NATIONAL QUALITY FORUM

Measure Evaluation 4.1
December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the evaluation criteria are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized)**:** Complete all yellow highlighted areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) **NQF Review #:** 0551 **NQF Project:** NVCS for Medication Management 2008
MEASURE DESCRIPTIVE INFORMATION
De.1 Measure Title: Ace Inhibitor / Angiotensin Receptor Blocker Use and Persistence Among Members with Coronary Artery Disease at High Risk for Coronary Events
De.2 Brief description of measure*:* To assess the use of and persistence to ACE inhibitors or Angiotensin receptor blockers (ARB) among members with CAD or other atherosclerotic vascular disease (i.e., peripheral arterial disease, atherosclerotic aortic disease and carotid artery disease) who are at high risk for coronary events during a one year period. High-risk comorbidities are defined as heart failure, hypertension, diabetes, or chronic kidney disease (excluding stage V and patients on dialysis).
1.1-2 Type of Measure: Process **De.3 If included in a composite or paired with another measure, please identify composite or paired measure**
De.4 National Priority Partners Priority Area: **De.5 IOM Quality Domain:** **De.6 Consumer Care Need:**

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.* **A.1 Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?** **A.2 Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:** **A.3 Measure Steward Agreement:**	A Y O N O

A.4 **Measure Steward Agreement attached:**	
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years.	B Y N
C. The intended use of the measure includes both public reporting and quality improvement. ►**Actual/Planned Use:** Public Reporting, Quality Improvement (Internal to the specific organization)	C Y N
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1**Testing:** D.2 **Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?**	D Y N
(for NQF staff use) **Have all conditions for consideration been met?** **Staff Notes to Steward** (*if submission returned*)**:**	Met Y N
Staff Notes to Reviewers (*issues or questions regarding any criteria*)**:**	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. ***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**	Eval Rating
(for NQF staff use) Specific NPP goal:	
1a.1 **Demonstrated High Impact Aspect of Healthcare:** 1a.2 1a.3 **Summary of Evidence of High Impact:** 1a.4 **Citations for Evidence of High Impact:**	1a C P M N
1b. Opportunity for Improvement	
1b.1 **Benefits (improvements in quality) envisioned by use of this measure:** 1b.2 **Summary of data demonstrating performance gap (variation or overall poor performance) across providers:**	
1b.3 **Citations for data on performance gap:** 1b.4 **Summary of Data on disparities by population group:**	1b C P M N

Comment [KP]: **1a.** The measure focus addresses:
- a specific national health goal/priority identified by NQF's National Priorities Partners; OR
- healthcare (e.g., affects large numbers, leading cause of morbidity/mortality, high resource use (current and/or future), severity of illness, and patient/societal consequences of poor quality).

Comment [KP]: **1b.** Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating considerable variation, or overall poor performance, in the quality of care across providers and/or population groups (disparities in care).

Comment [k]: 1 Examples of data on opportunity for improvement include, but are not limited to: prior studies, epidemiologic data, measure data from pilot testing or implementation. If data are not available, the measure focus is systematically assessed (e.g., expert panel rating) and judged to be a quality problem.

1b.5 Citations for data on Disparities:	
1c. Outcome or Evidence to Support Measure Focus	
1c.1 Relationship to Outcomes (*For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population*):	
1c.2-3. Type of Evidence:	
1c.4 Summary of Evidence (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*):	
1c.5 Rating of strength/quality of evidence (*also provide narrative description of the rating and by whom*):	
1c.6 Method for rating evidence:	
1c.7 Summary of Controversy/Contradictory Evidence:	
1c.8 Citations for Evidence (*other than guidelines*):	
1c.9 Quote the Specific guideline recommendation (*including guideline number and/or page number*):	
1c.10 Clinical Practice Guideline Citation: **1c.11 National Guideline Clearinghouse or other URL:**	
1c.12 Rating of strength of recommendation (*also provide narrative description of the rating and by whom*):	
1c.13 Method for rating strength of recommendation (*If different from USPSTF system, also describe rating and how it relates to USPSTF*):	1c C ○ P ○ M ○ N ○
1c.14 Rationale for using this guideline over others:	
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Importance to Measure and Report?*	1
Steering Committee: Was the threshold criterion, *Importance to Measure and Report*, met? **Rationale:**	1 Y ○ N ○
2. 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)	Eval Rating
2a. MEASURE SPECIFICATIONS	

Comment [k]: 1c. The measure focus is:
- an outcome (e.g., morbidity, mortality, function, health-related quality of life) that is relevant to, or associated with, a national health goal/priority, the condition, population, and/or care being addressed;

OR
- if an intermediate outcome, process, structure, etc., there is **evidence** that supports the specific measure focus as follows:
  - Intermediate outcome - evidence that the measured intermediate outcome (e.g., blood pressure,

Comment [k]: 4 Clinical care processes typically include multiple steps: assess → identify problem/potential problem → choose/plan intervention (with patient input) → provide intervention → evaluate impact on health status. If the measure focus is one step in such a multi-step process, the step with the greatest effect on the desired outcome should be selected as the focus of measurement. For example, although assessment of immunization status and recommending immunization are necessary steps, they are not sufficient to achieve the desired impact on health status - patients must

