

Measure #436: Radiation Consideration for Adult CT: Utilization of Dose Lowering Techniques – National Quality Strategy Domain: Effective Clinical Care

2016 PQRS OPTIONS FOR INDIVIDUAL MEASURES:
CLAIMS, REGISTRY

DESCRIPTION:

Percentage of final reports for patients aged 18 years and older undergoing CT with documentation that one or more of the following dose reduction techniques were used:

- Automated exposure control
- Adjustment of the mA and/or kV according to patient size
- Use of iterative reconstruction technique

INSTRUCTIONS:

This measure is to be reported **each time** a patient has a computed tomography scan during the reporting period. There is no diagnosis associated with this measure. It is anticipated that clinicians who provide the professional component of diagnostic imaging studies for computed tomography will submit this measure.

Measure Reporting via Claims:

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. Quality-data codes are used to report the numerator of the measure.

When reporting the measure via claims, submit the listed CPT or HCPCS codes, and the appropriate quality-data code. There are no allowable performance exclusions for this measure. All measure-specific coding should be reported on the claim(s) representing the eligible encounter.

Measure Reporting via Registry:

CPT codes and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of 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. There are no allowable performance exclusions for this measure.

DENOMINATOR:

All final reports for patients aged 18 years and older undergoing CT

Denominator Criteria (Eligible Cases):

Patients aged ≥ 18 years on date of encounter

AND

Patient encounter during the reporting 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, 77014, 77078, 0042T, S8032

NUMERATOR:

Final reports with documentation that indicate an individualized dose optimization technique was used for the performed procedure. Dose optimization techniques include the following:

- Automated exposure control
- Adjustment of the mA and/or kV according to patient size
- Use of iterative reconstruction technique

Numerator Quality-Data Coding Options for Reporting Satisfactorily:

Dose Reduction Techniques

Performance Met: G9637:

Final reports with documentation of one or more dose reduction techniques (e.g., Automated exposure control, adjustment of the mA and/or kV according to patient size, use of iterative reconstruction technique)

OR

Dose Reduction Techniques not Performed

Performance Not Met: G9638:

Final reports without documentation of one or more dose reduction techniques (e.g., Automated exposure control, adjustment of the mA and/or kV according to patient size, use of iterative reconstruction technique)

RATIONALE:

Mettler et al¹ estimate that CT scans account for 17% of total imaging procedures performed in the United States each year and 49% of the collective radiation dose from imaging procedures. Current advances in technology have resulted in several methods to reduce radiation dose for patients undergoing CT. Studies show that the use of CT dose optimization techniques can reduce radiation dose by 40%-50% without sacrificing image quality or diagnostic ability.

CLINICAL RECOMMENDATION STATEMENTS:

CT examinations should be performed only for a valid medical reason and with the minimum exposure that provides the image quality necessary for adequate diagnostic information. (ACR, 2011)

Radiologists, medical physicists, registered radiologist assistants, radiologic technologists, and all supervising physicians have a responsibility for safety in the workplace by keeping radiation exposure to staff, and to society as a whole, “as low as reasonably achievable” (ALARA) and to assure that radiation doses to individual patients are appropriate, taking into account the possible risk from radiation exposure and the diagnostic image quality necessary to achieve the clinical objective. (ACR, 2011)

Facilities, in consultation with the medical physicist, should have in place and should adhere to policies and procedures, in accordance with ALARA, to vary examination protocols to take into account patient body habitus, such as height and/or weight, body mass index or lateral width. The dose reduction devices that are available on imaging equipment should be active; if not, manual techniques should be used to moderate the exposure while maintaining the necessary diagnostic image quality. Periodically, radiation exposures should be measured and patient radiation doses estimated by a medical physicist in accordance with the appropriate ACR Technical Standard. (ACR, 2011)

COPYRIGHT:

The Measures are not clinical guidelines, do not establish a standard of medical care, and have not been tested for all potential applications.

The Measures, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, eg, use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain.

