Measure #5 (NQF 0081): Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD) – National Quality Strategy Domain: Effective Clinical Care

2017 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Process

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed ACE inhibitor or ARB therapy either within a 12 month period when seen in the outpatient setting OR at each hospital discharge

INSTRUCTIONS:
This measure is to be reported for all heart failure patients a minimum of once per performance period when seen in the outpatient setting AND reported at each hospital discharge (99238* and 99239*) during the performance period.

*NOTE: When reporting CPT code 99238 and 99239, it is recommended the measure be reported each time the code is submitted for hospital discharge.

This measure is intended to reflect the quality of services provided for patients with HF and decreased left ventricular systolic function. This measure may be reported by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding. Only patients who had at least two denominator eligible visits during the performance period will be counted for Reporting Criteria 1.

Measure Reporting:
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by 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.

THERE ARE TWO REPORTING CRITERIA FOR THIS MEASURE:
1) Patients who are 18 years and older with a diagnosis of HF with a current or prior LVEF < 40% seen in the outpatient setting with two denominator eligible visits

OR

2) Patients who are 18 years and older with a diagnosis of HF with a current or prior LVEF < 40% and discharged from hospital

REPORTING CRITERIA 1: ALL PATIENTS WITH A DIAGNOSIS OF HF ASSESSED DURING AN OUTPATIENT ENCOUNTER

DENOMINATOR (REPORTING CRITERIA 1):
All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

DENOMINATOR NOTE: LVEF < 40% corresponds to qualitative documentation of moderate dysfunction or severe dysfunction. The LVSD may be determined by quantitative or qualitative assessment, which may be current or historical. Examples of a quantitative or qualitative assessment may include an echocardiogram: 1) that provides a numerical value of LVSD or 2) that uses descriptive terms such as moderately or severely depressed left ventricular systolic function. Any current or prior ejection fraction study documenting LVSD can be used to identify patients.
To meet the denominator criteria, a patient must have an active diagnosis of heart failure at the time of the encounter which is used to qualify for the denominator and evaluate the numerator.

The encounter used to evaluate the numerator counts as 1 of the 2 encounters required for denominator inclusion. If the patient meets the heart failure diagnosis criterion, the diagnosis needs to be active only at the encounter being evaluated for the numerator action.

*Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for registry-based measures.

**Denominator Criteria (Eligible Cases)**:

Patients aged ≥ 18 years on date of encounter

**AND**


**AND**

Patient encounter during performance period – to be used for numerator evaluation (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241*, 99242*, 99243*, 99244*, 99245*, 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

WITHOUT

Telehealth Modifier: GQ, GT

**AND**

At least one additional patient encounter during performance period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241*, 99242*, 99243*, 99244*, 99245*, 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

WITHOUT

Telehealth Modifier: GQ, GT

**AND**

Left ventricular ejection fraction (LVEF) less than 40% or documentation of moderately or severely depressed left ventricular systolic function: 3021F

**NUMERATOR (REPORTING CRITERIA 1):**

Patients who were prescribed ACE inhibitor or ARB therapy within a 12 month period when seen in the outpatient setting

**Definition:**

Prescribed – Outpatient setting: 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 NOTE:** To meet the intent of the measure, the numerator quality action must be performed at the encounter at which the active diagnosis of heart failure is documented.

**Numerator Options:**

**Performance Met:**

Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) therapy prescribed or currently being taken (4010F)
**Denominator Exception:**
Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB therapy (e.g., hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons) *(4010F with 1P)*

**OR**

**Denominator Exception:**
Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB therapy (e.g., patient declined, other patient reasons) *(4010F with 2P)*

**OR**

**Denominator Exception:**
Documentation of system reason(s) for not prescribing ACE inhibitor or ARB therapy (e.g., other system reasons) *(4010F with 3P)*

**OR**

**Performance Not Met:**
Angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy was not prescribed, reason not otherwise specified *(4010F with 8P)*

**REPORTING CRITERIA 2: ALL PATIENTS WITH A DIAGNOSIS OF HF AND DISCHARGED FROM HOSPITAL**

**DENOMINATOR (REPORTING CRITERIA 2):**
All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

**DENOMINATOR NOTE:** LVEF < 40% corresponds to qualitative documentation of moderate dysfunction or severe dysfunction. The LVSD may be determined by quantitative or qualitative assessment, which may be current or historical. Examples of a quantitative or qualitative assessment may include an echocardiogram: 1) that provides a numerical value of LVSD or 2) that uses descriptive terms such as moderately or severely depressed left ventricular systolic function. Any current or prior ejection fraction study documenting LVSD can be used to identify patients.

