# 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 <u>submitting standards web page</u>.

#### NQF #: 0419 NQF Project: Patient Safety Measures-Complications Project

(for Endorsement Maintenance Review) Original Endorsement Date: Jul 31, 2008 Most Recent Endorsement Date: Jul 31, 2008

# **BRIEF MEASURE INFORMATION**

De.1 Measure Title: Documentation of Current Medications in the Medical Record

Co.1.1 Measure Steward: Centers for Medicare & Medicaid Services

**De.2 Brief Description of Measure:** Percentage of specified visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications to the best of his/her knowledge and ability. This list must include ALL prescriptions, over-the-counters, herbals, vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route

**2a1.1 Numerator Statement:** ALL MEASURE SPECIFICATION DETAILS REFERENCE THE 2012 PHYSICIAN QUALITY REPORTING SYSTEM MEASURE SPECIFICATION.

Eligible professional attests to documenting a list of current medications to the best of his/her knowledge and ability. This list must include ALL prescriptions, over-the counters, herbals, vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosages, frequency and route

NUMERATOR NOTE: By reporting G8427, the eligible professional is attesting the documented current medication information is accurate and complete to the best of his/her knowledge and ability at the time of the patient encounter. This code may also be reported if there is documentation that no medications are currently being taken.

**2a1.4 Denominator Statement:** ALL MEASURE SPECIFICATION DETAILS REFERENCE THE 2012 PHYSICIAN QUALITY REPORTING SYSTEM MEASURE SPECIFICATION.

All visits occurring during the 12 month reporting period for patients aged 18 years and older at the time of the encounter where one or more denominator CPT or HCPCS codes AND any of the 3 numerator HCPCS codes are reported on the claims submission for the encounter. All discussed coding is listed in "2a1.7. Denominator Details" section below.

**2a1.8 Denominator Exclusions:** ALL MEASURE SPECIFICATION DETAILS REFERENCE THE 2012 PHYSICIAN QUALITY REPORTING SYSTEM MEASURE SPECIFICATION.

A patient is not eligible or excluded (B) from the performance denominator (PD) if one or more of the following reason(s) exist:

1. Patient refuses to participate

2. Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status

3. Patient cognitively impaired and no authorized representative(s), caregiver(s), and or other healthcare resources are available

1.1 Measure Type: Process

2a1. 25-26 Data Source: Administrative claims, Electronic Clinical Data : Registry 2a1.33 Level of Analysis: Clinician : Individual, Population : National

1.2-1.4 Is this measure paired with another measure? No

De.3 If included in a composite, please identify the composite measure (*title and NQF number if endorsed*): N/A

| STAFF NOTES (issues or questions regarding any criteria)   |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| Comments on Conditions for Consideration:  |  |  |  |  |  |  |  |
| Is the measure untested? Yes No If untested, explain how it meets criteria for consideration for time-limited endorsement:   |  |  |  |  |  |  |  |
| <ul> <li>Ia. Specific national health goal/priority identified by DHHS or NPP addressed by the measure (<i>check De.5</i>):</li> <li>5. Similar/related <u>endorsed</u> or submitted measures (<i>check 5.1</i>):</li> <li>Other Criteria:</li> </ul>  |  |  |  |  |  |  |  |
| Staff Reviewer Name(s):  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 1. IMPACT, OPPORTUITY, 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 <u>guidance on evidence</u> .<br><i>Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria</i> .<br>(evaluation criteria)   |  |  |  |  |  |  |  |
| 1a. High Impact:       H M L I         Image: Constraint of the second secon |  |  |  |  |  |  |  |
| De.4 Subject/Topic Areas (Check all the areas that apply): Prevention, Prevention : Development/Wellness, Prevention :<br>Screening<br>De.5 Cross Cutting Areas (Check all the areas that apply): Care Coordination, Overuse, Safety, Safety : Complications, Safety :<br>Medication Safety  |  |  |  |  |  |  |  |
| 1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers, A leading cause of morbidity/mortality, High resource use, Patient/societal consequences of poor quality  |  |  |  |  |  |  |  |
| 1a.2 If "Other," please describe:  |  |  |  |  |  |  |  |
| 1a.3 Summary of Evidence of High Impact ( <i>Provide epidemiologic or resource use data</i> ):<br>In 2005, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days. Emerging research suggests the scope of medication-related errors in ambulatory settings is as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of adverse drug events (ADE) in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs (American Medical Association (AMA), 2010).  |  |  |  |  |  |  |  |
| In the United States, it is estimated that in any given week, most adults aged 18 years and older take at least one prescription medication, OTC drug, vitamin, mineral, herbal product or supplement, while 10 percent take five or more. Overall, 26 percent of the population takes herbal products and supplements, and 30 percent of prescription drug users take an herbal product or supplement. In all settings of care, drug-drug interactions are significant, but undetected causes of ADEs. Drug-drug interactions—including interactions between drugs a patient is known to be taking—are frequently not recognized. Controversy, confusion and uncertainty about the significance of many drug-drug interactions further increase risk and opportunity for ADEs (AMA, 2010).  |  |  |  |  |  |  |  |
| 1a.4 Citations for Evidence of High Impact cited in 1a.3: American Medical Association: The physician's role in medication reconciliation. Accessed June 1, 2010 http://www.ama-assn.org/ama1/pub/upload/mm/370/med-rec-monograph.pdf  |  |  |  |  |  |  |  |

| Ì | 1b. Opportunity for Improvement: H M IL 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: PERFORMANCE/BENCHMARKING

The American Medical Association's (2010) report entitled "The Physician's Role in Medication Reconciliation" states, "Critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication regimen.

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting. Two-thirds of physician visits result in writing at least one prescription (Stock, et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassarella, et al., 2007). Since 2002, there has been a sharp increase in the number of ambulatory care visits secondary to adverse drug events. The 2008 National Scorecard for U.S. Health System Performance identified increased utilization of ambulatory care services and demonstrates inadequate medication reconciliation often leads to poor safety (Commonwealth Fund, 2008). Nassaralla (2007) also cited (Hensrud et al., 1999) noting the under-reporting of dietary supplements and over the-counter medications. Patients often struggle to remember the name, dose, and frequency of these types of medication, perhaps because they do not consider them medications and/or because they take them so infrequently they do not remember them.

