Cohere Medical Policy - Computed Tomography (CT), Colonography

Clinical Guidelines for Medical Necessity Review

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Important Notices

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Guideline Information:

Specialty Area: Diagnostic Imaging
Guideline Name: Cohere Medical Policy - Computed Tomography (CT), Colonography

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Medical Necessity Criteria

Service: Computed Tomography (CT), Colonography

Recommended Clinical Approach

The decision to utilize computed tomography (CT) colonography is determined by stratifying individuals into average, moderate, and high-risk categories. High-risk individuals are advised to undergo an optical colonoscopy without delay. The procedure should be conducted in a facility compliant with the standards of the American College of Radiology (ACR), and performed by a physician trained in CT colonography. Bowel preparation for CT colonography is akin to an optical colonoscopy.[1]

Medical Necessity Criteria

Indications

- ➔ **Computed tomography (CT) colonography** is considered appropriate if **ALL** of the following are **TRUE**:
  - ◆ Colonoscopy is contraindicated or incomplete for **ANY** of the following reasons:
    - Prior optical colonoscopy was incomplete due to **ANY** of the following[1-5]:
      - An obstructing neoplasm; **OR**
      - Intrinsic scarring; **OR**
      - Stricture; **OR**
      - Redundant or tortuous colon; **OR**
      - Spasm; **OR**
      - Obstruction from prior surgery, radiation, or diverticular disease; **OR**
      - Extrinsic compression; **OR**
    - The patient is at increased risk for complications during an optical colonoscopy when **ANY** of the following is **TRUE**[1]:
      - Anticoagulant use that cannot be safely reversed before the procedure; **OR**
      - Coagulopathy; **OR**
      - Complications from prior optical colonoscopy; **OR**
      - Increased risk of bowel perforation; **OR**

        - Sedation risk as indicated by an American Association of Anesthesiologists (ASA) Physical Status classification of IV or above[6]; **OR**
    - The patient is 76 to 85 years of age, and medical necessity is determined based on symptoms or risk factors[7]; **OR**
- **ANY** of the following is **TRUE**:
    - Evaluation of a submucosal abnormality detected on colonoscopy or another imaging study[2]; **OR**
    - Screening for colorectal cancer if **ANY** of the following is **TRUE**:
        - Routine screening for an average-risk individual greater than or equal to 45 years old[8-11]; **OR**
        - Prior CT colonography at least 5 years ago[5,11]; **OR**
        - An incomplete optical colonoscopy has been attempted[1-5]; **OR**
        - Optical colonoscopy cannot be performed[5]; **OR**
    - Surveillance in moderate and high-risk individuals as defined by **ALL** of the following:
        - Documented discussion with the patient on the inferiority of CT colonography in this setting; **AND**
        - **ANY** of the following is **TRUE:**
            - Biopsy-proven precancerous polyps on prior colonoscopy and **ANY** of the following is **TRUE**:
                - Evaluation 3 years after resection of newly diagnosed small (less than 5mm diameter) adenomatous polyps when only a single polyp was detected (after 1 negative 3-year follow-up examination subsequent surveillance intervals may be increased to 5 years[12-13]; **OR**
                - Evaluation at 1 and 4-year intervals after resection of multiple or large (greater than 10mm) adenomatous polyps (subsequent surveillance intervals may then be increased to every 5 years)[12-13]; **OR**
                - Evaluation in 1 year after the removal of multiple adenomas if **ANY** of the following is **TRUE**[12-13]:

