Quality ID #323: Cardiac Stress Imaging Not Meeting Appropriate Use Criteria: Routine Testing After Percutaneous Coronary Intervention (PCI)
– National Quality Strategy Domain: Efficiency and Cost Reduction
– Meaningful Measure Area: Appropriate Use of Healthcare

2020 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Efficiency – High Priority

DESCRIPTION:
Percentage of all stress single-photon emission computed tomography (SPECT) myocardial perfusion imaging (MPI), stress echocardiogram (ECHO), cardiac computed tomography angiography (CCTA), and cardiovascular magnetic resonance (CMR) performed in patients aged 18 years and older routinely after percutaneous coronary intervention (PCI), with reference to timing of test after PCI and symptom status

INSTRUCTIONS:
This measure is to be submitted **once per procedure** of cardiac stress imaging (i.e., SPECT, MPI, ECHO, CCTA and CMR) for patients seen during the performance period. There is no diagnosis associated with this measure. It is anticipated that Merit-based Incentive Payment System (MIPS) eligible clinicians who provide the professional component of diagnostic imaging studies for cardiac stress will submit this measure.

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 instances of stress single-photon emission computed tomography (SPECT) myocardial perfusion imaging (MPI), stress echocardiogram (ECHO), cardiac computed tomography angiography (CCTA), or cardiac magnetic resonance (CMR) performed on patients aged 18 years and older during the submission period

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years on date of encounter
AND
Cardiac Stress Imaging Performed – Procedure Codes (CPT): 75559, 75563, 75571, 75572, 75573, 75574, 78451, 78452, 78453, 78454, 78491, 78492, 78494, 93350, 93351

NUMERATOR:
Number of stress SPECT MPI, stress echo, CCTA and CMR performed in asymptomatic patients within 2 years of the most recent PCI

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 NOTE: *A lower calculated performance rate for this measure indicates better clinical care or control. This measure is assessing overuse of cardiac stress imaging in asymptomatic patients that received PCI. Clinical quality outcome is cardiac stress imaging NOT performed on patient who is asymptomatic or low CHD risk.*

Numerator Options:

Performance Met:	Cardiac Stress Imaging performed primarily for monitoring of asymptomatic patient who had PCI within 2 years **(G8963)**
OR	
Performance Not Met:	Cardiac Stress Imaging test performed primarily for any other reason than monitoring of asymptomatic patient who had PCI within 2 years (e.g., symptomatic patient, patient greater than 2 years since PCI, initial evaluation, etc.) **(G8964)**

RATIONALE:

Diagnostic testing, such as stress SPECT MPI, stress echocardiography, CCTA and CMR, is used to detect disease and provide risk assessment used to modify treatment strategies and approaches. Information provided by such testing can initiate, modify and stop further treatments for coronary heart disease (medications and revascularization) which have an impact on patient outcomes.

In addition, false positives and false negatives can adversely impact the patient and their treatment outcomes. Lastly, radiation from stress SPECT MPI and CCTA poses a minimal but still important consideration for patient safety.

Ensuring proper patient selection can avoid using resources in patients not expected to benefit from the testings and for which the associated risks would be unnecessary.

CLINICAL RECOMMENDATION STATEMENTS:

2005 PCI Guidelines

Neither exercise testing nor radionuclide imaging is indicated for the routine, periodic monitoring of asymptomatic patients after PCI without specific indications.

2011 ACCF/AHA/SCAI Guideline for Percutaneous Coronary Intervention A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines and the Society for Cardiovascular Angiography and Interventions (J Am Coll Cardiol, 2011)

AUC Indications

2013 ACCF/AHA/ASE/ASNC/HFSA/HRS/SCAI/SCCT/SCMR/STS multimodality appropriate use criteria for the detection and risk assessment of stable ischemic heart disease (J Am Coll Cardiol. 2014 Feb 4;63(4):380-406)

Indication 69: Post Revascularization: Asymptomatic (Without Ischemic Heart Disease) and less than 2 years after PCI – Rarely Appropriate

