Quality ID #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
– Meaningful Measure Area: Transfer of Health Information and Interoperability

2021 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process – High Priority

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 submitted 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 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.

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 final reports for patients, regardless of age, undergoing a CT procedure

DENOMINATOR NOTE: *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):
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, 73207, 73700, 73701, 73702, 73706, 74150, 74160, 74170, 74174, 74175, 74176, 74177, 74178, 74261, 74262, 74263*, 75571, 75572, 75573, 75574, 75635, 76380, 76497, 77011, 77012, 77014, 77015, 77013, 77078, 78072, 78429, 78430, 78431, 78433, 78451, 78452, 78453, 78454, 78491, 78492, 0042T, G0297
**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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2021 Clinical Quality Measure Flow for Quality ID #360:
Optimizing Patient Exposure to Ionizing Radiation: Count of Potential High Dose Radiation Imaging Studies: Computed Tomography (CT) and Cardiac Nuclear Medicine Studies

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

![Diagram of measure flow]

**SAMPLE CALCULATIONS**

Data Completeness=
Performance Met \( (a=60\text{ procedures}) \) + Performance Not Met \( (c=10\text{ procedures}) \) = \( 70\text{ procedures} \) = 87.50%  
Eligible Population / Denominator \( (d=80\text{ procedures}) \) = \( 80\text{ procedures} \)

Performance Rate=
Performance Met \( (a=60\text{ procedures}) \) = \( 60\text{ procedures} \) = 85.71%  
Data Completeness Numerator \( (70\text{ procedures}) \) = \( 70\text{ procedures} \)

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

NOTE: Submission Frequency: Procedure

* Version 5.0 November 2020
2021 Clinical Quality Measure Flow Narrative for Quality ID #360:
Optimizing Patient Exposure to Ionizing Radiation: Count of Potential High Dose Radiation Imaging Studies: Computed Tomography (CT) and Cardiac Nuclear Medicine Studies

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

1. Start with Denominator

2. All patients, regardless of age.

3. Check Patient procedure during the performance period as listed in Denominator*:
   a. If Patient procedure during the performance period as listed in Denominator* equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Patient procedure during the performance period as listed in Denominator* equals Yes, include in Eligible Population/Denominator.

4. Denominator Population:
   - Denominator Population is all Eligible Procedures in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 procedures in the Sample Calculation.

5. Start Numerator

6. 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.
      - 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 60 procedures in the Sample Calculation.
   b. 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.

7. 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.
      - 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 10 procedures in the Sample Calculation.
b. 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 check Data Completeness Not Met.

8. Check Data Completeness Not Met:

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

Sample Calculations

Data Completeness equals Performance Met (a equals 60 procedures) plus Performance Not Met (c equals 10 procedures) divided by Eligible Population/Denominator (d equals 80 procedures). All equals 70 procedures divided by 80 procedures. All equals 87.50 percent.

Performance Rate equals Performance Met (a equals 60 procedures) divided by Data Completeness Numerator (70 procedures). All equals 60 procedures divided by 70 procedures. All equals 85.71 percent.

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

NOTE: Submission Frequency: Procedure

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.