**Denominator Criteria (Eligible Cases) 2:**
Patients aged ≥ 18 years on date of encounter

AND

**Diagnosis for heart failure (ICD-10-CM):** I11.0, I13.0, I13.2, I50.1, I50.20, I50.21, I50.22, I50.23, I50.30, I50.31, I50.32, I50.33, I50.40, I50.41, I50.42, I50.43, I50.9

AND

**Patient encounter during performance period (CPT):** 99238, 99239

AND

**Left ventricular ejection fraction (LVEF) less than 40% or documentation of moderately or severely depressed left ventricular systolic function:** 3021F

**NUMERATOR (REPORTING CRITERIA 2):**
Patients who were prescribed ACE inhibitor or ARB therapy at hospital discharge

**Definition:**
Prescribed – Inpatient setting: prescription given to the patient for ACE inhibitor or ARB therapy at discharge OR ACE inhibitor or ARB therapy to be continued after discharge as documented in the discharge medication list.
**NUMERATOR NOTE:** To meet the intent of the measure, the numerator quality action must be performed at the each denominator eligible discharge.

**Numerator Options:**

**Performance Met:**
Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) therapy prescribed or currently being taken *(4010F)*

**OR**

**Denominator Exception:**
Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB therapy (eg, hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons) *(4010F with 1P)*

**OR**

**Denominator Exception:**
Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB therapy (eg, patient declined, other patient reasons) *(4010F with 2P)*

**OR**

**Denominator Exception:**
Documentation of system reason(s) for not prescribing ACE inhibitor or ARB therapy (eg, other system reasons) *(4010F with 3P)*

**OR**

**Performance Not Met:**
Angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy was not prescribed, reason not otherwise specified *(4010F with 8P)*

**RATIONALE:**
In the absence of contraindications, ACE inhibitors or ARBs are recommended for all patients with symptoms of heart failure and reduced left ventricular systolic function. ACE inhibitors remain the first choice for inhibition of the renin-angiotensin system in chronic heart failure, but ARBs can now be considered a reasonable alternative. Both pharmacologic agents have been shown to decrease the risk of death and hospitalization. Additional benefits of ACE inhibitors include the alleviation of symptoms and the improvement of clinical status and overall sense of well-being of patients with heart failure.

**CLINICAL RECOMMENDATION STATEMENTS:**

ACE inhibitors are recommended in patients with HFrEF [heart failure with reduced ejection fraction] and current or prior symptoms, unless contraindicated, to reduce morbidity and mortality. (Class I, Level of Evidence: A) (ACCF/AHA, 2013)

Treatment with an ACE inhibitor should be initiated at low doses [see excerpt from guideline table below], followed by gradual dose increments if lower doses have been well tolerated. Clinicians should attempt to use doses that have been shown to reduce the risk of cardiovascular events in clinical trials. If these target doses of an ACE inhibitor cannot be used or are poorly tolerated, intermediate doses should be used with the expectation that there are likely to be only small differences in efficacy between low and high doses. Abrupt withdrawal of treatment with an ACE inhibitor can lead to clinical deterioration and should be avoided. (ACCF/AHA, 2013)

