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

2024 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

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 or ARNI therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge.

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

NOTE: *When submitting CPT code 99238 and 99239, it is recommended the measure be submitted 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 submitted by Merit-based Incentive Payment System (MIPS) 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 Submission Criteria 1.

NOTE: *Patient encounters for this measure conducted via telehealth (including but not limited to encounters coded with GQ, GT, 95, POS 02, POS 10) are allowable.*

Measure Submission Type:
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third-party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third-party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third-party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

THERE ARE TWO SUBMISSION CRITERIA FOR THIS MEASURE:

1) All patients with a diagnosis of HF assessed during an outpatient encounter

OR

2) All patients with a diagnosis of HF and discharged from hospital

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

DENOMINATOR (SUBMISSION 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 MIPS CQMs.*

Denominator Criteria (Eligible Cases) 1:
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, I50.814, I50.82, I50.83, I50.84, I50.89, I50.9
AND
Patient encounter during performance period – to be used for numerator evaluation (CPT): 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99242*, 99243*, 99244*, 99245*, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99315, 99316, 99341, 99342, 99344, 99345, 99347, 99348, 99349, 99350, 99424, 99426
AND
At least one additional patient encounter during performance period (CPT): 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99242*, 99243*, 99244*, 99245*, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99315, 99316, 99341, 99342, 99344, 99345, 99347, 99348, 99349, 99350, 99424, 99426
AND
Left ventricular ejection fraction (LVEF) less than or equal to 40% or documentation of moderately or severely depressed left ventricular systolic function: M1150
AND NOT
DENOMINATOR EXCLUSION:
Patients with a history of heart transplant or with a Left Ventricular Assist Device (LVAD): M1151

NUMERATOR (SUBMISSION CRITERIA 1):
Patients who were prescribed ACE inhibitor or ARB or ARNI 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 or ARNI therapy at one or more visits in the measurement period OR patient already taking ACE inhibitor or ARB or ARNI 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. MIPS eligible clinicians who have given a prescription for or whose patient is already taking an Angiotensin-Converting Enzyme Inhibitor (ACE inhibitor) or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) would meet performance for this measure. Other combination therapies that consist of an ACE inhibitor plus diuretic, ARB + neprilysin inhibitor (ARNI), ARB plus diuretic, ACE inhibitor plus calcium channel blocker, ARB plus calcium channel blocker, or ARB plus calcium channel blocker plus diuretic would also meet performance for this measure. Denominator Exception(s) are determined on the date of the denominator eligible encounter.*

Numerator Options:

Performance Met:	Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) therapy prescribed or currently being taken **(G2092)**
OR	
Denominator Exception:	Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI 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) **(G2093)**
OR	
Denominator Exception:	Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., patient declined, other patient reasons) **(G2094)**
OR	
Performance Not Met:	Angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) therapy was not prescribed, reason not given **(G2096)**

OR

SUBMISSION CRITERIA 2: ALL PATIENTS WITH A DIAGNOSIS OF HF AND DISCHARGED FROM HOSPITAL
DENOMINATOR (SUBMISSION 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, I50.814, I50.82, I50.83, I50.84, I50.89, I50.9
AND
Patient encounter during performance period (CPT): 99238, 99239
AND
Left ventricular ejection fraction (LVEF) less than or equal to 40% or documentation of moderately or severely depressed left ventricular systolic function: M1150
AND NOT
DENOMINATOR EXCLUSION:
Patients with a history of heart transplant or with a Left Ventricular Assist Device (LVAD): M1151

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

Definition:
Prescribed – Inpatient setting – prescription given to the patient for ACE inhibitor or ARB or ARNI therapy at discharge OR ACE inhibitor or ARB or ARNI 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 each denominator eligible discharge. MIPS eligible clinicians who have given a prescription for or whose patient is already taking an Angiotensin-Converting Enzyme Inhibitor (ACE inhibitor) or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) would meet performance for this measure. Other combination therapies that consist of an ACE inhibitor plus diuretic, ARB + neprilysin inhibitor (ARNI), ARB plus diuretic, ACE inhibitor plus calcium channel blocker, ARB plus calcium channel blocker, or ARB plus calcium channel blocker plus diuretic would also meet performance for this measure. Denominator Exception(s) are determined on the date of the denominator eligible encounter.*

