

## CLINICAL PRACTICE GUIDELINE REVIEW WORKSHEET

Procedure: **Screening Colonoscopy for the  
Detection of Colorectal Polyps**

Page#: **1 of 10**

Reviewed By: \_\_\_\_\_

Review Date: \_\_\_\_\_

Approved By: **G. Chowdhary MD, MPH, FACP  
Chief Medical Officer**

Approval Date: **13 November 2007**

### MEMBERS PRESENT:

### PURPOSE:

To guide the LHA network physicians in determining the appropriateness of a virtual screenings colonoscopy. This CPG is not intended to replace a physician's clinical medical judgment that should be based on current medical knowledge and practices.

### FINDINGS:

Computed Tomography (CT) Colography. CT colography, or "virtual colonoscopy", is a noninvasive procedure for producing images of the colonic lumen. The examination, which can be performed in 10-15 minutes, currently requires a preparation similar to colonoscopy, followed by installation of air through a rectal tube. Although CT colography can be relatively sensitive and specific in research setting (85%-90%), recent reports have suggested lower accuracy when performed by less experienced examiners. Small and flat polyps are less well visualized on CT colography than are cancer and large polyps and neoplasia, there is insufficient evidence that virtual colonoscopy is superior to existing modalities of screening, including colonoscopy.

### RECOMMENDATIONS:

Liberty Health Advantage concludes that virtual screenings colonoscopy is considered Investigational & Not Medically Necessary and thereby recommends the adoption of the 2002 U.S. Preventive Services Task Force (USPSTF) Recommendations and Rational- Screening for Colorectal.

*Note: For other than screening CT colonography, LHA will follow the CMS Local Coverage Determination (LCD) recommendation (L25233) for Downstate NYS. Medical Director Review is needed and requesting physician's documentation of reasons for request is required to establish medical necessity.*

### ATTACHMENTS:

- U.S. Preventive Services Task Force (USPSTF) Recommendations and Rationale- Screening for Colorectal (2002). Retrieved from <http://www.ahrq.gov/clinic/3rduspstf/colorectal/>
- LCD for Computed Tomographic (CT) Colongraphy (L25233). Retrieved from [http://www.empiremedicare.com/newjpolicy/policy/l25233\\_final\\_lcd\\_ngs.htm#1](http://www.empiremedicare.com/newjpolicy/policy/l25233_final_lcd_ngs.htm#1)

## PREVENTIVE SERVICES TASK FORCE (USPSTF)

### *Recommendations and Rationale - Screening for Colorectal Cancer*

*This statement summarizes the current U.S. Preventive Services Task Force (USPSTF) recommendation on screening for colorectal cancer and the supporting scientific evidence, and updates the 1996 recommendation contained in the Guide to Clinical Preventive Services, Second Edition<sup>1</sup>.*

#### Summary of Recommendation

- The USPSTF strongly recommends that clinicians screen men and women 50 years of age or older for colorectal cancer.

Rating: [A recommendation](#).

*Rationale:* The USPSTF found fair to good evidence that several screening methods are effective in reducing mortality from colorectal cancer. The USPSTF concluded that the benefits from screening substantially outweigh potential harms, but the quality of evidence, magnitude of benefit, and potential harms vary with each method.

The USPSTF found good evidence that periodic fecal occult blood testing (FOBT) reduces mortality from colorectal cancer and fair evidence that sigmoidoscopy alone or in combination with FOBT reduces mortality. The USPSTF did not find direct evidence that screening colonoscopy is effective in reducing colorectal cancer mortality; efficacy of colonoscopy is supported by its integral role in trials of FOBT, extrapolation from sigmoidoscopy studies, limited case-control evidence, and the ability of colonoscopy to inspect the proximal colon. Double-contrast barium enema offers an alternative means of whole-bowel examination, but it is less sensitive than colonoscopy, and there is no direct evidence that it is effective in reducing mortality rates. The USPSTF found insufficient evidence that newer screening technologies (for example, computed tomographic colography) are effective in improving health outcomes.

There are insufficient data to determine which strategy is best in terms of the balance of benefits and potential harms or cost-effectiveness. Studies reviewed by the USPSTF indicate that colorectal cancer screening is likely to be cost-effective (less than \$30,000 per additional year of life gained) regardless of the strategy chosen.

It is unclear whether the increased accuracy of colonoscopy compared with alternative screening methods (for example, the identification of lesions that FOBT and flexible sigmoidoscopy would not detect) offsets the procedure's additional complications, inconvenience, and costs.

## Task Force Ratings I

### Strength of Recommendations and Quality of Evidence

#### Strength of Recommendations

The U.S. Preventive Services Task Force (USPSTF) grades its recommendations according to one of five classifications (A, B, C, D, I) reflecting the strength of evidence and magnitude of net benefit (benefits minus harms).

**A.**— The USPSTF strongly recommends that clinicians provide [the service] to eligible patients. *The USPSTF found good evidence that [the service] improves important health outcomes and concludes that benefits substantially outweigh harms.*

**B.**— The USPSTF recommends that clinicians provide [this service] to eligible patients. *The USPSTF found at least fair evidence that [the service] improves important health outcomes and concludes that benefits outweigh harms.*

**C.**— The USPSTF makes no recommendation for or against routine provision of [the service]. *The USPSTF found at least fair evidence that [the service] can improve health outcomes but concludes that the balance of benefits and harms is too close to justify a general recommendation.*

**D.**— The USPSTF recommends against routinely providing [the service] to asymptomatic patients. *The USPSTF found at least fair evidence that [the service] is ineffective or that harms outweigh benefits.*

**I.**— The USPSTF concludes that the evidence is insufficient to recommend for or against routinely providing [the service]. *Evidence that the [service] is effective is lacking, of poor quality, or conflicting and the balance of benefits and harms cannot be determined.*

#### Quality of Evidence

The USPSTF grades the quality of the overall evidence for a service on a 3-point scale (good, fair, poor):

**Good:** Evidence includes consistent results from well-designed, well-conducted studies in representative populations that directly assess effects on health outcomes.

**Fair:** Evidence is sufficient to determine effects on health outcomes, but the strength of the evidence is limited by the number, quality, or consistency of the individual studies, generalizability to routine practice, or indirect nature of the evidence on health outcomes.

**Poor:** Evidence is insufficient to assess the effects on health outcomes because of limited number or power of studies, important flaws in their design or conduct, gaps in the chain of evidence, or lack of information on important health outcomes.

#### Internet Citation:

U.S. Preventive Services Task Force Ratings: Strength of Recommendations and Quality of Evidence. *Guide to Clinical Preventive Services, Third Edition: Periodic Updates, 2000-2003.* Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/clinic/3rduspstf/ratings.htm>

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## Clinical Considerations

Potential screening options for colorectal cancer include home FOBT, flexible sigmoidoscopy, the combination of home FOBT and flexible sigmoidoscopy, colonoscopy, and double-contrast barium enema. Each option has advantages and disadvantages that may vary for individual patients and practice settings. The choice of specific screening strategy should be based on patient preferences, medical contraindications, patient adherence, and available resources for testing and follow-up. Clinicians should talk to patients about the benefits and potential harms associated with each option before selecting a screening strategy.

The optimal interval for screening depends on the test. Annual FOBT offers greater reductions in mortality rates than biennial screening but produces more false-positive results. A 10-year interval has been recommended for colonoscopy on the basis of evidence regarding the natural history of adenomatous polyps. Shorter intervals (5 years) have been recommended for flexible sigmoidoscopy and double-contrast barium enema because of their lower sensitivity, but there is no direct evidence with which to determine the optimal interval for tests other than FOBT. Case-control studies have suggested that sigmoidoscopy every 10 years may be as effective as sigmoidoscopy performed at shorter intervals.

