Washington, District Of Columbia, 20005

Co.2 Point of Contact: Bob, Rehm, Assistant Vice President, Performance Measurement, Rehm@ncqa.org, 202-955-1728-

Co.3 Measure Developer if different from Measure Steward: National Committee for Quality Assurance, 1100 13th Street NW, Washington, District Of Columbia, 20005

Co.4 Point of Contact: Dawn, Alayon, MPH, CPH, alayon@ncqa.org, 202-955-3533-

Co.5 Submitter: Dawn, Alayon, MPH, CPH, Senior Health Care Analyst, alayon@ncqa.org, 202-955-3533-, National Committee for Quality Assurance

Co.6 Additional organizations that sponsored/participated in measure development:

This measure was developed with the cooperation of the American Geriatrics Society, the National Committee for Quality Assurance and the American Medical Association.

Co.7 Public Contact: Bob, Rehm, Assistant Vice President, Performance Measurement, Rehm@ncqa.org, 202-955-1728-, National Committee for Quality Assurance

ADDITIONAL INFORMATION

Workgroup/Expert Panel involved in measure development

Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

An expert panel was used to assess face validity of the measure. The panel consists of 33 members, whose specialties include

NQF #0097 Medication Reconciliation

internal medicine, geriatrics, anesthesia, orthopedic surgery, physical medicine & rehabilitation, neurology, palliative medicine, urology, geriatric psychiatry, emergency medicine, nephrology, radiation oncology, ophthalmology, medical epidemiology, methodology, hospital medicine, family medicine, and bioethics.

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Diane E. Meier, MD Professor, Director: Hertzberg Palliative Care Institute, Director: Center to Advance Palliative Care, Mount Sinai School of Medicine, Department of Geriatrics, New York, NY
Alvin "Woody" H. Moss, MD (Nephrology and Palliative Care) Professor of Medicine & Director, Center for Health Ethics & Law, Section of Nephrology, West Virginia University, Morgantown, WV
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Gregg Warshaw, MD Director, Office of Geriatric Medicine, University of Cincinnati College of Medicine, Cincinnati, OH
Neil S. Wenger, MD (Internal Medicine/Geriatrics) Professor of Medicine, UCLA, Los Angeles, CA

<p>Ad.2 If adapted, provide title of original measure, NQF # if endorsed, and measure steward. Briefly describe the reasons for adapting the original measure and any work with the original measure steward:</p>
<p>Measure Developer/Steward Updates and Ongoing Maintenance Ad.3 Year the measure was first released: 2006 Ad.4 Month and Year of most recent revision: 11, 2006 Ad.5 What is your frequency for review/update of this measure? Approximately every 3 years, sooner if the clinical guidelines have changed significantly. Ad.6 When is the next scheduled review/update for this measure?</p>
<p>Ad.7 Copyright statement: Physician Performance Measures (Measures) and related data specifications, developed by the American Medical Association (AMA) in collaboration with the Physician Consortium for Performance Improvement (the Consortium) and the National Committee for Quality Assurance (NCQA) pursuant to government sponsorship under subcontract 6205-05-054 with Mathematica Policy Research, Inc. under contract 500-00-0033 with Centers for Medicare & Medicaid Services. These performance Measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications. The Measures, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain. Commercial uses of the Measures require a license agreement between the user and the AMA, (on behalf of the Consortium) or NCQA. Neither the AMA, NCQA, Consortium nor its members shall be responsible for any use of the Measures. THE MEASURES AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. © 2004-6 American Medical Association and National Committee for Quality Assurance. All Rights Reserved. Limited proprietary coding is contained in the Measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. The AMA, NCQA, the Consortium and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT®) or other coding contained in the specifications. CPT® contained in the Measures specifications is copyright 2005 American Medical Association G codes and associated descriptions included in these Measure specifications are in the public domain.</p>
<p>Ad.8 Disclaimers: These performance Measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications.</p> <p>THE MEASURES AND SEPCIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.</p>
<p>Ad.9 Additional Information/Comments:</p>
<p>Date of Submission (MM/DD/YY): 01/09/2012</p>

Sample PCPI Calculation Algorithm

Calculation for Performance

For performance purposes, a measure is calculated by creating a fraction with the following components: Numerator, Denominator, and Denominator Exclusions.

Numerator (A) Includes:

Number of patients meeting numerator criteria

Denominator (PD) Includes:

Number of patients meeting criteria for denominator inclusion

Denominator Exclusions (C) Include:

Number of patients with valid medical, patient or system exclusions (where applicable; will differ by measure)

Performance Calculation

$$\frac{\text{A (\# of patients meeting numerator criteria)}}{\text{PD (\# patients in denominator) - C (\# patients with valid denominator exclusions)}}$$

If a measure does not allow for exclusion(s), it is calculated by creating a fraction with the following components: Numerator and Denominator.

Numerator (A) Includes:

Number of patients meeting numerator criteria

Denominator (PD) Includes:

Number of patients meeting criteria for denominator inclusion

$$\frac{\text{A (\# of patients meeting measure criteria)}}{\text{PD (\# of patients in denominator)}}$$

It is also possible to calculate the percentage of patients excluded overall, or excluded by medical, patient, or system reason where applicable:

Overall Exclusion Calculation

$$\frac{\text{C (\# of patients with any valid exclusion)}}{\text{PD (\# patients in denominator)}}$$

OR

Exclusion Calculation by Type

$$\frac{\text{C}_1 (\# \text{ patients with medical reason})}{\text{PD (\# patients in denominator)}}$$

$$\frac{\text{C}_2 (\# \text{ patients with patient reason})}{\text{PD (\# patients in denominator)}}$$

$$\frac{\text{C}_3 (\# \text{ patients with system reason})}{\text{PD (\# patients in denominator)}}$$