Drugs Commonly Used for Stage C HFrEF (abbreviated to align with focus of measure to include only ACE inhibitors and ARB therapy)
### Table 1 - Drugs Commonly Used for Stage C HFrEF. Rows 3 - 10 define ACE Inhibitors. Rows 11-13 define ARB Therapy.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Initial Daily Dose(s)</th>
<th>Maximum Doses(s)</th>
<th>Mean Doses Achieved in Clinical Trials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACE Inhibitors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Captopril</td>
<td>6.25 mg 3 times</td>
<td>50 mg 3 times</td>
<td>122.7 mg/d</td>
</tr>
<tr>
<td>Enalapril</td>
<td>2.5 mg twice</td>
<td>10 to 20 mg twice</td>
<td>16.6 mg/d</td>
</tr>
<tr>
<td>Fosinopril</td>
<td>5 to 10 mg once</td>
<td>40 mg once</td>
<td>N/A</td>
</tr>
<tr>
<td>Lisinopril</td>
<td>2.5 to 5 mg once</td>
<td>20 to 40 mg once</td>
<td>32.5 to 35.0 mg/d</td>
</tr>
<tr>
<td>Perindopril</td>
<td>2 mg once</td>
<td>8 to 16 mg once</td>
<td>N/A</td>
</tr>
<tr>
<td>Quinapril</td>
<td>5 mg twice</td>
<td>20 mg twice</td>
<td>N/A</td>
</tr>
<tr>
<td>Ramipril</td>
<td>1.25 to 2.5 mg once</td>
<td>10 mg once</td>
<td>N/A</td>
</tr>
<tr>
<td>Trandolapril</td>
<td>1 mg once</td>
<td>4 mg once</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Angiotensin Receptor Blockers</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Candesartan</td>
<td>4 to 8 mg once</td>
<td>32 mg once</td>
<td>24 mg/d</td>
</tr>
<tr>
<td>Losartan</td>
<td>25 to 50 mg once</td>
<td>50 to 150 mg once</td>
<td>129 mg/d</td>
</tr>
<tr>
<td>Valsartan</td>
<td>20 to 40 mg twice</td>
<td>160 mg twice</td>
<td>254 mg/d</td>
</tr>
</tbody>
</table>

ARBs are recommended in patients with HFrEF with current or prior symptoms who are ACE inhibitor intolerant, unless contraindicated, to reduce morbidity and mortality. (Class I, Level of Evidence: A) (ACCF/AHA, 2013)

ARBs are reasonable to reduce morbidity and mortality as alternatives to ACE inhibitors as first-line therapy for patients with HFrEF, especially for patients already taking ARBs for other indications, unless contraindicated. (Class IIa, Level of Evidence: A) (ACCF/AHA, 2013)

Addition of an ARB may be considered in persistently symptomatic patients with HFrEF who are already being treated with an ACE inhibitor and a beta blocker in whom an aldosterone antagonist is not indicated or tolerated. (Class IIb, Level of Evidence: A) (ACCF/AHA, 2013)

For the hospitalized patient:

In patients with HFrEF experiencing a symptomatic exacerbation of HF requiring hospitalization during chronic maintenance treatment with GDMT (guideline-directed medical therapy; GDMT represents optimal medical therapy as defined by ACCF/AHA guideline-recommended therapies (primarily Class I)), it is recommended that GDMT be continued in the absence of hemodynamic instability or contraindications. (Class I, Level of Evidence: B) (ACCF/AHA, 2013)

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2017 Registry Individual Measure Flow

#5 NQF #0081: Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

Reporting Criteria One

Start

Denominator

Patient Age at Date of Service ≥ 18 Years

No

Diagnosis of Heart Failure as Listed in Denominator**

Yes

Encounter as Listed in Denominator To Be Used for Numerator Evaluation* (1/1/2017 thru 12/31/2017)

No

Telehealth Modifier: GQ, GT

Yes

No

At Least One Additional Patient Encounter as Listed in Denominator*** (1/1/2017 thru 12/31/2017)

Telehealth Modifier: GQ, GT

No

Include in Eligible Population/Denominator (8 patients)*

No

Current or Prior Diagnosis of LVSD (LVEF < 40%) 3021F or equivalent

Yes

ACE/ARB Therapy Prescribed or Currently Being Taken

Data Completeness Met + Performance Met 4010F or equivalent (4 patients)

No

Data Completeness Met + Denominator Exception 4010F-3P or equivalent (1 patient) b^1