Varkey et al. (2007) noted a systematic study of outpatient medication reconciliation and effective interventions had not been performed to their knowledge and conducted a pilot study to determine a framework and methodology for the implementation of outpatient medication reconciliation. Baseline data, including age, sex, date of visit, appointment type, provider type, and years in practice were collected for each patient visit in both phases of the study. Outpatient medication reconciliation interventions resulted in decreased prescription medication, overall and over-the-counter errors, with an average number of overall discrepancies per patient decreased by more than 50 % between study phases. The majority of discrepancies were minor. Of the total number of prescription medications in Phase I, discrepancies were noted in 88.5% of the medications (177/200), as compared with 49.1% (79/161) of the prescription medications in the intervention arm, with the majority being incorrect or missing routes. The average number of discrepancies among herbal and over-the-counter medications decreased from 76.2% (112/147) in Phase I to 33.7% (34/101) in Phase II.

Nassaralla et al. (2009) studied enhanced overall accuracy of medication lists by providing performance training through healthcare team feedback and increased patient participation in the medication reconciliation process in four academic, ambulatory primary care internal medicine clinics. Designed interventions improved the completeness of medication lists from 20.4% to 50.4% (p<0.001). Incomplete medication list documentation was primarily due to a lack of frequency (15.4%) and route (8.9%) for individual medications within a medication list. Correctness of medication lists improved from 23.1% to 37.7% (p=0.087). The incorrectness in a medication list was primarily due to incorrect medications dose. Patient participation in the medication reconciliation process increased from 13.9% to 33% (p<0.001). The medication list accuracy improved from 11.5% to 29% (p=0.014).

# GAP ANALYSIS

Nassaralla et al. (2007) noted in their study reviewing the completeness of the medication list in the outpatient setting, the mean number of medications taken by patients ranged from 6.6 to 7.5, of which approximately 35% were over-the counter and 4% were taken on an "as-needed" basis for symptoms. Older patients were noted to take more medications than younger ones and women, on average, took more medications than men. Nassaralla et al. also noted inaccurate medication lists in an ambulatory clinic cause a larger number of fatal adverse drug effects (1 of 131 outpatient deaths) than in a hospital setting (1 of 854 inpatient deaths). Therefore, ambulatory settings would benefit from implementation of system designed techniques to enhance the accuracy of medication lists for patients who take multiple medications.

According to the Commonwealth Fund report (2010) about 11 to 15 of every 1,000 Americans visit a health care provider because of adverse drug events in a given year, representing about three to four of every 1,000 patient visits during 1995 to 2001. The total

number of visits to treat adverse drug events increased from 2.9 million in 1995 to 4.3 million visits in 2001. (Commonwealth Fund, 2010)

Stock et al. (2009) stated the scope of adverse drug events (ADEs) in the outpatient setting is immense. It has been reported that two-thirds of physician visits result in writing at least one prescription. Estimates of the proportion of outpatients with an ADE have ranged from 5% to 35%. When considering the risks for medication errors and subsequent ADEs in the outpatient setting, errors can be a result, or a combination, of physician/provider–related, health system/practice process–related, pharmacy–related, or patient–related factors. Discrepancies among clinical office recorded medications and patient-reported medications are common, involving all classes of medications, prescribed and over-the-counter (OTC), with particular risk to patients who are older and on multiple medications.

Despite the fact that 98% of physicians reviewed all prescriptions and electronically documented prescribing, Stock et al. (2009) also found a 20%–40% discrepancy rate between the information in the EMR medication lists and patient-reported medication lists. Thus, a primary objective was to develop an effective strategy for reducing medical errors in both inpatient and outpatient settings with a goal of decreasing medication errors by 70%–80% and ADEs by more than 15%. To accomplish these goals, the medication reconciliation process at study clinics were designed to ensure, at each episode of care and each transition of care, that the patient's medication list is reviewed by the provider and patient for accuracy and corrected as appropriate. The goal was 100% documentation and review, including other providers' prescriptions and OTC medications, herbals, and nutraceuticals.

American Medical Association: The physician's role in medication reconciliation. Accessed June 1, 2010 http://www.amaassn.org/ama1/pub/upload/mm/370/med-rec-monograph.pdf

The Commonwealth Fund. Accessed August 11, 2008, http://www.commonwealthfund.org/usr\_doc/Why\_Not\_the\_Best\_national\_scorecard\_2008.pdf7section=4039.

The Commonwealth Fund. Accessed June 1, 2010, http://www.commonwealthfund.org/Content/Performance-Snapshots/Medication-Mistakes-and-Adverse-Drug-Events/Adverse-Drug-Events--Ambulatory-Care-Visits-for-Treatment.aspx

Nassaralla, c. L., Naessens, J. M., et al. (2007). Implementation of a medication reconciliation process in an ambulatory internal medicine clinic. Quality and Safety in Health Care, 16:90-94.

Nassaralla, C. L., Naessens, J. M., Hunt, V.L., et al. (2009.) Medication reconciliation in ambulatory care: Attempts at improvement. Quality and Safety in Health Care, 18:402-407.

Stock, R., Scott, J., & Gurtel, S. (2009). Using an electronic prescribing system to ensure accurate medication lists in a large multidisciplinary medical group. Joint Commission Journal on Quality Patient Safety, 35:271-277.

Varkey, P., Cunningham, J., and Bisping, D. S. (2007.) Improving medication reconciliation in the outpatient setting. Joint Commission Journal on Quality Patient Safety, 33:286-292.

