

COLORECTAL CANCER SCREENING

- 1. REASON FOR ISSUE:** This Veterans Health Administration (VHA) Directive provides policy on various modalities for providing colorectal cancer (CRC) screening for VA medical facilities.
- 2. SUMMARY OF MAJOR CHANGES:** This Directive is being revised to update the responsibilities of the medical facility Director to include ensuring the quality of colonoscopy as well as monitoring requirements. It also updates recommended screening tests, which are now based upon the screening guidelines coordinated by the VHA National Center for Health Promotion and Disease Prevention (NCP). Guidance has been clarified to increase flexibility in recommending screening options. Other changes include the addition of colonoscopy quality monitoring and recommendations for optimizing bowel preparation.
- 3. RELATED ISSUES:** None.
- 4. RESPONSIBLE OFFICE:** Specialty Care Services (10P4E) is responsible for the contents of this Directive. Questions may be directed to National Program Director for Gastroenterology at 202-461-7120.
- 5. RESCISSIONS:** Directive 2007-004, dated January 12, 2007, is rescinded.
- 6. RECERTIFICATION:** This VHA Directive is scheduled for recertification on or before the last working day of December 2019.

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COLORECTAL CANCER SCREENING

1. PURPOSE: This Veterans Health Administration (VHA) Directive provides policy on various modalities for providing colorectal cancer (CRC) screening and follow-up timelines for Department of Veterans Affairs (VA) medical facilities. **AUTHORITY:** 38 U.S.C. 7301(b).

2. BACKGROUND:

a. CRC is the third most common cancer in American men and women, and the second leading cause of cancer death. CRC screening detects early-stage cancer and adenomatous polyps, and has been proven to reduce CRC mortality. The lengthy preclinical phase of CRC development allows opportunities for clinicians to successfully detect and intervene.

b. Twenty percent of CRC occurs in patients with specific risk factors, such as a family history of CRC and inflammatory bowel disease.

c. The increasing demand for colonoscopy as the primary method for CRC screening and prevention, coupled with the burden of disease and the cost of treatment for CRC, make the issue of CRC screening in VA a high priority.

d. Based on a review of the evidence and recommendations from various organizations, all eligible Veterans who may benefit from CRC screening should be offered screening. Unless the primary screening method is colonoscopy, any positive screening test (e.g. fecal occult blood test (FOBT) or flexible sigmoidoscopy) should be followed up with a total colonic evaluation (typically colonoscopy), unless contraindicated or declined by the Veteran.

e. Prior to performing non-colonoscopy screening, Veterans should be informed that colonoscopy is recommended if the test is positive. The VHA National Center for Health Promotion and Disease Prevention states that “there are multiple acceptable methods of CRC screening that have similar efficacies.” There is insufficient evidence to recommend one screening strategy over another as each strategy has certain advantages and disadvantages. There are no head-to-head studies comparing the approved strategies, though large-scale studies comparing the fecal immunochemical test (FIT) to screening colonoscopy are ongoing. Some health care organizations have chosen to endorse mass screening of their population through the use of the non-invasive FIT due to its widespread availability and acceptance. There is some evidence to suggest that offering individuals a choice of screening tests will improve overall adherence (Inadomi, 2012).

3. POLICY: It is VHA policy to recommend CRC screening for average-risk individuals in accordance with VHA guidance, coordinated by the VHA National Center for Health Promotion and Disease Prevention (NCP) and to assure that positive screening tests are followed-up with appropriate evaluation (http://vaww.prevention.va.gov/Colorectal_Cancer_Screening.asp).

NOTE: This is an internal VA Web site not available to the public.

4. RESPONSIBILITIES:

a. **Medical Facility Director.** Each medical facility Director is responsible for ensuring that appropriate resources are allocated to deliver CRC screening and follow-up to eligible Veterans served by their facility.

b. **Chief of Staff.** The medical facility Chief of Staff is responsible for ensuring that:

(1) Veterans are informed about the different options available for CRC screening, including the option of no screening,

NOTE: Veterans should make a shared decision with their primary care provider. This may be accomplished through a variety of methods, such as discussing one-on-one with a provider or providing a brochure or a video about screening choices. A provider may preferentially recommend any one of the approved screening options. Veterans with severe cognitive, musculoskeletal, or neurological impairments may have difficulty with one or more of the screening methods. Therefore, Veterans who would have difficulty completing any particular method, but who are still medically appropriate for CRC screening, need to be offered an alternative screening method.