Commercial uses of the Measures require a license agreement between the user and the American Medical Association (AMA), [on behalf of the Physician Consortium for Performance Improvement® (PCPI®)] or American

College of Radiology (ACR). Neither the AMA, ACR, PCPI, nor its members shall be responsible for any use of the Measures.

The AMA's, PCPI's and National Committee for Quality Assurance's significant past efforts and contributions to the development and updating of the Measures is acknowledged. ACR is solely responsible for the review and enhancement ("Maintenance") of the Measures as of December 31, 2014.

ACR encourages use of the Measures by other health care professionals, where appropriate.

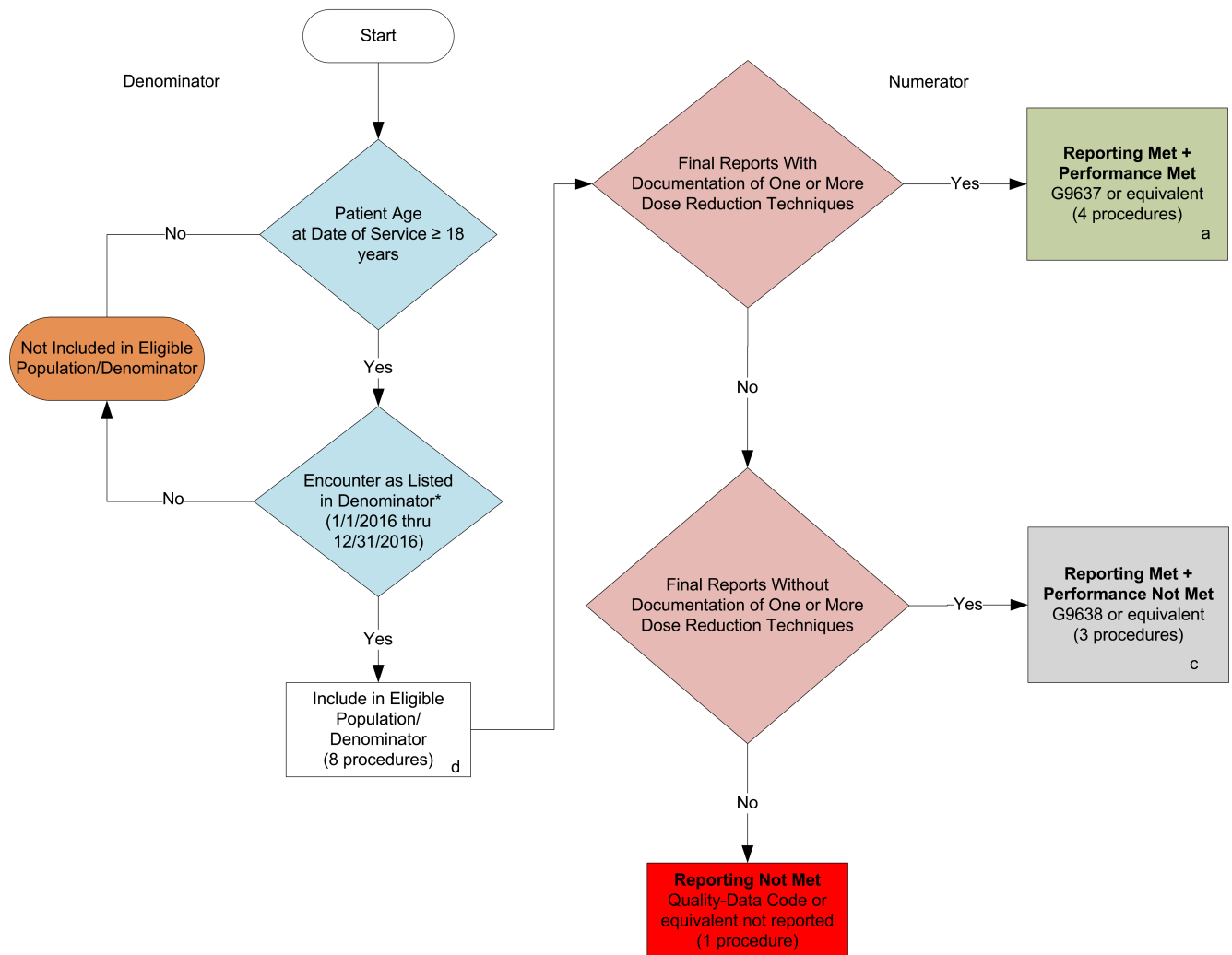
THE MEASURES AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

© 2015 American Medical Association and American College of Radiology. All Rights Reserved. Applicable FARS/DFARS Restrictions Apply to Government Use.