The USPSTF recommends initiating screening at 50 years of age for men and women at average risk for colorectal cancer, based on the incidence of cancer above this age in the general population. In persons at higher risk (for example, those with a first-degree relative who receives a diagnosis with colorectal cancer before 60 years of age), initiating screening at an earlier age is reasonable.

Expert guidelines exist for screening very high-risk patients, including those with a history suggestive of familial polyposis or hereditary nonpolyposis colorectal cancer, or those with a personal history of ulcerative colitis.<sup>3</sup> Early screening with colonoscopy may be appropriate, and genetic counseling or testing may be indicated for patients with genetic syndromes.

The appropriate age at which colorectal cancer screening should be discontinued is not known. Screening studies have generally been restricted to patients younger than 80 years of age, with colorectal cancer mortality rates beginning to decrease within 5 years of initiating screening. Yield of screening should increase in older persons (because of higher incidence of colorectal cancer), but benefits may be limited as a result of competing causes of death. Discontinuing screening is therefore reasonable in patients whose age or comorbid conditions limit life expectancy.

Proven methods of FOBT screening use guaiac-based test cards prepared at home by patients from three consecutive stool samples and forwarded to the clinician. Whether patients need to restrict their diet and avoid certain medications is not established. Rehydration of the specimens before testing increases the sensitivity of FOBT but substantially increases the number of false-positive test results. Neither digital rectal examination (DRE) nor the testing of a single stool specimen obtained during DRE is recommended as an adequate screening strategy for colorectal cancer.

The combination of FOBT and sigmoidoscopy may detect more cancers and more large polyps than either test alone, but the additional benefits and potential harms of

combining the two tests are uncertain. In general, FOBT should precede sigmoidoscopy because a positive test result is an indication for colonoscopy, obviating the need for sigmoidoscopy.

Colonoscopy is the most sensitive and specific test for detecting cancer and large polyps but is associated with higher risks than other screening tests for colorectal cancer. These include a small risk for bleeding and risk for perforation, primarily associated with removal of polyps or biopsies performed during screening. Colonoscopy also usually requires more highly trained personnel, overnight bowel preparation, sedation, and longer recovery time, which may necessitate transportation for the patient. It is not certain whether the potential added benefits of colonoscopy relative to screening alternatives are large enough to justify the added risks and inconvenience for all patients.

Initial costs of colonoscopy are higher than the costs of other tests. Estimates of cost-effectiveness, however, suggest that, from a societal perspective, compared with no screening, all methods of colorectal cancer screening are likely to be as cost-effective as many other clinical preventive services—less than \$30,000 per additional year of life gained.

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## Scientific Evidence

### A. Epidemiology and Clinical Consequences

Colorectal cancer is the fourth most common cancer in the United States and the second leading cause of cancer death. A person at age 50 has about a 5 percent lifetime risk of being diagnosed with colorectal cancer and a 2.5 percent chance of dying from it;<sup>3</sup> the average patient dying of colorectal cancer loses 13 years of life.<sup>4</sup>

More than 80 percent of colorectal cancers arise from adenomatous polyps. Although fewer than 1 percent of adenomatous polyps less than 1 cm will eventually develop into cancer, 10 percent of adenomatous polyps greater than 1 cm become malignant within 10 years, and about 25 percent become malignant after 20 years.<sup>5</sup> The prevalence of adenomatous polyps increases from 20 percent to 25 percent at age 50 to 50 percent by age 75-80.<sup>6</sup>

Most colorectal cancers occur in persons at average risk, but 20 percent occur among patients with specific risk factors, such as those with a family history of colorectal cancer in a first-degree relative. A small proportion (6 percent) is associated with uncommon genetic syndromes such as familial adenomatous polyposis [FAP] or hereditary nonpolyposis colorectal cancer [HNPCC]. Other persons at increased risk include patients with longstanding ulcerative colitis, persons with previously diagnosed large adenomatous polyps or colorectal cancer, and those with a family history of adenomatous polyps diagnosed before age 60.

### B. Accuracy and Reliability of Screening Tests

The USPSTF reviewed evidence of the effectiveness of the following screening tests for colorectal cancer: DRE, FOBT, sigmoidoscopy, colonoscopy, DCBE, and CT colography, singly and in various combinations.

**Digital Rectal Examination/Office FOBT.** There is little evidence to determine the effectiveness of either DRE or a single office FOBT using a stool sample obtained on DRE. Fewer than 10 percent of colorectal cancers arise within reach of the examining finger, and some of these lesions will already be symptomatic. The sensitivity of a single office FOBT is likely to be substantially lower than that of screening protocols involving multiple test cards: in one study the first test card would have missed 42 percent of cancers detected by screening.<sup>7</sup> Samples collected by DRE may be affected by other limitations, including inadequate amount of stool or trauma from the exam.

**Fecal Occult Blood Testing.** Sensitivity of FOBT screening varies with the testing protocol. Sensitivity and specificity of a single test have been estimated at 40 percent and 96 percent to 98 percent, respectively. Hydration of specimen increases sensitivity (60 percent) but reduces specificity (90 percent).<sup>8</sup> Of patients who have a positive FOBT using rehydrated slides, only 2 percent will have cancer; 6 percent to 8 percent will have cancer or a large polyp. Using unrehydrated specimens, 5 percent to 18 percent of patients with a positive test will have cancer; 20 percent to 40 percent will have large polyps or cancer. The probability of cancer increases as the number of positive test windows increase. Tests that incorporate quantitative measures of heme and genetic stool markers have not been evaluated with respect to mortality reduction. Sensitivity and specificity change when screening is analyzed as a program of periodic screens. Annual screening with hydrated specimens detected 49 percent of all incident cancers, but 38 percent of all subjects had at least one colonoscopy due to positive results.<sup>9</sup> Programs using unrehydrated specimens and/or biennial testing detect a smaller proportion of cancers (27 percent to 39 percent) but require fewer colonoscopies (5 percent to 28 percent).<sup>10-11</sup>

**Sigmoidoscopy.** First-time sigmoidoscopic screening detects approximately 7 cancers and about 60 large or high-risk polyps per 1,000 examinations.<sup>12</sup> Although sigmoidoscopy can only visualize the lower half of the colon,<sup>13</sup> it has been estimated to identify 80 percent of all patients with significant findings in the colon, because findings on sigmoidoscopy will trigger examination of the entire colon. It is difficult to quantify the "false-positive" rate of endoscopic screening, but screening may lead to the removal of many polyps that are of low malignant potential or that would not have caused clinical disease.

**FOBT and Sigmoidoscopy.** Combining FOBT and periodic sigmoidoscopy has been advocated to improve the sensitivity of screening. In three recent randomized trials, performing flexible sigmoidoscopy in addition to FOBT yielded approximately 7 additional cancers or large polyps per 1,000 patients compared to FOBT alone.<sup>2</sup> Adding FOBT did not improve the yield over sigmoidoscopy alone at the initial screening in these studies, which used flexible sigmoidoscopy; but did in an earlier study that used rigid sigmoidoscopy. Whether additional rounds of FOBT screening will have added benefits over flexible sigmoidoscopy has not been assessed.

**Double Contrast Barium Enema.** Most studies of DCBE have important limitations for determining accuracy in an asymptomatic screening population. Previous studies have reported high sensitivity (86 percent to 90 percent) of DCBE for colorectal cancer and polyps, and high specificity (95 percent). In the National Polyp Study, however, DCBE detected only 48 percent of polyps greater than 1 cm.<sup>14</sup> Sensitivity might be higher in a

typical screening population where the proportion of large polyps is higher. Specificity of DCBE in this study was 85 percent.

**Colonoscopy.** Colonoscopy recently has been advocated for screening, usually at 10-year intervals or as a once-in-a-lifetime examination at age 55-65. The accuracy of colonoscopy is difficult to evaluate because it is usually considered the criterion standard. Estimated sensitivity of a single exam is 90 percent for large polyps and 75 percent for small polyps (less than 1 cm).<sup>15</sup> As with sigmoidoscopy, specificity is difficult to define. Many patients will have polyps detected or removed on colonoscopy, but only a minority of those would have developed cancer.