Comment [k]: 3 The strength of the body of evidence for the specific measure focus should be systematically assessed and rated (e.g., USPSTF grading system http://www.ahrq.gov/clinic/uspstf07/methods/benefit.htm). If the USPSTF grading system was not used, the grading system is explained including how it relates to the USPSTF grades or why it does not. However, evidence is not limited to quantitative studies and the best type of evidence depends upon the question being studied (e.g., randomized controlled trials appropriate for studying drug efficacy are not well suited for

Comment [k]: USPSTF grading system **http://www.ahrq.gov/clinic/uspstf/grades.htm: A -** The USPSTF recommends the service. There is high certainty that the net benefit is substantial. **B -** The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial. **C -** The USPSTF recommends against routinely providing the service. There may be considerations that support providing the service in an individual patient. There is at least moderate certainty that the net benefit is small. Offer or provide this

S.1 Do you have a web page where current detailed measure specifications can be obtained?
S.2 If yes, provide web page URL:

2a. Precisely Specified

2a-specs
C
P
M
N

2a.1 Numerator Statement (*Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome***):**
The member's persistence or medication possession ratio (MPR) for ACE inhibitor or ARB prescriptions during the measurement year.

Individuals with 0% MPR will be defined as those who did not fill any prescriptions for ACE or ARB.

Note: Members may switch between ACE inhibitors and ARB drugs

Time Window: 6 month period prior to measurement year to the measurement year. Of note, the 6 month period prior to the measurement year is needed to identify new ACE/ARB users and the measurement year is used to calculate MPR.

Step 1: Check if the member received at least one prescription of ACE/ARB in the measurement year. If no prescription had been received set MPR = 0 and TERMINATE PROGRAM. Otherwise proceed to Step 2.

Of note, this step would identify members who did not receive any ACE/ARB at all during the measurement year as members with MPR = 0.

Step 2: Check if the members received a least one prescription of ACE/ARB during the 6 month period prior to the beginning of the measurement year. If YES, then this patient is Not a new user of ACE/ARB and set the New_User flag = 0. If NO, then this patient is a new user of ACE/ARB medication and set the New_User flag = 1.

Of note, this step would differentiate new versus continuous ACE/ARB user.

Step 3: If patient is a new user (New_User flag = 1) then set START_DATE as the date of service (DOS) in which the first ACE/ARB prescription is filled and set PRIOR_SUPPLY = 0.

If START_DATE > 3/31 then drop the member from the analysis.

Of note, this step would allow the denominator time frame for the new user to be the difference in days between the first prescription of ACE/ARB and the end of the measurement year. In addition, this would also drop new users who filled the first prescription after 3/31.

Step 4: If patient is NOT a new user (New_User flag = 0) then set START_DATE the first day of the measurement year (i.e., January 1st) .

Of note, this step would set the measurement period of a continuous user as the first date of the measurement period.

Step 5: If patient is NOT a new user (New_User flag = 0) then set LAST_DATEi = the date of the last ACE/ARB prescription in the 6 month period prior to the start of the measurement year and DAY_SUPPLYi = day supply of this prescription.

Check if LAST_DATEi + DAY_SUPPLYi > first date of the measurement year.

If YES then PRIOR_SUPPLY = DAY_SUPPLYi - (First date of the measurement year – LAST_DATEi + 1); else PRIOR_SUPPLY = 0;

Of note, this step would take care of the case in which a prescription for ACE/ARB filled prior to the first date of the measurement year spilled over into the current measurement year.

Comment [KP]: 2a. The measure is well defined and precisely specified so that it can be implemented consistently within and across organizations and allow for comparability. The required data elements are of high quality as defined by NQF's Health Information Technology Expert Panel (HITEP) .

Step 6: Identify the last prescription of ACE/ARB given during the measurement year and set the date of this prescription as LAST_DATEe and DAY_SUPPLYe = day supply of this prescription;

Check if LAST_DATEe + DAY_SUPPLYe > last date of the measurement year.

If Yes then LAST_SUPPLY = (last date of the measurement year - LAST_DATEe + 1)

If No then LAST_SUPPLY = DAY_SUPPLYe;

Of note, this step would take care of the case in which the prescription for ACE/ARB filled spilled over the current measurement year.

Step 7: Identify all the prescriptions of ACE/ARB given during the measurement year, except for the last prescription (i.e., P1, P2, …, Pn-1).

$$MPR = \frac{PRIOR_SUPPLY + ?\ total\ day\ supply\ of\ Pn\text{-}1 + LAST_SUPPLY}{(Last\ date\ of\ measurement\ year - START_DATE + 1)}$$

Of note, the maximum MPR is 100%. If the calculated MPR is > 100% it will be capped at 100%.