        - If examination proves to be negative, then repeat in 3 years; **OR**
        - After 1 negative 3-year follow-up examination, repeat exam every 5 years; **OR**
    - A first-degree relative before age 60 or two first-degree relatives at any age with CRC or an advanced adenoma every 5 to 10 years starting at age 40 to 50 years of age or 10 years younger than the affected relative's age[14]; **OR**
    - Prior therapeutic abdominal or pelvic radiation - every 5 years beginning at age 35 for at-risk survivors or 10 years after the completion of radiotherapy (whichever occurs last)[15]; **OR**
    - Personal or family history (first or second-degree relative) of hereditary syndromes that do NOT cause polyposis, virtual colonography starting as early as age 10 and up to annually depending on clinical indication, including **ANY** of the following:
        - Hereditary nonpolyposis colorectal cancer (HNPCC)[16-17]; **OR**
        - Bloom syndrome; **OR**
        - PTEN hamartoma tumor syndrome (PHTS) when colonoscopy is contraindicated; **OR**
- Diagnostic examination in symptomatic patients with **ALL** of the following[1]:
    - Documented discussion with the patient that optical colonoscopy is considered the gold standard in this setting; **AND**
    - The patient has signs or symptoms suggesting colorectal cancer, including **ANY** of the following:
        - The positive test result indicates a relative elevation in risk (e.g., positive fecal immunochemical test, positive fecal occult blood test [FOBT]); **OR**
        - Iron-deficiency anemia; **OR**
        - Weight loss; **OR**

- Post-surgical follow-up of a patient for a colonic stoma or after a colectomy[1]; **OR**
- Before colorectal cancer surgery for the identification of synchronous lesions[1]; **OR**
- Repeat imaging (defined as repeat request following recent imaging of the same anatomic region with the same modality) in the absence of established guidelines, will be considered reasonable and necessary if **ANY** of the following are **TRUE**:
    - New or worsening symptoms, such that repeat imaging would influence treatment; **OR**
    - One-time clarifying follow-up of a prior indeterminate finding; **OR**
    - In the absence of change in symptoms, there is an established need for monitoring which would influence management.

Non-Indications

➔ **Computed tomography (CT) colonography** is **NOT** considered appropriate if **ANY** of the following is **TRUE**:

- The patient has undergone advanced imaging of the same body part within 3 months without undergoing treatment or developing new or worsening symptoms[18]; **OR**
- If intravenous contrast is used, history of anaphylactic allergic reaction to iodinated contrast media; **OR**
- When used for first-time screening in the absence of contraindications to colonoscopy, regardless of family history or other risk factors for the development of colonic disease[19-21]; **OR**
- History of colorectal surgery within 1 month; **OR**
- History of polypectomy or mucosectomy within 1 week; **OR**
- Attempted colonoscopy within 48 hours; **OR**
- Symptomatic colon-containing hernia[1,22]; **OR**
- Known or suspected current colon perforation[1,22]; **OR**
- High-grade or symptomatic small bowel obstruction[1,22]; **OR**
- Routine follow-up of inflammatory bowel disease[1,22]; **OR**
- Hereditary polyposis syndromes such as familial adenomatous polyposis (FAP) (applies to virtual colonoscopy as it is unlikely to provide clinical benefit)[1,22]; **OR**
- Evaluation of anal canal disease such as peri-anal fissure.[1,22]

*NOTE: CT Colonography should not be performed if the patient has symptomatic acute conditions such as colitis, diarrhea, or recent acute diverticulitis.[1,22]

Disclaimer on Radiation Exposure in Pediatric Population

Due to the heightened sensitivity of pediatric patients to ionizing radiation, minimizing exposure is paramount. At Cohere, we are dedicated to ensuring that every patient, including the pediatric population, has access to appropriate imaging following accepted guidelines. Radiation risk is dependent mainly on the patient's age at exposure, the organs exposed, and the patient's sex, though there are other variables. The following technical guidelines are provided to ensure safe and effective imaging practices:

Radiation Dose Optimization: Adhere to the lowest effective dose principle for pediatric imaging. Ensure that imaging protocols are specifically tailored for pediatric patients to limit radiation exposure.[23-24]

Alternative Modalities: Prioritize non-ionizing imaging options such as ultrasound or MRI when clinically feasible, as they are less likely to expose the patient to ionizing radiation. For instance, MRI or ultrasound should be considered if they are more likely to provide an accurate diagnosis than CT, fluoroscopy, or radiography.[23-24]

