

**Description:** This document contains the 16 performance measures approved by CMS for inclusion in the 2018 Qualified Clinical Data Registry (QCDR).

<b>Measure ID</b>	1
<b>Measure Title</b>	Cardiac Stress Nuclear Imaging Not Meeting Appropriate Use Criteria: Preoperative Evaluation in Low Risk Surgery Patients
<b>Measure Description</b>	Percentage of stress nuclear Myocardial Perfusion Imaging (MPI) studies performed on low-risk surgery patients 18 years or older for preoperative evaluation.
<b>Numerator</b>	Number of stress nuclear Myocardial Perfusion Imaging (MPI) studies performed on low-risk surgery patients for preoperative evaluation within 30 days preceding low-risk non-cardiac surgery
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	All instances of stress nuclear Myocardial Perfusion Imaging (MPI) studies performed on patients aged 18 years and older during the reporting period.
<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Efficiency and Cost Reduction
<b>Outcome or High Priority</b>	High Priority
<b>Measure Type</b>	Process
<b>Inverse Measure</b>	Yes

<b>Measure ID</b>	2
<b>Measure Title</b>	Cardiac Stress Nuclear Imaging Not Meeting Appropriate Use Criteria: Routine Testing After Percutaneous Coronary Intervention (PCI)
<b>Measure Description</b>	Percentage of stress nuclear Myocardial Perfusion Imaging (MPI) studies performed on patients aged 18 years and older routinely after percutaneous coronary intervention (PCI), with reference to timing of test after PCI and symptom status.
<b>Numerator</b>	Number of stress nuclear Myocardial Perfusion Imaging (MPI) studies performed on asymptomatic patients within 2 years of the most recent PCI.
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	All instances of stress nuclear Myocardial Perfusion Imaging (MPI) studies performed on patients aged 18 years and older during the reporting period.
<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Efficiency and Cost Reduction
<b>Outcome or High Priority</b>	High Priority
<b>Measure Type</b>	Process
<b>Inverse Measure</b>	Yes

<b>Measure ID</b>	3
<b>Measure Title</b>	Cardiac Stress Nuclear Imaging Not Meeting Appropriate Use Criteria: Testing in

<b>Measure Description</b>	Asymptomatic, Low-Risk Patients Percentage of stress nuclear Myocardial Perfusion Imaging (MPI) studies performed on asymptomatic, low coronary heart disease (CHD) risk patients 18 years and older for initial detection and risk assessment.
<b>Numerator</b>	Number of stress nuclear Myocardial Perfusion Imaging (MPI) studies performed on asymptomatic, low CHD risk patients for initial detection and risk assessment.
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	All instances of stress nuclear Myocardial Perfusion Imaging (MPI) studies performed on patients aged 18 years and older during the reporting period.
<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Efficiency and Cost Reduction
<b>Outcome or High Priority</b>	High Priority
<b>Measure Type</b>	Process
<b>Inverse Measure</b>	Yes
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<b>Measure ID</b>	19
<b>Measure Title</b>	Imaging Protocols for SPECT and PET MPI studies - Use of stress only protocol
<b>Measure Description</b>	Percentage of Single Photon Emission Computed Tomography (SPECT) and Positron Emission Tomography (PET) Myocardial Perfusion Imaging (MPI) studies performed where the imaging protocol used was stress only.
<b>Numerator</b>	Number of denominator eligible studies performed where the imaging protocol used was stress only.
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	All instances of normal stress nuclear Myocardial Perfusion Imaging (MPI) studies performed.
<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Patient Safety
<b>Outcome or High Priority</b>	Outcome
<b>Measure Type</b>	Outcome
<b>Inverse Measure</b>	No
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<b>Measure ID</b>	20
<b>Measure Title</b>	SPECT-MPI studies performed without the use of thallium
<b>Measure Description</b>	Percentage of Single Photon Emission Computed Tomography (SPECT) Myocardial Perfusion Imaging (MPI) studies performed without the use of thallium.
<b>Numerator</b>	Number of denominator eligible studies performed where the radiopharmaceutical Thallium was not used.
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	Number of SPECT-MPI studies performed.
<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None