2a.2 Numerator Time Window (*The time period in which cases are eligible for inclusion in the numerator***):**

2a.3 Numerator Details (*All information required to collect/calculate the numerator, including all codes, logic, and definitions***):**

2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured***):**
Continuously enrolled members 18-75 years of age with established coronary and other atherosclerotic vascular disease at high risk for coronary events. The high risk subgroup is defined as members with concurrent comorbidity of heart failure, hypertension, diabetes, or chronic kidney disease (excluding stage V and patients on dialysis).

Time Window: Year prior to the measurement year

2a.5 Target population gender:
2a.6 Target population age range:

2a.7 Denominator Time Window (*The time period in which cases are eligible for inclusion in the denominator***):**

2a.8 Denominator Details (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions***):**
Denominator Logic: (A or B or C or (D and E) or (D and G) or (F and G) or (F and E)) and (H or I or J or K or L or M or N)) and DEMO and CE and DB

[A] Members who had an acute myocardial infarction (AMI) during the year prior to the measurement year.

AMI:
ICD-9 diagnosis code(s): 410.x1
DRG code(s): 121, 122, 516

AND

Inpatient setting:

CPT-4 code(s): 99221-99223, 99231-99233, 99238-99239, 99251-99255, 99261-99263, 99291-99300, 99356-99357, 99431-99440
UB revenue code(s): 0100-0114, 0117-0124, 0127-0134, 0137-0144, 0147-0154, 0157-0159, 0160-0169, 0190-0219, 0220-0229, 0720-0729, 0800-0809, 0987

[B] Members who underwent an angioplasty (PTCA) during year prior to the measurement year.

ICD-9 surgical proc code(s): 00.66, 36.01, 36.02, 36.05, 36.06, 36.07, 36.09
CPT-4 code(s): 33140, 92980-92982, 92984, 92995, 92996
DRG code(s): 516, 517, 526, 527, 555-558

[C] Members who underwent coronary artery bypass graft surgery (CABG) during the year prior to the measurement year.

ICD-9 surgical proc code(s): 36.1x, 36.2x
HCPCS code(s): S2205-S2209
CPT-4 code(s): 33510-33514, 33516-33519, 33521-33523, 33533-33536, 35600, 33572
DRG code(s): 106, 107, 109, 547-550

Note: Denominator Criteria [D]-[G] represent every possible permutation of having at least 2 visits with a CAD diagnosis with at least 1 visit in the measurement year and at least 1 visit in the year prior to the measurement year. It has been constructed as such for clarity programmatically.

[D] Members with at least 1 outpatient visit with an CAD diagnosis in the year prior to the measurement year

Other forms of Ischemic Heart Disease:
ICD-9 diagnosis code(s): 414.0x, 414.8x, 414.9x , 429.2
Stable Angina:
ICD-9 diagnosis code(s): 411.xx, 413.x
Lower Extremity Arterial Disease/Peripheral Artery Disease:
ICD-9 diagnosis code(s): 440.2x, 443.9x*
Stroke:
ICD-9 diagnosis code(s): 433.xx, 434.xx, 436.x*-438.9x*
Athero-embolism:
ICD-9 diagnosis code(s): 444.xx, 445.xx
Renal Artery Atherosclerosis
ICD-9 diagnosis code(s): 440.1
DRG code(s): 140, 559

AND

Outpatient setting:
CPT-4 code(s): 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99384-99387, 99394-99397, 99401-99404, 99411, 99412, 99420, 99429, 99455, 99456, 99499
UB revenue code(s): 051x, 0520-0523, 0526-0529, 057x-059x, 077x, 0982, 0983

[E] Members with at least 1 inpatient visit with an CAD diagnosis in the measurement year

Other forms of Ischemic Heart Disease:
ICD-9 diagnosis code(s): 414.0x, 414.8x, 414.9x , 429.2
Stable Angina:
ICD-9 diagnosis code(s): 411.xx, 413.x
Lower Extremity Arterial Disease/Peripheral Artery Disease:
ICD-9 diagnosis code(s): 440.2x, 443.9x*
Stroke:
ICD-9 diagnosis code(s): 433.xx, 434.xx, 436.x*-438.9x*

Athero-embolism:
ICD-9 diagnosis code(s): 444.xx, 445.xx
Renal Artery Atherosclerosis
ICD-9 diagnosis code(s): 440.1
DRG code(s): 140, 559

AND

Inpatient setting:
CPT-4 code(s): 99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99261-99263, 99291
UB revenue code(s): 010x, 0110-0114, 0119, 0120-0124, 0129, 0130-0134, 0139, 0140-0144, 0149, 0150-0154, 0159, 016x, 020x-022x, 072x, 0987

[F] Members with at least 1 inpatient visit with an CAD diagnosis in the year prior to the measurement year

Other forms of Ischemic Heart Disease:
ICD-9 diagnosis code(s): 414.0x, 414.8x, 414.9x , 429.2
Stable Angina:
ICD-9 diagnosis code(s): 411.xx, 413.x
Lower Extremity Arterial Disease/Peripheral Artery Disease:
ICD-9 diagnosis code(s): 440.2x, 443.9x*
Stroke:
ICD-9 diagnosis code(s): 433.xx, 434.xx, 436.x*-438.9x*
Athero-embolism:
ICD-9 diagnosis code(s): 444.xx, 445.xx
Renal Artery Atherosclerosis
ICD-9 diagnosis code(s): 440.1
DRG code(s): 140, 559