2008 Appropriateness Criteria for Stress Echocardiography Indication 39: Risk Assessment: Post-Revascularization (PCI or CABG): Asymptomatic: Asymptomatic (e.g., silent ischemia) prior to previous revascularization AND less than 2 years after PCI - Inappropriate (3)

Indication 40: Risk Assessment: Post-Revascularization (PCI or CABG): Asymptomatic: Symptomatic prior to previous revascularization AND less than 2 years after PCI - Inappropriate (2)

ACCF/ASE/AHA/ASNC/HFSA/HRS/SCAI/SCCM/SCCT/SCMR 2011 Appropriate Use Criteria for Echocardiography (J Am Coll Cardiol, 2011) 2009 Appropriate Use Criteria for Cardiac Radionuclide Imaging

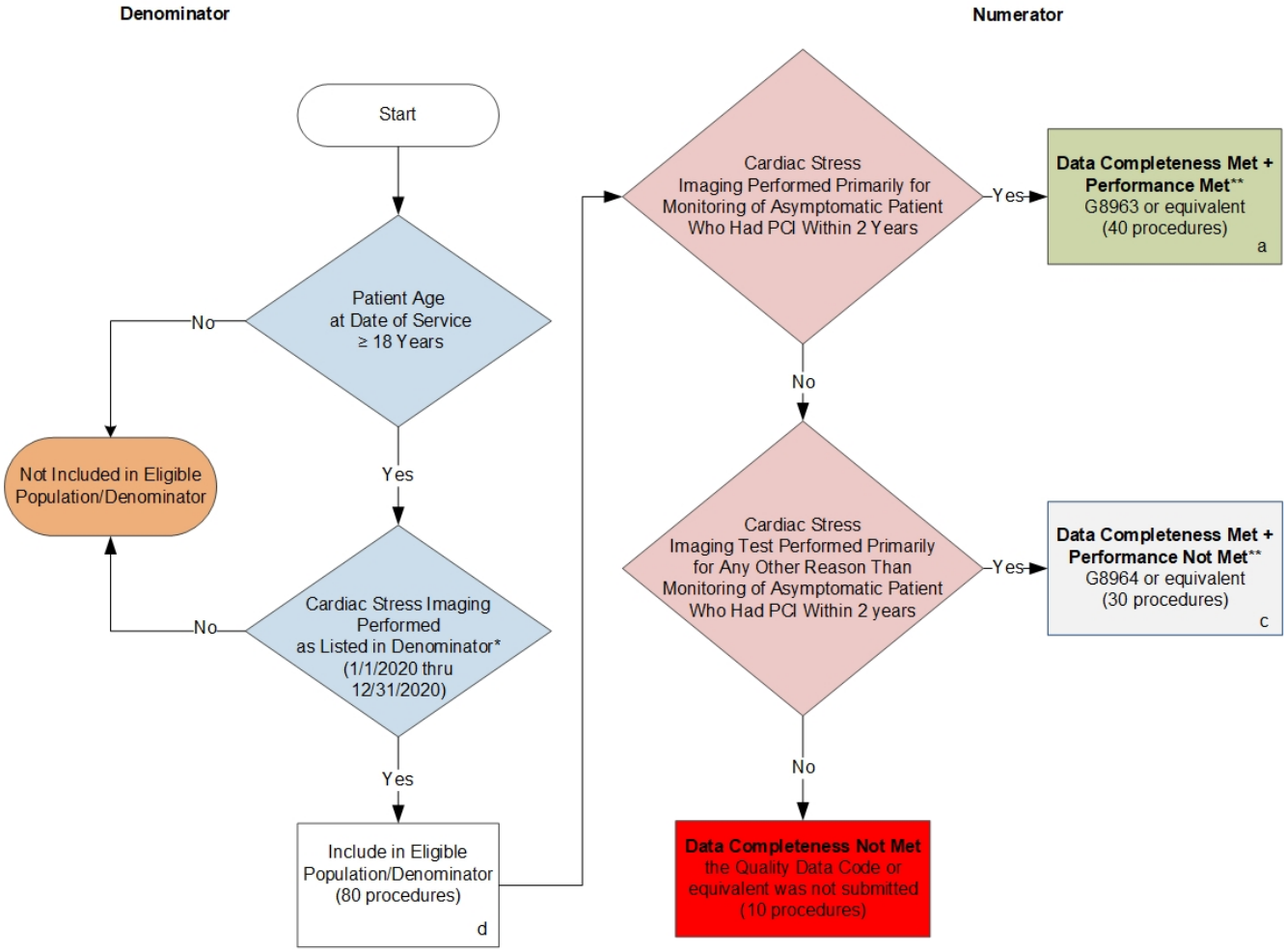
Indication 59: Risk Assessment: Post Revascularization (PCI or CABG): Asymptomatic: Less than 2 years after PCI – Inappropriate (3)