**Computed Tomography (CT) Colography.** CT colography, or "virtual colonoscopy," is a noninvasive procedure for producing images of the colonic lumen. The examination, which can be performed in 10 to 15 minutes, currently requires a preparation similar to colonoscopy, followed by installation of air through a rectal tube. Although CT colography can be relatively sensitive and specific in research settings (85 percent to 90 percent), recent reports have suggested lower accuracy when performed by less experienced examiners. Small and flat polyps are less well visualized on CT colography than are cancers and large polyps. Studies have not yet examined clinical outcomes with CT colography screening.

### C. Effectiveness of Early Detection

**Fecal Occult Blood Testing.** Three randomized controlled trials (RCTs), all using the Hemoccult® test kit, show reductions in risk of death from colorectal cancer from 15 percent to 33 percent from periodic FOBT screening. Two European trials, which randomized patients prior to agreement to participate and used biennial screening and unrehydrated test cards, found 15 percent to 18 percent reductions in mortality.<sup>10,11</sup> In a U.S. study, which randomized volunteers and used rehydrated test cards, colorectal cancer mortality after 18 years of follow-up was 33 percent lower among persons advised to undergo annual FOBT than among controls who received usual care (9.46 versus 14.09 deaths per 1,000 patients screened); biennial screening reduced mortality by 21 percent.<sup>9,16</sup> A fourth trial conducted in Sweden has not reported final mortality results, but no significant mortality reduction was reported after 2 rounds of rehydrated testing (RR, 0.88; 95 percent CI, 0.69 - 1.12).

**Sigmoidoscopy.** Current evidence of the effectiveness of sigmoidoscopy is limited to several well-designed case-control studies, but two ongoing RCTs of screening with flexible sigmoidoscopy are expected to report results within 5 years. A case-control study in a large health plan that had implemented rigid sigmoidoscopy screening suggested that screening reduced the risk of death from cancers within reach of the rigid sigmoidoscope by 59 percent.<sup>12</sup> A second case-control study in which 75 percent of the examinations were performed with a flexible instrument found similar protection.<sup>18</sup>

**FOBT and Sigmoidoscopy.** No RCTs have examined whether combining FOBT and sigmoidoscopy would lower mortality or morbidity more than either test alone. In a nonrandomized, controlled study involving more than 12,000 first-time attendees at a preventive-health clinic screened using rigid sigmoidoscopy, the addition of FOBT detected more cancers on initial screening than sigmoidoscopy alone, but mortality after 9 years was not significantly lower (0.36 per 1,000 patient-years in patients

receiving both tests versus 0.63 per 1,000 patient years in controls;  $p = 0.11$ ).<sup>19</sup> Whether results are generalizable to flexible sigmoidoscopy is uncertain.

**Double Contrast Barium Enema.** No trial has examined the ability of screening barium enema to reduce the incidence or mortality from colorectal cancer.

**Colonoscopy.** The effectiveness of colonoscopy to prevent colorectal cancer or mortality has not been tested in a randomized clinical trial. The National Polyp Study, a randomized trial of different intervals of surveillance after polypectomy, estimated that 76 percent to 90 percent of cancers could be prevented by regular colonoscopic surveillance exams.<sup>20</sup> These results should be interpreted with caution, however, because they are based on historical controls, and trial participants had more complete polyp removal than may occur in the screening setting. A single case-control study suggests that colonoscopy is associated with lower incidence of colon cancer (odds ratio = 0.47; 95 percent CI, 0.37-0.58) and lower mortality from colorectal cancer (odds ratio = 0.43; 95 percent CI, 0.30-0.63).<sup>21</sup> Slightly greater benefits of colonoscopy have been predicted in models that project benefits based on sensitivity of screening and rates of polyp progression.

**CT Colography.** No studies have evaluated the effectiveness of CT colography in reducing morbidity or mortality from colorectal cancer.

#### D. When to Start or Stop Screening for Colorectal Cancer

There are few data to determine optimal age for starting or stopping screening. FOBT has been proven effective for persons aged 50-80 and sigmoidoscopy is associated with reduced mortality in persons older than 45. One cost-effectiveness model suggests that beginning screening at age 40 rather than at age 50 would offer less than a 1-day average improvement in life expectancy. Randomized trials suggest that a life expectancy of at least 5 years may be required to realize the benefits of screening.

#### E. Potential Harms of Screening

FOBT has few potential harms but false-positive tests can lead to invasive procedures such as colonoscopy. Sigmoidoscopy can, in rare instances, lead to bowel perforation (1 to 2 per 10,000 examinations).<sup>22</sup> In a study of 1,235 screening sigmoidoscopies, adverse effects included pain (14 percent), anxiety, bleeding (3 percent), gas or flatus (25 percent), but no perforations.<sup>12</sup> One patient died from complications after surgery to remove a severely dysplastic adenoma. A survey of barium enema experience reported that important complications of any type occurred in 1 in 10,000 examinations; perforation occurred in 1 in 25,000 examinations; death in 1 in 55,000 examinations.<sup>23</sup>

Screening colonoscopy poses higher risks than FOBT or sigmoidoscopy, both because it is a more invasive procedure and because generally it is used with conscious sedation, which may lead to complications. The risks of colonoscopy depend on whether it is used simply for screening and diagnosis, or whether it is also used for therapeutic procedures (e.g., removal of polyps). In two studies of screening colonoscopies in more than 5,000 patients, 0.2 percent to 0.3 percent had major complications during or immediately after the procedures, the most common being bleeding requiring hospitalization or emergency care.<sup>24,25</sup>

Risks are higher in therapeutic procedures (e.g., when polypectomy is performed) than in diagnostic or screening procedures. Rates of perforation for diagnostic procedures in

16 published studies ranged from 0.03 percent to 0.61 percent. There are few data on bleeding complications but one study reported no bleeding events in 250 patients.<sup>2</sup>

The complication rates for therapeutic procedures were higher in some studies: 0.07 percent to 0.72 percent for perforations and 0.2 percent to 2.67 percent for bleeding. Death was rare (between 1 in 16,000 to 1 in 27,000) and more likely in symptomatic patients with acute problems or those with comorbid conditions. The mortality rate as a result of screening is likely to be on the lower end of this range. Complication rates could increase, however, if widespread adoption of colonoscopy leads to more procedures by less skilled endoscopists. Data are lacking on complications of CT colography.

#### F. Patient Preferences and Adherence

Some patients report that they find the FOBT unpleasant or difficult to perform, but 50 percent to 70 percent of patients will complete FOBT when advised to by a clinician. A reminder system can increase adherence rates by an average of 14 percent. Studies conducted in primary care settings have found rates of adherence for sigmoidoscopy to be 25 percent to 50 percent for the initial test, but there are no data on adherence to repeat examinations. When given information about screening options and offered the choice of FOBT alone, sigmoidoscopy alone, or both tests together, most patients in an academic internal medicine clinic preferred both tests or FOBT alone; only 8 percent to 13 percent preferred sigmoidoscopy alone.<sup>26</sup> However, patient adherence to combined testing is lower than it is for sigmoidoscopy or FOBT alone. Patients' acceptance of barium enema screening has not been evaluated.

Studies examining the relative discomfort of barium enema and colonoscopy have produced inconsistent results. In one study of patients in a population with considerable previous screening experience, 38 percent preferred colonoscopy to other methods. The acceptability and feasibility of CT colography have not been examined.

#### G. Cost and Cost-effectiveness

Among 6 high-quality cost-effectiveness analyses examining only direct costs, the average cost-effectiveness ratio values for screening adults older than 50 with each of the major strategies were under \$30,000 per life-year saved (Year 2000 dollars).<sup>2</sup> Studies varied as to which strategy was most cost-effective, however.