AND

Inpatient setting:
CPT-4 code(s): 99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99261-99263, 99291
UB revenue code(s): 010x, 0110-0114, 0119, 0120-0124, 0129, 0130-0134, 0139, 0140-0144, 0149, 0150-0154, 0159, 016x, 020x-022x, 072x, 0987

[G] Members with at least 1 outpatient visit with an CAD diagnosis in the measurement year

Other forms of Ischemic Heart Disease:
ICD-9 diagnosis code(s): 414.0x, 414.8x, 414.9x , 429.2
Stable Angina:
ICD-9 diagnosis code(s): 411.xx, 413.x
Lower Extremity Arterial Disease/Peripheral Artery Disease:
ICD-9 diagnosis code(s): 440.2x, 443.9x*
Stroke:
ICD-9 diagnosis code(s): 433.xx, 434.xx, 436.x*-438.9x*
Athero-embolism:
ICD-9 diagnosis code(s): 444.xx, 445.xx
Renal Artery Atherosclerosis
ICD-9 diagnosis code(s): 440.1
DRG code(s): 140, 559

AND

Outpatient setting:
CPT-4 code(s): 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99384-99387, 99394-99397, 99401-99404, 99411, 99412, 99420, 99429, 99455, 99456, 99499

UB revenue code(s): 051x, 0520-0523, 0526-0529, 057x-059x, 077x, 0982, 0983

Heart failure (HF) is defined denominator criteria [H]-[I]:

[H] Members with at least 1 face to face encounter in an inpatient setting for HF or hypertension (HTN) during the year prior to the measurement year.

Heart failure:
ICD diagnosis code(s): 398.91, 402.01, 402.11, 402.91, 428.1, 428.2x, 428.4x
Hypertension:
ICD-9 diagnosis code(s): 401.x-402, 402.1, 402.9, 403.x-405.x, 437.2

AND

Inpatient setting:
CPT-4 code(s): 99221-99223, 99231-99233, 99238-99239, 99251-99255, 99261-99263, 99291-99300, 99356-99357, 99431-99440
UB revenue code(s): 0100-0114, 0117-0124, 0127-0134, 0137-0144, 0147-0154, 0157-0159, 0160-0169, 0190-0219, 0220-0229, 0720-0729, 0800-0809, 0987

[I] Members with at least 2 face to face encounters (on different dates of service) in any setting (except ER) with HF as the primary diagnosis during the 2 year period beginning 2 years prior to the start of the measurement year.

Heart failure:
ICD-9 diagnosis code(s): 398.91, 402.01, 402.11, 402.91, 428.1, 428.2x, 428.4x

AND

Outpatient setting:
CPT-4 code(s): 99201-99205, 99211-99215, 99241-99245, 99271-99275, 99301-99313, 99315-99316, 99318-99337, 99341-99350, 99354-99355, 99381-99387, 99391-99397, 99401-99429, 99450, 99455-99456
UB-92 revenue code(s): 0500-0529, 0570-0599, 0770-0779, 0820-0859, 0882, 0982-0983
Inpatient setting:
CPT-4 code(s): 99221-99223, 99231-99233, 99238-99239, 99251-99255, 99261-99263, 99291-99300, 99356-99357, 99431-99440
UB-92 revenue code(s): 0100-0114, 0117-0124, 0127-0134, 0137-0144, 0147-0154, 0157-0159, 0160-0169, 0220-0229, 0190-0219, 0720-0729, 0800-0809, 0987
Hospital observation:
CPT-4 code(s): 99217-99220, 99234-99236

HTN is defined in denominator criteria [J]:

[J] Members with at least 2 face to face encounters (on different dates of service) in any setting (except ER) with HTN as the primary diagnosis during the year prior to the measurement year.

Hypertension:
ICD-9 diagnosis code(s): 401.0, 401.1, 401.9, 402.x, 403.x, 404.x

AND

Outpatient setting:
CPT-4 code(s): 99201-99205, 99211-99215, 99241-99245, 99271-99275, 99301-99313, 99315-99316, 99318-99337, 99341-99350, 99354-99355, 99381-99387, 99391-99397, 99401-99429, 99450, 99455-99456
UB-92 revenue code(s): 0500-0529, 0570-0599, 0770-0779, 0820-0859, 0882, 0982-0983
Inpatient setting:
CPT-4 code(s): 99221-99223, 99231-99233, 99238-99239, 99251-99255, 99261-99263, 99291-99300, 99356-

99357, 99431-99440
UB-92 revenue code(s): 0100-0114, 0117-0124, 0127-0134, 0137-0144, 0147-0154, 0157-0159, 0160-0169, 0190-0219, 0220-0229, 0720-0729, 0800-0809, 0987
Hospital observation:
CPT-4 code(s): 99217-99220, 99234-99236

Chronic renal disease is defined as denominator criteria [K]:

[K] Members with at least 2 face to face encounters in any setting with chronic renal disease as the primary diagnosis (excluding stage V renal disease and dialysis) during the 2 year period beginning 2 years prior to the start of the measurement year.

