

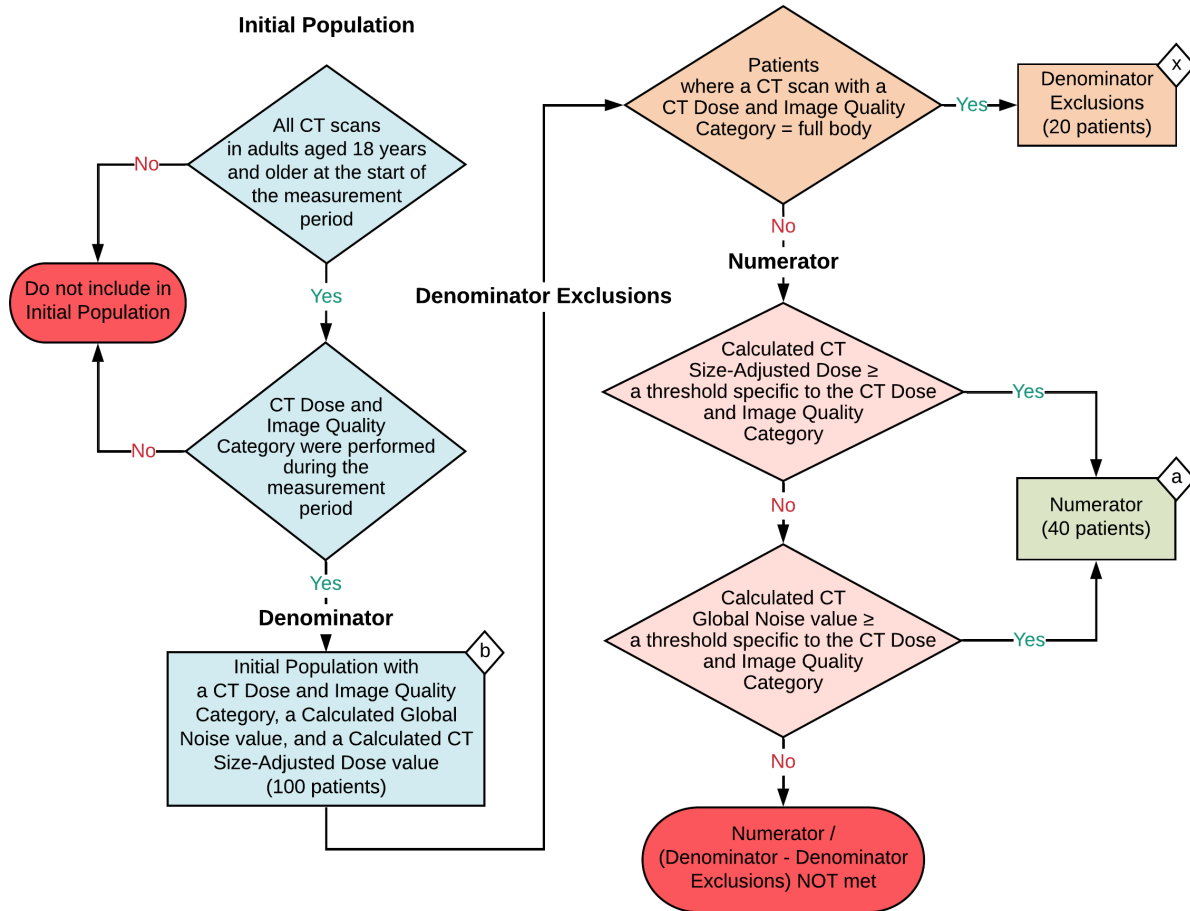
2024 eCQM Flow
eCQM Identifier: CMS1056v1
NQF Number: 3633e, 3662e

NOTE: This flow diagram represents an overview of population criteria requirements. Refer to the eCQM specification for a complete list of data elements included in this measure and required for submission.

Excessive Radiation Dose or Inadequate Image Quality for Diagnostic Computed Tomography (CT) in Adults (Clinician Level)

This measure provides a standardized method for monitoring the performance of diagnostic CT to discourage unnecessarily high radiation doses, a risk factor for cancer, while preserving image quality. It is expressed as a percentage of CT exams that are out-of-range based on having either excessive radiation dose or inadequate image quality relative to evidence-based thresholds based on the clinical indication for the exam. All diagnostic CT exams of specified anatomic sites performed in inpatient, outpatient and ambulatory care settings are eligible. This eCQM requires the use of additional software to access primary data elements stored within radiology electronic health records and translate them into data elements that can be ingested by this eCQM. Additional details are included in the Guidance field.

This eCQM is a patient-based measure



Sample Calculation

Performance Rate =

Numerator (a = 40 patients)		40
Denominator (b = 100 patients) - Denominator Exclusions (x = 20 patients)		80 = 50 %

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eCQM Flow Narrative

Initial Population

Start by identifying the Initial Population, which includes all CT scans in adults aged 18 years and older at the start of the measurement period who have a CT Dose and Image Quality Category that were performed during the measurement period.

Denominator

The Denominator equals the Initial Population with a CT Dose and Image Quality Category, a Calculated Global Noise value, and a Calculated CT Size-Adjusted Dose value. In the sample calculation provided at the end of the eCQM flow, the Denominator is equal to 100 patients.

Denominator Exclusions

The Denominator Exclusions criteria identify a subset of the Denominator population by excluding patients where a CT scan with a CT Dose and Image Quality Category is equal to full body. In the sample calculation provided at the end of the eCQM flow, the Denominator Exclusions are equal to 20 patients.

Numerator

The Numerator criteria identify a subset of the Denominator population by including patients with a calculated CT Size-Adjusted Dose greater than or equal to a threshold specific to the CT Dose and Image Quality Category, or a Calculated CT Global Noise value greater than or equal to a threshold specific to the CT Dose and Image Quality Category. In the sample calculation provided at the end of the eCQM flow, the Numerator is equal to 40 patients.

Sample Calculation

A sample calculation is provided to help determine how the measure performance rate is derived. The measure performance rate is calculated by dividing the Numerator (total equals 40 patients) by the

difference between the Denominator (total equals 100 patients) and Denominator Exclusions (total equals 20 patients), which is equal to a score of 50 percent.