

Computed Tomography Colonography Measures Revised April 28, 2011

Process Measures

1. Rate of Adequate Bowel Cleansing & Distention
2. Rate of Adequacy of Diagnostic CTC Examination
3. Rate of Adequacy of Screening CTC Examination

Outcomes Measures

1. Rate of Colonic Perforation
2. True Positive Rate
3. Extracolonic Findings

Process Measure: Rate of Adequate Bowel Cleansing & Distention

Data Elements	Clinical Performance Measure
<p>Per Exam</p> <p>Is one or more segment non-diagnostic? Yes</p> <p>If yes, cause: Excess fluid: Yes</p> <p>OR</p> <p>Fecal material: Yes</p> <p>OR</p> <p>Segmental collapse: Yes</p>	<p>Numerator: Number of exams with no non-diagnostic segments</p> <p>Denominator: All CTC exams, either screening or diagnostic</p> <p>Numerator and Denominator Exclusion: Exams that were non-diagnostic due to reasons other than excess fluid, fecal material or segmental collapse</p> <p>Measure: Percentage of exams with adequate bowel cleansing and distention</p>

Process Measure: Rate of Technical Adequacy of Screening* CTC Examination

Data Elements	Clinical Performance Measure
<p>Per Exam</p> <p>Scanner: ≥ 4 row MDCT</p> <p>CTDI_{vol} ≤ 12.5 mGy if prone image = yes and # of decubitus views = 0</p> <p>CTDI_{vol} ≤ 12.5 mGy, if prone image = no and # of decubitus views = 1</p> <p>CTDI_{vol} ≤ 18.75 mGy, if prone image = yes and # of decubitus views = 1</p> <p>CTDI_{vol} ≤ 25.0 mGy, if prone image = yes and # of decubitus views = 2</p> <p>Supine image acquisition: Yes</p> <p>Prone or decubitus image acquisition: Yes</p> <p>Reconstruction:</p> <ul style="list-style-type: none"> • Slice thickness: ≤ 3 mm • Interval: ≤ 2.0 mm <p>Were entire colon and rectum imaged? Yes</p>	<p>Numerator: Number of exams with adequate data acquisition/technique for CTC</p> <p>Denominator: All screening* CTC exams</p> <p>Numerator and Denominator Exclusion: Exams for patients whose width from left to right is ≥ 40 cm</p> <p>Measure: Percentage of screening exams with adequate data acquisition/technique for CTC</p>

* A screening exam refers to an exam in which the patient is asymptomatic.

Process Measure: Rate of Technical Adequacy of Diagnostic* CTC Examination

Data Elements	Clinical Performance Measure
<p>Per Exam</p> <p>Scanner: ≥ 4 row MDCT</p> <p>Supine image acquisition: Yes</p> <p>Prone or decubitus image acquisition: Yes</p> <p>Reconstruction:</p> <ul style="list-style-type: none"> • Slice thickness: ≤ 3 mm • Interval: ≤ 2.0 mm <p>Were entire colon and rectum imaged? Yes</p>	<p>Numerator: Number of exams with adequate data acquisition/technique for CTC</p> <p>Denominator: All diagnostic* CTC exams</p> <p>Numerator and Denominator Exclusion: None</p> <p>Measure: Percentage of diagnostic exams with adequate data acquisition/technique for CTC</p>

* A diagnostic exam refers to any exam other than a screening exam

Outcome Measure: Rate of Colonic Perforation

Data Elements	Clinical Performance Measure
<p>Per Exam</p> <p>Colonic perforation: Yes</p>	<p>Numerator: Number of exams with colonic perforation during CTC</p> <p>Denominator: All CTC exams, either screening or diagnostic</p> <p>Numerator and Denominator Exclusion: Exams for patients referred from an incomplete colonoscopy</p> <p>Measure: Percentage of exams with colonic perforation</p>

Outcome Measure: True Positive Rate

Data Elements	Clinical Performance Measure
<p>Per Exam</p> <p>Polyp size \geq 10</p> <p>Did colonoscopy reach level of lesion? Yes</p> <p>Was polyp confirmed? Yes / No</p>	<p>Numerator for True Positive Rate: Number of exams with a confirmed \geq10mm polyp at colonoscopy that corresponds to a polyp detected by CTC*</p> <p>Denominator: Number of exams with confirming colonoscopies or surgery for a \geq10mm polyp</p> <p>Numerator and Denominator Exclusion: Exams with confirming colonoscopies that did not reach the level of lesion, or with no confirming colonoscopy or surgery</p> <p>Measure (True Positive Rate): Percentage of exams with confirming colonoscopies or surgery for a \geq10mm polyp detected by CTC</p>

* A polyp at colonoscopy corresponds to a polyp detected at CTC if it is within 1 segment and 50% of the size of the CTC polyp (e.g., a polyp of 12mm at CTC must have a measurement of at least 6mm at colonoscopy).

Outcome Measure: Extracolonic Findings

Data Elements	Clinical Performance Measure
<p>Per Exam</p> <p>Clinically significant extracolonic finding(s) documented: Yes</p>	<p>Numerator: Number of exams with a clinically significant extracolonic finding, not otherwise known based on the history provided or based on a prior imaging procedure at the institution</p> <p>Denominator: All CTC exams, either screening or diagnostic</p> <p>Numerator and Denominator Exclusion: None</p> <p>Measure: Percentage of exams resulting in recommendations for clinical correlation or additional imaging on the basis of the CTC report</p>