Chronic Renal Disease:
ICD-9 diagnosis code(s): 403.00, 403.10, 403.90, 404.00, 404.01, 404.10, 404.11 404.92, 404.90, 404.91, 585.1-585.4

AND

Outpatient setting:
CPT-4 code(s): 99201-99205, 99211-99215, 99241-99245, 99271-99275, 99301-99313, 99315-99316, 99318-99337, 99341-99350, 99354-99355, 99381-99387, 99391-99397, 99401-99429, 99450, 99455-99456
UB-92 revenue code(s): 0500-0529, 0570-0599, 0770-0779, 0820-0859, 0882, 0982-0983
Inpatient setting:
CPT-4 code(s): 99221-99223, 99231-99233, 99238-99239, 99251-99255, 99261-99263, 99291-99300, 99356-99357, 99431-99440
UB revenue code(s): 0100-0114, 0117-0124, 0127-0134, 0137-0144, 0147-0154, 0157-0159, 0160-0169, 0190-0219, 0220-0229, 0720-0729, 0800-0809, 0987
Hospital observation:
CPT-4 code(s): 99217-99220, 99234-99236

Members are considered diabetic if they satisfy at least one of the denominator criteria [L]-[N]:

[L] Members who were dispensed insulin or oral hypoglycemics/antihyperglycemics during the 2 year period beginning 2 years prior to the measurement year.

[M] Members who had at least 2 face-to-face encounters in an outpatient/nonacute inpatient setting with a diagnosis of diabetes (on the same claim line) on different dates of service during the 2 year period beginning 2 years prior to the measurement year.

Diabetes:
ICD-9 diagnosis code(s): 250.xx, 357.2x, 362.0x, 366.41, 648.0x
DRG: 294, 295

AND

Outpatient/nonacute inpatient setting:
CPT-4 code(s): 92002-92014, 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99271-99275*, 99301-99313, 99315, 99316, 99318, 99321-99328, 99331-99337, 99341-99345, 99347-99350, 99381-99387**, 99391-99397**, 99401-99404, 99411, 99412, 99420, 99429, 99455, 99456, 99499
UB revenue code(s): 0118, 0128, 0138, 0148, 0158, 019x, 051x, 052x, 055x, 057x-059x, 066x, 077x, 082x-085x, 088x, 0982, 0983

[N] Members who had at least 1 face-to-face encounter in an acute inpatient or emergency room setting with a diagnosis of diabetes on the same claim line during the 2 year period beginning 2 years prior to the measurement year.

Diabetes:

ICD-9 diagnosis code(s): 250.xx, 357.2x, 362.0x, 366.41, 648.0x
DRG: 294, 295

AND

Acute inpatient or emergency room setting:
CPT-4 code(s): 99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99261-99263, 99281-99285, 99291
UB revenue code(s): 010x, 0110-0114, 0119, 0120-0124, 0129, 0130-0134, 0139, 0140-0144, 0149, 0150-0154, 0159, 016x, 020x-022x, 045x, 072x, 080x, 0981, 0987

*Code range was retired but is still appropriate for retrospective analysis.
**Code references age of member, unnecessary due to demographic restrictions.

[DEMO] Members ages 18-75 years by the end of the measurement year.

[CE] Members who were continuously enrolled during the 6 month period prior to the measurement year and the measurement year.

[DB] Members continuously enrolled for pharmacy benefits during the 6 month period prior to the measurement year and the measurement year.

2a.9 Denominator Exclusions (*Brief text description of exclusions from the target population*): Members with a diagnosis of angiodema, hyperkalemia, hypotension, arterial stenosis, or renal failure (stage V or dialysis) at any time prior to the end of the measurement year, members who were pregnant during the measurement year, or members who were in hospice during the measurement year. Also, members who were discharged as expired from the denominator qualifying AMI, CABG or PTCA (i.e. denominator criterion [A], [B], or [C]).

Note: Index date is defined as the first instance of denominator steps A or B or C or (D and E) or (D and G) or (F and G) or (F and E) during the year prior to the measurement year (i.e, diagnosis of CAD or other atherosclerotic disease).

2a.10 Denominator Exclusion Details (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions*):
Denominator Exclusion Logic: A or B or C or D

[A] Members with angioedema, anuric renal failure, hypotension, hyperkalemia, on dialysis, or arterial stenosis anytime in the member's history prior to the end of the measurement year.

