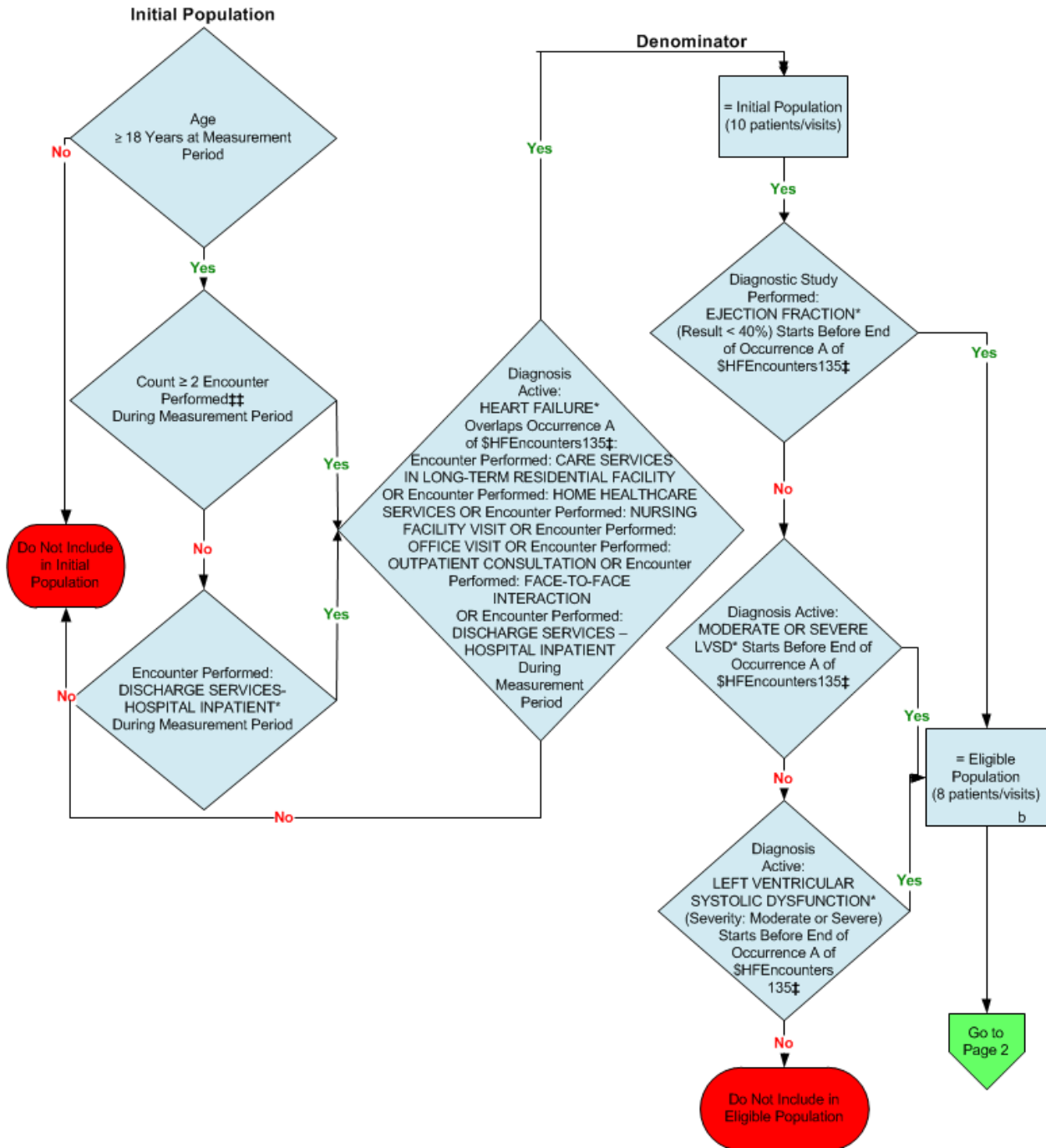


**2014 eCQM Flow**  
**Measure Identifier: CMS135v4**

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