#### ***Recommendations of Others***

The American Cancer Society recommends screening people at average risk for colorectal cancer beginning at 50 years of age by:

1. FOBT annually.
2. Flexible sigmoidoscopy every 5 years.
3. Annual FOBT plus flexible sigmoidoscopy every 5 years.
4. Double-contrast barium enema every 5 years.
5. Colonoscopy every 10 years.<sup>27</sup>

The American Cancer Society does not recommend DRE as a stand-alone screening test for colorectal cancer. Similar recommendations are issued by the American

College of Surgeons, the American College of Obstetricians and Gynecologists, and the American Academy of Family Physicians.<sup>28-30</sup> The American Gastroenterological Association, as part of a consortium of related professional organizations, also issues similar recommendations, which are currently being updated.<sup>3</sup> The American College of Physicians—American Society of Internal Medicine does not have current guidelines on screening.<sup>5</sup> The Canadian Task Force on Preventive Health Care concludes that there is good evidence to recommend annual or biennial FOBT and fair evidence to recommend sigmoidoscopy as part of the periodic health examination in average-risk adults after age 50 years; evidence is insufficient to recommend for or against colonoscopy or combined FOBT and sigmoidoscopy.<sup>31</sup>

## **LCD for Computed Tomographic (CT) Colonography (L25233)**

### **Contractor Information**

**Contractor Name**

National Government Services, Inc.

**Contractor Number**

| <b>Number</b> | <b>Type</b> | <b>State(s)</b>                            |
|---------------|-------------|--|
| 00130         | FI          | IN   |
| 00131         | FI          | IL   |
| 00160         | FI          | KY   |
| 00180         | FI          | ME   |
| 00181         | FI          | MA   |
| 00270         | FI          | NH, VT                                     |
| 00308         | FI          | CT, DE, NY                                 |
| 00332         | FI          | OH   |
| 00450         | FI          | WI   |
| 00452         | FI          | MI   |
| 00453         | FI          | VA, WV                                     |
| 00454         | FI          | AS, CA, CNMI, GU,<br>HI, NV                |
| 00630         | Carrier     | IN   |
| 00660         | Carrier     | KY   |
| 00803         | Carrier     | NY (Downstate,<br>except Queens<br>County) |
| 00805         | Carrier     | NJ   |

**Contractor Type**

Carrier

FI

**LCD Information**

**LCD ID Number**

L25233

**LCD Title**

Computed Tomographic (CT) Colongraphy

**Contractor's Determination Number**

L25233

**AMA CPT / ADA CDT Copyright Statement**

CPT codes, descriptions and other data only are copyright 2006 American Medical Association (or such other date of publication of CPT). All Rights Reserved. Applicable FARS/DFARS Clauses Apply. Current Dental Terminology, (CDT) (including procedure codes, nomenclature, descriptors and other data contained therein) is copyright by the American Dental Association. © 2002, 2004 American Dental Association. All rights reserved. Applicable FARS/DFARS apply.

**CMS National Coverage Policy**

Language quoted from CMS National Coverage Determinations (NCDs) and coverage provisions in interpretive manuals is italicized throughout the policy. NCDs and coverage provisions in interpretive manuals are not subject to the LCD Review Process (42 CFR 405.860[b] and 42 CFR 426 [Subpart D]). In addition, an administrative law judge may not review an NCD. See §1869(f)(1)(A)(i) of the Social Security Act.

Unless otherwise specified, *italicized* text represents quotation from one or more of the following CMS sources:

**Title XVIII of the Social Security Act (SSA):**

Section 1862(a)(1)(A) excludes expenses incurred for items or services which are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member.

Section 1833(e) prohibits Medicare payment for any claim which lacks the necessary information to process the claim.

## Code of Federal Regulations

42 CFR Section 410.32 indicates that diagnostic tests may only be ordered by the treating physician (or other treating practitioner acting within the scope of his or her license and Medicare requirements)

42 CFR Section 410.38, subpart B indicates the tests approved for coverage of colorectal cancer screening

### CMS Publications:

CMS Publication 100-03, *Medicare National Coverage Determinations Manual*, Chapter 1:

220.1 Computerized (Computer) Tomography

CMS Publication 100-02, *Medicare Benefit Policy Manual*, Chapter 15:

80 Physician supervision rules for diagnostic X-ray

CMS Publication 100-04, *Medicare Claims Processing Manual*, Chapter 13:

10, 20, 30 and 80 Carrier payment rules for radiology services

## **Primary Geographic Jurisdiction**

| <b>Number</b> | <b>Type</b> | <b>State(s)</b> |
|---------------|-------------|-----------------|
| 00130         | FI          | IN              |
| 00131         | FI          | IL              |
| 00160         | FI          | KY              |
| 00180         | FI          | ME              |
| 00181         | FI          | MA              |
| 00270         | FI          | NH, VT          |
| 00308         | FI          | CT, DE, NY      |
| 00332         | FI          | OH              |
| 00450         | FI          | WI              |
| 00452         | FI          | MI              |
| 00453         | FI          | VA, WV          |

|       |         |  |
|-------|---------|--|
| 00454 | FI      | AS, CA, CNMI, GU,<br>HI, NV                |
| 00630 | Carrier | IN   |
| 00660 | Carrier | KY   |
| 00803 | Carrier | NY (Downstate,<br>except Queens<br>County) |
| 00805 | Carrier | NJ   |

**Secondary Geographic Jurisdiction**

**Oversight Region**

Regions I, II, III, V, IX

**Original Determination Effective Date**

For services performed on or after 12/01/2007

**Original Determination Ending Date**

**Revision Effective Date**

**Revision Ending Date**

**Indications and Limitations of Coverage and/or Medical Necessity**

1. **Abstract:**

CT colonography, utilizes helical computed tomography of the abdomen and pelvis to visualize the colon lumen, along with 3-D reconstruction. The test requires colonic preparation similar to that required for standard

colonoscopy (instrument colonoscopy), and air insufflation to achieve colonic distention.

## 2. **Indications:**

CT colonography is indicated in those patients in whom a diagnostic (performed for signs/symptoms of disease) optical colonoscopy of the entire colon is incomplete. Failure to complete the optical colonoscopy may be secondary to conditions such as, but not limited to, an obstructing neoplasm, stricture, tortuosity, spasm, redundant colon diverticulitis, extrinsic compression or aberrant anatomy scarring from prior surgery.

CT colonography is indicated when a board certified or board eligible gastroenterologist, a surgeon trained in endoscopy or a physician with equivalent endoscopic training determines from an evaluation of the patient that optical colonoscopy can not be safely attempted.

CT colonography is also indicated for the evaluation of a submucosal abnormality detected on colonoscopy or other imaging study.

CT colonography should be performed soon after the failed standard colonoscopy, if appropriate, so that the patient will not have to endure repeat colonic preparation.

## 3. **Limitations:**

CT colonography is not reimbursable when used in the absence of signs or symptoms of disease, regardless of family history or other risk factors for the development of colonic disease.

CT colonography (CPT codes 0066T or 0067T) is not reimbursable when used for screening (ICD-9-CM code V76.51).

Since any colonography with abnormal or suspicious findings would require a subsequent instrument colonoscopy for diagnosis (e.g., biopsy) or for treatment (e.g., polypectomy), CT colonography is not reimbursable when used as an alternative to an instrument colonoscopy, even though performed for signs or symptoms of disease.

Irritable bowel syndrome and abdominal pain when representing chronic stable symptoms rarely represent reasonable indications for colonoscopy and CT colonography. These conditions have been placed on the list of covered diagnoses for use when a colonoscopy/colonography exam is normal in the face of compelling symptoms. When diagnosis codes representing these conditions are used, the codes must be applicable and the rationale for the colonoscopy/colonography must be carefully documented in the medical record.