1b.2 Summary of Data Demonstrating Performance Gap (Variation or overall less than optimal performance across providers): [For <u>Maintenance</u> – Descriptive statistics for performance results <u>for this measure</u> - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.] The description of the claims data for each 6 month time period are as follows based on 2008 & 2009 Physician Quality Measure Specifications:

Dates of service from 7/1/2008 to 12/31/2008 Total Claims Submitted with any G code (G8427, G8507, G8430, G8528, G8429): 135,026 Valid Denominator Criteria: 114,334 (84.7% of total) Performance Exclusion: 1,080 (0.9% of valid submissions) Measure Performance Rate: 106,606/113,254 94.1% Distribution of provider scores (by NPI): N=2,067, Mean = 84.5%, Median=100%, SD=30.6 Range=100 10th percentile: 28.6%, 25th percentile: 88.9%; 50th percentile: 100.0%

Dates of service from 1/1/2009 to 6/30/2009 Total Claims Submitted with any G code (G8427, G8507, G8430, G8428, G8429): 986,783 Valid Denominator Criteria: 907,799 (92% of total) Performance Exclusion: 9,515 (1.1% of valid submissions) Measure Performance Rate: 727,459/898,284 81% Distribution of provider scores (by NPI): N=8,196, Mean = 75.2%, Median=100%, SD=37.3 Range=100 10th percentile: 0.0%, 25th percentile: 52.5%; 50th percentile: 100.0% 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 See 1b.2 for description of data 1b.4 Summary of Data on Disparities by Population Group: [For Maintenance – Descriptive statistics for performance results for this measure by population group Data analysis can produce provider level performance rates as well as aggregate rates based on any classification and demographic data that can be linked to the provider or patient related to: Race, Gender, Age, Rural/Urban, Underserved/Non-Underserved, and Region. Disparities in performance may be identified by examining these aggregate performance rates. Aggregate performance rates for the following categories were observed for Physician Quality Reporting System claims reporting from 1/1/2009 to 6/30/2009 consisting of 898,284 claims with valid denominator criteria and no performance exclusion. Performance rates represent only those providers who voluntarily reported this measure and cannot be generalized to the population of eligible providers. Disparities data will be displayed as: Disparities category: Performance Rate (sample size) Rural: 83.5% (n=131,032) Urban - 80.6% (n=767,221) Urban providers reported more often than rural providers and had a lower aggregate performance rate. Female: 80.9% (n=521,208) Male - 81.2% (n=377,075) Medicare claims reporting the measure were predominately female beneficiaries. Underserved (racial/ethnic minority): 75.6% (n=85,585) Non-underserved: 81.6% (n=803,492) (missing=9207) Racial and ethnic minority beneficiaries had a lower aggregate performance rate than white beneficiaries. Race Asian: 77.1% (n=8302) Black: 75.8% (n=66,094) Hispanic: 71.7% (n=9466) Native American/Pacific Islander: 83.5% (n=1723) White: 81.6% (n=803,492) Other/Unknown: 75.5% (n=9207) Age Groups Under 50: 77.0% (n=40,697) 50-64: 78.7% (n=84,245) 65-69: 80.8% (n=157,159) 70-74: 81.5% (n=179,704) 75+: 81.7% (n=436,479) Performance rates tend to increase as age increasese. Performance by CMS Region Providers from CMS Region IV consisting of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee reported the measure most frequently (n=236,474). Region V was the next highest reporting area consisting of Illinois, Indiana, Michigan, Minnesota, Ohia and Wisconsin (n=187,761). The aggregate performance rate of Region IV providers was 72.8% and for Region V was 94.4%. 1b.5 Citations for Data on Disparities Cited in 1b.4: [For <u>Maintenance</u> – Description of the data or sample for measure results reported in 1b.4 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included See 1b.4

 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   |  |  |  |  |  |  |
| L  | M-H     | М           | Yes IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise No |  |  |  |  |  |  |
| M-H  | L       | M-H         | Yes IF potential benefits to patients clearly outweigh potential harms: otherwise No                            |  |  |  |  |  |  |
| L-M-H  | L-M-H   | L           | No 🗌  |  |  |  |  |  |  |
| Health outcome – rationale supports relationship to at least<br>one healthcare structure, process, intervention, or service       Does the measure pass subcriterion1c?<br>Yes IF rationale supports relationship  |         |             |   |  |  |  |  |  |  |
| <ul> <li>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):</li> <li>Process</li> <li>1c.2-3 Type of Evidence (Check all that apply): Selected individual studies (rather than entire body of evidence)</li> </ul>  |         |             |   |  |  |  |  |  |  |
| <ul> <li>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):</li> <li>Evidence supports a multi-disciplinary approach to medication documentation improves patient outcomes. Studies explored interventions implemented with outpatient facilities/practices which demonstrated reduction in adverse drug events.</li> <li>1c.5 Quantity of Studies in the Body of Evidence (<i>Total number of studies, not articles</i>): 5 studies were reviewed in the body of evidence:</li> <li>AMA Monograph (2007)</li> <li>Nassaralla et al. study (2007)</li> <li>Nassaralla et al. study (2009)</li> <li>Stock et al. study (2007)</li> <li>Varkey et al. study (2007)</li> </ul>   |         |             |   |  |  |  |  |  |  |
| 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): Quality of studies in body of evidence:   |         |             |   |  |  |  |  |  |  |
| The 5 studies identified were all rated "Study quality level 2 (limited-quality patient-oriented evidence) according to the SORT<br>Taxonomy; the evidence collectively was judged to have an overall SORT strength of recommendation of B, "considerable patient-<br>oriented evidence". Four studies of interventions (Nassaralla et al., 2007; Nassaralla et al., 2009; Stock et al., 2009, and Varkey et<br>al., 2007) consistently demonstrated statistically significant beneficial effects of interventions on medication documentation per se.<br>These studies of interventions were typically pre-test post-test no-control group designs. While this is not an ideal methodology, it<br>should be noted that the ideal method, i.e., the randomized controlled trial, is generally infeasible as a result of ethical<br>considerations. The evidence bears directly on the effectiveness of interventions to improve medication documentation accuracy<br>and continuity of care. Since the studies show consistently statistically significant effects, there are no issues of "imprecision/wide<br>confidence intervals due to few patients or events". |         |             |   |  |  |  |  |  |  |

