

**Quality ID #392 (NQF 2474): Cardiac Tamponade and/or Pericardiocentesis Following Atrial Fibrillation Ablation**

- National Quality Strategy Domain: Patient Safety
- Meaningful Measure Area: Preventable Healthcare Harm

**2021 COLLECTION TYPE:**

**MIPS CLINICAL QUALITY MEASURES (CQMS)**

**MEASURE TYPE:**

Outcome – High Priority

**DESCRIPTION:**

Rate of cardiac tamponade and/or pericardiocentesis following atrial fibrillation ablation. This measure is submitted as four rates stratified by age and gender:

- Submission Age Criteria 1: Females 18-64 years of age
- Submission Age Criteria 2: Males 18-64 years of age
- Submission Age Criteria 3: Females 65 years of age and older
- Submission Age Criteria 4: Males 65 years of age and older

**INSTRUCTIONS:**

This measure is to be submitted a minimum of **once per performance period** for patients with atrial fibrillation ablation performed during the performance period. 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.

***NOTE:*** *Include only patients that have had atrial fibrillation ablation performed by November 30, 2021 for evaluation of cardiac tamponade and/or pericardiocentesis occurring within 30 days within the performance period. This will allow the evaluation of cardiac tamponade and/or pericardiocentesis complications within the performance period. A minimum of 30 cases is recommended by the measure owner to ensure a volume of data that accurately reflects provider performance; however, this minimum number is **not required** for purposes of QPP submission.*

**This measure will be calculated with 5 performance rates:**

- 1) Females 18-64 years of age
- 2) Males 18-64 years of age
- 3) Females 65 years of age and older
- 4) Males 65 years of age and older
- 5) Overall percentage of patients with cardiac tamponade and/or pericardiocentesis occurring within 30 days

MIPS eligible clinicians should continue to submit the measure as specified, with no additional steps needed to account for multiple performance rates.

**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.

**DENOMINATOR:**

All patients aged 18 years and older with atrial fibrillation ablation performed during the reporting period

**Denominator Criteria (Eligible Cases):**

**SUBMISSION CRITERIA 1:** Females 18-64 years old

**SUBMISSION CRITERIA 2:** Males 18-64 years old

**SUBMISSION CRITERIA 3:** Females 65 years of age and older

**SUBMISSION CRITERIA 4:** Males 65 years of age and older

**AND**

**Diagnosis code for atrial fibrillation (ICD-10-CM):** I48.0, I48.11, I48.19, I48.20, I48.21, I48.91

**AND**

**Procedure code for atrial fibrillation ablation (ICD-10-PCS):** 02583ZZ, 02584ZZ

**AND/OR**

**Ablation procedures that have been performed by November 30 of current performance period (CPT):**  
93656

**NUMERATOR:**

The number of patients from the denominator with cardiac tamponade and/or pericardiocentesis occurring within 30 days following atrial fibrillation ablation

**Numerator Instructions:**

**INVERSE MEASURE** - A lower calculated performance rate for this measure indicates better clinical care or control. The "Performance Not Met" numerator option for this measure is the representation of the better clinical quality or control. Submitting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures, a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control.

**Numerator Options:**

***Performance Met:***

Patients with cardiac tamponade and/or pericardiocentesis occurring within 30 days (**G9408**)

**OR**

***Performance Not Met:***

Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days (**G9409**)

**RATIONALE:**

Cardiac tamponade is one of the most serious complications of atrial fibrillation ablation that can lead to substantial morbidity due to a significant drop in the cardiac output and blood pressure leading to hypo-perfusion of important organs such as the brain, heart, and kidneys. In many cases, cardiac tamponade has to be treated surgically, and it invariably prolongs hospital stay. If not treated promptly, cardiac tamponade can lead to death. The risk of this dreaded complication has been reported to range from 2 to 6%; however, these rates were observed in tertiary referral centers where the procedure was performed by experienced and skillful operators. Given that the occurrence of cardiac tamponade is largely dependent on the operator's level of experience and, therefore, is in most cases preventable, higher rates are expected to occur when less experienced operators perform the procedure. These issues prove the need to measure performance in this area.

**CLINICAL RECOMMENDATION STATEMENTS:**

In recognition that there is an absence of applicable physician-level performance measures for the profession of cardiac electrophysiology, the Heart Rhythm Society (the international professional society focused on the care of patients with heart rhythm disorders) convened a Performance Measures Development Task Force to consider and develop potential physician-level measures cardiac electrophysiologists. The task force consisted of thought leaders in atrial fibrillation ablation, cardiovascular health policy, performance measures development, clinical outcomes, and population science.

The process for consideration of the evidence included review of multi-stakeholder professional society clinical expert consensus statements on the topic, such as the 2012 Heart Rhythm Society/European Heart Rhythm Association/European Cardiac Arrhythmia Society Expert Consensus Statement on Catheter and Surgical Ablation of Atrial Fibrillation (Calkins et al, 2012), and the relevant literature both referenced within this document and in the knowledge of the members of the task force (Cappato et al, 2005; Hsu et al, 2005; Andrade et al, 2011; Bunch et al, 2005; Cappato et al, 2009; Cappato et al, 2010; Cappato et al, 2011; Fisher et al, 2000; Hsu et al, 2003; Latchamsetty et al, 2011; O'Neill et al, 2008; Tsang et al, 2002).