Cumulative Dose Monitoring: Implement systems to track cumulative radiation exposure in pediatric patients, particularly for those requiring multiple imaging studies. Regularly reassess the necessity of repeat imaging based on clinical evaluation.[23-24]

CT Imaging Considerations: When CT is deemed the best method for achieving a correct diagnosis, use the lowest possible radiation dose that still yields reliable diagnostic images.[23-24]

Cohere Imaging Gently Guideline

The purpose of this guideline is to act as a potential override when clinically indicated to adhere to Imaging Gently and Imaging Wisely guidelines and As Low As Reasonably Possible (ALARA) principles.

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
74261	Computed tomography (CT) colonography, diagnostic; without contrast material, with image post-processing
74262	Computed tomography (CT) colonography, diagnostic; with contrast material and non-contrast images, with image post-processing
74263	Computed tomographic (CT) colonography, screening, including image postprocessing
76380	Computed tomography, limited or localized follow-up study

Medical Evidence

Jain et al. (2022) outline the updated colorectal cancer (CRC) screening strategies recommended by the United States Preventive Services Task Force (USPSTF) in 2021. Average-risk individuals should start screening at age 45. The Task Force suggests several screening methods: high-sensitivity guaiac fecal occult blood test (HSgFOBT), fecal immunochemical test (FIT), multi-target stool DNA (mt-sDNA) test, computed tomographic (CT) colonography (virtual colonoscopy), flexible sigmoidoscopy, flexible sigmoidoscopy with FIT, or traditional colonoscopy. Numerous emerging and innovative screening approaches are being researched and are on the horizon for primary screening in average-risk individuals. These include blood-based screening or "liquid biopsy," colon capsule endoscopy, urinary metabolomics, and stool-based microbiome testing to detect colorectal polyps or CRC. Compared to traditional colonoscopy, the advantages of CT colonography include a lower risk of complications, less invasive, sedation not required, and the clinician being able to visualize the entire colon. In addition, CT colonography requires a less frequent testing interval than stool-based modalities and is relatively safe for individuals with medical comorbidities that preclude colonoscopy. Same-day endoscopic evaluation may also be performed if indicated.[25]

Gupta et al. (2022) review CRC screening for identifying polyps and cancer within the colon. The sensitivity for detecting lesions greater than or equal to 1 cm varies between 67 and 94%, while specificity ranges from 86 to 98%. Notably, an estimated incidence of potentially significant extracolonic findings necessitating further investigation, ranging from 3.4–26.9%, with 1.3–11.4% possibly requiring follow-up due to incomplete characterization. Several studies have shown superior sensitivity in detecting colorectal cancer compared to colonoscopy, mainly when the endoscopist is unaware of CT colonography results. Repeat screening every 5 years is recommended by the USPSTF.[26]

Shaukat et al. (2022) discuss CT colonography to facilitate the identification and pinpointing of polyps and cancers within the colon through a reconstructed 3D or 4D visualization. Two extensive trials have evaluated the diagnostic efficacy of CT colonography against optical colonoscopy conducted on the same day. One study involving 1233 individuals at average

risk showcased CT colonography's test characteristics, revealing 92% sensitivity and 96% specificity for adenomas measuring 10mm or larger as detected by optical colonoscopy. Additionally, it demonstrated 86% sensitivity and 80% specificity for adenomas measuring 6mm or larger. The National CT Colonography Trial (NCTC), sponsored by the American College of Radiology Imaging Network (ACRIN), comprised 2600 asymptomatic participants undergoing same-day CT colonography and optical colonoscopy. Results revealed a sensitivity of 84% for adenomas or colorectal cancer (CRC) measuring 10mm or larger, with a specificity of 85%. Furthermore, a sensitivity of 70% was observed for adenomas measuring 6mm or larger, with a specificity of 86%. A notable critique of CT colonography is the failure to report lesions smaller than 6mm, the clinical significance of which remains uncertain.[27]