1c.7 Consistency of Results across Studies (Summarize the consistency of the magnitude and direction of the effect): Consistency of results across studies: While the magnitude of the effects varies from study to study, the effects are consistently positive. 1c.8 Net Benefit (Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms): Studies show consistent benefits while detecting no harm, yielding consistent net benefits. Any improvement in medication documentation results in a net benefit to patients. 1c.9 Grading of Strength/Quality of the Body of Evidence. Has the body of evidence been graded? Yes 1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: Albert G. Crawford, PhD, MBA, MSIS Associate Professor Jefferson School of Population Health 1015 Walnut Street, Suite 115 Philadelphia, PA 19107 1c.11 System Used for Grading the Body of Evidence: Other 1c.12 If other, identify and describe the grading scale with definitions: The Strength of Recommendation Taxonomy (SORT) An A-level recommendation is based on consistent and good-quality patient-oriented evidence; a B-level recommendation is based on inconsistent or limited-quality patient-oriented evidence; and a C-level recommendation is based on consensus, usual practice, opinion, disease oriented evidence, or case series for studies of diagnosis, treatment, prevention, or screening. The quality of individual studies is rated 1, 2, or 3; numbers are used to distinguish ratings of individual studies from the letters A, B, and C used to evaluate the strength of a recommendation based on a body of evidence. 1c.13 Grade Assigned to the Body of Evidence: Overall Grading: SORT Strength of Recommendation B: considerable patientoriented evidence 1c.14 Summary of Controversy/Contradictory Evidence: N/A 1c.15 Citations for Evidence other than Guidelines (Guidelines addressed below): N/A 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: Moderate 1c.26 Quality: Moderate1c.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, <u>as specified</u>, 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 <u>guidance on measure testing</u>.

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 <u>this</u> measure can be obtained? Yes

S.2 If yes, provide web page URL: http://www.cms.gov/PQRS/15\_MeasuresCodes.asp#TopOfPage

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): ALL MEASURE SPECIFICATION DETAILS REFERENCE THE 2012 PHYSICIAN QUALITY REPORTING SYSTEM MEASURE SPECIFICATION.

Eligible professional attests to documenting a list of current medications to the best of his/her knowledge and ability. This list must include ALL prescriptions, over-the counters, herbals, vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosages, frequency and route

NUMERATOR NOTE: By reporting G8427, the eligible professional is attesting the documented current medication information is accurate and complete to the best of his/her knowledge and ability at the time of the patient encounter. This code may also be reported if there is documentation that no medications are currently being taken.

2a1.2 Numerator Time Window (*The time period in which the target process, condition, event, or outcome is eligible for inclusion*): This measure is to be reported at each visit during the 12 month reporting period. Eligible professionals meet the intent of this measure by making a best effort to document a current, complete and accurate medication list during each encounter. There is no diagnosis associated with this measure. This measure may be reported by eligible professionals who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

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*: For the purposes of calculating performance, the Numerator(A) is defined by providers reporting the clinical quality action was performed. For this measure, performing the clinical quality action is numerator HCPCS G8427.

Current Medications with Name, Dosage, Frequency and Route Documented G8427: List of current medications (includes prescription, over-the-counter, herbals, vitamin/mineral/dietary [nutritional] supplements) documented by the provider, including drug name, dosage, frequency and route

2a1.4 **Denominator Statement** (Brief, narrative description of the target population being measured): ALL MEASURE SPECIFICATION DETAILS REFERENCE THE 2012 PHYSICIAN QUALITY REPORTING SYSTEM MEASURE SPECIFICATION.

All visits occurring during the 12 month reporting period for patients aged 18 years and older at the time of the encounter where one or more denominator CPT or HCPCS codes AND any of the 3 numerator HCPCS codes are reported on the claims submission for the encounter. All discussed coding is listed in "2a1.7. Denominator Details" section below. 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): All visits occurring during the 12 month reporting period for patients aged 18 years and older at the time of the encounter. 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): For the purposes of defining the denominator, the Performance Denominator(PD) is defined by the patient's age, encounter date, denominator CPT or HCPCS codes and the provider reported numerator HCPCS codes described below (G8427, G8430 & G8428). Patients aged greater than or equal to 18 years on date of encounter AND Patient encounter during the reporting period (CPT or HCPCS): 90801, 90802, 90804, 90805, 90806, 90807, 90808, 90809, 90816, 90817, 90818, 90819, 90821, 90822, 90957, 90958, 90959, 90960, 90962, 90965, 90966, 92002, 92004, 92012, 92014, 92541, 92542, 92543, 92544, 92545, 92547, 92548, 92557, 92567, 92568, 92570, 92585, 92588, 92626, 96116, 96150, 96152, 97001, 97002, 97003, 97004, 97802, 97803, 97804, 98960, 98961. 98962, 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, G0101, G0108, G0270, G0402, G0438, G0439 AND Patient encounters with the following numerator HCPCS Code G8427, G8430, G8428. Current Medications with Name, Dosage, Frequency and Route Documented G8427: List of current medications (includes prescription, over-the-counter, herbals, vitamin/mineral/dietary [nutritional] supplements) documented by the provider, including drug name, dosage, frequency and route Current Medications with Dosage not Documented. Patient not Eligible G8430: Provider documentation that patient is not eligible for medication assessment Current Medications with Name, Dosage, Frequency, Route not Documented, Reason not Specified G8428: Current medications (includes prescription, over-the-counter, herbals, vitamin/mineral/dietary [nutritional] supplements) with drug name, dosage, frequency and route not documented by the provider, reason not specified 2a1.8 Denominator Exclusions (Brief narrative description of exclusions from the target population): ALL MEASURE SPECIFICATION DETAILS REFERENCE THE 2012 PHYSICIAN QUALITY REPORTING SYSTEM MEASURE SPECIFICATION. A patient is not eligible or excluded (B) from the performance denominator (PD) if one or more of the following reason(s) exist: 1. Patient refuses to participate 2. Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status 3. Patient cognitively impaired and no authorized representative(s), caregiver(s), and or other healthcare resources are available 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): For the purposes of identifying performance exclusions, Denominator Exclusions (B) are defined by providers reporting the

exclusion clinical quality action. For this measure, the clinical exclusion code is numerator HCPCS G8430.

Current Medications with Dosages not Documented, Patient not Eligible G8430: Provider documentation that patient is not eligible for medication assessment

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 ): This measure is not stratified. All eligible patients are subject to the same numerator criteria.

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.):

This section provides details and formulas to calculate Performance and Denominator Exclusions.

# PERFORMANCE CALCULATION

To calculate provider performance, complete a fraction with the following measure components: Numerator (A), Performance Denominator (PD) and Denominator Exclusions (B).