Numerator Options:

Performance Met:	Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) therapy prescribed or currently being taken **(G2092)**
OR	
Denominator Exception:	Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI 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) **(G2093)**
OR	
Denominator Exception:	Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., patient declined, other patient reasons) **(G2094)**
OR	
Performance Not Met:	Angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) therapy was not prescribed, reason not given **(G2096)**

RATIONALE:
Use of ACE inhibitor, ARB, or ARNI therapy has been associated with improved outcomes in patients with reduced LVEF.

Long-term therapy with ARBs have also been shown to reduce morbidity and mortality, especially in ACE inhibitor–intolerant patients. More recently, ARNI therapy has also been shown to more significantly improve outcomes, such that the newest guidelines recommend replacement of ACE inhibitors or ARBs with ARNI therapy in eligible patients. However, despite the benefits of these drugs, use of ACE inhibitor, ARB, or ARNI remains suboptimal.

CLINICAL RECOMMENDATION STATEMENTS:

In patients with HFrEF and NYHA class II to III symptoms, the use of ARNi is recommended to reduce morbidity and mortality. (Class 1, Level of Evidence A) (AHA/ACC/HFSA, 2022)

In patients with previous or current symptoms of chronic HFrEF, the use of ACEi is beneficial to reduce morbidity and mortality when the use of ARNi is not feasible. (Class 1, Level of Evidence A) (AHA/ACC/HFSA, 2022)

In patients with previous or current symptoms of chronic HFrEF who are intolerant to ACEi because of cough or angioedema and when the use of ARNi is not feasible, the use of ARB is recommended to reduce morbidity and mortality (Class 1, Level of Evidence A) (AHA/ACC/HFSA, 2022)

In patients with chronic symptomatic HFrEF NYHA class II or III who tolerate an ACEi or ARB, replacement by an ARNi is recommended to further reduce morbidity and mortality. (Class 1, Level of Evidence B-R) (AHA/ACC/HFSA, 2022)

ARNi should not be administered concomitantly with ACEi or within 36 hours of the last dose of an ACEi. (Class 3: Harm, Level of Evidence B-R) (AHA/ACC/HFSA, 2022)

ARNi should not be administered to patients with any history of angioedema. (Class 3: Harm, Level of Evidence C-LD) (AHA/ACC/HFSA, 2022)

ACEi should not be administered to patients with any history of angioedema. (Class 3: Harm, Level of Evidence C-LD) (AHA/ACC/HFSA, 2022)

Drugs Commonly Used for Stage C HFrEF (abbreviated to align with focus of measure to include only ACE inhibitors, ARB, and ARNI therapy)

Table 1 - Drugs Commonly Used for Stage C HFrEF. Rows 3 - 10 define ACE Inhibitors. Rows 12-14 define ARB Therapy. Row 16 define ARNI.

Drug	Initial Daily Dose(s)	Target Dose(s)	Mean Doses Achieved in Clinical Trials
ACE Inhibitors			
Captopril	6.25 mg 3 times	50 mg 3 times	122.7 mg total daily
Enalapril	2.5 mg twice	10 to 20 mg twice	16.6 mg total daily
Fosinopril	5 to 10 mg once	40 mg once	N/A
Lisinopril	2.5 to 5 mg once	20 to 40 mg once	32.5 to 35.0 mg total daily
Perindopril	2 mg once	8 to 16 mg once	N/A
Quinapril	5 mg twice	20 mg twice	N/A
Ramipril	1.25 to 2.5 mg once	10 mg once	N/A
Trandolapril	1 mg once	4 mg once	N/A