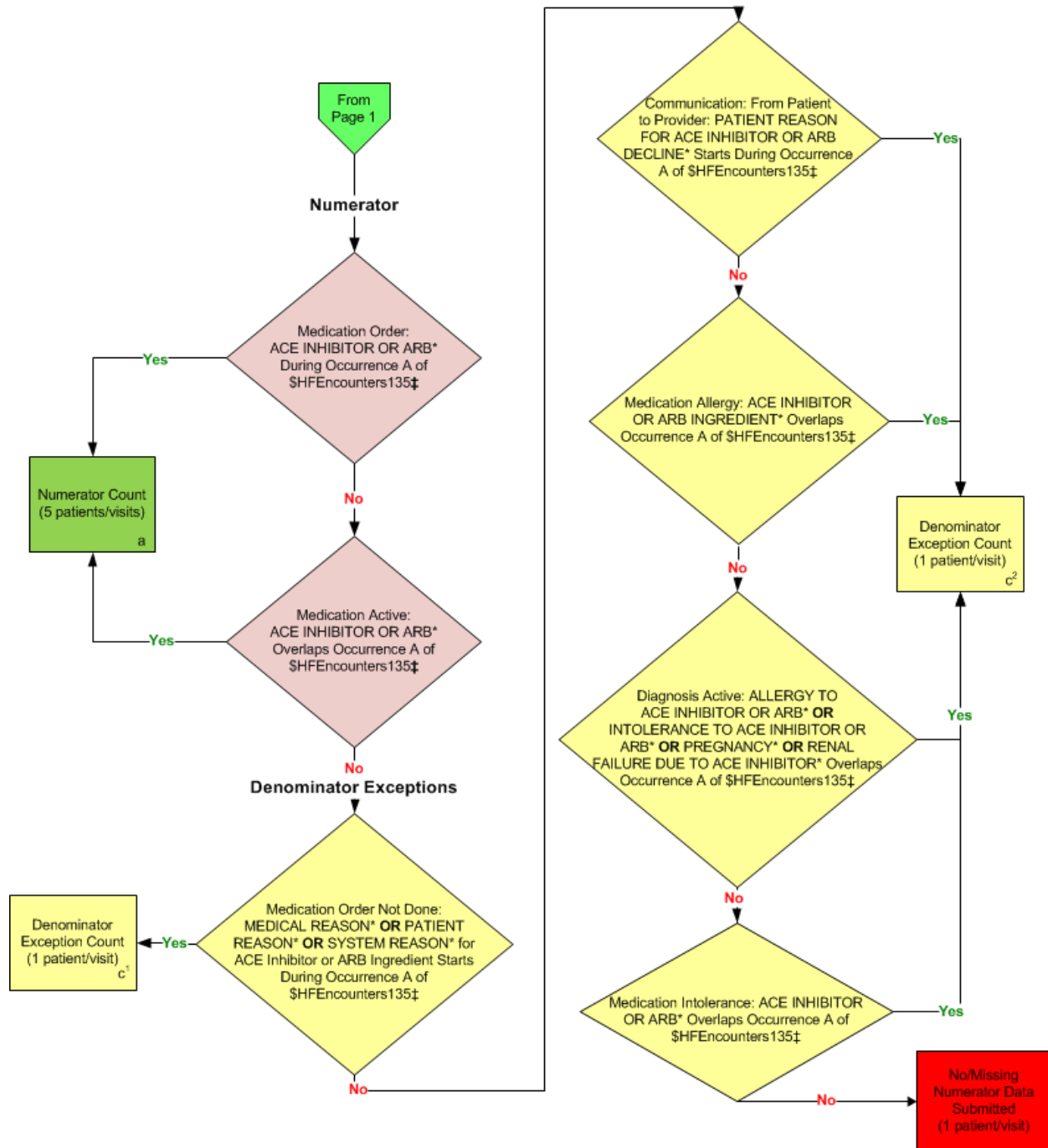
\*Please refer to the specific section of the eCQM to identify the QDM data elements and associated value sets for use in reporting this eCQM.