Hypotension:
ICD-9 diagnosis code(s): 458.xx
Hyperkalemia:
ICD-9 diagnosis code(s):276.7
Angioedema:
ICD-9 diagnosis code(s):277.6
Anuric renal failure:
ICD-9 diagnosis code(s): 403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 584.xx, 585.3-585.6, 586.xx, 593.81, 788.5
Dialysis:
ICD-9 diagnosis code(s): V56.0, V56.1, V562., V56.32, V56.8
CPT code(s): 0505F, 0507F, 3066F, 3082F-3084F, 4051F-4055F, 36800, 36810, 36815, 36818-36821, 36831-36833, 90920, 90921, 90924, 90925, 90935, 90937, 90939*, 90940, 90945, 90947, 90989, 90993, 90997, 90999, 99512,
HCPCS code(s): G0257, G0314-G0319, G0322, G0323, G0326, G0327, G9013, G9014
ICD-9 surgical proc code(s): 38.95, 39.27, 39.42, 39.95, 54.98
UB revenue code(s): 0800-0809, 0820-0859, 0880, 0881, 0882, 0889
Aterial stenosis:
ICD-9 diagnosis code(s): 395.0, 395.2, 396.0, 396.2, 396.8, 425.1, 440.1, 747.22

Comment [k]: 11 Risk factors that influence outcomes should not be specified as exclusions.
12 Patient preference is not a clinical exception to eligibility and can be influenced by provider interventions.

[B] Members with pregnancy events prior to and after delivery or delivery/abortion during the measurement year.

ICD-9 diagnosis code(s): 630.xx-677.xx, V22.xx, V23.xx, V24.xx, V27.xx, V28.xx
ICD-9 surgical proc code(s): 66.62, 69.0x, 72.xx-75.xx
CPT-4 code(s): 59000, 59001, 59012, 59015, 59020, 59025, 59030, 59050, 59051, 59070, 59072, 59074, 59076, 59100, 59120, 59121, 59130, 59135, 59136, 59140, 59150, 59151, 59160, 59200, 59300, 59320, 59325, 59350, 59400, 59409, 59410, 59412, 59414, 59425, 59426, 59430, 59510, 59514, 59515, 59525, 59610, 59612, 59614, 59618, 59620, 59622, 59812, 59820, 59821, 59830, 59840, 59841, 59850-59852, 59855-59857, 59866, 59870, 59871, 59897-59899, 76801, 76802, 76805, 76810-76812, 76815-76819, 76825-76828, 76941, 76945, 76946, 82106, 82143, 82731, 88235, 88267, 88269
DRG code(s): 370-391

[C] Members on hospice during the measurement year.

ICD-9 diagnosis code(s): V66.7
CPT-4 code(s): 99376*, 99377, 99378,
HCPCS code(s): G0065*, G0182, G0337, Q5001-Q5009, S0271, S9126, T2042-T2046
UB revenue code(s): 0115, 0125, 0135, 0145, 0155, 0235, 0650-0652, 0655-0659
UB type of bill code(s): 81x, 82x (if available)
Place of service code(s): 34

[D] Patients who were discharged as expired from the denominator qualifying AMI, CABG or PTCA (i.e. denominator criterion [A], [B], or [C]).

*Code range was retired but is still appropriate for retrospective analysis.

2a.11 Stratification Details/Variables (*All information required to stratify the measure including the stratification variables, all codes, logic, and definitions***):**

2a.12-13 Risk Adjustment Type: No risk adjustment necessary

2a.14 Risk Adjustment Methodology/Variables (*List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method***):**

2a.15-17 Detailed risk model available Web page URL or attachment:

2a.18-19 Type of Score:
2a.20 Interpretation of Score:
2a.21 Calculation Algorithm (*Describe the calculation of the measure as a flowchart or series of steps***):**

2a.22 Describe the method for discriminating performance *(e.g., significance testing)***:**

2a.23 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)*:

2a.24 Data Source (*Check the source(s) for which the measure is specified and tested)***:**
Electronic administrative data/claims, Pharmacy data

2a.25 Data source/data collection instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.***):**

2a.26-28 Data source/data collection instrument reference web page URL or attachment:

2a.29-31 Data dictionary/code table web page URL or attachment:

2a.32-35 Level of Measurement/Analysis (*Check the level(s) for which the measure is specified and tested)*
Facility/Agency, Health Plan, Integrated Delivery System «measurement_level_clinician_other» «measurement_level_program_other»

2a.36-37 Care Settings (*Check the setting(s) for which the measure is specified and tested)*
Ambulatory Care : Clinic, Other:

2a.38-41 Clinical Services (*Healthcare services being measured, check all that apply*)

TESTING/ANALYSIS

2b. Reliability testing

2b.1 Data/sample *(description of data/sample and size)*:

2b.2 Analytic Method *(type of reliability & rationale, method for testing)*:

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

2b
C○
P○
M○
N○

2c. Validity testing

2c.1 Data/sample *(description of data/sample and size)*:

2c.2 Analytic Method *(type of validity & rationale, method for testing)*:

2c.3 Testing Results *(statistical results, assessment of adequacy in the context of norms for the test conducted)*:

2c
C○
P○
M○
N○

2d. Exclusions Justified

2d.1 Summary of Evidence supporting exclusion(s):

2d.2 Citations for Evidence:

2d.3 Data/sample *(description of data/sample and size)*:

2d.4 Analytic Method *(type analysis & rationale)*:

2d.5 Testing Results *(e.g., frequency, variability, sensitivity analyses)*:

2d
C○
P○
M○
N○
NA○

2e. Risk Adjustment for Outcomes/ Resource Use Measures

2e.1 Data/sample *(description of data/sample and size)*:

2e.2 Analytic Method *(type of risk adjustment, analysis, & rationale)*:

2e
C○
P○
M○
N○

Comment [KP]: 2b. Reliability testing demonstrates the measure results are repeatable, producing the same results a high proportion of the time when assessed in the same population in the same time period.

