Measure #118 (NQF 0066): Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF < 40%) – National Quality Strategy Domain: Effective Clinical Care

2016 PQRS OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who also have diabetes OR a current or prior Left Ventricular Ejection Fraction (LVEF) < 40% who were prescribed ACE inhibitor or ARB therapy

INSTRUCTIONS:
This measure is to be reported a minimum of once per reporting period for all patients with CAD seen during the reporting period. This measure may be reported by clinicians who perform the quality actions described in the measure for the primary management of patients with CAD based on the services provided and the measure-specific denominator coding. Only patients who had at least two denominator eligible visits during the reporting period will be counted for Reporting Criteria 1 and 2 of this measure.

Measure Reporting via Registry:
ICD-10-CM diagnosis codes, CPT codes, quality-data code (Reporting Criteria 1), and patient demographics are used to identify patients who are included in the measure’s denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data. It is expected that a single performance rate will be calculated for this measure.

THERE ARE TWO REPORTING CRITERIA FOR THIS MEASURE:
1) Patients who are 18 years and older with a diagnosis of CAD with LVEF < 40%

OR

2) Patients who are 18 years and older with a diagnosis of CAD who have diabetes

The eligible professional should submit data on one of the reporting criteria, depending on the clinical findings. If the patient has CAD and LVSD (without a diagnosis of Diabetes), use Denominator Reporting Criteria 1. If the patient has CAD and Diabetes, use Denominator Reporting Criteria 2. If the patient has both diabetes and LVSD, the eligible professional may report quality data for Reporting Criteria 2 and this will count as appropriate reporting for this patient.

REPORTING CRITERIA 1: ALL PATIENTS WITH A DIAGNOSIS OF CAD WITH LVEF < 40% (WITHOUT A DIAGNOSIS OF DIABETES)

DENOMINATOR (REPORTING CRITERIA 1):
All patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who also have a current or prior LVEF < 40%

Definition:
LVEF < 40% corresponds to qualitative documentation of moderate dysfunction or severe dysfunction

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years on date of encounter
AND
AND
Patient encounter during the reporting period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350
AND
Two Denominator Eligible Visits
AND
Left Ventricular Ejection Fraction (LVEF) < 40% or documentation of moderately or severely depressed left ventricular systolic function: G8934

NUMERATOR (REPORTING CRITERIA 1):
Patients who were prescribed ACE inhibitor or ARB therapy

Definition:
Prescribed – May include prescription given to the patient for ACE inhibitor or ARB therapy at one or more visits in the measurement period OR patient already taking ACE inhibitor or ARB therapy as documented in current medication list.

Numerator Options:
Performance Met: Clinician prescribed angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy (G8935)

OR
Other Performance Exclusion: Clinician documented that patient was not an eligible candidate for angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy (e.g., allergy, intolerance, pregnancy, renal failure due to ACE inhibitor, diseases of the aortic or mitral valve, other medical reasons) or (e.g., patient declined, other patient reasons) or (e.g., lack of drug availability, other reasons attributable to the health care system) (G8936)

OR
Performance Not Met: Clinician did not prescribe angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy, reason not given (G8937)

OR

REPORTING CRITERIA 2: ALL PATIENTS WITH A DIAGNOSIS OF CAD WHO HAVE DIABETES

DENOMINATOR (REPORTING CRITERIA 2):
All patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who also have diabetes

Definition:
If a patient has both diabetes and LVSD, reporting criteria #2 will count as appropriate reporting for this patient.

**Denominator Criteria (Eligible Cases):**

Patients aged ≥ 18 years on date of encounter  
**AND**

**AND**

**AND**

**Patient encounter during the reporting period (CPT):** 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99344, 99345, 99347, 99348, 99349, 99350  
**AND**

**Two Denominator Eligible Visits**

**Numerator (Reporting Criteria 2):**

Patients who were prescribed ACE inhibitor or ARB therapy

**Definition:**

Prescribed – May include prescription given to the patient for ACE inhibitor or ARB therapy at one or more visits in the measurement period OR patient already taking ACE inhibitor or ARB therapy as documented in current medication list.

**Numerator Options:**

**Performance Met:**  
Angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy prescribed (G8473)

**OR**

**Other Performance Exclusion:**  
Angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy not prescribed for reasons documented by the clinician (e.g., allergy, intolerance, pregnancy, renal failure due to ACE inhibitor, diseases of the aortic or mitral valve, other medical reasons) or (e.g., patient declined, other patient reasons) or (e.g., lack of drug availability, other reasons attributable to the health care system) (G8474)
OR

Performance Not Met: 
Angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy not prescribed, reason not given (G8475)

RATIONALE:
Nonadherence to cardioprotective medications is prevalent among outpatients with coronary artery disease and can be associated with a broad range of adverse outcomes, including all-cause and cardiovascular mortality, cardiovascular hospitalizations, and the need for revascularization procedures.