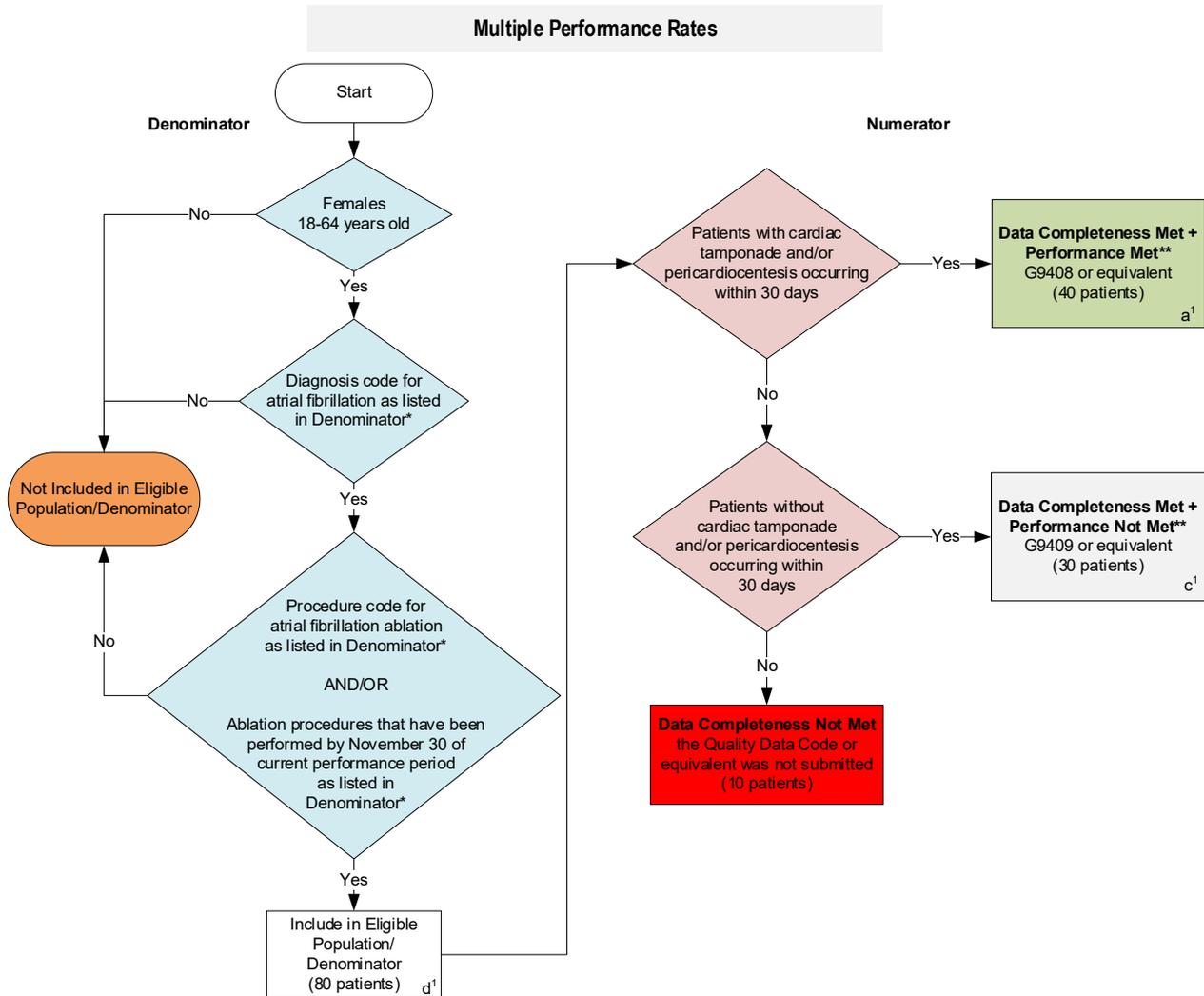
The expert consensus statement does not provide a specific recommendation related to this proposed outcome measure, but rather summarizes that in high-volume and high-quality programs, the incidence of complications in general should be comparable to the low rates of complications observed in published studies, including the world-wide survey of atrial fibrillation ablation (Cappato et al, 2005; Cappato et al, 2009; Cappato et al, 2010; Cappato et al, 2011). Collectively, the incidence of this complication has in general ranged from between 1.2 and 2.4% across the literature evaluated (Cappato et al, 2005; Hsu et al, 2005; Calkins et al, 2012; Andrade et al, 2011; Bunch et al, 2005; Cappato et al, 2009; Cappato et al, 2010; Cappato et al, 2011; Fisher et al, 2000; Hsu et al, 2003; Latchamsetty et al, 2011; O'Neill et al, 2008; Tsang et al, 2002).

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**2021 Clinical Quality Measure Flow for Quality ID #392 NQF #2474:  
Cardiac Tamponade and/or Pericardiocentesis Following Atrial Fibrillation Ablation  
Submission Criteria One**

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



**SAMPLE CALCULATIONS: SUBMISSION CRITERIA ONE**

**Data Completeness=**  

$$\frac{\text{Performance Met (a}^1=40 \text{ patients)} + \text{Performance Not Met (c}^1=30 \text{ patients)}}{\text{Eligible Population / Denominator (d}^1=80 \text{ patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

**Performance Rate\*\*=**  

$$\frac{\text{Performance Met (a}^1= 40 \text{ patients)}}{\text{Data Completeness Numerator (70 patients)}} = \frac{40 \text{ patients}}{70 \text{ patients}} = 57.14\%$$

\*See the posted measure specification for specific coding and instructions to submit this measure. This measure flow illustrates denominator eligible encounters as requiring an ICD-10-PCS AND/OR an encounter

\*\*A lower calculated performance rate for this measure indicates better clinical care or control.