Documentation of Medical Reason(s) for Not Prescribing ACE/ARB Therapy

No

Data Completeness Met + Denominator Exception 4010F-1P or equivalent (1 patient) b^2

Yes

Data Completeness Met + Denominator Exception 4010F-2P or equivalent (0 patients) b^2

Documentation of Patient Reason(s) for Not Prescribing ACE/ARB Therapy

No

Data Completeness Met + Denominator Exception 4010F-3P or equivalent (0 patients) b^3

Yes

Data Completeness Met + Denominator Exception 4010F-5P or equivalent (2 patients) c^1

ACE/ARB Therapy Not Prescribed, Reason Not Specified

No

Data Completeness Not Met Quality-Data Code or equivalent not reported (1 patient)

*This measure is to be reported at two different frequencies, depending upon the clinical setting. This measure is to be reported for a minimum of once per performance period when seen in the outpatient setting AND reported at each hospital discharge (99238 and 99239) during the performance period. Please reference the Reporting Criteria Two for Hospital Discharge Setting Flow.

**See the posted Measure Specification for specific coding and instructions to report this measure.

NOTE: Reporting Frequency: Patient-process

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The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.
2017 Registry Individual Measure Flow

#5 NQF #0081: Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

Reporting Criteria Two

Denominator

Start

- Patient Age at Date of Service ≥ 18 Years
  - No
    - Diagnosis of Heart Failure as Listed in Denominator**
      - No
        - Hospital Dis/Encounter as Listed in Denominator*** (1/1/2017 thru 12/31/2017)
          - No
            - Current or Prior Diagnosis of LVSD (LVEF <40%) 3021F or equivalent
              - No
                - Include in Eligible Population/Denominator (8 visits)*

  - Yes
    - Not Included in Eligible Population/Denominator

Numerator

- ACE/ARB Therapy Prescribed or Currently Being Taken
  - Yes
    - Data Completeness Met + Performance Met
      - 4010F or equivalent (4 visits) a²
  - No
    - Documentation of Medical Reason(s) for Not Prescribing ACE/ARB Therapy
      - Yes
        - Data Completeness Met + Denominator Exception
          - 4010F-1P or equivalent (1 visit) b⁴
      - No
        - Documentation of Patient Reason(s) for Not Prescribing ACE/ARB Therapy
          - Yes
            - Data Completeness Met + Denominator Exception
              - 4010F-2P or equivalent (0 visits) b³
          - No
            - Documentation of System Reason(s) For Not Prescribing ACE/ARB Therapy
              - Yes
                - Data Completeness Met + Denominator Exception
                  - 4010F-3P or equivalent (0 visits) b⁵
              - No
                - ACE/ARB Therapy Not Prescribed, Reason Not Specified
                  - Yes
                    - Data Completeness Met + Performance Not Met
                      - 4010F-8P or equivalent (3 visits) c²
                  - No
                    - Include in Eligible Population/Denominator (8 visits)*

*This measure is to be reported at two different frequencies, depending upon the clinical setting. This measure is to be reported for a minimum of once per performance period when seen in the outpatient setting AND reported at each hospital discharge (99238 and 99239) during the performance period. Please reference the Reporting Criteria One for Outpatient Setting Flow. **See the posted Measure Specification for specific coding and instructions to report this measure.

Note: Reporting Frequency: Visit

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2017 Registry Individual Measure Flow

#5 NQF #0081: Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

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

Reporting Criteria One: Outpatient Setting

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 Heart Failure as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Diagnosis of Heart Failure as Listed in the Denominator equals Yes, proceed to check Encounter

4. Check Outpatient Encounter Performed:
   a. If Outpatient Encounter – To be Used for Numerator Evaluation as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Outpatient Encounter – To be Used for Numerator Evaluation as Listed in the Denominator equals Yes, proceed to check Telehealth Modifier.

5. Check Telehealth Modifier:
   a. If Telehealth Modifier equals Yes, do not include in Eligible Patient Population. Stop Processing.
   b. If Telehealth Modifier equals No, proceed to check Encounter.