(2) VHA laboratory personnel record results of FOBT/FIT according to VA laboratory reporting guidelines.

http://vaww.prevention.va.gov/docs/LABORATORY_REPORTING_OF_FECAL_OCCULT_BLOOD_TESTING_110510.pdf). *NOTE: This is an internal VA Web site not available to the public.*

(3) Mechanisms are established to track Veterans for whom diagnostic colonoscopy for the evaluation of a positive screening test is indicated but is not performed. This process should help determine barriers to completion (e.g., patient refusal, no-show, cancellation, lack of endoscopic capacity). Local VA medical facility policy should be followed for documenting attempts to schedule diagnostic colonoscopy and for canceling of consults after non-response or no-shows for colonoscopy.

(4) Quality of colonoscopy is monitored as part of an ongoing quality assurance program. Colonoscopy quality metrics have been shown to be associated with patient outcomes, such as the risk of CRC developing after colonoscopy. Appendix A includes recommendations for optimizing CRC screening. Recommended quality monitors include the following (paragraphs 4.b.(4)(a) through 4.b.(4)(c)):

(a) **Bowel Preparation Quality.** A suboptimal bowel preparation is associated with an increased risk of missed lesions and often results in prolonged procedures and the need to repeat the examination earlier than if the preparation was adequate. Therefore, the endoscopist should document the quality of the bowel preparation for each colonoscopy, reporting, at a minimum, whether or not the preparation was adequate for the detection of lesions larger than 5mm (Lieberman, 2007). Facility level processes, with respect to the ordering of bowel preparation and pre-procedure patient education, should support optimization of bowel preparation. Since bowel preparation quality is also dependent upon a number of patient-level factors, it is not possible to define generalized minimum thresholds for acceptable bowel preparation quality.

Nevertheless, it is recommended that bowel preparation quality be monitored at the facility level. Individual endoscopists should document bowel preparation quality in their colonoscopy report, ideally using a previously validated scoring system. Appendix B describes risk factors for poor bowel preparation and recommendations to improve the quality of bowel preparation.

(b) Cecal Intubation Rate. The denominator of the cecal intubation rate includes all colonoscopies in which the intent of the exam is to reach the cecum, excluding those exams that are terminated due to a poor bowel preparation, stricture, obstruction, or severe colitis. The numerator should include all colonoscopies in which the tip of the colonoscope reaches a point proximal to the ileocecal valve. The depth of insertion of the colonoscope should be documented to permit determination of the cecal intubation rate for each endoscopist. The cecal intubation rate measuring is a recommended part of the Ongoing Professional Practice Evaluation for each endoscopist. *NOTE: It has been shown that there is an association between patients undergoing colonoscopy by endoscopists with a low cecal intubation rate and subsequent risk of post-colonoscopy colorectal cancer (Baxter, 2011).*

(c) Adenoma Detection Rate. The adenoma detection rate (ADR) is defined as the proportion of average-risk screening colonoscopies in which one or more adenomas are detected. The risk of CRC incidence and mortality has been found to be lower for individuals undergoing colonoscopy by endoscopists with a higher ADR when compared to those with a lower ADR (Corley, 2014). Measuring the ADR is suggested to be part of the Ongoing Professional Practice Evaluation for endoscopists, with the understanding that assessment of the ADR may not be feasible in all settings or for all providers (e.g., due to a small number of eligible procedures or technical challenges in data collection).

(d) Monitoring Recommendations include, but are not limited to:

1. Frequency. Quality monitors should be measured at least annually.

2. Sampling Process. Endoscopic report-generating software generally facilitates the tracking of quality across all colonoscopy procedures performed at a VA medical facility. When such software is not available, it is acceptable to sample patient records. Review of a minimum of thirty records for each quality monitor is recommended (at the facility level for bowel preparation quality and at the provider level for cecal intubation rate and ADR); though the results are more reliable when larger numbers of records are reviewed. These quality improvement measures are confidential and privileged under Title 38 United States Code (U.S.C.) 5705 and its implementing regulations. This material cannot be disclosed to anyone without authorization as provided for by that law or its regulations.