\*\*\*For the purpose of demonstrating the performance rates for this measure the following will apply:

- a1 = Females 18-64 years of age
- a2 = Males 18-64 years of age
- a3 = Females 65 years of age and older
- a4 = Males 65 years of age and older

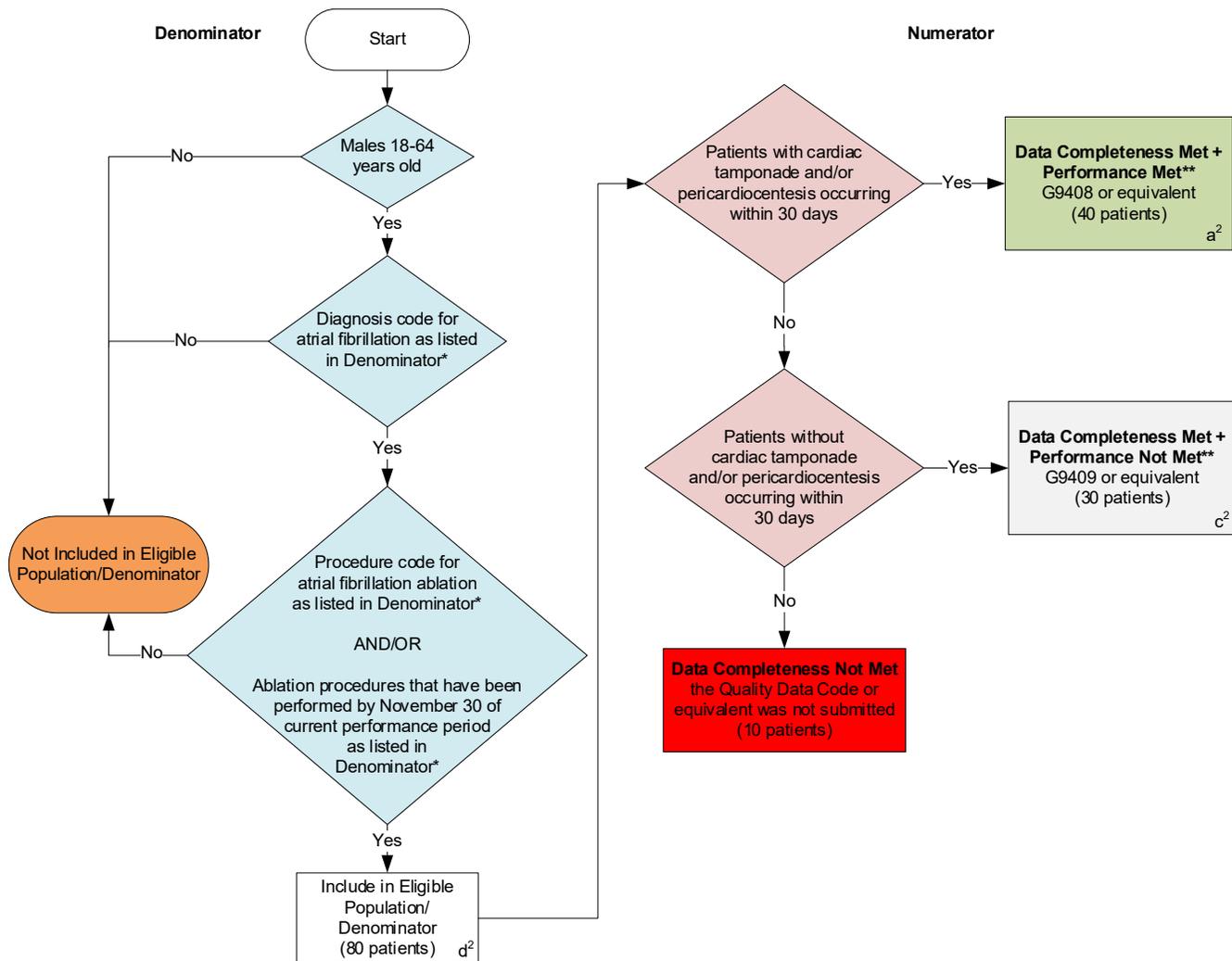
Those 4 rates will be combined to calculate an overall Data Completeness and Performance Rate

\*\*\*\*It is anticipated for registry submission that for every performance rate, a data completeness will be submitted. CMS will determine or use the overall data completeness and performance rate.

NOTE: Submission Frequency: Patient-Process

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## Submission Criteria Two



### SAMPLE CALCULATIONS: SUBMISSION CRITERIA TWO

**Data Completeness=**

$$\frac{\text{Performance Met (a}^2\text{=40 patients) + Performance Not Met (c}^2\text{=30 patients)}}{\text{Eligible Population / Denominator (d}^2\text{=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

**Performance Rate\*\*=**

$$\frac{\text{Performance Met (a}^2\text{= 40 patients)}}{\text{Data Completeness Numerator (70 patients)}} = \frac{40 \text{ patients}}{70 \text{ patients}} = 57.14\%$$

\*See the posted measure specification for specific coding and instructions to submit this measure. This measure flow illustrates denominator eligible encounters as requiring an ICD-10-PCS AND/OR an encounter

\*\*A lower calculated performance rate for this measure indicates better clinical care or control.

