Computed Tomographic Colonography (for Indiana Only)

Policy Number: CS022IN.02
Effective Date: July 1, 2021

Instructions for Use

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Related Policies
None

Application

This Medical Policy only applies to the state of Indiana.

Coverage Rationale

A computed tomographic colonography is proven and medically necessary under certain circumstances. For medical necessity clinical coverage criteria, refer to the InterQual® 2021, Apr. 2021 Release, CP: Imaging, Imaging, Abdomen and Pelvis.

Click here to view the InterQual® criteria.

The following is unproven and not medically necessary due to insufficient evidence of efficacy:

- Computed tomographic colonography as a diagnostic tool for the following conditions:
  - Diverticulitis
  - Inflammatory bowel disease

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by federal, state, or contractual requirements and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

CPT Code	Description
74261	Computed tomographic (CT) colonography, diagnostic, including image postprocessing; without contrast material
74262	Computed tomographic (CT) colonography, diagnostic, including image postprocessing; with contrast material(s) including non-contrast images, if performed

CPT Code	Description
74263	Computed tomographic (CT) colonography, screening, including image postprocessing

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Description of Services

Colonoscopy is the "gold standard" screening test; however, it is invasive and frequently requires sedation or anesthesia, so screening rates are low.

Computed tomography colonography (CTC), also referred to as virtual colonoscopy (VC), is perceived by some persons to be a less invasive method of colon cancer screening than optical colonoscopy (OC). It has been developed to obtain detailed 2-dimensional and 3-dimensional (3D) colonoscopic images of the colon and rectum using helical computed tomography (CT). These images are then reconstructed to produce computer-generated 3D images suitable for interpretation by a gastrointestinal radiologist. If suspicious lesions are detected, the individual usually undergoes further testing, including possible biopsy, via conventional colonoscopy (CC). Since CTC is believed by some to be less invasive than CC and does not require sedation individuals may find it more acceptable, thereby improving compliance with colorectal cancer (CRC) screening recommendations.

CTC may not detect lesions < 6mm in size, which could result in delay in treatment and/or conversion to colonoscopy.

Clinical Evidence

Diverticulitis

In a prospective study by Hjern et al. (2007), 50 patients diagnosed with diverticulitis were assessed to determine whether CTC is a viable alternative to colonoscopy. Participants underwent CTC immediately followed by CC. The results were blinded to the examiners. Diverticular disease was found in 48 of the 50 (96%) patients utilizing CTC and in 45 of 50 (90%) patients with CC. These results indicate that CTC can provide at least the same level of accuracy as CC. The authors concluded that CTC appears to have a better diagnostic potential for imaging of diverticular disease-specific findings when compared with colonoscopy, and is a reasonable alternative in follow-up of patients with symptomatic diverticular disease. The study design, however, did require that the CTC be completed prior to CC which may have introduced a biased response favoring CTC. In addition, residual gas from CTC may have contributed to greater discomfort during the subsequent colonoscopy. Further studies are needed to determine the efficacy of CTC as a follow-up diagnostic tool for diverticulitis.

A study conducted by Obana et al. (2013) enrolled a total of 52 patients with the aim of evaluating the ability of contrast-enhanced CT (CE-CT) in the detection of colonic diverticular bleeding (CDB). Patients were enrolled based on their ability to undergo both a CE-CT and a total colonoscopy. The patients were also known to have hematochezia and were clinically suspected of CDB. The detection rates for CE-CT and total colonoscopy were 15.4% versus 38.5%, respectively. Based on the results, this study concluded that though CE-CT may play a complementary role to colonoscopy in patients with suspected CDB, it is not recommended for all cases due to the low detection rate demonstrated during the course of the study. OC still remains the primary recommended screening tool.

With colonoscopy being the standard, Chabok et al. (2013) conducted a prospective comparative study assessing CTC in the follow-up of diverticulitis, evaluating patient acceptance and diagnostic accuracy for diverticular disease, adenomas and cancer in 108 individuals. Half received colonoscopy first, followed immediately by CTC. The other half had the examinations in the reverse order, with results blinded to the examiners. The success rate was 91% and 86% for colonoscopy and CTC, respectively. Examination time was equal for both methods. While 83% of the participants received sedation during colonoscopy, they experienced colonoscopy as more painful and uncomfortable. Diverticulosis and polyps were detected in 94% and 20% with colonoscopy and in 94% and 29% with CTC, respectively. Sensitivity and specificity for CTC in the detection of diverticulosis was 99% and 67%, with a good agreement. Regarding detection of polyps, the sensitivity and specificity were 47% and 75%, respectively. The authors concluded that CTC was less painful and unpleasant and can be used for colonic investigation in the follow-up of diverticulitis. It is considered a viable alternative, especially in cases of incomplete colonoscopy or in a situation with limited colonoscopy resources.