<b>NQS Domain</b>	Patient Safety
<b>Outcome or High Priority</b>	Outcome
<b>Measure Type</b>	Outcome
<b>Inverse Measure</b>	No
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<b>Measure ID</b>	21
<b>Measure Title</b>	SPECT-MPI study appropriate imaging protocol selection for morbidly obese patients
<b>Measure Description</b>	Percentage of Single Photon Emission Computed Tomography (SPECT) Myocardial Perfusion Imaging (MPI) studies performed on morbidly obese patients where the Imaging Protocol included two days.
<b>Numerator</b>	Number of denominator eligible studies performed where the imaging protocol used was Rest/Stress 2-Day or Stress/Rest 2-day.
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	Number of SPECT-MPI studies performed where the BMI >= 40.
<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Efficiency and Cost Reduction
<b>Outcome or High Priority</b>	High Priority
<b>Measure Type</b>	Process
<b>Inverse Measure</b>	No
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<b>Measure ID</b>	22
<b>Measure Title</b>	SPECT and PET MPI studies reporting Left Ventricular Ejection Fraction
<b>Measure Description</b>	Percentage of Single Photon Emission Computed Tomography (SPECT) and Positron Emission Tomography (PET) Myocardial Perfusion Imaging (MPI) studies where the Left Ventricle Ejection Fraction was calculated and included in the report.
<b>Numerator</b>	Number of denominator eligible studies performed where the Left Ventricle Ejection Fraction was calculated and reported.
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	All instances of stress nuclear Myocardial Perfusion Imaging (MPI) studies performed.
<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Effective Clinical Care
<b>Outcome or High Priority</b>	N/A
<b>Measure Type</b>	Process
<b>Inverse Measure</b>	No
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<b>Measure ID</b>	23
<b>Measure Title</b>	SPECT-MPI study clinical utilization of Attenuation Correction image acquisition
<b>Measure Description</b>	Percentage of Single Photon Emission Computed Tomography (SPECT) Myocardial Perfusion Imaging (MPI) studies using Attenuation Correction.
<b>Numerator</b>	Number of denominator eligible studies performed where an Attenuation Correction of CT or Transmission was used or an Attenuation Correction of "Prone" was documented for patients.

<b>Numerator Exclusions</b>	None
<b>Denominator</b>	Number of SPECT-MPI studies performed.
<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Efficiency and Cost Reduction
<b>Outcome or High Priority</b>	High Priority
<b>Measure Type</b>	Process
<b>Inverse Measure</b>	No

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<b>Measure ID</b>	24
<b>Measure Title</b>	SPECT-MPI study utilization of exercise as a stressor
<b>Measure Description</b>	Percentage of Single Photon Emission Computed Tomography (SPECT) Myocardial Perfusion Imaging (MPI) studies using a Stress Test Type that includes exercise.
<b>Numerator</b>	Number of denominator eligible studies performed where the Stress Test Type was exercise.
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	Number of SPECT-MPI studies performed.
<b>Denominator Exclusions</b>	Patients with Left Bundle Branch Block (LBBB), a pacemaker or who are unable to exercise.
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Effective Clinical Care
<b>Outcome or High Priority</b>	N/A
<b>Measure Type</b>	Process
<b>Inverse Measure</b>	No

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<b>Measure ID</b>	25
<b>Measure Title</b>	SPECT-MPI study adequate exercise testing performed
<b>Measure Description</b>	Percentage of Single Photon Emission Computed Tomography (SPECT) Myocardial Perfusion Imaging (MPI) studies performed where the stress heart rate $\geq$ 85% of maximum heart rate and three or more minutes of exercise.
<b>Numerator</b>	Number of denominator eligible studies performed where the stress heart rate $\geq$ 85% of maximum heart rate and three or more minutes of exercise.
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	Number of SPECT-MPI studies performed.
<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Effective Clinical Care
<b>Outcome or High Priority</b>	N/A
<b>Measure Type</b>	Process
<b>Inverse Measure</b>	No

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<b>Measure ID</b>	26
<b>Measure Title</b>	SPECT and PET MPI studies meeting appropriate use criteria