‡ For a list of appropriate encounters, please refer to the Population Criteria and associated value sets as specific data elements have not been listed.

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**2014 eCQM Flow**  
**Measure Identifier: CMS135v4**

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 eCQM to identify the QDM data elements and associated value sets for use in reporting this eCQM.

‡ For a list of appropriate encounters, please refer to the Population Criteria and associated value sets as specific data elements have not been listed.

**2014 eCQM Flow**  
**Measure Identifier: CMS135v4**

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

**SAMPLE CALCULATION:**

**Performance Rate=**

$$\frac{\text{Numerator (a= 5 patients/visits)}}{\text{Denominator (b=8 patients/visits) – Denominator Exclusions (N/A) – Denominator Exceptions (c<sup>1</sup> + c<sup>2</sup> = 2 patients/visits)}} = 83.33\%$$

## 2014 eCQM Flows

Measure Identifier: CMS135v4

### 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 eCQM to identify the Population Criteria and associated value sets for use in reporting this eCQM.

1. Start Initial Population
2. Check Age:
  - a. If the AGE is greater than or equal to 18 years at measurement period, equals No, do not include in Initial Population. Stop Processing.
  - b. If the AGE is greater than or equal to 18 years at measurement period, equals Yes, proceed to check Encounter Performed count greater than or equal to 2.
3. Check Encounter Performed: Total number of encounters must be greater than or equal to 2:
  - a. If the Encounter Performed, QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, during measurement period, equals No, proceed to check next Encounter Performed.
  - b. If the Encounter Performed QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, during measurement period, equals Yes, include in Diagnosis Active: Heart Failure and proceed to check for another Encounter Performed until total number of encounters are greater than or equal to 2.
  - c. If the Encounter Performed QDM data element, HOME HEALTHCARE SERVICES, during measurement period, equals No, proceed to check next Encounter Performed.
  - d. If the Encounter Performed QDM data element, HOME HEALTHCARE SERVICES during measurement period, equals Yes, include in Diagnosis Active: Heart Failure and proceed to check for another Encounter Performed until total number of encounters are greater than or equal to 2.
  - e. If the Encounter Performed QDM data element, NURSING FACILITY VISIT, during measurement period, equals No proceed to check next Encounter Performed.
  - f. If the Encounter Performed QDM data element, NURSING FACILITY VISIT, equals Yes, during measurement period, include in Diagnosis Active: Heart Failure and proceed to check for another Encounter Performed until total number of encounters are greater than or equal to 2.
  - g. If the Encounter Performed QDM data element, OFFICE VISIT, during measurement period, equals No proceed to check next Encounter Performed.
  - h. If the Encounter Performed QDM data element, OFFICE VISIT, equals Yes, during measurement period, include in Diagnosis Active: Heart Failure and proceed to check for another Encounter Performed until total number of encounters are greater than or equal to 2.