2006 Appropriateness Criteria for CCT and CMR Indication 27. Detection of CAD: Post-Revascularization (PCIor CABG) (Use of CCTA): Evaluation for in-stent restenosis and coronary anatomy after PCI - Inappropriate (2)

2010 Appropriate Use Criteria for Cardiac Computed Tomography (J Am Coll Cardiol, 2010)

2020 Clinical Quality Measure Flow for Quality ID #323: Cardiac Stress Imaging Not Meeting Appropriate Use Criteria: Routine Testing After Percutaneous Coronary Intervention (PCI)

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



SAMPLE CALCULATIONS:

Data Completeness=
Performance Met (a=40 procedures) + Performance Not Met (c=30 procedures) = 70 procedures = **87.50%**
Eligible Population / Denominator (d=80 procedures) = 80 procedures

Performance Rate=**
Performance Met (a=40 procedures) = 40 procedures = **57.14%**
Data Completeness Numerator (70 procedures) = 70 procedures

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

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

NOTE: Submission Frequency: Procedure

v4

2020 Clinical Quality Measure Flow Narrative for Quality ID #323: Cardiac Stress Imaging Not Meeting Appropriate Use Criteria: Routine Testing After Percutaneous Coronary Intervention (PCI)

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

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

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age at Date of Service is greater than or equal to 18 Years equals No, do not include in Eligible Population. Stop Processing.
    b. If Patient Age at Date of Service is greater than or equal to 18 Years equals Yes, proceed to check Cardiac Stress Imaging Performed.
3. Check Cardiac Stress Imaging Performed:
    a. If Cardiac Stress Imaging Performed as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Cardiac Stress Imaging Performed as Listed in the Denominator equals Yes, include in Eligible Population.
4. Denominator Population:
    a. 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 Cardiac Stress Imaging Performed Primarily for Monitoring of Asymptomatic Patient who had PCI Within 2 Years:
    a. If Cardiac Stress Imaging Performed Primarily for Monitoring of Asymptomatic Patient who had PCI Within 2 Years 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 40 procedures in the Sample Calculation.
    c. If Cardiac Stress Imaging Performed Primarily for Monitoring of Asymptomatic Patient who had PCI Within 2 Years equals No, proceed to check Cardiac Stress Imaging Test Performed Primarily for Any Other Reason than Monitoring of Asymptomatic Patient Who Had PCI Within 2 years.
7. Check Cardiac Stress Imaging Test Performed Primarily for Any Other Reason than Monitoring of Asymptomatic Patient Who Had PCI Within 2 years:

a. If Cardiac Stress Imaging Test Performed Primarily for Any Other Reason than Monitoring of Asymptomatic Patient Who Had PCI Within 2 years equals Yes, include in Data Completeness Met and Performance Not Met.

b. Data Completeness Met and Performance Not Met is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 30 procedures in the Sample Calculation.

c. If Cardiac Stress Imaging Test Performed Primarily for Any Other Reason than Monitoring of Asymptomatic Patient Who Had PCI Within 2 years 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 the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=40 procedures) + Performance Not Met (c=30 procedures) / Eligible Population / Denominator (d=80 procedures) = 70 procedures / 80 procedures = **87.50%**

Performance Rate=**

Performance Met (a=40 procedures) / Data Completeness Numerator (70 procedures) = 40 procedures / 70 procedures = **57.14%**