\*\*\*For the purpose of demonstrating the performance rates for this measure the following will apply:

- a1 = Females 18-64 years of age
- a2 = Males 18-64 years of age
- a3 = Females 65 years of age and older
- a4 = Males 65 years of age and older

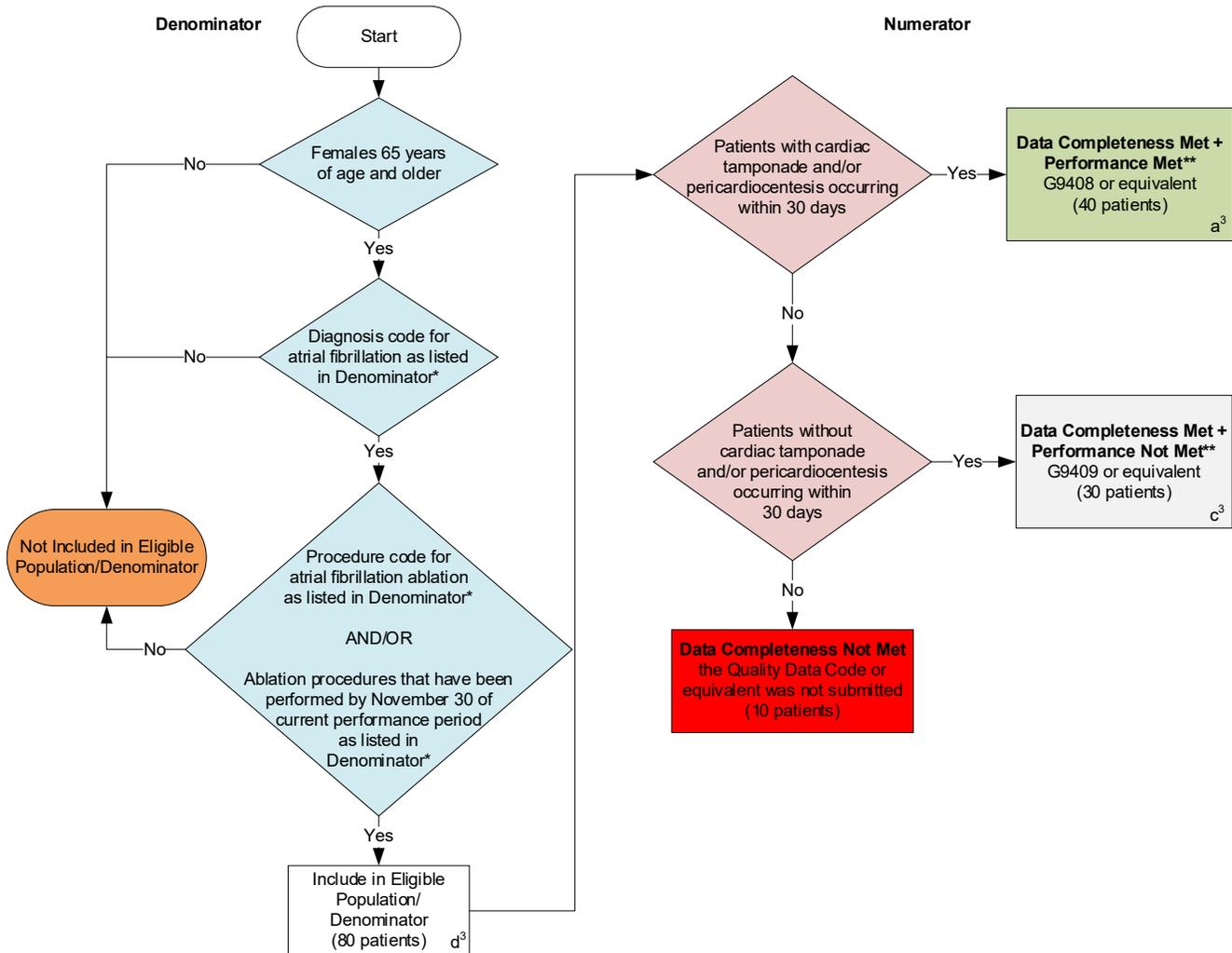
Those 4 rates will be combined to calculate an overall Data Completeness and Performance Rate

\*\*\*\*It is anticipated for registry submission that for every performance rate, a data completeness will be submitted. CMS will determine or use the overall data completeness and performance rate.

NOTE: Submission Frequency: Patient-Process

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## Submission Criteria Three



### SAMPLE CALCULATIONS: SUBMISSION CRITERIA THREE

**Data Completeness=**

$$\frac{\text{Performance Met (a}^3\text{=40 patients) + Performance Not Met (c}^3\text{=30 patients)}}{\text{Eligible Population / Denominator (d}^3\text{=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

**Performance Rate\*\*=**

$$\frac{\text{Performance Met (a}^3\text{= 40 patients)}}{\text{Data Completeness Numerator (70 patients)}} = \frac{40 \text{ patients}}{70 \text{ patients}} = 57.14\%$$

\*See the posted measure specification for specific coding and instructions to submit this measure. This measure flow illustrates denominator eligible encounters as requiring an ICD-10-PCS AND/OR an encounter

\*\*A lower calculated performance rate for this measure indicates better clinical care or control.

