Measure #425: Photodocumentation of Cecal Intubation – National Quality Strategy Domain: Effective Clinical Care

2017 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Process

DESCRIPTION:
The rate of screening and surveillance colonoscopies for which photodocumentation of landmarks of cecal intubation is performed to establish a complete examination

INSTRUCTIONS:
This measure is to be reported each time a colonoscopy is performed for patients during the performance period. This measure may be reported by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Reporting:
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by 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.

DENOMINATOR:
Patients for whom a screening or surveillance colonoscopy was performed

Denominator Criteria (Eligible Cases):
Patients regardless of age
AND
Patient procedure during the performance period (CPT or HCPCS): 44388, 44389, 44392, 44394, 44404, 45378, 45380, 45381, 45384, 45385, G0105, G0121
WITHOUT
Modifier: 73 or 74
AND NOT
DENOMINATOR EXCLUSION:
Documentation of post-surgical anatomy (e.g., right hemicolecotony, ileocecal resection, etc.): G9613

NUMERATOR:
Number of patients undergoing screening or surveillance colonoscopy who have photodocumentation of landmarks of cecal intubation to establish a complete examination

Numerator Options:
Performance Met: Photodocumentation of one or more cecal landmarks to establish a complete examination (G9612)
OR
Performance Not Met: No photodocumentation of cecal landmarks to establish a complete examination (G9614)
RATIONALE:
It is well supported that visualization of the cecum by notation of landmarks and photodocumentation of landmarks should be documented for every colonoscopy. However, one study of administrative claims data (Baxter et al. 2011) and another of 69 hospital-based endoscopists (Cotton et al. 2003) show variable performance among endoscopists in achieving cecal intubation resulting in complete colonic examination.

The American Society for Gastrointestinal Endoscopy (ASGE)/American College of Gastroenterology (ACG) task force on Quality in Endoscopy, specifically in the paper Quality indicators for colonoscopy, has recommended documenting cecal intubation as a measure of colonoscopic examination completeness. Based on a study of prevalence of proximal colonic polyps in average-risk asymptomatic patients with negative fecal occult blood tests and flexible sigmoidoscopy (Kadakia et al. 1996) it has been well-established that cecal intubation is required as a marker for examination of the entire colon due to the significant number of neoplasms present in the right colon in the absence of positive FOBT or left sided colon neoplasms.

The need for cecal intubation is based on the continual finding that a substantial number of colorectal neoplasms are located in the proximal colon, including the cecum. Numerous studies have shown that physicians routinely do not document the depth of insertion in the colonoscopy report. Quality evaluation of the colon consists of intubation of the entire colon and a detailed mucosal inspection. Cecal intubation improves sensitivity and reduces costs by eliminating the need for radiographic procedures or repeat colonoscopy to complete examination. Careful mucosal inspection is essential to effective colorectal cancer prevention and reduction of cancer mortality.

CLINICAL RECOMMENDATION STATEMENTS:
As stated in the Quality indicators for colonoscopy paper developed by the ASGE/ACG task force on Quality in Endoscopy (Rex et al. 2015), “In the United States, colonoscopy is almost always undertaken with the intent to intubate the cecum. Cecal intubation is defined as passage of the colonoscope tip to a point proximal to the ileocecal valve, so that the entire cecal caput, including the medial wall of the cecum between the ileocecal valve and appendiceal orifice, is visible. Cecal intubation should be documented by naming the identified cecal landmarks. Most importantly, these include the appendiceal orifice and the ileocecal valve. For cases in which there is uncertainty as to whether the cecum has been entered, visualization of the lips of the ileocecal valve (i.e., the orifice) or intubation of the terminal ileum will be needed.”

Patients who undergo complete colon examination have a lower risk of colorectal cancer than patients with incomplete colonoscopy as was demonstrated in a study of administrative claims data that found endoscopist quality measures were associated with postcolonscopic colorectal cancer (Baxter et al. 2011). The ASGE/ACG task force on Quality in Endoscopy stated effective colonoscopists should be able to intubate the cecum in ≥ 90% of cases, and in ≥ 95% of cases when the indication is screening in a healthy adult. All colonoscopy studies done for screening have reported cecal intubation rates of 97% or higher.