Drug	Initial Daily Dose(s)	Target Dose(s)	Mean Doses Achieved in Clinical Trials
Angiotensin Receptor Blockers			
Candesartan	4 to 8 mg once	32 mg once	24 mg total daily
Losartan	25 to 50 mg once	50 to 150 mg once	129 mg total daily
Valsartan	20 to 40 mg once	160 mg twice	254 mg total daily
ARNI			
Sacubitril/valsartan	49/51 mg twice (sacubitril/valsartan) (therapy may be initiated at 24/26 mg twice)	97/103 mg twice (sacubitril/valsartan)	182/193 mg (sacubitril/valsartan) total daily

For the hospitalized patient:
In patients with HFrEF requiring hospitalization, preexisting GDMT* should be continued and optimized to improve outcomes, unless contraindicated. (Class 1, Level of Evidence B-NR) (AHA/ACC/HFSA, 2022)

In patients with HFrEF, GDMT should be initiated during hospitalization after clinical stability is achieved (Class 1, Level of Evidence B-NR) (AHA/ACC/HFSA, 2022)

In patients with HFrEF, if discontinuation of GDMT is necessary during hospitalization, it should be reinitiated and further optimized as soon as possible. (Class 1, Level of Evidence B-NR) (AHA/ACC/HFSA, 2022)

