

**Measure #360: Optimizing Patient Exposure to Ionizing Radiation: Count of Potential High Dose Radiation Imaging Studies: Computed Tomography (CT) and Cardiac Nuclear Medicine Studies – National Quality Strategy Domain: Patient Safety**

**2017 OPTIONS FOR INDIVIDUAL MEASURES:**  
**REGISTRY ONLY**

**MEASURE TYPE:**  
Process

**DESCRIPTION:**  
Percentage of computed tomography (CT) and cardiac nuclear medicine (myocardial perfusion studies) imaging reports for all patients, regardless of age, that document a count of known previous CT (any type of CT) and cardiac nuclear medicine (myocardial perfusion) studies that the patient has received in the 12-month period prior to the current study

**INSTRUCTIONS:**  
This measure is to be reported **each time** a procedure for a CT imaging report is performed during the **performance period**. There is no diagnosis associated with this measure. This measure may be reported by eligible professionals who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

**Measure Reporting:**  
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

**DENOMINATOR:**  
All final reports for patients, regardless of age, undergoing a CT procedure

**Denominator Criteria (Eligible Cases):**

All patients regardless of age

**AND**

**Patient procedure during the performance period (CPT):** 70450, 70460, 70470, 70480, 70481, 70482, 70486, 70487, 70488, 70490, 70491, 70492, 70496, 70498, 71250, 71260, 71270, 71275, 72125, 72126, 72127, 72128, 72129, 72130, 72131, 72132, 72133, 72191, 72192, 72193, 72194, 73200, 73201, 73202, 73206, 73700, 73701, 73702, 73706, 74150, 74160, 74170, 74174, 74175, 74176, 74177, 74178, 74261, 74262, 74263, 75571, 75572, 75573, 75574, 75635, 76380, 76497, 77011, 77012, 77013, 77078, 78072, 78451, 78452, 78453, 78454, 78491, 78492, 78814, 78815, 78816, 0042T

**NUMERATOR:**  
CT and cardiac nuclear medicine (myocardial perfusion studies) imaging reports that document a count of known previous CT (any type of CT) and cardiac nuclear medicine (myocardial perfusion) studies that the patient has received in the 12-month period prior to the current study

**Numerator Instructions:** Physicians will need to document in the final report all known previous CT and cardiac nuclear medicine (myocardial perfusion) studies the patient has received in the 12-month period prior to the current study as a count that includes studies from the Radiology Information System, patient-provided radiological history or other source.

**Numerator Options:**

***Performance Met:***

Count of previous CT (any type of CT) and cardiac nuclear medicine (myocardial perfusion) studies documented in the 12-month period prior to the current study (G9321)

**OR**

***Performance Not Met:***

Count of previous CT and cardiac nuclear medicine (myocardial perfusion) studies not documented in the 12-month period prior to the current study, reason not given (G9322)

**RATIONALE:**

Increased CT use has resulted in growing rates of repeat or multiple imaging. (Griffey RT, Sodickson A, 2009)

Physicians may lack important information that could inform their decisions in ordering imaging exams that use ionizing radiation. Ordering physicians may not have access to patients' medical imaging or radiation dose history. Due to insufficient information, physicians may unnecessarily order imaging procedures that have already been conducted. (US Food and Drug Administration, 2010)

**CLINICAL RECOMMENDATION STATEMENTS:**

Radiologists, medical physicists, radiologic technologists, and all supervising physicians have a responsibility to minimize radiation dose to individual patients, to staff, and to society as a whole, while maintaining the necessary diagnostic image quality. (ACR, 2008)

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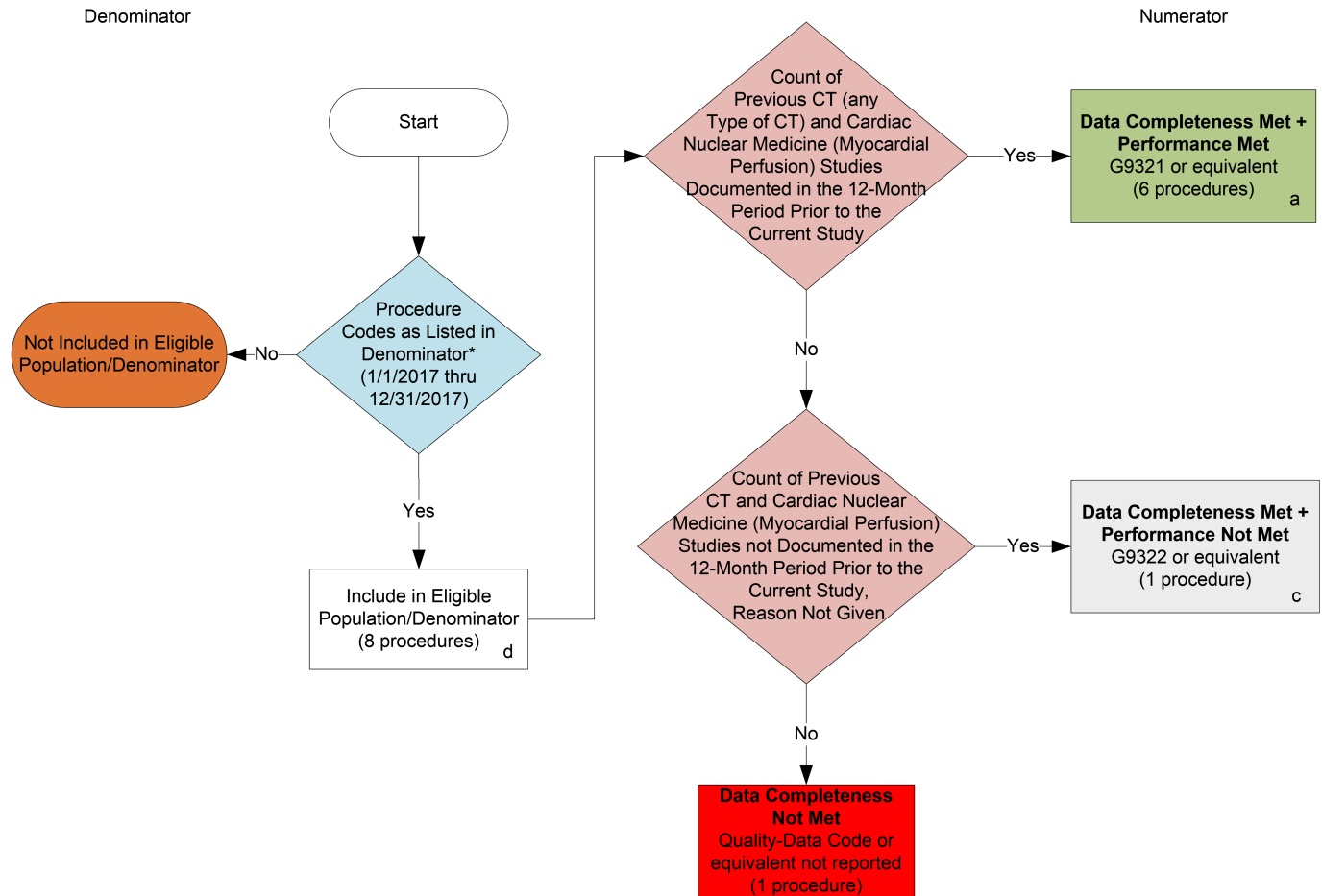
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## 2017 Registry Individual Measure Flow