- i. If the Encounter Performed QDM data element, OUTPATIENT CONSULTATION, during measurement period, equals No, proceed to check next Encounter Performed.
  - j. If the Encounter Performed QDM data element, OUTPATIENT CONSULTATION, equals Yes, during measurement period, include in Diagnosis Active: Heart Failure and proceed to check for another Encounter Performed until total number of encounters are greater than or equal to 2.
  - k. If the Encounter Performed QDM data element, PATIENT PROVIDER INTERACTION, equals No, during measurement period, proceed to check Encounter Performed.
  - l. If the Encounter Performed QDM data element, PATIENT PROVIDER INTERACTION, equals Yes, during measurement period, include in Diagnosis Active: Heart Failure and proceed to the Denominator if total number of encounters are greater than or equal to 2.
- 4. Check Encounter Performed:
  - a. If the Encounter Performed QDM data element, DISCHARGE SERVICES – HOSPITAL INPATIENT, during measurement period, equals No, do not include in the Initial Population. Stop Processing.
  - b. If the Encounter Performed QDM data element, DISCHARGE SERVICES – HOSPITAL INPATIENT, during measurement period, equals Yes, include in Diagnosis Active: Heart Failure.
- 5. Check Diagnosis Active:
  - a. If the Diagnosis Active QDM data element, HEART FAILURE, overlaps Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOSPITAL INPATIENT during measurement period), equals No, do not include in initial population.
  - b. If the Diagnosis Active QDM data element, HEART FAILURE, overlaps Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOSPITAL INPATIENT during measurement period), equals Yes, include in initial population.
- 6. Start Denominator
  - a. Denominator equals the Initial Population.
- 7. Check Diagnostic Study Performed:

- a. If the Diagnostic Study Performed QDM data element, EJECTION FRACTION (result less than 40%), starts before end of Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals No, proceed to check next Diagnostic Active.
  - b. If the Diagnostic Study Performed QDM data element, EJECTION FRACTION (result less than 40%), starts before end of Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals Yes, include in Eligible Population Count, which is represented by Letter b in the sample calculation listed at the end of this document. Letter b equals 8 patients/visits. Proceed to the Numerator.
8. Check Diagnosis Active:
  - a. If the Diagnosis Active QDM data element, MODERATE OR SEVERE LVSD, starts before end of Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals No, proceed to check next Diagnosis Active.
  - b. If the Diagnosis Active QDM data element, MODERATE OR SEVERE LVSD, starts before end of Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals Yes, include in Eligible Population Count, which is represented by Letter b in the sample calculation listed at the end of this document. Letter b equals 8 patients/visits. Proceed to the Numerator.
9. Check Diagnosis Active:
  - a. If the Diagnosis Active QDM data element, LEFT VENTRICULAR SYSTOLIC DYSFUNCTION (severity: moderate or severe), starts before end of Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data

element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOSPITAL INPATIENT during measurement period), equals No, do not include in eligible population. Stop Processing.

- b. If the Diagnosis Active QDM data element, LEFT VENTRICULAR SYSTOLIC DYSFUNCTION (severity: moderate or severe), starts before end of Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOSPITAL INPATIENT during measurement period), equals Yes, include in Eligible Population Count, which is represented by Letter b in the sample calculation listed at the end of this document. Letter b equals 8 patients/visits. Proceed to the Numerator.

#### 10. Start Numerator

#### 11. Check Medication Order:

- a. If the Medication Order QDM data element, ACE INHIBITOR OR ARB, during Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOSPITAL INPATIENT during measurement period), equals No, proceed to Medication Active.
- b. If the Medication Order QDM data element, ACE INHIBITOR OR ARB, during Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOSPITAL INPATIENT during measurement period), equals Yes, include in Numerator Count, which is represented by Letter a in the sample calculation listed at the end of this document. Letter a equals 5 patients/visits. Stop Processing.

#### 12. Check Medication Active:

- a. If the Medication Active QDM data element, ACE INHIBITOR OR ARB, overlaps Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOSPITAL INPATIENT during measurement period), equals No, proceed to check Denominator Exceptions.
- b. If the Medication Active QDM data element, ACE INHIBITOR OR ARB, overlaps Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN

LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals Yes, include in Numerator Count, which is represented by Letter a in the sample calculation listed at the end of this document. Letter a equals 5 patients/visits. Stop Processing.