## 4. **Other Comments:**

For legacy policies being converted to NGS LCDs: This LCD consolidates and replaces all previous policies and publications on this subject by the carrier and fiscal intermediary predecessors of National Government Services (AdminaStar Federal, Anthem Health Plans of New Hampshire, Associated Hospital Service, Empire Medicare Services, and United Government Services).

For providers submitting claims to the fiscal intermediary: This coverage determination also applies within states outside the primary geographic jurisdiction with facilities that have nominated National Government Services to process their claims.

Bill type codes only apply to providers who bill these services to the fiscal intermediary. Bill type codes do not apply to physicians, other professionals and suppliers who bill these services to the carrier.

Limitation of liability and refund requirements apply when denials are based on medical necessity. The provider/supplier must notify the beneficiary in writing, prior to rendering the service, if the provider/supplier is aware that the test, item or procedure may not be considered medically necessary by Medicare. The limitation of liability and refund requirements do not apply when the test, item or procedure is statutorily excluded, has no Medicare benefit category or is rendered for screening purposes. In these instances it is recommended, although not required, that the provider notify the beneficiary in writing with a Notice of Exclusion of Medicare Benefits (NEMB).

## Coverage Topic

Diagnostic Tests and X-Rays

## Coding Information

### Bill Type Codes:

**Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.**

12x Hospital-inpatient or home health visits (Part B only)

13x Hospital-outpatient (HHA-A also) (under OPPS 13X must be used for ASC claims submitted for OPPS payment -- eff. 7/00)

85x Special facility or ASC surgery-rural primary care hospital (eff 10/94)

999x Not Applicable

### Revenue Codes:

**Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory; unless specified in the policy services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.**

Revenue codes only apply to providers who bill these services to the fiscal intermediary. Revenue codes do not apply to physicians, other professionals and suppliers who bill these services to the carrier.

Revenue codes 096X, 097X and 098X are to be used only by Critical Access Hospitals (CAHs) choosing the optional payment method (also called Option 2 or Method 2) and only for services performed by physicians or practitioners who have reassigned their billing rights. When a CAH has selected the optional payment method, physicians or other practitioners providing professional services at the CAH may elect to bill their carrier or assign their billing rights to the CAH. When professional services are reassigned to the CAH, the CAH must bill the FI using revenue codes 096X, 097X or 098X.

0255 Pharmacy-drugs incident to radiology- subject to payment limit

0320 Radiology diagnostic-general classification

0350 Computed tomographic (CT) scan-general classification

0352 CT scan-body scan

0359 CT scan-other CT scans

0960 Professional fees-general classification

0969 Professional fees-other

0972 Professional fees-radiology diagnostic

0982 Professional fees-outpatient services

### CPT/HCPCS Codes

0066T COMPUTED TOMOGRAPHIC (CT) COLONOGRAPHY (IE, VIRTUAL COLONOSCOPY); SCREENING

0067T COMPUTED TOMOGRAPHIC (CT) COLONOGRAPHY (IE, VIRTUAL COLONOSCOPY); DIAGNOSTIC

### ICD-9 Codes that Support Medical Necessity

It is the responsibility of the provider to code to the highest level specified in the *ICD-9-CM* (e.g., to the fourth or fifth digit). The correct use of an ICD-9-CM code listed below does not assure coverage of a service. The service must be reasonable and necessary in the specific case and must meet the criteria specified in this determination.

For the purposes of this LCD, ICD-9-CM code V64.3 indicates that the instrument colonoscopy has been attempted and was incomplete or when a board certified or board eligible gastroenterologist, a surgeon trained in endoscopy, or a physician with equivalent endoscopic training determined from an evaluation of the patient that optical colonoscopy can not be safely attempted.

V64.3 PROCEDURE NOT CARRIED OUT FOR OTHER REASONS

In addition to reporting ICD-9-CM code V64.3, one (or more) of the ICD-9-CM codes below must be reported in order to support medical necessity.

004.9 SHIGELLOSIS UNSPECIFIED

006.1 CHRONIC INTESTINAL AMEBIASIS WITHOUT ABSCESS

006.2 AMEBIC NONDYSENTERIC COLITIS

006.9 AMEBIASIS UNSPECIFIED

007.0 BALANTIDIASIS

007.2 COCCIDIOSIS

007.8 OTHER SPECIFIED PROTOZOAL INTESTINAL DISEASES

008.04 INTESTINAL INFECTION DUE TO ENTEROHEMORRHAGIC E. COLI

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|--------|--|
| 008.2  | INTESTINAL INFECTION DUE TO AEROBACTER AEROGENES   |
| 008.43 | INTESTINAL INFECTION DUE TO CAMPYLOBACTER  |
| 008.44 | INTESTINAL INFECTION DUE TO YERSINIA ENTEROCOLITICA  |
| 008.45 | INTESTINAL INFECTION DUE TO CLOSTRIDIUM DIFFICILE  |
| 008.46 | INTESTINAL INFECTION DUE TO OTHER ANAEROBES  |
| 008.5  | BACTERIAL ENTERITIS UNSPECIFIED  |
| 008.61 | ENTERITIS DUE TO ROTAVIRUS   |
| 008.62 | ENTERITIS DUE TO ADENOVIRUS  |
| 008.63 | ENTERITIS DUE TO NORWALK VIRUS   |
| 008.64 | ENTERITIS DUE TO OTHER SMALL ROUND VIRUSES [SRV'S]   |
| 008.65 | ENTERITIS DUE TO CALCIVIRUS  |
| 008.66 | ENTERITIS DUE TO ASTROVIRUS  |
| 008.67 | ENTERITIS DUE TO ENTEROVIRUS NEC   |
| 008.69 | ENTERITIS DUE TO OTHER VIRAL ENTERITIS   |
| 009.0  | INFECTIOUS COLITIS ENTERITIS AND GASTROENTERITIS   |
| 009.1  | COLITIS ENTERITIS AND GASTROENTERITIS OF PRESUMED INFECTIOUS ORIGIN                              |
| 009.2  | INFECTIOUS DIARRHEA  |
| 009.3  | DIARRHEA OF PRESUMED INFECTIOUS ORIGIN   |
| 014.00 | TUBERCULOUS PERITONITIS UNSPECIFIED EXAMINATION  |
| 014.01 | TUBERCULOUS PERITONITIS BACTERIOLOGICAL OR HISTOLOGICAL EXAMINATION NOT DONE                     |
| 014.02 | TUBERCULOUS PERITONITIS BACTERIOLOGICAL OR HISTOLOGICAL EXAMINATION RESULTS UNKNOWN (AT PRESENT) |