\*\*\*For the purpose of demonstrating the performance rates for this measure the following will apply:

- a1 = Females 18-64 years of age
- a2 = Males 18-64 years of age
- a3 = Females 65 years of age and older
- a4 = Males 65 years of age and older

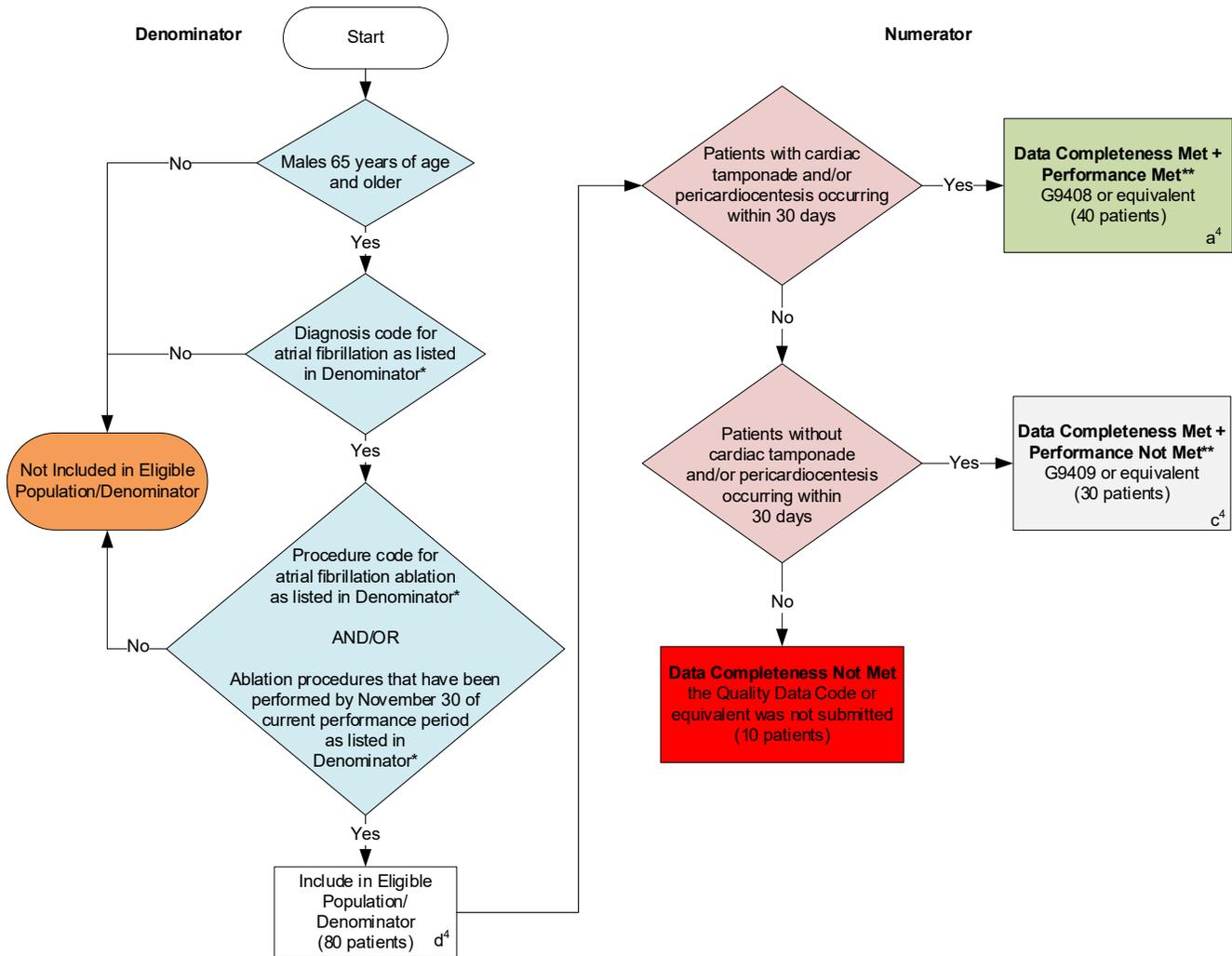
Those 4 rates will be combined to calculate an overall Data Completeness and Performance Rate

\*\*\*\*It is anticipated for registry submission that for every performance rate, a data completeness will be submitted. CMS will determine or use the overall data completeness and performance rate.

NOTE: Submission Frequency: Patient-Process

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## Submission Criteria Four



### SAMPLE CALCULATIONS: SUBMISSION CRITERIA FOUR

**Data Completeness=**

$$\frac{\text{Performance Met (a}^4\text{=40 patients) + Performance Not Met (c}^4\text{=30 patients)}}{\text{Eligible Population / Denominator (d}^4\text{=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

**Performance Rate\*\*=**

$$\frac{\text{Performance Met (a}^4\text{=40 patients)}}{\text{Data Completeness Numerator (70 patients)}} = \frac{40 \text{ patients}}{70 \text{ patients}} = 57.14\%$$

\*See the posted measure specification for specific coding and instructions to submit this measure. This measure flow illustrates denominator eligible encounters as requiring an ICD-10-PCS AND/OR an encounter

\*\*A lower calculated performance rate for this measure indicates better clinical care or control.