In the absence of contraindications, ACE inhibitors or ARBs are recommended for all patients with a diagnosis of coronary artery disease and diabetes or reduced left ventricular systolic function. ACE inhibitors remain the first choice, but ARBs can now be considered a reasonable alternative. Both pharmacologic agents have been shown to decrease the risk of death, myocardial infarction, and stroke. Additional benefits of ACE inhibitors include the reduction of diabetic symptoms and complications for patients with diabetes.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines.

2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS Guideline for the Diagnosis and Management of Patients With Stable Ischemic Heart Disease (SIHD)

RENIN-ANGIOTENSIN-ALDOSTERONE BLOCKER THERAPY

ACE inhibitors should be prescribed in all patients with SIHD who also have hypertension, diabetes mellitus, LVEF 40% or less, or CKD, unless contraindicated. (Class I Recommendation Level of Evidence: A)

ARBs are recommended for patients with SIHD who have hypertension, diabetes mellitus, LV systolic dysfunction, or CKD and have indications for, but are intolerant of, ACE inhibitors.(Class I Recommendation, Level of Evidence: A)

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2016 Registry Individual Measure Flow
PQRS #118 NQF #0066: Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy – Diabetes or Left Ventricular Systolic Dysfunction (LVEF < 40%)

Please refer to the specific section of the Measure Specification to identify the denominator and numerator information for use in reporting this Individual Measure.

1. Start with Denominator

2. Check Patient Age:
   a. If the Age is greater than or equal to 18 years of age on Date of Service and equals No during the measurement period, do not include in Eligible Patient Population. Stop Processing.
   b. If the Age is greater than or equal to 18 years of age on Date of Service and equals Yes during the measurement period, proceed to check Patient Diagnosis.

3. Check Patient Diagnosis:
   a. If Diagnosis of CAD as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Diagnosis of CAD as Listed in the Denominator equals Yes, proceed to check Left Ventricular Ejection Fraction < 40%.

4. Check Left Ventricular Ejection Fraction < 40%:
   a. If Left Ventricular Ejection Fraction < 40% equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Left Ventricular Ejection Fraction < 40% equals Yes, proceed to check Encounter Performed.

5. Check Encounter Performed:
   a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Encounter as Listed in the Denominator equals Yes, proceed to check Encounter Performed.

6. Check Encounter Performed:
   a. If Two Denominator Eligible Visits equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Two Denominator Eligible Visits equals Yes, proceed to Diagnosis of Diabetes as Listed in the Denominator.

7. Check Diagnosis of Diabetes as Listed in the Denominator:
   a. If Diagnosis of Diabetes as Listed in the Denominator equals Yes, proceed to Report Option #2.
   b. If Diagnosis of Diabetes as Listed in the Denominator equals No, include in the Eligible population.
8. Denominator Population:
   a. Denominator population is all Eligible Patients in the denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 8 patients in the sample calculation.

9. Check Clinician Prescribed Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB):
   a. If Clinician Prescribed Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) equals Yes, include in Reporting Met and Performance Met.
   b. Reporting Met and Performance Met letter is represented in the Reporting Rate and Performance Rate in the Sample Calculation listed at the end of this document. Letter a1 equals 4 patients in Sample Calculation.
   c. If Clinician Prescribed Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) equals No, proceed to Clinician Documented that Patient was Not an Eligible Candidate for Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy.

10. Check Clinician Documented That Patient was not an Eligible Candidate for Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy:
    a. If Clinician Documented that Patient was Not an Eligible Candidate for Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy equals Yes, include in Reporting Met and Performance Exclusion.
    b. Reporting Met and Performance Exclusion letter is represented in the Reporting Rate in the Sample Calculation listed at the end of this document. Letter b1 equals 1 patient in the Sample Calculation.
    c. If Clinician Documented that Patient was Not an Eligible Candidate for Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy equals No, proceed to Clinician did Not Prescribe Angiotensin Converting Enzyme (ACE) or Angiotensin Receptor Blocker (ARB), Reason Not Given.