|        |   |
|--------|---|
| 014.03 | TUBERCULOUS PERITONITIS TUBERCLE BACILLI FOUND (IN SPUTUM) BY MICROSCOPY  |
| 014.04 | TUBERCULOUS PERITONITIS TUBERCLE BACILLI NOT FOUND (IN SPUTUM) BY MICROSCOPY BUT FOUND BY BACTERIAL CULTURE   |
| 014.05 | TUBERCULOUS PERITONITIS TUBERCLE BACILLI NOT FOUND BY BACTERIOLOGICAL EXAMINATION BUT TUBERCULOSIS CONFIRMED HISTOLOGICALLY   |
| 014.06 | TUBERCULOUS PERITONITIS TUBERCLE BACILLI NOT FOUND BY BACTERIOLOGICAL OR HISTOLOGICAL EXAMINATION BUT TUBERCULOSIS CONFIRMED BY OTHER METHODS (INOCULATION OF ANIMALS)                                |
| 014.80 | OTHER TUBERCULOSIS OF INTESTINES AND MESENTERIC GLANDS UNSPECIFIED EXAMINATION  |
| 014.81 | OTHER TUBERCULOSIS OF INTESTINES AND MESENTERIC GLANDS BACTERIOLOGICAL OR HISTOLOGICAL EXAMINATION NOT DONE   |
| 014.82 | OTHER TUBERCULOSIS OF INTESTINES AND MESENTERIC GLANDS BACTERIOLOGICAL OR HISTOLOGICAL EXAMINATION RESULTS UNKNOWN (AT PRESENT)   |
| 014.83 | OTHER TUBERCULOSIS OF INTESTINES AND MESENTERIC GLANDS TUBERCLE BACILLI FOUND (IN SPUTUM) BY MICROSCOPY   |
| 014.84 | OTHER TUBERCULOSIS OF INTESTINES AND MESENTERIC GLANDS TUBERCLE BACILLI NOT FOUND (IN SPUTUM) BY MICROSCOPY BUT FOUND BY BACTERIAL CULTURE  |
| 014.85 | OTHER TUBERCULOSIS OF INTESTINES AND MESENTERIC GLANDS TUBERCLE BACILLI NOT FOUND BY BACTERIOLOGICAL EXAMINATION BUT TUBERCULOSIS CONFIRMED HISTOLOGICALLY  |
| 014.86 | OTHER TUBERCULOSIS OF INTESTINES AND MESENTERIC GLANDS TUBERCLE BACILLI NOT FOUND BY BACTERIOLOGICAL OR HISTOLOGICAL EXAMINATION BUT TUBERCULOSIS CONFIRMED BY OTHER METHODS (INOCULATION OF ANIMALS) |
| 042    | HUMAN IMMUNODEFICIENCY VIRUS (HIV) DISEASE  |
| 098.7  | GONOCOCCAL INFECTION OF ANUS AND RECTUM   |
| 099.1  | LYMPHOGRANULOMA VENEREUM  |

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| 112.85 | CANDIDAL ENTERITIS                           |
| 120.1  | SCHISTOSOMIASIS DUE TO SCHISTOSOMA MANSONI   |
| 123.0  | TAENIA SOLIUM INFECTION INTESTINAL FORM      |
| 123.2  | TAENIA SAGINATA INFECTION                    |
| 123.3  | TAENIASIS UNSPECIFIED                        |
| 123.4  | DIPHYLLOBOTHRIASIS INTESTINAL                |
| 123.6  | HYMENOLEPIASIS                               |
| 123.8  | OTHER SPECIFIED CESTODE INFECTION            |
| 126.9  | ANCYLOSTOMIASIS AND NECATORIASIS UNSPECIFIED |
| 127.0  | ASCARIASIS                                   |
| 127.2  | STRONGYLOIDIASIS                             |
| 127.3  | TRICHURIASIS                                 |
| 127.4  | ENTEROBIASIS                                 |
| 127.9  | INTESTINAL HELMINTHIASIS UNSPECIFIED         |
| 128.9  | HELMINTH INFECTION UNSPECIFIED               |
| 129    | INTESTINAL PARASITISM UNSPECIFIED            |
| 152.2  | MALIGNANT NEOPLASM OF ILEUM                  |
| 153.0  | MALIGNANT NEOPLASM OF HEPATIC FLEXURE        |
| 153.1  | MALIGNANT NEOPLASM OF TRANSVERSE COLON       |
| 153.2  | MALIGNANT NEOPLASM OF DESCENDING COLON       |
| 153.3  | MALIGNANT NEOPLASM OF SIGMOID COLON          |
| 153.4  | MALIGNANT NEOPLASM OF CECUM                  |
| 153.5  | MALIGNANT NEOPLASM OF APPENDIX VERMIFORMIS   |

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|--------|---|
| 153.6  | MALIGNANT NEOPLASM OF ASCENDING COLON                                       |
| 153.7  | MALIGNANT NEOPLASM OF SPLENIC FLEXURE                                       |
| 153.8  | MALIGNANT NEOPLASM OF OTHER SPECIFIED SITES OF LARGE INTESTINE              |
| 153.9  | MALIGNANT NEOPLASM OF COLON UNSPECIFIED SITE                                |
| 154.0  | MALIGNANT NEOPLASM OF RECTOSIGMOID JUNCTION                                 |
| 154.1  | MALIGNANT NEOPLASM OF RECTUM  |
| 154.2  | MALIGNANT NEOPLASM OF ANAL CANAL  |
| 154.3  | MALIGNANT NEOPLASM OF ANUS UNSPECIFIED SITE                                 |
| 154.8  | MALIGNANT NEOPLASM OF OTHER SITES OF RECTUM RECTOSIGMOID JUNCTION AND ANUS  |
| 196.2  | SECONDARY AND UNSPECIFIED MALIGNANT NEOPLASM OF INTRA-ABDOMINAL LYMPH NODES |
| 197.4  | SECONDARY MALIGNANT NEOPLASM OF SMALL INTESTINE INCLUDING DUODENUM          |
| 197.5  | SECONDARY MALIGNANT NEOPLASM OF LARGE INTESTINE AND RECTUM                  |
| 197.7  | MALIGNANT NEOPLASM OF LIVER SECONDARY                                       |
| 211.3  | BENIGN NEOPLASM OF COLON  |
| 211.4  | BENIGN NEOPLASM OF RECTUM AND ANAL CANAL                                    |
| 214.3  | LIPOMA OF INTRA-ABDOMINAL ORGANS  |
| 228.04 | HEMANGIOMA OF INTRA-ABDOMINAL STRUCTURES                                    |
| 228.1  | LYMPHANGIOMA ANY SITE   |
| 230.3  | CARCINOMA IN SITU OF COLON  |
| 230.4  | CARCINOMA IN SITU OF RECTUM   |
| 230.5  | CARCINOMA IN SITU OF ANAL CANAL   |

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| 230.6 | CARCINOMA IN SITU OF ANUS UNSPECIFIED                                    |
| 235.2 | NEOPLASM OF UNCERTAIN BEHAVIOR OF STOMACH INTESTINES AND RECTUM          |
| 235.5 | NEOPLASM OF UNCERTAIN BEHAVIOR OF OTHER AND UNSPECIFIED DIGESTIVE ORGANS |
| 239.0 | NEOPLASM OF UNSPECIFIED NATURE OF DIGESTIVE SYSTEM                       |
| 280.0 | IRON DEFICIENCY ANEMIA SECONDARY TO BLOOD LOSS (CHRONIC)                 |
| 280.9 | IRON DEFICIENCY ANEMIA UNSPECIFIED                                       |
| 421.0 | ACUTE AND SUBACUTE BACTERIAL ENDOCARDITIS                                |
| 447.2 | RUPTURE OF ARTERY  |
| 448.0 | HEREDITARY HEMORRHAGIC TELANGIECTASIA                                    |
| 456.8 | VARICES OF OTHER SITES   |
| 540.9 | ACUTE APPENDICITIS WITHOUT PERITONITIS                                   |
| 543.0 | HYPERPLASIA OF APPENDIX (LYMPHOID)                                       |
| 543.9 | OTHER AND UNSPECIFIED DISEASES OF APPENDIX                               |
| 555.0 | REGIONAL ENTERITIS OF SMALL INTESTINE                                    |
| 555.1 | REGIONAL ENTERITIS OF LARGE INTESTINE                                    |
| 555.2 | REGIONAL ENTERITIS OF SMALL INTESTINE WITH LARGE INTESTINE               |
| 555.9 | REGIONAL ENTERITIS OF UNSPECIFIED SITE                                   |
| 556.0 | ULCERATIVE (CHRONIC) ENTEROCOLITIS                                       |
| 556.1 | ULCERATIVE (CHRONIC) ILEOCOLITIS   |
| 556.2 | ULCERATIVE (CHRONIC) PROCTITIS   |
| 556.3 | ULCERATIVE (CHRONIC) PROCTOSIGMOIDITIS                                   |
| 556.4 | PSEUDOPOLYPOSIS OF COLON   |