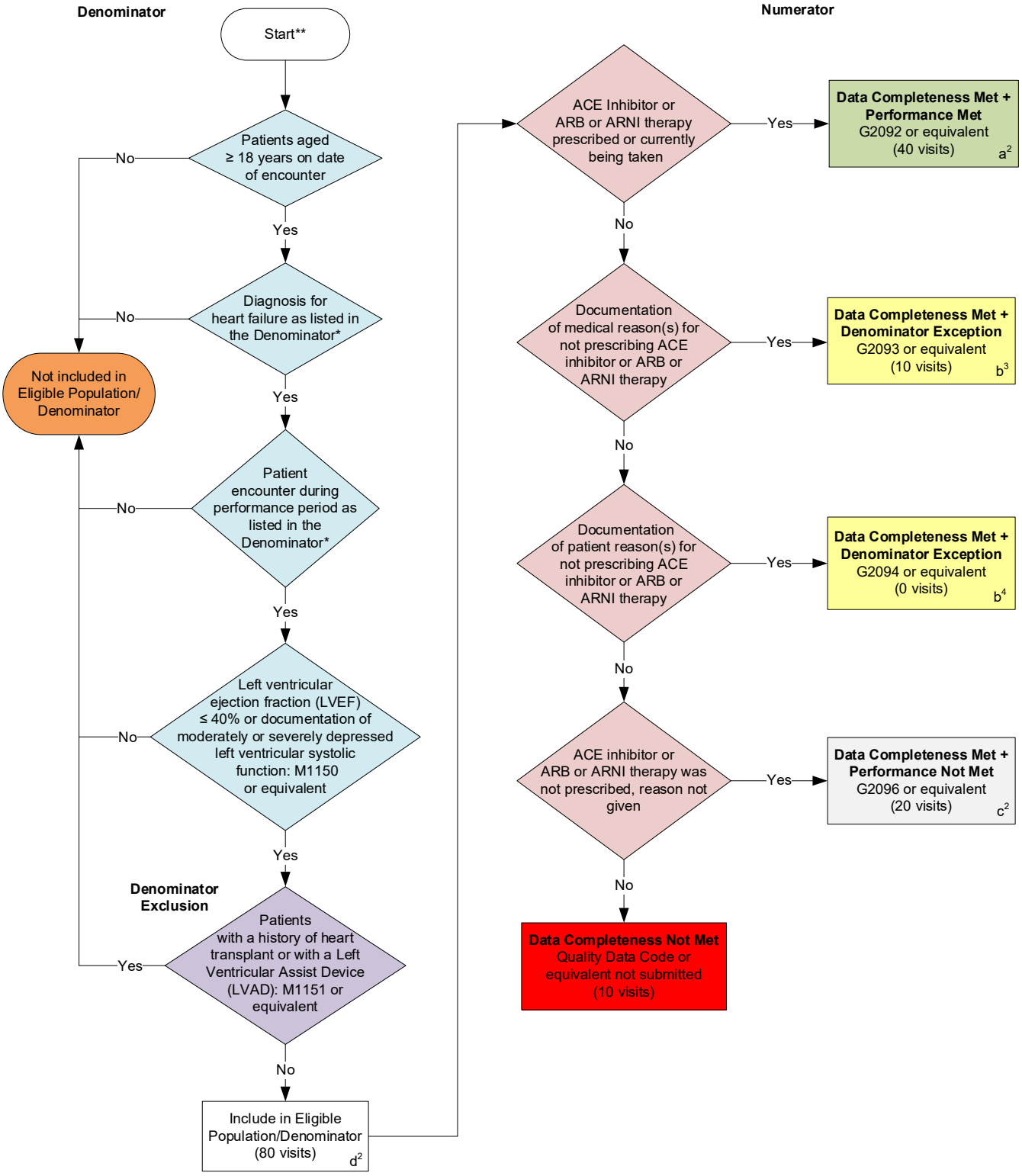
*Guideline-Directed Medical Therapy

The American Medical Association's and the PCPI® Foundation's significant past efforts and contributions to the performance measures are gratefully acknowledged.

2024 Clinical Quality Measure Flow for Quality ID #5 (CBE 0081): Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD) Submission Criteria One

Disclaimer: *Refer to the measure specification for specific coding and instructions to submit this measure.*

Submission Criteria Two



SAMPLE CALCULATIONS

Data Completeness=

$$\frac{\text{Performance Met } (a^1+a^2=80 \text{ visits}) + \text{Denominator Exception } (b^1+b^2+b^3+b^4=20 \text{ visits}) + \text{Performance Not Met } (c^1+c^2=40 \text{ visits})}{\text{Eligible Population / Denominator } (d^1+d^2=160 \text{ visits})} = \frac{140 \text{ visits}}{160 \text{ visits}} = \mathbf{87.50\%}$$

Performance Rate=

$$\frac{\text{Performance Met } (a^1+a^2=80 \text{ visits})}{\text{Data Completeness Numerator (140 visits)} - \text{Denominator Exception } (b^1+b^2+b^3+b^4=20 \text{ visits})} = \frac{80 \text{ visits}}{120 \text{ visits}} = \mathbf{66.67\%}$$

*See the posted measure specification for specific coding and instructions to submit this measure.

This measure is to be submitted at two different frequencies, depending upon the clinical setting. This measure is to be submitted a minimum of **once per performance period when **seen in the outpatient setting AND submitted at each hospital discharge** during the performance period.

In order to show an accurate calculation for Submission Criteria One and Submission Criteria Two, patients and visits were combined and shown as visits within the calculation.

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

NOTE: Submission Frequency: Submission Criteria One: Patient-Process; Submission Criteria Two: Visit

2024 Clinical Quality Measure Flow Narrative for Quality ID #5 (CBE 0081): Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

Disclaimer: *Refer to the measure specification for specific coding and instructions to submit this measure.*

Submission Criteria One:

1. Start with Denominator
2. Check *Patients aged greater than or equal to 18 years on date of encounter*:
    a. If *Patients aged greater than or equal to 18 years on date of encounter* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Patients aged greater than or equal to 18 years on date of encounter* equals Yes, proceed to check *Diagnosis for heart failure as listed in the Denominator**.
3. Check *Diagnosis for heart failure as listed in the Denominator**:
    a. If *Diagnosis for heart failure as listed in the Denominator** equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Diagnosis for heart failure as listed in the Denominator** equals Yes, proceed to check *Patient encounter during performance period – to be used for numerator evaluation as listed in the Denominator**.
4. Check *Patient encounter during performance period – to be used for numerator evaluation as listed in the Denominator**:
    a. If *Patient encounter during performance period – to be used for numerator evaluation as listed in the Denominator** equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Patient encounter during performance period – to be used for numerator evaluation as listed in the Denominator** equals Yes, proceed to check *At least one additional patient encounter during performance period as listed in the Denominator**.
5. Check *At least one additional patient encounter during performance period as listed in the Denominator**:
    a. If *At least one additional patient encounter during performance period as listed in the Denominator** equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *At least one additional patient encounter during performance period as listed in the Denominator** equals Yes, proceed to check *Left ventricular ejection fraction (LVEF) less than or equal to 40 percent or documentation of moderately or severely depressed left ventricular systolic function*.
6. Check *Left ventricular ejection fraction (LVEF) less than or equal to 40 percent or documentation of moderately or severely depressed left ventricular systolic function*:
    a. If *Left ventricular ejection fraction (LVEF) less than or equal to 40 percent or documentation of moderately or severely depressed left ventricular systolic function* equals No, do not include in *Eligible Population/Denominator*. Stop processing.