Limited proprietary coding is contained in the Measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. The AMA, ACR, the PCPI and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT®) or other coding contained in the specifications.

CPT® contained in the Measures specifications is copyright 2004-2015 American Medical Association. LOINC® copyright 2004-2015 Regenstrief Institute, Inc. SNOMED CLINICAL TERMS (SNOMED CT®) copyright 2004-2015 College of American Pathologists. All Rights Reserved.

2016 Claims/Registry Individual Measure Flow
PQRS #436 NQF# 0086: Radiation Consideration for Adult CT: Utilization of Dose Lowering Techniques



SAMPLE CALCULATIONS:

Reporting Rate=

Performance Met (a=4 procedures) + Performance Not Met (c=3 procedures) = 7 procedures = 87.50%
 Eligible Population / Denominator (d=8 procedures) = 8 procedures

Performance Rate=

Performance Met (a=4 procedures) = 4 procedures = 57.14%
 Reporting Numerator (7 procedures) = 7 procedures

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

NOTE: Reporting Frequency: Procedure

CPT only copyright 2015 American Medical Association. All rights reserved.
 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.

v2

2016 Claims/Registry Individual Measure Flow
PQRS #436: Radiation Consideration for Adult CT: Utilization of Dose Lowering Techniques

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 Patient Age:
 - a. If the Age is greater than or equal to 18 years of age on Date of Service and equals No during the measurement period, do not include in Eligible Patient Population. Stop Processing.
 - b. If the Age is greater than or equal to 18 years of age on Date of Service and equals Yes during the measurement period, proceed to Current Encounter Performed.
3. Check Encounter Performed:
 - a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
 - b. If Encounter as Listed in the Denominator equals Yes, include in Eligible population
4. Denominator Population:
 - a. Denominator population 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.
5. Start Numerator
6. Check Final Reports With Documentation of One or More Dose Reduction Techniques:
 - a. If Final Reports With Documentation of One or More Dose Reduction Techniques equals Yes, include in Reporting Met and Performance Met.
 - b. Reporting Met and Performance Met letter is represented in the Reporting Rate and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 4 procedures in the Sample Calculation.
 - c. If Final Reports With Documentation of One or More Dose Reduction Techniques equals No, proceed to Final Reports Without Documentation of One or More Dose Reduction Techniques.
7. Check Final Reports Without Documentation of One or More Dose Reduction Techniques:
 - a. If Final Reports Without Documentation of One or More Dose Reduction Techniques equals Yes, include in Reporting Met and Performance Not Met.
 - b. Reporting Met and Performance Not Met letter is represented in the Reporting Rate and Performance Rate in the Sample Calculation listed at the end of this document. Letter c equals 3 procedures in the Sample Calculation.
 - c. If Final Reports Without Documentation of One or More Dose Reduction Techniques equals No, proceed to Reporting Not Met

8. Check Reporting Not Met:

- a. If Reporting Not Met equals No, Quality Data Code or equivalent not reported. 1 procedure has been subtracted from the reporting numerator in the sample calculation.

SAMPLE CALCULATIONS:

Reporting Rate=

$$\frac{\text{Performance Met (a=4 procedures)} + \text{Performance Not Met (c=3 procedures)}}{\text{Eligible Population / Denominator (d=8 procedures)}} = \frac{7 \text{ procedures}}{8 \text{ procedures}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a=4 procedures)}}{\text{Reporting Numerator (7 procedures)}} = \frac{4 \text{ procedures}}{7 \text{ procedures}} = 57.14\%$$