6. Check Encounter Performed:
   a. If At Least One Additional Patient Encounter Performed as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If At Least One Additional Patient Encounter Performed as Listed in the Denominator equals Yes, proceed top check Telehealth Modifier.

7. Check Telehealth Modifier:
   a. If Telehealth Modifier equals Yes, do not include in Eligible Patient Population. Stop Processing.
   b. If Telehealth Modifier equals No, proceed to check Current or Prior Diagnosis of LVSD (LVEF <40%).

8. Check Current or Prior Diagnosis of LVSD (LVEF <40%):
a. If Diagnosis of LVSD (LVEF <40%) 3021F or equivalent as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.

b. If Diagnosis of LVSD (LVEF <40%) 3021F or equivalent as Listed in the Denominator equals Yes, include in the Eligible Population.

9. 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 d1 equals 8 patients in the sample calculation.

10. Start Numerator

11. Check ACE/ARB Therapy Prescribed or Currently Taken:
    a. If ACE/ARB Therapy Prescribed or Currently Taken equals Yes, include in Data Completeness Met and Performance Met.
    
    b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a1 equals 4 patients in Sample Calculation.
    
    c. If ACE/ARB Therapy Prescribed or Currently Taken equals No, proceed to Documentation of Medical Reason(s) for Not Prescribing ACE/ARB Therapy.

12. Check Documentation of Medical Reason(s) for Not Prescribing ACE/ARB Therapy:
    a. If Documentation of Medical Reason(s) for Not Prescribing ACE/ARB Therapy equals Yes, include in Data Completeness Met and Denominator Exception.
    
    b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b1 equals 1 patient in the Sample Calculation.
    
    c. If Documentation of Medical Reason(s) for Not Prescribing ACE/ARB Therapy equals No, proceed to Documentation of Patient Reason(s) for Not Prescribing ACE/ARB Therapy.

13. Check Documentation of Patient Reason(s) for Not Prescribing ACE/ARB Therapy
    a. If Documentation of Patient Reason(s) for Not Prescribing ACE/ARB Therapy equals Yes, include in Data Completeness Met and Denominator Exception.
    
    b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b2 equals 0 patients in the Sample Calculation.
    
    c. If Documentation of Patient Reason(s) for Not Prescribing ACE/ARB Therapy equals No, proceed to Documentation of System Reason(s) for Not Prescribing ACE/ARB Therapy.

14. Check Documentation of System Reason(s) for Not Prescribing ACE/ARB Therapy:
    a. If Documentation of System Reason(s) for Not Prescribing ACE/ARB Therapy equals Yes, include in Data Completeness Met and Denominator Exception.
b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b3 equals 0 patients in the Sample Calculation.

c. If Documentation of System Reason(s) for Not Prescribing ACE/ARB Therapy equals No, proceed to ACE/ARB Therapy Not Prescribed, Reason Not Specified.

15. Check ACE/ARB Therapy Not Prescribed, Reason Not Specified:
   a. If ACE/ARB Therapy was Not Prescribed, Reason Not Specified equals Yes, include in Data Completeness Met and Performance Not Met.

   b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c1 equals 2 patients in the Sample Calculation.

   c. If ACE/ARB Therapy was Not Prescribed, Reason Not Specified equals No, proceed to Data Completeness Not Met.

16. Check Data Completeness Not Met
   a. If Data Completeness Not Met equals No, Quality Data Code or equivalent not reported. 1 patient has been subtracted from the data completeness numerator in sample calculation.
2017 Registry Individual Measure Flow

#5 NQF #0081: Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

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

Reporting Criteria Two: Hospital Discharge Setting

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 Heart Failure as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Diagnosis of Heart Failure as Listed in the Denominator equals Yes, proceed to check Hospital Discharge Encounter Performed.

4. Check Hospital Discharge Encounter Performed:
   a. If Hospital Discharge Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Hospital Discharge Encounter as Listed in the Denominator equals Yes, proceed to check Current or Prior Diagnosis of LVSD (LVEF <40%).