|        |   |
|--------|---|
| 556.5  | LEFT-SIDED ULCERATIVE (CHRONIC) COLITIS   |
| 556.6  | UNIVERSAL ULCERATIVE (CHRONIC) COLITIS  |
| 556.8  | OTHER ULCERATIVE COLITIS  |
| 556.9  | ULCERATIVE COLITIS UNSPECIFIED  |
| 557.0  | ACUTE VASCULAR INSUFFICIENCY OF INTESTINE   |
| 557.1  | CHRONIC VASCULAR INSUFFICIENCY OF INTESTINE   |
| 557.9  | UNSPECIFIED VASCULAR INSUFFICIENCY OF INTESTINE                                     |
| 558.1  | GASTROENTERITIS AND COLITIS DUE TO RADIATION  |
| 558.2  | TOXIC GASTROENTERITIS AND COLITIS   |
| 558.3  | ALLERGIC GASTROENTERITIS AND COLITIS  |
| 558.9  | OTHER AND UNSPECIFIED NONINFECTIOUS GASTROENTERITIS AND COLITIS                     |
| 560.0  | INTUSSUSCEPTION   |
| 560.1  | PARALYTIC ILEUS   |
| 560.2  | VOLVULUS  |
| 560.30 | IMPACTION OF INTESTINE UNSPECIFIED  |
| 560.31 | GALLSTONE ILEUS   |
| 560.39 | OTHER IMPACTION OF INTESTINE  |
| 560.81 | INTESTINAL OR PERITONEAL ADHESIONS WITH OBSTRUCTION (POSTOPERATIVE) (POSTINFECTION) |
| 560.89 | OTHER SPECIFIED INTESTINAL OBSTRUCTION  |
| 560.9  | UNSPECIFIED INTESTINAL OBSTRUCTION  |
| 562.00 | DIVERTICULOSIS OF SMALL INTESTINE (WITHOUT HEMORRHAGE)                              |
| 562.02 | DIVERTICULOSIS OF SMALL INTESTINE WITH HEMORRHAGE                                   |

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| 562.10 | DIVERTICULOSIS OF COLON (WITHOUT HEMORRHAGE)         |
| 562.11 | DIVERTICULITIS OF COLON (WITHOUT HEMORRHAGE)         |
| 562.12 | DIVERTICULOSIS OF COLON WITH HEMORRHAGE              |
| 562.13 | DIVERTICULITIS OF COLON WITH HEMORRHAGE              |
| 564.00 | UNSPECIFIED CONSTIPATION                             |
| 564.01 | SLOW TRANSIT CONSTIPATION                            |
| 564.02 | OUTLET DYSFUNCTION CONSTIPATION                      |
| 564.09 | OTHER CONSTIPATION                                   |
| 564.1  | IRRITABLE BOWEL SYNDROME                             |
| 564.4  | OTHER POSTOPERATIVE FUNCTIONAL DISORDERS             |
| 564.5  | FUNCTIONAL DIARRHEA                                  |
| 564.7  | MEGACOLON OTHER THAN HIRSCHSPRUNG'S                  |
| 564.81 | NEUROGENIC BOWEL                                     |
| 564.89 | OTHER FUNCTIONAL DISORDERS OF INTESTINE              |
| 569.0  | ANAL AND RECTAL POLYP                                |
| 569.2  | STENOSIS OF RECTUM AND ANUS                          |
| 569.3  | HEMORRHAGE OF RECTUM AND ANUS                        |
| 569.41 | ULCER OF ANUS AND RECTUM                             |
| 569.43 | ANAL SPHINCTER TEAR (HEALED) (OLD)                   |
| 569.5  | ABSCESS OF INTESTINE                                 |
| 569.60 | COLOSTOMY AND ENTEROSTOMY COMPLICATION UNSPECIFIED   |
| 569.62 | MECHANICAL COMPLICATION OF COLOSTOMY AND ENTEROSTOMY |
| 569.69 | OTHER COLOSTOMY AND ENTEROSTOMY COMPLICATION         |

|        |   |
|--------|---|
| 569.81 | FISTULA OF INTESTINE EXCLUDING RECTUM AND ANUS                            |
| 569.82 | ULCERATION OF INTESTINE   |
| 569.83 | PERFORATION OF INTESTINE  |
| 569.84 | ANGIODYSPLASIA OF INTESTINE (WITHOUT HEMORRHAGE)                          |
| 569.85 | ANGIODYSPLASIA OF INTESTINE WITH HEMORRHAGE                               |
| 569.86 | DIEULAFOY LESION (HEMORRHAGIC) OF INTESTINE                               |
| 569.89 | OTHER SPECIFIED DISORDERS OF INTESTINES                                   |
| 576.1  | CHOLANGITIS   |
| 578.1  | BLOOD IN STOOL  |
| 578.9  | HEMORRHAGE OF GASTROINTESTINAL TRACT UNSPECIFIED                          |
| 579.8  | OTHER SPECIFIED INTESTINAL MALABSORPTION                                  |
| 593.82 | URETERAL FISTULA  |
| 596.1  | INTESTINOVESICAL FISTULA  |
| 619.1  | DIGESTIVE-GENITAL TRACT FISTULA FEMALE                                    |
| 751.2  | CONGENITAL ATRESIA AND STENOSIS OF LARGE INTESTINE RECTUM AND ANAL CANAL  |
| 751.3  | HIRSCHSPRUNG'S DISEASE AND OTHER CONGENITAL FUNCTIONAL DISORDERS OF COLON |
| 751.4  | CONGENITAL ANOMALIES OF INTESTINAL FIXATION                               |
| 751.5  | OTHER CONGENITAL ANOMALIES OF INTESTINE                                   |
| 759.6  | OTHER CONGENITAL HAMARTOSES NOT ELSEWHERE CLASSIFIED                      |
| 787.91 | DIARRHEA  |
| 787.99 | OTHER SYMPTOMS INVOLVING DIGESTIVE SYSTEM                                 |
| 789.00 | ABDOMINAL PAIN UNSPECIFIED SITE   |

|        |   |
|--------|---|
| 789.01 | ABDOMINAL PAIN RIGHT UPPER QUADRANT   |
| 789.02 | ABDOMINAL PAIN LEFT UPPER QUADRANT  |
| 789.03 | ABDOMINAL PAIN RIGHT LOWER QUADRANT   |
| 789.04 | ABDOMINAL PAIN LEFT LOWER QUADRANT  |
| 789.05 | ABDOMINAL PAIN PERIUMBILIC  |
| 789.06 | ABDOMINAL PAIN EPIGASTRIC   |
| 789.07 | ABDOMINAL PAIN GENERALIZED  |
| 789.09 | ABDOMINAL PAIN OTHER SPECIFIED SITE   |
| 789.33 | ABDOMINAL OR PELVIC SWELLING MASS OR LUMP RIGHT LOWER QUADRANT                                |
| 789.34 | ABDOMINAL OR PELVIC SWELLING MASS OR LUMP LEFT LOWER QUADRANT                                 |
| 789.35 | ABDOMINAL OR PELVIC SWELLING MASS OR LUMP PERIUMBILIC   |
| 789.37 | ABDOMINAL OR PELVIC SWELLING MASS OR LUMP GENERALIZED   |
| 789.39 | ABDOMINAL OR PELVIC SWELLING MASS OR LUMP OTHER SPECIFIED SITE                                |
| 792.1  | NONSPECIFIC ABNORMAL FINDINGS IN STOOL CONTENTS   |
| 793.4  | NONSPECIFIC ABNORMAL FINDINGS ON RADIOLOGICAL AND OTHER EXAMINATION OF GASTROINTESTINAL TRACT |
| 863.40 | INJURY TO COLON UNSPECIFIED SITE WITHOUT OPEN WOUND INTO CAVITY                               |
| 863.41 | INJURY TO ASCENDING (RIGHT) COLON WITHOUT OPEN WOUND INTO CAVITY                              |
| 863.42 | INJURY TO TRANSVERSE COLON WITHOUT OPEN WOUND INTO CAVITY                                     |
| 863.43 | INJURY TO DESCENDING (LEFT) COLON WITHOUT OPEN WOUND INTO CAVITY                              |