13. Check Denominator Exceptions

14. Check Medication Order Not Done:

- a. If the Medication Order Not Done QDM data element, MEDICAL REASON, or the QDM data element, PATIENT REASON, or the QDM data element, SYSTEM REASON for ACE Inhibitor or ARB Ingredient starts during Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals No, do not include in the Denominator Exception Count. Proceed to check Communication from Patient to Provider.
- b. If the Medication Order Not Done QDM data element, MEDICAL REASON, or the QDM data element, PATIENT REASON, or the QDM data element, SYSTEM REASON for ACE Inhibitor or ARB Ingredient starts during Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals Yes, include in Denominator Exception Count, which is represented by Letter c<sup>1</sup> in the sample calculation listed at the end of this document. Letter c<sup>1</sup> equals 1 patient/visit. Stop Processing.

15. Check Communication from Patient to Provider:

- a. If the Communication from Patient to Provider QDM data element, PATIENT REASON FOR ACE INHIBITOR OR ARB DECLINE, starts during Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals No, do not include in Denominator Exception Count. Proceed to check Medication Allergy.



- b. If the Communication from Patient to Provider QDM data element, PATIENT REASON FOR ACE INHIBITOR OR ARB DECLINE, starts during Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals Yes, include in Denominator Exception Count, which is represented by Letter c<sup>2</sup> in the sample calculation listed at the end of this document. Letter c<sup>2</sup> equals 1 patient/visit. Stop Processing.

16. Check Medication Allergy:

- a. If the Medication Allergy QDM data element, ACE INHIBITOR OR ARB INGREDIENT, overlaps Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals No, do not include in the Denominator Exception Count. Proceed to check Diagnosis Active.
- b. If the Medication Allergy QDM data element, ACE INHIBITOR OR ARB INGREDIENT, overlaps Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals Yes, include in Denominator Exception Count, which is represented by Letter c in the sample calculation listed at the end of this document. Letter c<sup>2</sup> equals 1 patient/visit. Stop Processing.

17. Check Diagnosis Active:

- a. If the Diagnosis Active QDM data element, ALLERGY TO ACE INHIBITOR OR ARB, or the QDM data element, INTOLERANCE TO ACE INHIBITOR OR ARB, or the QDM data element, PREGNANCY, or the QDM data element, RENAL FAILURE DUE TO ACE INHIBITOR, overlaps Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals No, do not include in Denominator Exception Count. Proceed to check Medication Intolerance.

- b. If the Diagnosis Active QDM data element, ALLERGY TO ACE INHIBITOR OR ARB, or the QDM data element, INTOLERANCE TO ACE INHIBITOR OR ARB, or the QDM data element, PREGNANCY, or the QDM data element, RENAL FAILURE DUE TO ACE INHIBITOR, overlaps Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals Yes, include in Denominator Exclusion Count, which is represented by Letter  $c^2$  in the sample calculation listed at the end of this document. Letter  $c^2$  equals 1 patient/visit. Stop Processing.

18. Check Medication Intolerance:

- a. If the Medication Intolerance QDM data element, ACE INHIBITOR OR ARB, overlaps Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals No, include in no/missing numerator data submitted. Stop Processing.
- b. If the Medication Intolerance QDM data element, ACE INHIBITOR OR ARB, overlaps Occurrence A of \$HFEncounters135 (QDM data element, CARE SERVICES IN LONG-TERM RESIDENTIAL FACILITY, or QDM data element, HOME HEALTHCARE SERVICES, or QDM data element, NURSING FACILITY VISIT, or QDM data element, OFFICE VISIT, or QDM data element, OUTPATIENT CONSULTATION or, QDM data element, FACE-TO-FACE, or QDM data element, DISCHARGE SERVICES – HOPSITAL INPATIENT during measurement period), equals Yes, include in Denominator Exception Count, which is represented by Letter  $c^2$  in the sample calculation listed at the end of this document. Letter  $c^2$  equals 1 patient/visit. Stop Processing.

**SAMPLE CALCULATION:**

**Performance Rate=**

Numerator (a= 5 patients/visits)

Denominator (b=8 patients/visits) – *Denominator Exclusions (N/A)* – Denominator Exceptions ( $c^1 + c^2 = 2$  patients/visits)

**= 83.33%**