5. Check Current or Prior Diagnosis of LVSD (LVEF <40%):
   a. If Diagnosis of LVSD (LVEF <40%) 3021F or equivalent as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Diagnosis of LVSD (LVEF <40%) 3021F or equivalent as Listed in the Denominator equals Yes, include in the Eligible population.

6. 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 d2 equals 8 visits in the sample calculation.

7. Start Numerator

8. Check ACE/ARB Therapy Prescribed or Currently Taken:
   a. If ACE/ARB Therapy Prescribed or Currently Taken equals Yes, include in Data Completeness Met and Performance Met.
b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a2 equals 4 visits in Sample Calculation.

c. If ACE/ARB Therapy Prescribed or Currently Taken equals No, proceed to Documentation of Medical Reason(s) for Not Prescribing ACE/ARB Therapy.

9. Check Documentation of Medical Reason(s) for Not Prescribing ACE/ARB Therapy:
   a. If Documentation of Medical Reason(s) for Not Prescribing ACE/ARB Therapy equals Yes, include in Data Completeness Met and Denominator Exception.
   b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b4 equals 1 visit in the Sample Calculation.
   c. If Documentation of Medical Reason(s) for Not Prescribing ACE/ARB Therapy equals No, proceed to Documentation of Patient Reason(s) for Not Prescribing ACE/ARB Therapy.

10. Check Documentation of Patient Reason(s) for Not Prescribing ACE/ARB Therapy
   a. If Documentation of Patient Reason(s) for Not Prescribing ACE/ARB Therapy equals Yes, include in Data Completeness Met and Denominator Exception.
   b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b5 equals 0 visits in the Sample Calculation.
   c. If Documentation of Patient Reason(s) for Not Prescribing ACE/ARB Therapy equals No, proceed to Documentation of System Reason(s) for Not Prescribing ACE/ARB Therapy.

11. Check Documentation of System Reason(s) for Not Prescribing ACE/ARB Therapy:
   a. If Documentation of System Reason(s) for Not Prescribing ACE/ARB Therapy equals Yes, include in Data Completeness Met and Denominator Exception.
   b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b6 equals 0 visits in the Sample Calculation.
   c. If Documentation of System Reason(s) for Not Prescribing ACE/ARB Therapy equals No, proceed to ACE/ARB Therapy Not Prescribed and Reason Not Specified.

12. Check ACE/ARB Therapy Not Prescribed and Reason Not Specified:
   a. If ACE/ARB Therapy was Not Prescribed and Reason Not Specified equals Yes, include in Data Completeness Met and Performance Not Met.
   b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c2 equals 2 visits in the Sample Calculation.
c. If ACE/ARB Therapy was not prescribed for Patient Reason equals No, proceed to Data Completeness Not Met.

13. Check Data Completeness Not Met

a. If Data Completeness Not Met equals No, Quality Data Code or equivalent not reported. 1 visit has been subtracted from the data completeness numerator in sample calculation.
2017 Registry Individual Measure Flow

#5 NQF #0081: Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

This measure contains 2 Reporting Criteria, although as the Sample Calculation indicates, there is **ONLY** one data completeness and one performance rate for this measure.

<table>
<thead>
<tr>
<th>Sample Calculations:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Completeness</strong></td>
</tr>
<tr>
<td>Performance Met ((a+b^2=8 \text{ visits}) ) * Denominator Exception ((b^3+b^4+b^5=2 \text{ visits}) ) + Performance Not Met ((c^3+c^2=5 \text{ visits}) ) = 15 visits *</td>
</tr>
<tr>
<td>Eligible Population / Denominator ((d^4+d^5=16 \text{ visits}) ) = 16 visits *</td>
</tr>
<tr>
<td>= 93.75%</td>
</tr>
<tr>
<td><strong>Performance Rate</strong></td>
</tr>
<tr>
<td>Performance Met ((a+b^2=8 \text{ visits}) ) = 8 visits *</td>
</tr>
<tr>
<td>Data Completeness Numerator (15 visits *) – Denominator Exception ((b^3+b^4+b^5=2 \text{ visits}) ) = 13 visits *</td>
</tr>
<tr>
<td>= 61.54%</td>
</tr>
</tbody>
</table>