b. If *Left ventricular ejection fraction (LVEF) less than or equal to 40 percent or documentation of moderately or severely depressed left ventricular systolic function* equals Yes, proceed to check *Patients with a history of heart transplant or with a Left Ventricular Assist Device (LVAD).*

7. Check *Patients with a history of heart transplant or with a Left Ventricular Assist Device (LVAD):*

   a. If *Patients with a history of heart transplant or with a Left Ventricular Assist Device (LVAD)* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.

   b. If *Patients with a history of heart transplant or with a Left Ventricular Assist Device (LVAD)* equals No, include in *Eligible Population/Denominator*.

8. 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^1 equals 80 patients in the Sample Calculation.

9. Start Numerator

10. Check *ACE Inhibitor or ARB or ARNI therapy prescribed or currently being taken*:

    a. If *ACE Inhibitor or ARB or ARNI therapy prescribed or currently being taken* equals Yes, include in *Data Completeness Met and Performance Met*.

       - *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 a^1 equals 40 patients in the Sample Calculation.

    b. If *ACE Inhibitor or ARB or ARNI therapy prescribed or currently being taken* equals No, proceed to check *Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy*.

11. Check *Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy*:

    a. If *Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy* equals Yes, include in *Data Completeness Met and Denominator Exception*.

       - *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 b^1 equals 10 patients in the Sample Calculation.

    b. If *Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy* equals No, proceed to check *Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy*.

12. Check *Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy*:

    a. If *Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy* equals Yes, include in *Data Completeness Met and Denominator Exception*.

       - *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 b^2 equals 0 patients in the Sample Calculation.

    b. If *Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy* equals No, proceed to check *ACE inhibitor or ARB or ARNI therapy was not prescribed, reason not given*.

13. Check *ACE inhibitor or ARB or ARNI therapy was not prescribed, reason not given*:

    a. If *ACE inhibitor or ARB or ARNI therapy was not prescribed, reason not given* equals Yes, include in *Data Completeness Met and Performance Not Met*.

        - *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 c^1 equals 20 patients in the Sample Calculation.

    b. If *ACE inhibitor or ARB or ARNI therapy was not prescribed, reason not given* equals No, proceed to check *Data Completeness Not Met*.

14. Check *Data Completeness Not Met*:

        - If *Data Completeness Not Met*, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

Submission Criteria Two:

1. Start with Denominator

2. Check *Patients aged greater than or equal to 18 years on date of encounter*:

    a. If *Patients aged greater than or equal to 18 years on date of encounter* equals No, do not include in *Eligible Population/Denominator*. Stop processing.

    b. If *Patients aged greater than or equal to 18 years on date of encounter* equals Yes, proceed to check *Diagnosis for heart failure as listed in the Denominator**.

3. Check *Diagnosis for heart failure as listed in the Denominator**:

    a. If *Diagnosis for heart failure as listed in the Denominator** equals No, do not include in *Eligible Population/Denominator*. Stop processing.

    b. If *Diagnosis for heart failure as listed in the Denominator** equals Yes, proceed to check *Patient encounter during performance period as listed in Denominator**.

4. Check *Patient encounter during performance period as listed in the Denominator**:

    a. If *Patient encounter during performance period as listed in the Denominator** equals No, do not include in *Eligible Population/Denominator*. Stop processing.

    b. If *Patient encounter during performance period as listed in the Denominator** equals Yes, proceed to check *Left ventricular ejection fraction (LVEF) less than or equal to 40 percent or documentation of moderately or severely depressed left ventricular systolic function*.