Comment [k]: 8 Examples of reliability testing include, but are not limited to: inter-rater/abstractor or intra-rater/abstractor studies; internal consistency for multi-item scales; test-retest for survey items. Reliability testing may address the data items or final measure score.

Comment [KP]: 2c. Validity testing demonstrates that the measure reflects the quality of care provided, adequately distinguishing good and poor quality. If face validity is the only validity addressed, it is systematically assessed.

Comment [k]: 9 Examples of validity testing include, but are not limited to: determining if measure scores adequately distinguish between providers known to have good or poor quality assessed by another valid method; correlation of measure scores with another valid

Comment [KP]: 2d. Clinically necessary measure exclusions are identified and must be:
- supported by evidence of sufficient frequency of occurrence so that results are distorted without the exclusion;

AND

Comment [k]: 10 Examples of evidence that an exclusion distorts measure results include, but are not limited to: frequency of occurrence, sensitivity analyses with and without the exclusion, and variability of exclusions across providers.

Comment [KP]: 2e. For outcome measures and other measures (e.g., resource use) when indicated:
- an evidence-based risk-adjustment strategy (e.g., risk models, risk stratification) is specified and is based on patient clinical factors that

Comment [k]: 13 Risk models should not obscure disparities in care for populations by including factors that are associated with differences/inequalities in care such as race, socioeconomic status, gender (e.g., poorer treatment outcomes of African American men with prostate

2e.3 Testing Results *(risk model performance metrics)*: **2e.4 If outcome or resource use measure is not risk adjusted, provide rationale:**	NA
2f. Identification of Meaningful Differences in Performance	
2f.1 Data/sample from Testing or Current Use *(description of data/sample and size)*: **2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance** *(type of analysis & rationale)*: **2f.3 Provide Measure Scores from Testing or Current Use** *(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:	2f C P M N
2g. Comparability of Multiple Data Sources/Methods	
2g.1 Data/sample *(description of data/sample and size)*: **2g.2 Analytic Method** *(type of analysis & rationale)*: **2g.3 Testing Results** *(e.g., correlation statistics, comparison of rankings)*:	2g C P M N NA
2h. Disparities in Care	
2h.1 If measure is stratified, provide stratified results *(scores by stratified categories/cohorts)*: **2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:**	2h C P M N NA
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Scientific Acceptability of Measure Properties?*	2
Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, met? **Rationale:**	2 C P M N
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)	Eval Rating
3a. Meaningful, Understandable, and Useful Information	
3a.1 Current Use: **3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large)** (*If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years*): **3a.3 If used in other programs/initiatives** (*If used in quality improvement or other programs/initiatives,*	3a C P M N

Comment [KP]: 2f. Data analysis demonstrates that methods for scoring and analysis of the specified measure allow for identification of statistically significant and practically/clinically meaningful differences in performance.

Comment [k]: 14 With large enough sample sizes, small differences that are statistically significant may or may not be practically or clinically meaningful. The substantive question may be, for example, whether a statistically significant difference of one percentage point in the percentage of patients who received smoking cessation counseling (e.g., 74% v. 75%) is clinically meaningful; or whether a statistically significant difference of $25 in cost for an episode of care (e.g., $5,000 v. $5,025) is practically meaningful. Measures with overall poor performance may not demonstrate much variability across providers.

Comment [KP]: 2g. If multiple data sources/methods are allowed, there is demonstration they produce comparable results.

Comment [KP]: 2h. If disparities in care have been identified, measure specifications, scoring, and analysis allow for identification of disparities through stratification of results (e.g., by race, ethnicity, socioeconomic status, gender);OR rationale/data justifies why stratification is not necessary or not feasible.