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2017 Registry Individual Measure Flow
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**Start**

- **Denominator**
  - Procedure as Listed in Denominator* (1/1/2017 thru 12/31/2017)
    - Not Included in Eligible Population/Denominator
    - Yes: Denominator Exclusion
      - Documentation of Post-Surgical Anatomy G9613 or equivalent
        - Yes: Include in Eligible Population/Denominator (8 procedures)
        - No
    - No: Modifier: 73 or 74
      - Yes
      - No

- **Numerator**
  - Photodocumentation of One or More Cecal Landmarks to Establish a Complete Examination
    - Yes
    - No
  - No Photodocumentation of One or More Cecal Landmarks to Establish a Complete Examination
    - Yes
    - No
  - Data Completeness Not Met: Quality Data Code or equivalent not reported (1 procedure)
  - Data Completeness Met + Performance Met G9612 or equivalent (5 procedures)
  - Data Completeness Met + Performance Not Met G9614 or equivalent (2 procedures)

**SAMPLE CALCULATIONS:**

Data Completeness =
Performance Met (a=5 procedures) + Performance Not Met (c=2 procedures) / Eligible Population / Denominator (d=6 procedures) = 7 procedures = 87.50%

Performance Rate =
Performance Met (a=5 procedures) / Data Completeness Numerator (7 procedures) = 5 procedures = 71.43%

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

NOTE: Reporting Frequency: Procedure

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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.
2017 Registry Individual Measure Flow

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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 Procedure Performed:
   a. If Procedure as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Procedure as Listed in the Denominator equals Yes, proceed to check Modifier: 73 or 74.

3. Check Modifier:
   a. If Modifier: 73 or 74 equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Modifier: 73 or 74 equals Yes, proceed to Denominator Exclusion.

4. Check Denominator Exclusion:
   a. If Denominator Exclusion, Documentation of Post-Surgical anatomy equals Yes, do not include in Eligible Patient Population. Stop Processing.
   b. If Denominator Exclusion, Documentation of Post-Surgical anatomy equals No, include in Eligible Patient Population.

5. 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.

6. Start Numerator

7. Check Photodocumentation of One or More Cecal Landmarks to Establish a Complete Examination:
   a. If Photodocumentation of One or More Cecal Landmarks to Establish a Complete Examination equals Yes, include in Data Completeness Met and Performance Met.
   b. Data Completeness and Performance Met letter is represented in the Data Completeness Met and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 5 procedures in the Sample Calculation.
   c. If Photodocumentation of One or More Cecal Landmarks to Establish a Complete Examination equals No, proceed to Photodocumentation of Cecal Intubation Not Performed.

8. Check No Photodocumentation of One or More Cecal Landmarks to Establish a Complete Examination:
   a. If No Photodocumentation of One or More Cecal Landmarks to Establish a Complete Examination equals Yes, include in Data Completeness Met and Performance Not Met.
b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 2 procedures in the Sample Calculation.

c. If No Photodocumentation of One or More Cecal Landmarks to Establish a Complete Examination equals No, proceed to Data Completeness Not Met.

9. Check Data Completeness Not Met:

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

   **SAMPLE CALCULATIONS:**

   \[
   \text{Data Completeness} = \frac{\text{Performance Met (a=5 procedures)} + \text{Performance Not Met (c=2 procedures)}}{\text{Eligible Population} / \text{Denominator}(d=8 \text{ procedures})} = \frac{7 \text{ procedures}}{8 \text{ procedures}} = 87.50\%
   \]

   \[
   \text{Performance Rate} = \frac{\text{Performance Met (a=5 procedures)}}{\text{Data Completeness Numerator (7 procedures)}} = \frac{5 \text{ procedures}}{7 \text{ procedures}} = 71.43\%
   \]