References

1. American College of Radiology (ACR), Society of Abdominal Radiology (SAR), Society of Computed Body Tomography (SCBT). ACR–SAR–SCBT-MR practice parameter for the performance of computed tomography (CT) colonography in adults - resolution 3. Updated 2019. Accessed March 15, 2024. https://www.acr.org/-/media/ACR/Files/Practice-Parameters/CT-Colonog.pdf.
2. Centers for Medicare and Medicaid Services (CMS). Local coverage determination: Computed tomographic (CT) colonography for diagnostic uses (L33562). Revision Effective Date September 12, 2019. Accessed June 5, 2024. https://www.cms.gov/medicare-coverage-database/search.aspx.
3. Centers for Medicare and Medicaid Services (CMS). Local coverage determination: Virtual colonoscopy (CT colonography) (L33452). Revision Effective Date October 24, 2019. Accessed June 5, 2024. https://www.cms.gov/medicare-coverage-database/search.aspx.
4. Centers for Medicare and Medicaid Services (CMS). Local coverage determination: Virtual colonoscopy (CT colonography) (L34055). Revision Effective Date October 5, 2023. Accessed June 5, 2024. https://www.cms.gov/medicare-coverage-database/search.aspx.
5. Expert Panel on Gastrointestinal Imaging, Moreno C, Kim DH, et al. ACR appropriateness criteria - colorectal cancer screening. *J Am Coll Radiol*. 2018 May;15(5S):S56-S68. doi: 10.1016/j.jacr.2018.03.014. PMID: 29724427.
6. American Society of Anesthesiologists (ASA). Standards and parameters: Statement on ASA physical status classification system. Updated December 13, 2020. Accessed July 2, 2024. https://www.asahq.org/standards-and-practice-parameters/statement-on-asa-physical-status-classification-system.
7. Gornick D, Kadakuntla A, Trovato A, et al. Practical considerations for colorectal cancer screening in older adults. *World J Gastrointest Oncol*. 2022 Jun 15;14(6):1086-1102. doi: 10.4251/wjgo.v14.i6.1086. PMID: 35949211; PMCID: PMC9244986.
8. United States Preventive Services Task Force (USPSTF). Final recommendation statement: Colorectal cancer screening. Updated May 18, 2021. Accessed March 15, 2024.

https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/colorectal-cancer-screening.
9. Wolf AMD, Fontham ETH, Church TR, et al. Colorectal cancer screening for average-risk adults: 2018 guideline update from the American Cancer Society. *CA Cancer J Clin*. 2018 Jul;68(4):250-281. doi: 10.3322/caac.21457. PMID: 29846947.
10. Shaukat A, Kahi CJ, Burke CA, et al. ACG clinical guidelines: Colorectal cancer screening 2021. *Am J Gastroenterol*. 2021 Mar 1;116(3):458-479. doi: 10.14309/ajg.0000000000001122. PMID: 33657038.
11. National Comprehensive Cancer Network (NCCN). NCCN clinical practice guidelines: Colorectal cancer screening (ver. 1.2024). Published February 27, 2024. Accessed July 2, 2024. https://www.nccn.org/.
12. Centers for Medicare and Medicaid Services (CMS). Local coverage determination: Diagnostic colonoscopy (L33671). Revision Effective Date March 21, 2021. Accessed June 21, 2024. https://www.cms.gov/medicare-coverage-database/search.aspx.
13. Centers for Medicare and Medicaid Services (CMS). Local coverage determination: Diagnostic colonoscopy (L38812). Revision Effective Date March 21, 2021. Accessed June 21, 2024. https://www.cms.gov/medicare-coverage-database/search.aspx.
14. Wilkinson AN, Lieberman D, Leontiadis GI, et al. Colorectal cancer screening for patients with a family history of colorectal cancer or adenomas. *Can Fam Physician*. 2019 Nov;65(11):784-789. PMID: 31722908; PMCID: PMC6853346.
15. Daniel CL, Kohler CL, Stratton KL, et al. Predictors of colorectal cancer surveillance among survivors of childhood cancer treated with radiation: a report from the Childhood Cancer Survivor Study. *Cancer.* 2015 Jun 1;121(11):1856-63. doi: 10.1002/cncr.29265. PMID: 25649858.
16. Syngal S, Brand RE, Church JM, et al. ACG clinical guideline: Genetic testing and management of hereditary gastrointestinal cancer syndromes. *Am J Gastroenterol*. 2015 Feb;110(2):223-62; quiz 263. doi: 10.1038/ajg.2014.435. PMID: 25645574; PMCID: PMC4695986.
17. Rubenstein JH, Enns R, Heidelbaugh J, et al. American Gastroenterological Association Institute Guideline on the diagnosis and management of Lynch syndrome. *Gastroenterology*. 2015 Sep;149(3):777-82; quiz e16-7. doi: 10.1053/j.gastro.2015.07.036. PMID: 26226577.
18. Wasser EJ, Prevedello LM, Sodickson A, Mar W, Khorasani R. Impact of a real-time computerized duplicate alert system on the utilization of