\*\*\*For the purpose of demonstrating the performance rates for this measure the following will apply:

- a1 = Females 18-64 years of age
- a2 = Males 18-64 years of age
- a3 = Females 65 years of age and older
- a4 = Males 65 years of age and older

Those 4 rates will be combined to calculate an overall Data Completeness and Performance Rate

\*\*\*\*It is anticipated for registry submission that for every performance rate, a data completeness will be submitted. CMS will determine or use the overall data completeness and performance rate.

NOTE: Submission Frequency: Patient-Process

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**SAMPLE CALCULATIONS: Overall Performance Rate\*\*\*\***

**Data Completeness=**

$$\frac{\text{Performance Met (a}^1\text{+a}^2\text{+a}^3\text{+a}^4\text{=160 patients)} + \text{Performance Not Met (c}^1\text{+c}^2\text{+c}^3\text{+c}^4\text{=120 patients)}}{\text{Eligible Population / Denominator (d}^1\text{+d}^2\text{+d}^3\text{+d}^4\text{=320 patients)}} = \frac{280 \text{ patients}}{320 \text{ patients}} = 87.50\%$$

**Performance Rate\*\*=**

$$\frac{\text{Performance Met (a}^1\text{+a}^2\text{+a}^3\text{+a}^4\text{= 160 patients)}}{\text{Data Completeness Numerator (280 patients)}} = \frac{160 \text{ patients}}{280 \text{ patients}} = 57.14\%$$

\*See the posted measure specification for specific coding and instructions to submit this measure. This measure flow illustrates denominator eligible encounters as requiring an ICD-10-PCS AND/OR an encounter

\*\*A lower calculated performance rate for this measure indicates better clinical care or control.

\*\*\*For the purpose of demonstrating the performance rates for this measure the following will apply:

- a1 = Females 18-64 years of age
- a2 = Males 18-64 years of age
- a3 = Females 65 years of age and older
- a4 = Males 65 years of age and older

Those 4 rates will be combined to calculate an overall Data Completeness and Performance Rate

\*\*\*\*It is anticipated for registry submission that for every performance rate, a data completeness will be submitted. CMS will determine or use the overall data completeness and performance rate.

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**2021 Clinical Quality Measure Flow Narrative for Quality ID #392 NQF #2474:  
Cardiac Tamponade and/or Pericardiocentesis Following Atrial Fibrillation Ablation**

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

**Multiple Performance Rates**

This measure will be calculated with 5 submission rates and submitted. MIPS eligible clinicians should continue to submit the measure as specified, with no additional steps needed to account for multiple performance rates.

**Submission Criteria One:**

1. Start with Denominator
2. Check *Females 18 to 64 years old*:
  - a. If *Females 18 to 64 years old* equals No, do not include in *Eligible Population/Denominator*. Stop Processing.
  - b. If *Females 18 to 64 years old* equals Yes, proceed to check *Diagnosis code for atrial fibrillation as listed in Denominator\**.
3. Check *Diagnosis code for atrial fibrillation as listed in Denominator\**:
  - a. If *Diagnosis code for atrial fibrillation as listed in Denominator\** equals No, do not include in *Eligible Population/Denominator*. Stop Processing.
  - b. If *Diagnosis code for atrial fibrillation as listed in Denominator\** equals Yes, proceed to check *Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\**.
4. Check *Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\**:
  - a. If *Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\** equals No, do not include in *Eligible Patient Population/Denominator*. Stop Processing.
  - b. If *Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\** equals Yes, include in *Eligible Population/Denominator*.
5. 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<sup>1</sup> equals 80 patients in the Sample Calculation.
6. Start Numerator
7. Check *Patients with cardiac tamponade and/or pericardiocentesis occurring within 30 days*:
  - a. If *Patients with cardiac tamponade and/or pericardiocentesis occurring within 30 days* 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<sup>1</sup> equals 40 patients in the Sample Calculation.
- b. If *Patients with cardiac tamponade and/or pericardiocentesis occurring within 30 days* equals No, proceed to check *Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days*.
8. Check *Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days*:
    - a. If *Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days* equals Yes, include in the *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<sup>1</sup> equals 30 patients in the Sample Calculation.
    - b. If *Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days* equals No, proceed to check *Data Completeness Not Met*.
  9. 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 Data Completeness Numerator in the Sample Calculation.

### **Sample Calculations Submission Criteria One**

Data Completeness equals Performance Met ( a<sup>1</sup> equals 40 patients) plus Performance Not Met ( c<sup>1</sup> equals 30 patients) divided by Eligible Population / Denominator ( d<sup>1</sup> equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Performance Rate equals Performance Met ( a<sup>1</sup> equals 40 patients) divided by Data Completeness Numerator (70 patients). All equals 40 patients divided by 70 patients. All equals 57.14 percent.

\*See the posted measure specification for specific coding and instructions to submit this measure. This measure flow illustrates denominator eligible encounters as requiring an ICD-10-PCS AND/OR an encounter.

\*\*A lower calculated performance rate for this measure indicates better clinical care or control.

\*\*\*For the purpose of demonstrating the performance rates for this measure the following will apply:

- a1 = Females 18-64 years of age
- a2 = Males 18-64 years of age
- a3 = Females 65 years of age and older
- a4 = Males 65 years of age and older

Those 4 rates will be combined to calculate an overall Data Completeness and Performance Rate

\*\*\*\*It is anticipated for registry submission that for every performance rate, a data completeness will be submitted.