(5) Newly diagnosed CRC is managed appropriately. After CRC is discovered (e.g., positive pathology results), the Veteran should be seen by a general surgeon, colorectal surgeon, or oncologist for initiation of treatment planning.

c. Providers Who Order CRC Screening Tests. The provider who orders the test (e.g., FOBT/FIT) is responsible for informing the Veteran of the result, and if the test is positive, initiating follow-up or documenting that no follow-up is indicated.

d. Colonoscopy Providers. Colonoscopy providers are responsible for ensuring that:

(1) If a colonoscopy is indicated, the colonoscopy should be scheduled collaboratively with the Veteran, and

(2) Colonoscopy findings and recommendations for management are conveyed to the Veteran. These findings include biopsy results and related recommendations for management, screening, or surveillance.

NOTE: With appropriate training and supervision, a gastroenterology nurse practitioner, physician assistant or gastroenterology fellow may participate in this notification process.

5. REFERENCES:

a. Baxter NN, Sutradhar R, Forbes SS et al. (2011). Analysis of administrative data finds endoscopist quality measures associated with postcolonoscopy colorectal cancer. *Gastroenterology* 140(1): 65-72.

b. Corley DA, Jensen CD, Marks AR, et al. (2014). Adenoma detection rate and risk of colorectal cancer and death. *N Engl J Med.* 370(14):1298-306.

c. Department of Veterans Affairs. Laboratory Reporting of Fecal Occult Blood Testing (FOBT). (2010);
http://vaww.prevention.va.gov/docs/LABORATORY_REPORTING_OF_FECAL_OCCULT_BLOOD_TESTING_110510.pdf. *NOTE: This is an internal VA Web site not available to the public.*

d. Hassan C, Bretthauer M, Kaminski MF, et al. (2013). Bowel preparation for colonoscopy: European Society of Gastrointestinal Endoscopy (ESGE) guideline. *Endoscopy* 45(2): 142-150.

e. Inadomi JM, Vijan S, Janz NK, et al. (2012) Adherence to colorectal cancer screening: a randomized clinical trial of competing strategies. *Arch Intern Med* 172(7): 575-582.

f. Johnson DA, Barkun AN, Cohen LB et al. (2014). Optimizing adequacy of bowel cleansing for colonoscopy: recommendations from the U.S. Multi-Society Task Force on Colorectal Cancer. *Gastroenterology* 2014;147(4):903-24.

g. Kim HS, Park DH, Kim JW, et al. (2005). Effectiveness of walking exercise as a bowel preparation for colonoscopy: a randomized controlled trial. *Am J Gastroenterol* 100(9): 1964-1969.

h. Lieberman D, Nadel M, Smith RA, et al. (2007). Standardized colonoscopy reporting and data system: report of the Quality Assurance Task Group of the National Colorectal Cancer Roundtable. *Gastrointest Endosc* 65(6): 757-766.

6. DEFINITIONS:

a. **Average-risk Veteran.** Average risk Veterans are between the age of 50-75 with neither a family history of CRC nor other risk factors or symptoms that warrant surveillance or diagnostic colonoscopy. Discontinuing screening may be reasonable in patients whose age or

co-morbid conditions limit life expectancy. Screening decisions should be individualized for Veterans aged 76-85 years and Veterans over age 85 should not be screened for CRC. Providers should consider whether or not to screen patients of any age who, although not terminally ill, they consider are unlikely to experience a net benefit from CRC screening, i.e., no benefit is expected or benefits are not expected to outweigh harms because of one or both of the following:

(1) Life expectancy is less than 5 years, and/or

(2) The patient could not tolerate the further work-up or treatment (if the screening test was positive) because of co-morbidities.

b. **Cecal Intubation.** Cecal intubation is the passage of the colonoscope tip to a point proximal to the ileocecal valve so that the entire cecum can be visualized.

c. **Colorectal Cancer Screening.** Colorectal cancer screening is the performance of a test to detect the presence of CRC in asymptomatic individuals.

d. **Colonoscopic Surveillance.** Colonoscopic surveillance is the performance of colonoscopy to detect the presence of neoplasia or dysplasia in individuals at increased risk due to a prior history of adenomatous polyps, colorectal cancer or other underlying medical condition (e.g., inflammatory bowel disease). Guidelines for screening are not applicable to individuals who warrant colonoscopic surveillance.

e. **High-risk Veteran.** High risk Veterans are Veterans with a family history of colorectal cancer or other familial cancer syndrome (e.g., Lynch syndrome) and those who warrant colonoscopic surveillance for other reasons (e.g., patients with a personal history of colorectal adenomas, colorectal cancer or inflammatory bowel disease).