Numerator (A): Number of patients meeting numerator criteria

Performance Denominator (PD): Number of patients meeting criteria for denominator inclusion

Denominator Exclusions (B): Number of patients with valid exclusions

The method of performance calculation is determined by the following:

1) identify the patients who meet the eligibility criteria for the denominator (PD) which includes patients who are 18 years and older with encounters during the reporting period with any of denominator CPT or HCPCS codes and numerator HCPCS codes as listed in "2a1.7. Denominator Details".

2) identify which of those patients meet the numerator criteria (G8427) (A)

3) for those patients who do not meet the numerator criteria, determine whether an appropriate exclusion applies (G8430) (B) and subtract those patients from the denominator with the following calculation: Numerator (A)/[Performance Denominator (PD) - Denominator Exclusions (B)]

DENOMINATOR EXCLUSIONS The Exclusion Calculation is: Denominator Exclusions (B)/Performance Denominator (PD)

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

Calculation for Performance.docx

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 : Registry

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.): Medicare Part B claims data

2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment: URL NQF 0419 Endorsement Summary 012312 zip file of supporting docuementation sent to H. Bossley & A. Lyzenga via email on 01/23/12 due to path submission error

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

m130\_attachment\_partb\_detail\_line\_item\_format.pdf

2a1.33 Level of Analysis (*Check the levels of analysis for which the measure is specified and tested*): Clinician : Individual, Population : National

2a1.34-35 Care Setting (Check all the settings for which the measure is specified and tested): Ambulatory Care : Clinician Office, Behavioral Health/Psychiatric : Outpatient, Dialysis Facility, Home Health, Other:Clinic, Hospital outpatient, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility, Post Acute/Long Term Care Facility : Rehabilitation

**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):

Time period: 1/1/2009 – 6/30/2009 AS SEEN IN THE 2009 MEASURE SPECIFICATIONS Claim Type: Medicare Claim Carrier (B)

Criteria: Any HCPCS Line code in the following string: G8430, G8507, G8427, G8428, G8429 Additional fields requested to the standard layout: LINE\_PRCSG\_IND (included in the detail file), beneficiary name, beneficiary DOB, beneficiary DOD, beneficiary gender, beneficiary HIC, and beneficiary race

NPIs who had fewer than ten claims were removed from the dataset. A simple random sample of records for approximately 150 NPIs was drawn. From those 150 NPIs, a random sample of approximately 600 claims was identified. The records were then stratified by the business location address listed in the NPI registry so the maximum number of records from each business location was limited to 10 records. This limitation was set so the providers would not see this task as too burdensome and would be more likely to send in their records.

Randomly selected providers were mailed a letter requesting they provide the documentation to support the assignment of the numerator code they submitted on the claim. The first request for data was mailed to the selected providers on March 9, 2010. A

subsequent reminder letter for those providers who had not mailed their records was sent on April 16, 2010.

Data Sample Response Rates:Records Requested/Returned/Reviewed618/370/359Providers Requested/Returned/Reviewed161/101/10062.1%

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

Crude agreement rates were calculated along with prevalence adjusted kappa (PAK), Cohen's kappa values and corresponding confidence intervals. Cohen's kappa represents chance-corrected proportional agreement. High prevalence of responses in a small number of cells is known to produce unexpected results known as the "kappa paradox" When the prevalence of a rating in the population is very high or low, which was noted in the testing of this measure, the value of kappa may indicate poor reliability even with a high observed proportion of agreement. In such cases, as with this measure, PAK is shown to provide an additional interpretation of agreement when the prevalence of responses is concentrated in a small number of cells.

Landis and Koch (1977) have proposed the following as standards for strength of agreement for the kappa coefficient: [less than or equal to] 0=poor, .01-.20=slight, .21-.40=fair, .41.-60=moderate, .61-.80=substantial and .81-1=almost perfect (high). These categories are informal.

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

Numerator Reliability (Documented Only[current measure construct]): 78.1% agreement, PAK= 0.57(.49-.66) Kappa=.18 (.06-.29) Numerator Reliability (Documented and Verified[2009 measure construct]):22.8% agreement, PAK =0.03 (.01-.05) Kappa=.03 (.01-.05)

Performance Exclusions: 99.4% agreement, PAK= .99 (.97-1.0) Kappa .00 (.00-.00)) Valid Denominator Criteria: 336/359 93.6%

Inter-Rater Reliability

A Quality Insights RN re-abstracts 53 randomly selected records from the 321 unique cases abstracted by a third party to assess inter-rater reliability. Upon completion of re-abstraction, Quality Insights' analytic staff compares the numerator G codes assigned by the Quality Insights RN to the numerator G codes assigned by the third party. Crude agreement rates, Prevalence Adjusted Kappa (PAK) and Kappa scores are calculated to assess the reviewer reliability. As demonstrated in this measure, where the prevalence of responses is concentrated in a small number of cells, PAK is shown. Records not meeting denominator eligibility are excluded.

Numerator: 77.3% agreement, Prevalence Adjusted Kappa=.55 (.32 - .79), Kappa=.26 (-.06 - .58), Performance Exclusions: 100.0% agreement, Prevalence Adjusted Kappa= 1.0 (1.0-1.0) Kappa=-1.0 (1.0-1.0) Valid Denominator Criteria: 44/50 88%

All records without valid denominator criteria were removed prior to reliability assessment. Denominator agreement was 100%.

Overall Reliability & Inter-Rater Reliability Summary: Quality Insights provides two reliability testing analyses based on the 2009 measure specification, seen as documented medications and documented and verified medications. The documented medications demonstrate a 78.1% crude agreement with a PAK of .57 and confidence interval of (.49 - .66) demonstrating moderate reliability of the measure. There was a substantial agreement between the independent reviewer and Quality Insights in the testing of this measure. However, poor agreement was demonstrated in the medication documentation and verification processes when comparing the independent contractor results to the claims data. Although there is poor reliability in determining whether medications were documented and verified, there is much better reliability when comparisons are limited to documentation alone.