5. Check *Left ventricular ejection fraction (LVEF) less than or equal to 40 percent or documentation of moderately or severely depressed left ventricular systolic function*:

    a. If *Left ventricular ejection fraction (LVEF) less than or equal to 40 percent or documentation of moderately or severely depressed left ventricular systolic function* equals No, do not include in *Eligible Population/Denominator*. Stop processing.

b. If *Left ventricular ejection fraction (LVEF) less than or equal to 40 percent or documentation of moderately or severely depressed left ventricular systolic function* equals Yes, proceed to check *Patients with a history of heart transplant or with a Left Ventricular Assist Device (LVAD).*

6. Check *Patients with a history of heart transplant or with a Left Ventricular Assist Device (LVAD):*

   a. If *Patients with a history of heart transplant or with a Left Ventricular Assist Device (LVAD)* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.

   b. If *Patients with a history of heart transplant or with a Left Ventricular Assist Device (LVAD)* equals No, include in *Eligible Population/Denominator*.

7. Denominator Population:

   - Denominator Population is all Eligible Visits in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d^2 equals 80 visits in the Sample Calculation.

8. Start Numerator

9. Check *ACE Inhibitor or ARB or ARNI therapy prescribed or currently being taken*:

   a. If *ACE Inhibitor or ARB or ARNI therapy prescribed or currently being taken* equals Yes, include in *Data Completeness Met and Performance Met*.

      - *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 a^2 equals 40 visits in the Sample Calculation.

   b. If *ACE Inhibitor or ARB or ARNI therapy prescribed or currently being taken* equals No, proceed to check *Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy*.

10. Check *Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy*:

    a. If *Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy* equals Yes, include in *Data Completeness Met and Denominator Exception*.

       - *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 b^3 equals 10 visits in the Sample Calculation.

    b. If *Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy* equals No, proceed to check *Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy*.

11. Check *Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy*:

    a. If *Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy* equals Yes, include in *Data Completeness Met and Denominator Exception*.

       - *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 b^4 equals 0 visits in the Sample Calculation.

    b. If *Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy* equals No, proceed to check *ACE inhibitor or ARB or ARNI therapy was not prescribed, reason not given*.

12. Check *ACE inhibitor or ARB or ARNI therapy was not prescribed, reason not given*:

    a. If *ACE inhibitor or ARB or ARNI therapy was not prescribed, reason not given* equals Yes, include in *Data Completeness Met and Performance Not Met*.

        - *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 c^2 equals 20 visits in the Sample Calculation.

    b. If *ACE inhibitor or ARB or ARNI therapy was not prescribed, reason not given* equals No, proceed to check *Data Completeness Not Met*.

13. Check *Data Completeness Not Met*:

        - If *Data Completeness Not Met*, the Quality Data Code or equivalent was not submitted. 10 visits have been subtracted from the Data Completeness Numerator in the Sample Calculation.

Sample Calculations

Data Completeness equals Performance Met (a^1 plus a^2 equals 80 visits) plus Denominator Exception (b^1 plus b^2 plus b^3 plus b^4 equals 20 visits) plus Performance Not Met (c^1 plus c^2 equals 40 visits) divided by Eligible Population / Denominator (d^1 plus d^2 equals 160 visits). All equals 140 visits divided by 160 visits. All equals 87.50 percent.

Performance Rate equals Performance Met (a^1 plus a^2 equals 80 visits) divided by Data Completeness Numerator (140 visits) minus Denominator Exception (b^1 plus b^2 plus b^3 plus b^4 equals 20 visits). All equals 80 visits divided by 120 visits. All equals 66.67 percent.

*See the posted measure specification for specific coding and instructions to submit this measure.

This measure is to be submitted at two different frequencies, depending upon the clinical setting. This measure is to be submitted a minimum of **once per performance period when **seen in the outpatient setting AND submitted at each hospital discharge** (99238 and 99239) during the performance period. In order to show an accurate calculation for Submission Criteria One and Submission Criteria Two, patients and visits were combined and shown as visits within the calculation.

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

NOTE: Submission Frequency: Submission Criteria One: Patient-Process; Submission Criteria Two: Visit

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.