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| 863.44 | INJURY TO SIGMOID COLON WITHOUT OPEN WOUND INTO CAVITY                               |
| 863.45 | INJURY TO RECTUM WITHOUT OPEN WOUND INTO CAVITY                                      |
| 863.46 | INJURY TO MULTIPLE SITES IN COLON AND RECTUM WITHOUT OPEN WOUND INTO CAVITY          |
| 863.50 | INJURY TO COLON UNSPECIFIED SITE WITH OPEN WOUND INTO CAVITY                         |
| 863.51 | INJURY TO ASCENDING (RIGHT) COLON WITH OPEN WOUND INTO CAVITY                        |
| 863.52 | INJURY TO TRANSVERSE COLON WITH OPEN WOUND INTO CAVITY                               |
| 863.53 | INJURY TO DESCENDING (LEFT) COLON WITH OPEN WOUND INTO CAVITY                        |
| 863.54 | INJURY TO SIGMOID COLON WITH OPEN WOUND INTO CAVITY                                  |
| 863.55 | INJURY TO RECTUM WITH OPEN WOUND INTO CAVITY   |
| 863.56 | INJURY TO MULTIPLE SITES IN COLON AND RECTUM WITH OPEN WOUND INTO CAVITY             |
| 936    | FOREIGN BODY IN INTESTINE AND COLON  |
| 937    | FOREIGN BODY IN ANUS AND RECTUM  |
| 938    | FOREIGN BODY IN DIGESTIVE SYSTEM UNSPECIFIED   |
| 996.56 | MECHANICAL COMPLICATION DUE TO PERITONEAL DIALYSIS CATHETER                          |
| 996.62 | INFECTION AND INFLAMMATORY REACTION DUE TO OTHER VASCULAR DEVICE IMPLANT AND GRAFT   |
| 996.74 | OTHER COMPLICATIONS DUE TO OTHER VASCULAR DEVICE IMPLANT AND GRAFT                   |
| V10.00 | PERSONAL HISTORY OF MALIGNANT NEOPLASM OF UNSPECIFIED SITE IN GASTROINTESTINAL TRACT |
| V10.03 | PERSONAL HISTORY OF MALIGNANT NEOPLASM OF ESOPHAGUS                                  |
| V10.04 | PERSONAL HISTORY OF MALIGNANT NEOPLASM OF STOMACH                                    |

V10.05 PERSONAL HISTORY OF MALIGNANT NEOPLASM OF LARGE INTESTINE

V10.06 PERSONAL HISTORY OF MALIGNANT NEOPLASM OF RECTUM  
RECTOSIGMOID JUNCTION AND ANUS

V10.07 PERSONAL HISTORY OF MALIGNANT NEOPLASM OF LIVER

V12.70 PERSONAL HISTORY OF UNSPECIFIED DIGESTIVE DISEASE

V12.72 PERSONAL HISTORY OF COLONIC POLYPS

V67.09 FOLLOW-UP EXAMINATION FOLLOWING OTHER SURGERY

V71.1 OBSERVATION FOR SUSPECTED MALIGNANT NEOPLASM

### **Diagnoses that Support Medical Necessity**

Not applicable

### **ICD-9 Codes that DO NOT Support Medical Necessity**

Not applicable

### **ICD-9 Codes that DO NOT Support Medical Necessity Asterisk Explanation**

### **Diagnoses that DO NOT Support Medical Necessity**

Not applicable

## **General Information**

### **Documentation Requirements**

The patient's medical record must contain documentation that fully supports the medical necessity for services included within this LCD. (See "Indications and Limitations of Coverage.") This documentation includes, but is not limited to, relevant medical history, physical examination, and results of pertinent diagnostic tests or procedures.

## Appendices

Not applicable

## Utilization Guidelines

CT colonography is reimbursable only when performed following an instrument colonoscopy which was incomplete or when a board certified or board eligible gastroenterologist or surgeon trained in endoscopy determined from an evaluation of the patient that optical colonoscopy can not be safely attempted. Tests performed without a prior incomplete instrument colonoscopy in history or documentation by a board certified or eligible gastroenterologist, a surgeon trained in endoscopy or a physician with equivalent endoscopic training indicating why an optical colonoscopy can not be safely attempted will be denied.

## Sources of Information and Basis for Decision

This bibliography presents those sources that were obtained during the development of this policy. National Government Services is not responsible for the continuing viability of Web site addresses listed below.

1. Cotton, PB et al, "Computed Tomographic Colonography (Virtual Colonoscopy)", JAMA 291:1713-1719 (April 14, 2004).
2. Dominitz JA, Eisen GM, Baron TH et al. Complications of colonoscopy. Gastrointest Endosc. 2003;57: 1713-1719.
3. Fenlon, HM, McAneny DB, Nunes DP, Clarke PD, Ferrucci JT. Occlusive colon Carcinoma: virtual colonoscopy in the preoperative evaluation of the proximal colon, Radiology. 1999;210:423-428 (February 1999).
4. Johnson, CD, Harmsen WS, Wilson LA et al. Prospective blinded evaluation of computed tomographic colonography for screen detection of colorectal polyps. Gastroenterology. 2003;125:311-319.
5. Laghi A, Iannaccone R, Carbone I et al. Computed tomographic colonography (virtual colonoscopy): blinded prospective comparison with conventional colonoscopy for the detection of colorectal neoplasia. Endoscopy. 2002;34:441-446.
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7. McCormick JT, Gregorcyk SG. Preoperative evaluation of colorectal cancer. Surg Oncol Clin N Am. 2006; 15: 39-49, v.
8. Morrin MM, Kruskal JB, Farrell RJ, Goldberg SN, McGee JB, Raptopoulos V. Endoluminal CT colonography after an incomplete endoscopic colonoscopy. AJR Am J Roentgenol. 1999; 172: 913-918.
9. Pickhardt PJ, Choi JR, Hwang I et al. Computed tomographic virtual colonoscopy to screen for colorectal neoplasia in asymptomatic adults. N Engl J Med. 2003; 349: 2191-2200.
10. Ransohoff, DF, Virtual colonoscopy – what it can do vs what it will do. JAMA. 2004; 291: 1772-1774.
11. Other Medicare contractor policies consulted in development of the LCD:
  - o AdminaStar Federal carrier LCD (Indiana [L22422], Kentucky [L22430])
  - o AdminaStar Federal fiscal intermediary LCD (Illinois [L22058], Indiana [L22055], Kentucky [L22060], Ohio [L22062])
  - o Associated Hospital Services fiscal intermediary LCDs [L19799/L19945]
  - o Anthem Health Plans of New Hampshire fiscal intermediary LCD [L19942]
  - o Empire Medicare Services carrier LCD (New Jersey [L16921], New York [L16894])
  - o Empire Medicare Services fiscal intermediary LCD L17586

## **Advisory Committee Meeting Notes**

Carrier Advisory Committee Meeting Date(s)

[06/13/2007] [New Jersey and New York]

[06/25/2007] [Indiana]

[06/28/2007] [Kentucky]

This coverage determination does not reflect the sole opinion of the contractor or contractor medical director. Although the final decision rests with the contractor, this determination was developed in consultation with representatives from Advisory Committee members and/or from various state

and local provider organizations.

**Start Date of Comment Period**

06/01/2007

**End Date of Comment Period**

07/16/2007

**Start Date of Notice Period**

10/01/2007

**Revision History Number**

**Revision History Explanation**

Not Applicable

**Reason for Change**

**Last Reviewed On Date**

06/01/2007

**Related Documents**

**Article(s)**

[A44376 - Computed Tomographic \(CT\) Colonography - Supplemental Instructions Article](#)