**RECOMMENDATIONS FOR OPTIMIZING COLORECTAL CANCER SCREENING
IN PRACTICE**

The success and stability of a colorectal cancer screening program are dependent on adequate resources and an efficient infrastructure. Preliminary Department of Veterans Affairs (VA) studies have shown that providing Veterans with colorectal cancer (CRC) screening and tracking the process can be accomplished in a resource-efficient manner using different strategies. These strategies may include:

1. Group “prep” clinics, which involve time set aside for preparing patients for colonoscopy.
2. Use of telemedicine to inform Veterans about screening options and preparation.
3. Mandatory view alerts for positive Fecal Occult Blood Test (FOBT) results. Computerized Patient Record System (CPRS) has the capability to set up view alerts to remind the provider of the results.
4. Use of service agreements and consult templates to help assure appropriate consults for procedures.
5. A systematic review of consult requests prior to the procedure for appropriateness and the length of time since the last colonoscopy, whether done within VA or outside VA.
6. Use of a tracking system dedicated to ensuring that each Veteran’s screening is completed and appropriately followed-up.
7. The utilization of a nurse navigator, such as a Registered Nurse (RN) Case Manager, Clinical Nurse Leader or RN care coordinator to coordinate screening schedules, procedures, and to ensure that all levels of the program are working together (e.g., review of consults, follow-up on requested information, retrieval of in-house and outside medical records, follow-up of no-shows, follow-up on positive FOBT tests, etc.).
8. Implementation of standard templates within CPRS to provide documentation in the medical record that a notification letter has been sent to the patient with screening test results. **NOTE:** *The text of the letter can be copied onto Veterans Health Administration (VHA) letterhead with a word processing program for a more professional appearance.* Clinical Application Coordinators must work with the providers to ensure that the laboratory results are properly configured in CPRS (prioritized based on normal or abnormal) so providers can view them and take action if needed.

RECOMMENDATIONS FOR OPTIMIZING BOWEL PREPARATION FOR COLONOSCOPY

1. INADEQUATE BOWEL PREPARATION: An inadequate bowel preparation limits the quality of the examination in up to 25 percent of colonoscopies. A lower quality bowel preparation is also associated with incomplete colonoscopy. Independent predictors of an inadequate bowel preparation included a later colonoscopy starting time, failure to follow preparation instructions, inpatient status, procedural indication of constipation, use of tricyclic antidepressants, male gender, and a history of cirrhosis, stroke or dementia. Only 18 percent of those patients with inadequate bowel preparation reported a failure to adequately follow the preparation instruction (Ness, 2001). *NOTE: Inadequate bowel preparation may lead to missing important lesions and can result in patients being asked to repeat the procedure earlier than would otherwise be indicated.*

2. RECOMMENDATIONS:

Comprehensive guidelines for optimizing bowel preparation were recently published by the U.S. Multi-Society Task Force on Colorectal Cancer (Johnson, 2014). Select VHA recommendations for are listed below:

a. Splitting the doses of polyethylene glycol (e.g., administering half of the dose on the day before the colonoscopy and the second half on the morning of the procedure) is associated with improved bowel preparation quality and is strongly recommended for elective colonoscopy.

b. Administering the entire bowel preparation on the morning of the procedure has also been shown to be effective, especially for afternoon procedures, and is an acceptable alternative to split dosing.

c. Current European guidelines offer a strong recommendation that “the delay between the last dose of bowel preparation and colonoscopy should be minimized and no longer than 4 hours” (Hassan, 2013). The U.S. Multi-Society Task Force recommends beginning the second dose of a split preparation ideally 4-6 hours before the colonoscopy time, with completion of the last dose at least 2 hours before the procedure time (Johnson, 2014).

d. Group “prep” clinics may be employed to educate Veterans on the importance of completing the bowel preparation, as prescribed.

e. Encouraging Veterans to ambulate as much as possible during their bowel preparation may aid in improving the bowel preparation (Kim, 2005).

f. In the situation of an aborted procedure due to an inadequate preparation, the provider should:

(1) Assess the patient’s understanding of the instructions and provide education as needed.

(2) Reschedule the colonoscopy for the next available appointment that is convenient for the Veteran.

(3) Consider an alternative purgative if the patient was intolerant of the initial regimen.

(4) Consider providing additional purgatives and reattempting the procedure either later in the same day or on the next day, if the Veteran is agreeable and local capacity allows.