Review & recommendations of testing results with the Technical Expert Panel (TEP) concluded that "verification" is difficult to document and will become more difficult as practices move to electronic health records. The TEP further cited verification is inherent in the process of medication documentation and recommended the measure specifications remove the verification requirement. Because this was considered a material change, public comment was solicited in July 2010. The TEP reviewed

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feedback received from the public comment period and strongly advised the specifications be amended to remove verification from the measure. This discordance suggests that there are insufficient standards for documenting whether medications were verified with the patient in medical records. Analysis of mismatches in documented medications improved the measure's agreement.

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

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: Quality Insights of Pennsylvania conducts an Environmental Scan to evaluate the most current research and evidence-based guidelines. The TEP, composed of subject matter specialists and experts with technical measure expertise evaluates the results of the review and provides recommendations based on the scientific merits of the evidence using the Strength of Recommendation Taxonomy (SORT). The TEP also reviews and establishes the measure's ability to capture what it is designed to capture using a consensus process.

The initial measure development process included alpha-testing in the field with select providers and a public comment period. During the Reliability Testing, Quality Insights again convened a TEP for Environmental Scan review as well as a detailed analysis of beta testing results. Based on the process of multiple stakeholder input, expert panel discussion and public comment, face and content validity of CMS/Quality Insights measures can be assumed to be established.

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): N/A

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

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): N/A

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): Claims data from 7/1/2008 – 6/30/2009. Testing performed on sample (See 2a2.3-Testing Results)

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

Claims data were analyzed for frequency of reported exclusions and impact on performance scores.

Reliability of exception code assignment was assessed. Crude agreement rates were calculated along with kappa values and corresponding confidence intervals.

**2b3.3 Results** *(Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses):* Overall reliablity Performance Exclusions: There were 336 cases in the testing sample with valid denominator criteria. Based on codes submitted with claims data there were 2 (0.6%) performance exclusions. Agreement was assessed as follows:

Overall Reliability of Performance Exclusions: 99.4% agreement, Prevalence Adjusted Kappa=.99 (.97 - 1.00) Kappa .00 (.00-.00) Inter-Rater Reliability

Performance Exclusions: 100.0% agreement, Prevalence Adjusted Kappa= 1.0 (1.0-1.0)Kappa=-1.0 (1.0-1.0)

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

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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 (<u>Statistical risk model</u>: 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. <u>Risk stratification</u>: 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):

The description of the claims data for each 6 month time period are as follows:

Dates of service from 7/1/2008 to 12/31/2008 Total Claims Submitted with any numerator G code (G8427, G8507, G8430, G8528, G8429): 135,026 Valid Denominator Criteria: 114,334 (84.7% of total) Performance Exclusion: 1080 (0.9% of valid submissions)

Dates of service from 1/1/2009 to 6/30/2009 Total Claims Submitted with any numerator G code (G8427, G8507, G8430, G8428, G8429): 986,783 Valid Denominator Criteria: 907,799 (92% of total) Performance Exclusion: 9515 (1.1% of valid submissions)

Total claims sampled and reviewed: 359 claims from 100 providers Valid denominator criteria: 336 (93.6% of total) Sample Performance Exclusion (claims based): 2 (0.6% of valid denominator)

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

Aggregate and provider (NPI) performance rates were calculated from Part B claims with dates of service for two consecutive six month periods. Data from the testing sample were not analyzed at the provider level. Performance rates are derived from numetator G codes submitted for the Physician Quality Reporting System (formerly PQRI). Code submissions are voluntary and providers who report may not be representative of all eligible professionals. Performance rates cannot be generalized to the population.

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):

Performance measure scores demonstrated needed improvement among eligible providers as the aggregate performance rate based on claims reporting decline. This decline was noted in consecutive reporting periods from 94.1% to 81.0% with increasing numbers of NPIs reporting (2067 and 8196 respectively).

Dates of service from 7/1/2008 to 12/31/2008 Aggregate measure performance rate: 106,606/113,254 94.1% Distribution of provider scores (by NPI): N=2067, Mean = 84.5%, Median=100%, SD=30.6 Range=100

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10th percentile: 28.6%, 25th percentile: 88.9%; 50th percentile: 100.0%

Dates of service from 1/1/2009 to 6/30/2009 Aggregate measure performance rate: 727,459/898,284 81% Distribution of provider scores (by NPI): N=8196, Mean = 75.2%, Median=100%, SD=37.3 Range=100 10th percentile: 0.0%, 25th percentile: 52.5%; 50th percentile: 100.0%

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): N/A

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): n/a

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

Aggregate performance rates for the following categories were observed for Physician Quality Reporting System claims reporting from 7/1/2008 to 12/31/2008 and 1/1/2009 to 6/30/2009 consisting of 113,254 and 898,284 claims respectively, with valid denominator criteria and no performance exclusion. Performance rates represent only those providers who voluntarily reported this measure and cannot be generalized to the population of eligible providers. Disparities data will be displayed as: Disparities category: Performance Rate (sample size)

Rural vs. Urban Reporting 7/1/2008 to 12/31/2008 Rural: 97.2% (n=16,048) Urban: 93.6% (n=97,206) Rural providers reported more often than urban providers and had a slightly higher aggregate performance rate.

1/1/2009 to 6/30/2009 Rural: 83.5% (n=131,032) Urban: 80.6% (n=767,221) Urban providers reported more often than rural providers and had a lower aggregate performance rate.

Performance for rural and urban categories decreased from the first to the second reporting period.

Male vs. Female Reporting 7/1/2008 to 12/31/2008 Male: 94.2% (n=46,195) Female: 94.1% (n=67,059) Medicare claims reporting the measure were statistically similar.

1/1/2009 to 6/30/2009 Male: 81.2% (n=377,075) Female: 80.9% (n=521,208) Medicare claims reporting the measure were statistically similar.

Performance for male and female categories decreased from the first to the second reporting period.