CMS will determine or use the overall data completeness and performance rate.

NOTE: Submission Frequency: Patient-Process

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.

### **Submission Criteria Two:**

1. Start with Denominator
2. Check *Males 18-64 years old*:

- a. If *Males 18-64 years old* equals No, do not include in *Eligible Population/Denominator*. Stop Processing.
  - b. If *Males 18-64 years old* equals Yes, proceed to check *Diagnosis code for atrial fibrillation as listed in Denominator\**.
3. Check *Diagnosis code for atrial fibrillation as listed in Denominator\**:
- a. If *Diagnosis code for atrial fibrillation as listed in Denominator\** equals No, do not include in *Eligible Population/Denominator*. Stop Processing.
  - b. If *Diagnosis code for atrial fibrillation as listed in Denominator\** equals Yes, proceed to check *Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\**.
4. Check *Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\**:
- a. If *Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\** equals No, do not include in *Eligible Population/Denominator*. Stop Processing.
  - b. If *Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\** equals Yes, include in *Eligible Population/Denominator*.
5. 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  $d^2$  equals 80 patients in the Sample Calculation.
6. Start Numerator
7. Check *Patients with cardiac tamponade and/or pericardiocentesis occurring within 30 days*:
- a. If *Patients with cardiac tamponade and/or pericardiocentesis occurring within 30 days* 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 patients in the Sample Calculation.
  - b. If *Patients with cardiac tamponade and/or pericardiocentesis occurring within 30 days* equals No, proceed to check *Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days*.
8. Check *Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days*:
- a. If *Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days* equals Yes, include in the *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 30 patients in the Sample Calculation.

- b. If *Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days* equals No, proceed to check *Data Completeness Not Met*.

9. 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 Data Completeness Numerator in the Sample Calculation.

### **Sample Calculations Submission Criteria Two**

Data Completeness equals Performance Met ( a<sup>2</sup> equals 40 patients) plus Performance Not Met ( c<sup>2</sup> equals 30 patients) divided by Eligible Population / Denominator ( d<sup>2</sup> equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Performance Rate equals Performance Met ( a<sup>2</sup> equals 40 patients) divided by Data Completeness Numerator (70 patients). All equals 40 patients divided by 70 patients. All equals 57.14 percent.

\*See the posted measure specification for specific coding and instructions to submit this measure. This measure flow illustrates denominator eligible encounters as requiring an ICD-10-PCS AND/OR an encounter.

\*\*A lower calculated performance rate for this measure indicates better clinical care or control.

\*\*\*For the purpose of demonstrating the performance rates for this measure the following will apply:

- a1 = Females 18-64 years of age
- a2 = Males 18-64 years of age
- a3 = Females 65 years of age and older
- a4 = Males 65 years of age and older

Those 4 rates will be combined to calculate an overall Data Completeness and Performance Rate

\*\*\*\*It is anticipated for registry submission that for every performance rate, a data completeness will be submitted. CMS will determine or use the overall data completeness and performance rate.

NOTE: Submission Frequency: Patient-Process

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.

### **Submission Criteria Three:**

1. Start with Denominator
2. Check *Females 65 years of age and older*.
  - a. If *Females 65 years of age and older* equals No, do not include in *Eligible Population/Denominator*. Stop Processing.
  - b. If *Females 65 years of age and older* equals Yes, proceed to check *Diagnosis code for atrial fibrillation as listed in Denominator\**.
3. Check *Diagnosis code for atrial fibrillation as listed in Denominator\**:
  - a. If *Diagnosis code for atrial fibrillation as listed in Denominator\** equals No, do not include in *Eligible Population/Denominator*. Stop Processing.
  - b. If *Diagnosis code for atrial fibrillation as listed in Denominator\** equals Yes, proceed to check *Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\**.
4. Check *Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that*

have been performed by November 30 of current performance period as listed in Denominator\*:

- a. If Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\* equals No, do not include in Eligible Population/Denominator. Stop Processing.
  - b. If Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\* equals Yes, include in Eligible Population/Denominator.
5. 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<sup>3</sup> equals 80 patients in the Sample Calculation.
6. Start Numerator
7. Check Patients with cardiac tamponade and/or pericardiocentesis occurring within 30 days:
- a. If Patients with cardiac tamponade and/or pericardiocentesis occurring within 30 days 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<sup>3</sup> equals 40 patients in the Sample Calculation.
  - b. If Patients with cardiac tamponade and/or pericardiocentesis occurring within 30 days equals No, proceed to check Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days.
8. Check Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days:
- a. If Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days equals Yes, include in the 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<sup>3</sup> equals 30 patients in the Sample Calculation.
  - b. If Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days equals No, proceed to check Data Completeness Not Met.
9. 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 Data Completeness Numerator in the Sample Calculation.

### **Sample Calculations Submission Criteria Three**

Data Completeness equals Performance Met ( a<sup>3</sup> equals 40 patients) plus Performance Not Met ( c<sup>3</sup> equals 30 patients) divided by Eligible Population / Denominator ( d<sup>3</sup> equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Performance Rate equals Performance Met ( a<sup>3</sup> equals 40 patients) divided by Data Completeness Numerator (70 patients). All equals 40 patients divided by 70 patients. All equals 57.14 percent.

\*See the posted measure specification for specific coding and instructions to submit this measure. This measure flow illustrates denominator eligible encounters as requiring an ICD-10-PCS AND/OR an encounter.