Comment [KP]: 3a. Demonstration that information produced by the measure is meaningful, understandable, and useful to the intended audience(s) for both public reporting (e.g., focus group, cognitive testing) and informing quality improvement (e.g., quality improvement initiatives). An important outcome that may not have an identified improvement strategy still can be useful for informing quality improvement by identifying the need for and stimulating new approaches to improvement.

name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years): **Testing of Interpretability** (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*) 3a.4 **Data/sample** *(description of data/sample and size)*: 3a.5 **Methods** *(e.g., focus group, survey, QI project)*: 3a.6 **Results** *(qualitative and/or quantitative results and conclusions)*:	
3b/3c. Relation to other NQF-endorsed measures 3b.1 **NQF # and Title of similar or related measures:**	
(for NQF staff use) **Notes on similar/related endorsed or submitted measures:**	
3b. Harmonization If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population): 3b.2 **Are the measure specifications harmonized? If not, why?**	3b C O P O M O N O NA O
3c. Distinctive or Additive Value 3c.1 **Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:** 5.1 **If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:**	3c C O P O M O N O NA O
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Usability?*	3
Steering Committee: Overall, to what extent was the criterion, *Usability*, met? **Rationale:**	3 C O P O M O N O
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	Eval Rating
4a. Data Generated as a Byproduct of Care Processes 4a.1-2 **How are the data elements that are needed to compute measure scores generated?**	4a C O P O M O N O
4b. Electronic Sources 4b.1 **Are all the data elements available electronically?** (*elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims*)	4b C O P O M O N O

Comment [KP]: 3b. The measure specifications are harmonized with other measures, and are applicable to multiple levels and settings.

Comment [k]: 16 Measure harmonization refers to the standardization of specifications for similar measures on the same topic (e.g., ***influenza immunization*** of patients in hospitals or nursing homes), or related measures for the same target population (e.g., eye exam and HbA1c for ***patients with diabetes***), or definitions applicable to many measures (e.g., age designation for children) so that they are uniform or compatible, unless differences are dictated by the evidence. The dimensions of harmonization can include numerator, denominator, exclusions, and data source and collection instructions. The extent of harmonization depends on the relationship of the measures, the evidence for the specific measure focus, and differences in data sources.

Comment [KP]: 3c. Review of existing endorsed measures and measure sets demonstrates that the measure provides a distinctive or additive value to existing NQF-endorsed measures (e.g., provides a more complete picture of quality for a particular condition or aspect of healthcare, is a more valid or efficient way to measure).

Comment [KP]: 4a. For clinical measures, required data elements are routinely generated concurrent with and as a byproduct of care processes during care delivery. (e.g., BP recorded in the electronic record, not abstracted from the record later by other personnel; patient self-assessment tools, e.g., depression scale; lab values, meds, etc.)

Comment [KP]: 4b. The required data elements are available in electronic sources. If the required data are not in existing electronic sources, a credible, near-term path to electronic collection by most providers is specified and clinical data elements are specified for transition to the electronic health record.

4b.2 If not, specify the near-term path to achieve electronic capture by most providers.	
4c. Exclusions	
4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications? 4c.2 If yes, provide justification.	4c C ○ P ○ M ○ N ○ NA ○
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences	
4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.	4d C ○ P ○ M ○ N ○
4e. Data Collection Strategy/Implementation	
4e.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/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues: 4e.2 Costs to implement the measure (*costs of data collection, fees associated with proprietary measures*): 4e.3 Evidence for costs: 4e.4 Business case documentation:	4e C ○ P ○ M ○ N ○
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Feasibility?*	4
Steering Committee: Overall, to what extent was the criterion, *Feasibility*, met? Rationale:	4 C ○ P ○ M ○ N ○
RECOMMENDATION	
(for NQF staff use) Check if measure is untested and only eligible for time-limited endorsement.	Time-limited ○
Steering Committee: Do you recommend for endorsement? Comments:	Y ○ N ○ A ○
CONTACT INFORMATION	
Co.1 Measure Steward (Intellectual Property Owner) Co.1 Organization Health Benchmarks, Inc Co.2 Point of Contact Zak, Ramadan-Jrad, zramadan@healthbenchmarks.com, 818-676-2820-	

Comment [KP]: 4c. Exclusions should not require additional data sources beyond what is required for scoring the measure (e.g., numerator and denominator) unless justified as supporting measure validity.

Comment [KP]: 4d. Susceptibility to inaccuracies, errors, or unintended consequences and the ability to audit the data items to detect such problems are identified.

Comment [KP]: 4e. Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, etc.) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use).

Measure Developer If different from Measure Steward **Co.3 Organization** IMS Health, 660 West Germantown Pike, Plymouth Meeting, Pennsylvania, 19462-0905 **Co.4 Point of Contact** Judy, Chen, jchen@healthbenchmarks.com, 818-676-2883-
Co.5 Submitter If different from Measure Steward POC Zak, Ramadan-Jrad, zramadan@healthbenchmarks.com, 818-676-2820-, Health Benchmarks, Inc
Co.6 Additional organizations that sponsored/participated in measure development
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.**
Ad.2 If adapted, provide name of original measure: **Ad.3-5 If adapted, provide original specifications URL or attachment**
Measure Developer/Steward Updates and Ongoing Maintenance **Ad.6 Year the measure was first released:** **Ad.7 Month and Year of most recent revision:** **Ad.8 What is your frequency for review/update of this measure?** **Ad.9 When is the next scheduled review/update for this measure?**
Ad.10 Copyright statement:
Ad.11 Disclaimers:
Ad.12 -14 Additional Information web page URL or attachment:
Date of Submission (*MM/DD/YY*): 01/01/0001