Non-underserved vs. Underserved\* Reporting 7/1/2008 to 12/31/2008 Non-Underserved: 94.9% (n=105,352) Underserved (racial/ethnic minority): 82.0% (n=6,974) (Other/Unknown=928) Underserved populations had both lower reporting and performance than non-underserved populations. 1/1/2009 to 6/30/2009 Non-underserved: 81.6% (n=803,492) Underserved (racial/ethnic minority): 75.6% (n=85,585) (Other/Unknown =9,207) Underserved populations had both lower reporting and performance than non-underserved populations. \*Non-Underserved vs. Underserved: The underserved category is defined by the racial and ethnic designations of African Americans, Asian Americans, Hispanics, and Native Americans. Not all records used in the analysis had race identified. In both reporting periods, underserved populations had both lower reporting and performance than non-underserved populations. Reporting by Racial Group 7/1/2008 to 12/31/2008 Asian: 91.8% (n=706) Black: 77.4% (n=4,935) Hispanic: 93.8% (n=1,186) Native American/Pacific Islander: 93.9% (n=147) White: 94.9% (n=105,352) Other/Unknown: 93.3% (n=928) Reporting for Whites was significantly higher than any other group with high performance reported in Asian, Hispanic, Native American/Pacific Islander, White & Other/Unknown groups. 1/1/2009 to 6/30/2009 Asian: 77.1% (n=8302) Black: 75.8% (n=66,094) Hispanic: 71.7% (n=9466) Native American/Pacific Islander: 83.5% (n=1723) White: 81.6% (n=803,492) Other/Unknown: 75.5% (n=9207) Reporting for Whites was significantly higher than any other group with moderate performance reported in Asian, Black, Hispanic, Native American/Pacific Islander, White & Other/Unknown groups. Overall, Whites were reported significantly more than any other group and overall reporting decreased from the first to the second reporting period. Age Groups 7/1/2008 to 12/31/2008 Under 50: 88.0% (n=3.749) 50-64: 91.0% (n=8.260) 65-69: 93.5% (n=22.321) 70-74: 94.3% (n=23.583) 75+: 95.2% (n=55.341) Performance rates trend upward as the population's age increases. 1/1/2009 to 6/30/2009 Under 50: 77.0% (n=40,697) 50-64: 78.7% (n=84,245) 65-69: 80.8% (n=157,159) 70-74: 81.5% (n=179,704) 75+: 81.7% (n=436,479) Performance rates trend upward as the population's age increases. For both reporting periods, performance rates trend upward as the population's age increases. Performance was higher in the first reporting period than the second. Performance by CMS Region CMS Regions X, VIII, VII, IX & II were the low reporters in both reporting periods. Conversely, Regions IV, III, I, VI & V were the high reporters in both reporting periods. Low reporting regions collectively reported 13,174 in the first reporting period while reporting 201,029 in the second reporting period. High reporting regions reported 100,080 in the first reporting while reporting 697,224 in the second reporting period. 2.1-2.3 Supplemental Testing Methodology Information: URL

NQF 0419 Endorsement Summary 012312 zip file of supporting docuementation sent to H. Bossley & A. Lyzenga via email on 01/23/12 due to path submission error

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): Payment Program, Public Reporting, Quality Improvement (Internal to the specific organization)

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

**3a. Usefulness for Public Reporting:** H M L I 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 <u>Maintenance</u> – 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 used in a public reporting program on the CMS Physician Compare website. Individual level provider performance is anticipated for publication in 2013 with 2012 performance data at the link provided below.

http://www.medicare.gov/find-a-doctor/provider-search.aspx

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: See Physician Quality Reporting System Overview section at www.cms.gov/pqrs

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): Physician Quality Reporting System-pay for reporting

**3b. Usefulness for Quality Improvement:** H M L I 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 <u>Maintenance</u> – If not used for QI, indicate the reasons and describe progress toward using performance results for improvement*].

Physician Quality Reporting System Program www.cms.hhs.gov/pqrs

3b.2. Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement. If usefulness was demonstrated (*e.g.*, *Ql initiative*), describe the data, method and results: Feedback reports are generated and available for provider performance review.

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

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*): ALL data elements are in a combination of 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:

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: Through the testing and auditing processes, Quality Insights discovered the susceptibility of the reporting the verification code in the measure's clinical quality action options. An analysis of provider documentation demonstrated difficulty in discerning the verification process for the reported numerator codes in claims documentation. We believe these findings also will be replicated in registry reporting. Based on these findings the TEP has recommended modifications, specifically removing "verification", to provide clear instructions when reporting the measure and better reflects the providers' workflow.

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

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

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 measure is in current operational use. Data collection for reliablility testing (medical record audits) is dependent on the provider. Specific elements of the medical record must be requested to insure the audit process is standardized across providers. Oftentimes, reminder letters are required to attain a 50% or greater response rate.

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:

0097 : Medication Reconciliation 0553 : Care for Older Adults – Medication Review 0554 : Medication Reconciliation Post-Discharge

#### 5a. Harmonization

5a.1 If this measure has EITHER the same measure focus OR the same target population as <u>NQF-endorsed measure(s)</u>: 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:

NQF 0553 focuses on the elderly population (66 years and older) requesting evidence of at least one medication review during the measurement period; NQF 0554 relates to the elderly population (66 years and older) requiring medication reconciliation within 30 days for patients discharged from the hospital; and NQF 0097 refers to elder patients (65 years and older) discharged and medication reconciliation completed if seen within 60 days of discharge from an inpatient hospitalization. Differences include population of those 18 years and older; medication list is documented at each visit; and documentation of medication list is not related to discharge from another facility

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*):

# **CONTACT INFORMATION**

Co.1 Measure Steward (Intellectual Property Owner): Centers for Medicare & Medicaid Services, 7500 Security Boulevard , Mail Stop S3-01-02, Baltimore, Maryland, 21244-1850

Co.2 Point of Contact: Edward Q., Garcia III, MHS, Health Policy Analyst, MMSNQF@hsag.com, 410-786-6738-

Co.3 Measure Developer if different from Measure Steward: Quaity Insights of Pennsylvania, 640 Freedom Drive, King of Prussia, Pennsylvania, 19406

Co.4 Point of Contact: Sharon, Hibay, DNP, RN, shibay@wvmi.org, 877-346-6170-7814

Co.5 Submitter: Sharon, Hibay, DNP, RN, shibay@wvmi.org, 877-346-2571-, Quaity Insights of Pennsylvania

Co.6 Additional organizations that sponsored/participated in measure development: Centers for Medicare & Medicaid Services Thomas Jefferson University School of Population Health ALPS Services Inc.