\*\*A lower calculated performance rate for this measure indicates better clinical care or control.

\*\*\*For the purpose of demonstrating the performance rates for this measure the following will apply:

- a1 = Females 18-64 years of age
- a2 = Males 18-64 years of age
- a3 = Females 65 years of age and older
- a4 = Males 65 years of age and older

Those 4 rates will be combined to calculate an overall Data Completeness and Performance Rate

\*\*\*\*It is anticipated for registry submission that for every performance rate, a data completeness will be submitted. CMS will determine or use the overall data completeness and performance rate.

NOTE: Submission Frequency: Patient-Process

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.

### **Submission Criteria Four:**

1. Start with Denominator
2. Check *Males 65 years of age and older*.
  - a. If *Males 65 years of age and older* equals No, do not include in *Eligible Population/Denominator*. Stop Processing.
  - b. If *Males 65 years of age and older* equals Yes, proceed to check *Diagnosis code for atrial fibrillation as listed in Denominator\**.
3. Check *Diagnosis code for atrial fibrillation as listed in Denominator\**:
  - a. If *Diagnosis code for atrial fibrillation as listed in Denominator\** equals No, do not include in *Eligible Population/Denominator*. Stop Processing.
  - b. If *Diagnosis code for atrial fibrillation as listed in Denominator\** equals Yes, proceed to check *Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\**.
4. Check *Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\**:
  - a. If *Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\** equals No, do not include in *Eligible Population/Denominator*. Stop Processing.
  - b. If *Procedure code for atrial fibrillation ablation as listed in Denominator\* AND/OR Ablation procedures that have been performed by November 30 of current performance period as listed in Denominator\** equals Yes, include in *Eligible Population/Denominator*.
5. 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<sup>4</sup> equals 80 patients in the Sample Calculation.

6. Start Numerator
7. Check *Patients with cardiac tamponade and/or pericardiocentesis occurring within 30 days*:
  - a. If *Patients with cardiac tamponade and/or pericardiocentesis occurring within 30 days* 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<sup>4</sup> equals 40 patients in the Sample Calculation.
  - b. If *Patients with cardiac tamponade and/or pericardiocentesis occurring within 30 days* equals No, proceed to check *Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days*.
8. Check *Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days*:
  - a. If *Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days* equals Yes, include in the *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<sup>4</sup> equals 30 patients in the Sample Calculation.
  - b. If *Patients without cardiac tamponade and/or pericardiocentesis occurring within 30 days* equals No, proceed to check *Data Completeness Not Met*.
9. 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 Data Completeness Numerator in the Sample Calculation.

#### **Sample Calculations Submission Criteria Four**

Data Completeness equals Performance Met ( a<sup>4</sup> equals 40 patients) plus Performance Not Met ( c<sup>4</sup> equals 30 patients) divided by Eligible Population / Denominator ( d<sup>4</sup> equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Performance Rate equals Performance Met ( a<sup>4</sup> equals 40 patients) divided by Data Completeness Numerator (70 patients). All equals 40 patients divided by 70 patients. All equals 57.14 percent.

\*See the posted measure specification for specific coding and instructions to submit this measure. This measure flow illustrates denominator eligible encounters as requiring an ICD-10-PCS AND/OR an encounter.

\*\*A lower calculated performance rate for this measure indicates better clinical care or control.

\*\*\*For the purpose of demonstrating the performance rates for this measure the following will apply:

- a1 = Females 18-64 years of age
- a2 = Males 18-64 years of age
- a3 = Females 65 years of age and older
- a4 = Males 65 years of age and older

Those 4 rates will be combined to calculate an overall Data Completeness and Performance Rate

\*\*\*\*It is anticipated for registry submission that for every performance rate, a data completeness will be submitted. CMS will determine or use the overall data completeness and performance rate.

NOTE: Submission Frequency: Patient-Process

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### **Sample Calculations: Overall Performance Rate**

Data Completeness equals Performance Met ( $a^1$  plus  $a^2$  plus  $a^3$  plus  $a^4$  equals 160 patients) plus Performance Not Met ( $c^1$  plus  $c^2$  plus  $c^3$  plus  $c^4$  equals 120 patients) divided by Eligible Population / Denominator ( $d^1$  plus  $d^2$  plus  $d^3$  plus  $d^4$  equals 320 patients). All equals 280 patients divided by 320 patients. All equals 87.50 percent.

Performance Rate equals Performance Met ( $a^1$  plus  $a^2$  plus  $a^3$  plus  $a^4$  equals 160 patients) divided by Data Completeness Numerator (280 patients). All equals 160 divided by 280 patients. All equals 57.14 percent.

\*See the posted measure specification for specific coding and instructions to submit this measure. This measure flow illustrates denominator eligible encounters as requiring an ICD-10-PCS AND/OR an encounter.

\*\*A lower calculated performance rate for this measure indicates better clinical care or control.

\*\*\*For the purpose of demonstrating the performance rates for this measure the following will apply:

- a1 = Females 18-64 years of age
- a2 = Males 18-64 years of age
- a3 = Females 65 years of age and older
- a4 = Males 65 years of age and older

Those 4 rates will be combined to calculate an overall Data Completeness and Performance Rate

\*\*\*\*It is anticipated for registry submission that for every performance rate, a data completeness will be submitted. CMS will determine or use the overall data completeness and performance rate.

NOTE: Submission Frequency: Patient-Process

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.