<b>Measure Description</b>	Percentage of Single Photon Emission Computed Tomography (SPECT) and Positron Emission Tomography (PET) Myocardial Perfusion Imaging (MPI) studies performed that are appropriate.
<b>Numerator</b>	Number of denominator eligible studies performed where studies performed were appropriate.
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	All instances of stress nuclear Myocardial Perfusion Imaging (MPI) studies performed.
<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Efficiency and Cost Reduction
<b>Outcome or High Priority</b>	High Priority
<b>Measure Type</b>	Process
<b>Inverse Measure</b>	No
<b>Measure ID</b>	27
<b>Measure Title</b>	SPECT and PET MPI studies not Equivocal
<b>Measure Description</b>	Percentage of Single Photon Emission Computed Tomography (SPECT) and Positron Emission Tomography (PET) Myocardial Perfusion Imaging (MPI) studies performed that are not equivocal.
<b>Numerator</b>	Number of denominator eligible studies performed where the results were not equivocal.
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	All instances of stress nuclear Myocardial Perfusion Imaging (MPI) studies performed.
<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Efficiency and Cost Reduction
<b>Outcome or High Priority</b>	High Priority
<b>Measure Type</b>	Process
<b>Inverse Measure</b>	No
<b>Measure ID</b>	28
<b>Measure Title</b>	SPECT-MPI effective dose less than or equal to 9 millisieverts as per ASNC guideline recommendations
<b>Measure Description</b>	Percentage of Single Photon Emission Computed Tomography (SPECT) Myocardial Perfusion Imaging (MPI) studies where patient received 9 or less millisieverts of radiation as per ASNC guideline recommendations.
<b>Numerator</b>	Number of denominator eligible studies performed where 9 or less millisieverts were administered for the study.
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	Number of SPECT-MPI studies performed.
<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Patient Safety
<b>Outcome or High Priority</b>	Outcome

<b>Measure Type</b>	Outcome
<b>Inverse Measure</b>	No
<b>Measure ID</b>	29
<b>Measure Title</b>	SPECT and PET MPI study documentation of stress perfusion defects
<b>Measure Description</b>	Percentage of Single Photon Emission Computed Tomography (SPECT) and Positron Emission Tomography (PET) Myocardial Perfusion Imaging (MPI) studies performed that were abnormal and contained perfusion defects documentation including location, severity, siz
<b>Numerator</b>	Number of denominator eligible studies performed where all stress perfusion defects were documented including the defect location, severity, size and type.
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	All instances of stress nuclear Myocardial Perfusion Imaging (MPI) studies performed that were abnormal.
<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Communication and Care Coordination
<b>Outcome or High Priority</b>	High Priority
<b>Measure Type</b>	Process
<b>Inverse Measure</b>	No
<b>Measure ID</b>	30
<b>Measure Title</b>	Transthoracic Echo (TTE) studies meeting appropriate use criteria
<b>Measure Description</b>	Percentage of appropriate Transthoracic Echo (TTE) studies
<b>Numerator</b>	Number of denominator eligible studies performed rated as “appropriate” or “may be appropriate.”
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	Number of Transthoracic Echo (TTE) studies performed.
<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Efficiency and Cost Reduction
<b>Outcome or High Priority</b>	High Priority
<b>Measure Type</b>	Process
<b>Inverse Measure</b>	No
<b>Measure ID</b>	31
<b>Measure Title</b>	Transthoracic Echo (TTE) studies reporting pulmonary artery pressures, 100% views, contrast use
<b>Measure Description</b>	Percentage of Transthoracic Echo (TTE) studies reporting 100% obtainment of required views, OR utilizing contrast, OR reporting pulmonary artery pressures.
<b>Numerator</b>	Number of denominator eligible studies A) utilizing all required views, OR B) receiving contrast, OR C) reporting pulmonary artery pressures.
<b>Numerator Exclusions</b>	None
<b>Denominator</b>	Number of Transthoracic Echo (TTE) studies performed.

<b>Denominator Exclusions</b>	None
<b>Denominator Exceptions</b>	None
<b>NQS Domain</b>	Efficiency and Cost Reduction
<b>Outcome or High Priority</b>	High Priority
<b>Measure Type</b>	Efficiency
<b>Inverse Measure</b>	No

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