11. Check Clinician Did Not Prescribe Angiotensin Converting Enzyme (ACE) or Angiotensin Receptor Blocker (ARB), Reason not Given:
    a. If Clinician Did Not Prescribe Angiotensin Converting Enzyme (ACE) or Angiotensin Receptor Blocker (ARB), Reason Not Given equals Yes, include in the Reporting Met and Performance Not Met.
    b. Reporting Met and Performance Not Met letter is represented in the Reporting Rate in the Sample Calculation listed at the end of this document. Letter c1 equals 2 patients in the Sample Calculation.
    c. If Clinician Did Not Prescribe Angiotensin Converting Enzyme (ACE) or Angiotensin Receptor Blocker (ARB), Reason Not Given equals No, proceed to Reporting Not Met.

12. Check Reporting Not Met:
    a. If Reporting Not Met equals No, Quality Data Code or equivalent not reported. 1 patient has been subtracted from the reporting numerator in the sample calculation.
2016 Registry Individual Measure Flow
PQRS #118 NQF #0066: Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy – Diabetes or Left Ventricular Systolic Dysfunction (LVEF < 40%)

1. Start Reporting Criteria #2
2. Start with Denominator
3. Check Patient Age:
   a. If the Age is greater than or equal to 18 years of age on Date of Service and equals No during the measurement period, do not include in Eligible Patient Population. Stop Processing.
   b. If the Age is greater than or equal to 18 years of age on Date of Service and equals Yes during the measurement period, proceed to check Patient Diagnosis.
4. Check Patient Diagnosis:
   a. If Diagnosis of CAD as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Diagnosis of CAD as Listed in the Denominator equals Yes, proceed to check Left Ventricular Ejection Fraction < 40%.
5. Check Left Ventricular Ejection Fraction < 40%:
   a. If Left Ventricular Ejection Fraction < 40% equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Left Ventricular Ejection Fraction < 40% equals Yes, proceed to check Encounter Performed.
6. Check Encounter Performed:
   a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Encounter as Listed in the Denominator equals Yes, proceed to Encounter Performed.
7. Check Encounter Performed:
   a. If Two Denominator Eligible Visits equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Two Denominator Eligible Visits equals Yes, proceed to Diagnosis of Diabetes as Listed in the Denominator.
8. Check Diagnosis of Diabetes as Listed in the Denominator:
   a. If Diagnosis of Diabetes as Listed in the Denominator equals No, proceed to Report Option #1.
   b. If Diagnosis of Diabetes as Listed in the Denominator equals Yes, include in the Eligible population.
9. Denominator Population:
Denominator population is all Eligible Patients in the denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 8 patients in the sample calculation.

10. Check Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy Prescribed:
   a. If Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy Prescribed equals Yes, include in Reporting Met and Performance Met.
   b. Reporting Met and Performance Met letter is represented in the Reporting Rate and Performance Rate in the Sample Calculation listed at the end of this document. Letter a2 equals 4 patients in Sample Calculation.
   c. If Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy Prescribed equals No, proceed to Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy not Prescribed for Reasons Documented by the Clinician.

11. Check Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy not Prescribed for Reasons Documented by the Clinician:
   a. If Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy not Prescribed for Reasons Documented by the Clinician equals Yes, include in Reporting Met and Performance Exclusion.
   b. Reporting Met and Performance Exclusion letter is represented in the Reporting Rate in the Sample Calculation listed at the end of this document. Letter b2 equals 1 patient in the Sample Calculation.
   c. If Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy not Prescribed for Reasons Documented by the Clinician equals No, proceed to Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy not Prescribed, Reason not Given.

12. Check Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy not Prescribed, Reason not Given:
   a. If Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy not Prescribed, Reason not Given equals Yes, include in the Reporting Met and Performance Not Met.
   b. Reporting Met and Performance Not Met letter is represented in the Reporting Rate in the Sample Calculation listed at the end of this document. Letter c2 equals 2 patients in the Sample Calculation.
   c. If Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy not Prescribed, Reason not Given equals No, proceed to Reporting Not Met.

13. Check Reporting Not Met:
   a. If Reporting Not Met equals No, Quality Data Code or equivalent not reported. 1 patient has been subtracted from the reporting numerator in the sample calculation.
SAMPLE CALCULATIONS:

Reporting Rate=
Performance Met (a^2+c^2=8 patients) + Performance Exclusion (b^1+b^2=2 patients) + Performance Not Met (c^1+c^2=4 patients) = 14 patients = 87.50%
Eligible Population / Denominator (d^1+d^2=16 patients) = 16 patients

Performance Rate=

Reporting Numerator (14 patients) – Performance Exclusion (b^1+b^2=2 patients) = 8 patients = 66.67%

12 patients