### #360: Optimizing Patient Exposure to Ionizing Radiation: Count of Potential High Dose Radiation Imaging Studies: Computed Tomography (CT) and Cardiac Nuclear Medicine Studies



#### SAMPLE CALCULATIONS:

##### Data Completeness=

Performance Met (a=6 procedures) + Performance Not Met (c=1 procedure) = 7 procedures = 87.50%  
Eligible Population / Denominator (d=8 procedures) = 8 procedures

##### Performance Rate=

Performance Met (a=6 procedures) = 6 procedures = 85.71%  
Data Completeness Numerator (7 procedures) = 7 procedures

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

NOTE: Reporting Frequency: Patient-process

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## 2017 Registry Individual Measure Flow

### #360: Optimizing Patient Exposure to Ionizing Radiation: Count of Potential High Dose Radiation Imaging Studies: Computed Tomography (CT) and Cardiac Nuclear Medicine Studies

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

1. Start with Denominator
2. Check Procedure:
  - a. If Procedure as Listed in the Denominator equals No, do not include in Eligible Population or Denominator. Stop Processing.
  - b. If Procedure as Listed in the Denominator equals Yes, include in the Eligible population or Denominator.
3. Denominator Population:
  - a. Eligible population or Denominator is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 8 procedures in the sample calculation.
4. Start Numerator
5. Check Count of Previous CT (any Type of CT) and Cardiac Nuclear Medicine (Myocardial Perfusion) Studies Documented in the 12-Month Period Prior to the Current Study:
  - a. If Count of Previous CT (any Type of CT) and Cardiac Nuclear Medicine (Myocardial Perfusion) Studies Documented in the 12-Month Period Prior to the Current Study equals Yes, include in Data Completeness Met and Performance Met.
  - b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 6 procedures in Sample Calculation.
  - c. If Count of Previous CT (any Type of CT) and Cardiac Nuclear Medicine (Myocardial Perfusion) Studies Documented in the 12-Month Period Prior to the Current Study equals No, proceed to Check Count of Previous CT and Cardiac Nuclear Medicine (Myocardial Perfusion) Studies not Documented in the 12-Month Period Prior to the Current Study, Reason Not Given.
6. Check Count of Previous CT and Cardiac Nuclear Medicine (Myocardial Perfusion) Studies not Documented in the 12-Month Period Prior to the Current Study, Reason Not Given:
  - a. If Count of Previous CT and Cardiac Nuclear Medicine (Myocardial Perfusion) Studies not Documented in the 12-Month Period Prior to the Current Study, Reason Not Given equals Yes, include in Data Completeness Met and Performance Not Met.
  - b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 1 procedure in the Sample Calculation.
  - c. If Count of Previous CT and Cardiac Nuclear Medicine (Myocardial Perfusion) Studies not Documented in the 12-Month Period Prior to the Current Study, Reason Not Given equals No, proceed to Data Completeness Not Met.

7. Check Data Completeness Not Met:

- a. If Data Completeness Not Met, the Quality Data Code or equivalent was not reported. 1 procedure has been subtracted from the data completeness numerator in sample calculation.

**SAMPLE CALCULATIONS:**

**Data Completeness=**

$$\frac{\text{Performance Met (a=6 procedures)} + \text{Performance Not Met (c=1 procedure)}}{\text{Eligible Population / Denominator (d=8 procedures)}} = \frac{7 \text{ procedures}}{8 \text{ procedures}} = 87.50\%$$

**Performance Rate=**

$$\frac{\text{Performance Met (a=6 procedures)}}{\text{Data Completeness Numerator (7 procedures)}} = \frac{6 \text{ procedures}}{7 \text{ procedures}} = 85.71\%$$