Co.7 Public Contact: Sharon, Hibay, DNP, RN, shibay@wvmi.org, 977-346-6170-7814, Quality Insights of Pennsylvania

# 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. Mirean Coleman, MSW, LICSW, CT Senior Practice Associate National Association for Social Workers

Mona Counts, PhD, CRNP, FNAP Elouise Ross Eberly Professor Penn State University School of Nursing

MaryFran Delaune, PT, MPT Associate Director, Practice Department American Physical Therapy Association

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Alison Grimes, Au.D.BC American Board of Audiology Assistant Clinical Professor Audiology Clinic-UCLA Medical Center

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Jenifer Osorno Fahey, CNM, MSN, MSPH Assistant Professor, Department of Obstetrics Gynecology and Reproductive Services University of Maryland School of Medicine

Kevin Schuer, PA-C, MSPAS, MPH Center for Enterprise Quality and Safety & the University of Kentucky College of Health Sciences Department of Clinical Sciences Division of Physician Assistant Studies

Valerie Pracilio, MPH TJUH Research Thomas Jefferson University School of Population Health Philadelphia, PA

Through a collaborative process, the TEP reviewed the current 2010 measure specifications (description, numerator, denominator, definitions, clinical recommendation, environmental scan); reviewed and considered the beta testing results, analysis, findings and recommendations based on testing; reviewed public comments; recommended measure to include physicians; replace non MD/DO with "eligible professional"; recommended to eliminate "verification" and add medication dosage, frequency, and route to the measure; eliminate G-8429 and G-8507; add denominator codes: 90960, 90961, 90962, 90966, 97804, 98961, 98962 (recommended during public comment period).

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: Documentation and Verification of Current Medications in the Medical Record-NQF #0419-Time-Limited Endorsement

After reliability testing in 2010 and a public comment period, the Technical Expert Panel recommended removal of "verification" from the measure due to variability among providers in interpretation of the definition of "verification". The measure also expanded from a

non-MD/DO measure to include eligible professionals as defined by CMS.

 Measure Developer/Steward Updates and Ongoing Maintenance

 Ad.3 Year the measure was first released: 2008

 Ad.4 Month and Year of most recent revision: 12, 2011

 Ad.5 What is your frequency for review/update of this measure? Annually

 Ad.6 When is the next scheduled review/update for this measure? 01, 2012

 Ad.7 Copyright statement: CPT only copyright 2008-2010 American Medical Association. All rights reserved.

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 Applicable FARS/DFARS Apply to Government Use.

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 Ad.8 Disclaimers: n/a

 Ad.9 Additional Information/Comments: n/a

 Date of Submission (*MM/DD/YY*): 09/13/2011

#### Calculation for Performance

For performance purposes, this 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

#### Performance Denominator (PD) Includes:

Number of patients meeting criteria for denominator inclusion

#### **Denominator Exclusions (B) Include:**

Number of patients with valid exclusions (where applicable; will differ by measure)

#### **Performance Calculation**

A (# of patients meeting numerator criteria)

<u>PD (# patients in denominator) – B (# patients</u> with valid denominator exclusions

# PART B STANDARD NON-INSTITUTIONAL CLAIMS DETAIL LINE ITEM GROUP RECORD FORMAT

| FIELD LEVEL/NAME             | PIC   | TYPE                            | START | END | LENGTH |
|------------------------------|-------|---------------------------------|-------|-----|--------|
| PARTB-LINE-ITEM-RECORD       |       |                                 | 1     | 151 | 151    |
| HSE-UNIQUE-ID                | 9(18) | NUMBER(18)                      | 1     | 18  | 18     |
| HSE-HCPCS-SEQ                | 999   | NUMBER(30                       | 19    | 21  | 3      |
| HSE-B-HCFA-PRVDR-SPCLTY-CD   | XX    | VARCHAR2(2)                     | 22    | 23  | 2      |
| HSE-CLM-FAC-TYPE-CD          | Х     | VARCHAR(91)                     | 24    | 24  | 1      |
| HSE-B-TYPE-SRVC-CD           | Х     | VARCHAR(1)                      | 25    | 25  | 1      |
| HCPCS-CODE                   | X(5)  | VARCHAR(5)                      | 26    | 30  | 5      |
| HCPCS-INITL-MDFR-CD          | XX    | VARCHAR2(2)                     | 31    | 32  | 2      |
| HCPCS-2ND-MDFR-CD            | XX    | VARCHAR2(2)                     | 33    | 34  | 2      |
| HSE-B-PLC-SRVC-CD            | XX    | VARCHAR2(2)                     | 35    | 36  | 2      |
| FIRST-EXPNS-DT               | 9(8)  | DATE                            | 37    | 44  | 8      |
| LAST-EXPNS-DT                | 9(8)  | DATE                            | 45    | 52  | 8      |
| DGNS-CD                      | X(5)  | VARCHAR2(5)                     | 53    | 57  | 5      |
| HSE-B-CLNCL-LAB-NUM          | X(10) | VARCHAR2(10)                    | 58    | 67  | 10     |
| PHYSICIAN-UPIN               | X(12) | VARCHAR2(12)                    | 68    | 79  | 12     |
| HSE-B-PRFRMG-PRVDR-PRFLG-NBR | X(15) | VARCHAR2(15)                    | 80    | 94  | 15     |
| HSP-STATE-CODE               | XX    | VARCHAR2(2)                     | 95    | 96  | 2      |
| ADDR-POSTALCODE              | X(10) | VARCHAR2(10)                    | 97    | 106 | 10     |
| HSE-B-MTUS-IND-CD            | X     | VARCHAR2(1)                     | 107   | 107 | 1      |
| HSE-B-MTUS-CNT               | X(8)  | NUMBER(7)<br>Decimal External   | 108   | 115 | 8      |
| CWFB-ALOW-CHRG-AMT           | X(13) | NUMBER(9,2)<br>Decimal External | 116   | 128 | 13     |
| HSE-B-CLM-PMT-AMT            | X(13) | Decimal External                | 129   | 141 | 13     |
| HSE-B-PRVDR-TAX-NUM          | X(10) | VARCHAR2(10)                    | 142   | 151 | 10     |