computed tomography. *JAMA Intern Med*. 2013;173(11):1024-1026. doi: 10.1001/jamainternmed.2013.543. PMID: 23609029.
19. Centers for Medicare and Medicaid Services (CMS). Local coverage determination: Colonoscopy/sigmoidoscopy/ proctosigmoidoscopy (L34005). Revision Effective Date February 1, 2024. Accessed June 21, 2024. https://www.cms.gov/medicare-coverage-database/search.aspx.
20. Centers for Medicare and Medicaid Services (CMS). Local coverage determination: Colonoscopy/sigmoidoscopy/ proctosigmoidoscopy (L34454). Revision Effective Date April 29, 2021. Accessed June 21, 2024. https://www.cms.gov/medicare-coverage-database/search.aspx.
21. Centers for Medicare and Medicaid Services (CMS). Local coverage determination: Colonoscopy and sigmoidoscopy - diagnostic (L34614). Revision Effective Date March 28, 2024. Accessed June 21, 2024. https://www.cms.gov/medicare-coverage-database/search.aspx.
22. Cash BD, Rockey DC, Brill JV. AGA standards for gastroenterologists for performing and interpreting diagnostic computed tomography colonography: 2011 update. *Gastroenterology*. 2011 Dec;141(6):2240-66. doi: 10.1053/j.gastro.2011.09.043. PMID: 22098711.
23. The Image Gently Alliance. Procedures - image gentle and CT scans. Updated 2014. Accessed June 26, 2024. https://www.imagegently.org/Procedures/Computed-Tomography.
24. National Cancer Institute. Radiation risks and pediatric computed tomography (CT): A guide for health care. Updated September 4, 2018. Accessed June 26, 2024. https://www.cancer.gov/about-cancer/causes-prevention/risk/radiation/pediatric-ct-scans.
25. Jain S, Maque J, Galoosian A, et al. Optimal strategies for colorectal cancer screening. *Curr Treat Options Oncol*. 2022 Apr;23(4):474-493. doi: 10.1007/s11864-022-00962-4. PMID: 35316477; PMCID: PMC8989803.
26. Gupta S. Screening for colorectal cancer. *Hematol Oncol Clin North Am*. 2022 Jun;36(3):393-414. doi: 10.1016/j.hoc.2022.02.001. PMID: 35501176; PMCID: PMC9167799.
27. Shaukat A, Levin TR. Current and future colorectal cancer screening strategies. *Nat Rev Gastroenterol Hepatol*. 2022 Aug;19(8):521-531. doi: 10.1038/s41575-022-00612-y. PMID: 35505243; PMCID: PMC9063618.

Clinical Guideline Revision History/Information

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Version 2	8/2/2024	Annual review and policy restructure.
Version 3	10/30/2024	Edited repeat imaging criteria language.