Inflammatory Bowel Disease

In a retrospective single center study, Ohgo et al. evaluated the morphology of the colon in patients with IBS by using CTC. Twelve patients with diarrhea type IBS (IBS-D), 13 patients with constipation type IBS (IBS-C), 12 patients with functional constipation (FC) and 14 control patients underwent colonoscopy following CTC. The lengths and diameters of various areas of the colon were measured. After analyzing the data, it is supposed that IBS-C and FC are both characterized by a longer and thicker colon. The authors concluded that CTC might contribute to the clarification of subtypes of IBS according to the different morphological findings. A larger prospective study with multiple centers is necessary to accumulate more clinical data (2016).

Prabhakar et al. (2015) performed a study comparing the findings of CTC to CC in patients with ulcerative colitis (UC). Participants (n=20) with known UC per biopsy and in clinical remission underwent CTC and CC within 1 week of each test. The results were blinded to the examiners. Sensitivity and specificity on CTC for detecting granular appearance were 81% and 73.8%, respectively; and for pseudopolyps were 82.1% and 84.5%, respectively. Loss of haustral folds, wall thickening, pericolonic vascularity, and pericolonic lymph nodes seen on CTC were found to correlate with intraluminal findings seen on CC. Participants preferred CTC over CC. The authors concluded that CTC can be used as an alternative to CC for evaluating patients with UC who are in remission.

In a review of CTC techniques and indications, Laghi stated that acute abdominal conditions, like diverticulitis or the acute phase of IBDs, are contraindications to CTC because of the high risk of complications (i.e., perforations). CTC should be also avoided as a surveillance test in patients with a long-standing history of UC or CD, citing colonoscopy as the preferred diagnostic option (2014).

In a review on the role of radiological imaging in the evaluation and management of UC, Deepak and Bruining state that while colonoscopy remains the 'gold standard', CTC is noted to be one of the emerging techniques with potential applications in UC in both diagnostic and management algorithms (2014).

Ichikawa, et al. retrospectively examined the performance of CTC for noncolorectal cancerous conditions. A total of 47 examinations were performed on 44 patients with the following illnesses/conditions: impossible or incomplete colonoscopy (n=15), diverticular disease (7), noncolorectal malignancy (6), Crohn's disease (CD) (6), suspected submucosal tumor on colonoscopy (4), ischemic colitis (2), various other diseases (4). Colonic findings were diagnosed on CTC in 36 examinations, and extracolonic findings were identified in 35 of 44 patients. In all, 17 patients had undergone colonoscopy previously, 9 (52.9%) of whom did not require further colonoscopy per CTC. Five patients underwent colonoscopy after CTC. The authors concluded that CTC examinations could be performed safely. Unlike colonoscopy or CT without preparation, CTC revealed colonic and extracolonic findings and may reduce the indication of colonoscopy in patients with noncolorectal cancerous conditions (2011).

In its 2013 guidelines addressing colonoscopic surveillance for prevention of CRC in individuals with UC, CD or adenomas, the National Institute for Health and Clinical Excellence (NICE) stated the following:

- Consider CTC as a single examination if colonoscopy is not clinically appropriate (e.g., because of comorbidity or because colonoscopy cannot be tolerated).
- Consider double contrast barium enema as a single examination if CTC is not available or not appropriate.
- Consider CTC or double contrast barium enema for ongoing surveillance if colonoscopy remains clinically inappropriate, with a discussion of the risks and benefits.

U.S. Food and Drug Administration (FDA)

This section is to be used for informational purposes only. FDA approval alone is not a basis for coverage.

Helical CT scanners are regulated by the FDA as Class II devices, and numerous systems have met all requirements of the 510(k) approval process. The complete list of commercially available helical CT scanners is too extensive for inclusion here; however, major manufacturers of devices used in the studies selected for detailed review include Siemens Medical Solutions, General Electric Medical Systems, and Philips Medical Systems. Additional information (product code JAK) is available at: http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMN/PMN.cfm. (Accessed September 9, 2019)

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Policy History/Revision Information

Date	Summary of Changes
07/01/2021	Coverage Rationale • Replaced reference to “InterQual® 2020” with “InterQual® 2021” Supporting Information • Archived previous policy version CS022IN.01

Instructions for Use

This Medical Policy provides assistance in interpreting UnitedHealthcare standard benefit plans. When deciding coverage, the federal, state or contractual requirements for benefit plan coverage must be referenced as the terms of the federal, state or contractual requirements for benefit plan coverage may differ from the standard benefit plan. In the event of a conflict, the federal, state or contractual requirements for benefit plan coverage govern. Before using this policy, please check the federal, state or contractual requirements for benefit plan coverage. UnitedHealthcare reserves the right to modify its Policies and Guidelines as necessary. This Medical Policy is provided for informational purposes. It does not constitute medical advice.

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