Health Benchmarks®
Clinical Quality Indicator Specification 2008

Client	HEALTH BENCHMARKS, INC. STANDARD ALGORITHM *Implemented for Blue Cross Blue Shield of Texas*		
Measure Title	FOLLOW-UP AFTER INITIAL DIAGNOSIS AND TREATMENT OF COLORECTAL CANCER: COLONOSCOPY		
Disease State	Colorectal Cancer	**Indicator Classification**	Disease Management
Strength of Recommendation	B		
Organizations Providing Recommendation	American Cancer Society American Society of Clinical Oncology American Society for Gastrointestinal Endoscopy National Comprehensive Cancer Network US Multi-Society Task Force on Colorectal Cancer		
Clinical Intent	To ensure that all eligible members who have been newly diagnosed with colorectal cancer receive follow up colonoscopy within 15 months after resection.		
Physician Specialties *(suggested)*	Gastroenterology, General Surgery, Oncology		

Background

Disease Burden

- Colorectal cancer is the third most common cancer in the United States and the second leading cause of cancer death. A person at age 50 has about a 5% lifetime risk of being diagnosed with colorectal cancer and a 2.5 percent chance of dying from it.[1-3]
- People with a previous diagnosis of colorectal cancer experience a higher incidence of subsequent colorectal cancer than the general population. The cumulative incidence of new cancers is about 1.5% at five years in this group.[4]
- Approximately 35-40% of patients with stage II or III colorectal cancer at the time of initial diagnosis will have recurrent or metastatic disease.[5]

Reason for Indicated Intervention or Treatment

- Surveillance for second primary colorectal cancer assists in removal of pre-malignant polyps and early detection of malignancy.[4]
- Patients with locally recurrent or anastomotic disease, a limited number of metastases involving liver or lung, or metachronous (second primary) malignancies or polyps, are potentially curable with further surgery.

Evidence supporting Intervention or Treatment

- Although no study was identified that shows a positive correlation with

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survival from colonoscopy surveillance alone, some studies have shown a statistically significant impact on survival of intensive follow-up that included yearly colonoscopy.[3, 5]

- In a retrospective cohort study of 1,247 patients with colorectal cancer, of whom 548 had recurrent disease, patients whose recurrences were discovered by routine surveillance testing were three times more likely to be disease-free at five years compared to those diagnosed because of new symptoms.[6]
- In two meta-analyses, those who received intensive surveillance (using multi-component surveillance strategies which included colonoscopy) were less likely to have a recurrent cancer after 5 years than those who received less intensive surveillance.[4, 7]
- One prospective randomized controlled trial evaluating the efficacy of simple vs. intensive surveillance strategies after the curative resection of stage II and III colorectal cancer found that intensive strategies had a higher overall survival rate in patients with stage II tumors (HR = 0.34; 95% CI, 0.12 - 0.98; P = 0.045) and in patients with rectal lesions (HR = 0.09; 95% CI, 0.01 - 0.81; P = 0.03), primarily due to a higher rate of resectability for recurrent tumors. The highest proportion (44%) of resectable tumor recurrence in the intensive follow-up strategy arm was found by colonoscopy.[8]
- A review of evidence found an incidence rate of 0.7% two years following cancer resection. Use of surveillance colonoscopy resulted in surgery resulting in a cure for 87% of cancers found.[9]
- In addition, incidence of metachronous cancer is higher in colorectal cancer patients status post resection compared with the general population, and incidence is highest in the first 24 month after surgery.[10-12] Colonoscopy surveillance can potentially detect these metachronous cancers at a surgically curable stage as well as prevent metachronous lesions by providing an opportunity for removing adenomatous polyps.[10]

Clinical Recommendations

- In 2005, The American Society of Clinical Oncology (ASCO), citing a 2003 American Gastroenterology Association (AGA) surveillance guideline, recommended that patients with resection for colorectal cancer should have a repeat colonoscopy 3 years after operative treatment and that patients with rectal cancer who had not been treated with pelvic radiation should have flexible proctosigmoidoscopy every 6 month for 5 years.[13]
- The National Comprehensive Cancer Network (NCCN) recommends that all patients with non-metastatic colon cancer, or colon cancer with resectable synchronous liver or lung metastases should have a colonoscopy 1 year after their initial resection. If the results are normal, NCCN recommends a repeat colonoscopy in 3 years and then every 5 years thereafter. If the colonoscopy at 1 year is abnormal, then NCCN recommends a repeat colonoscopy in 1 year.[14]
- In 2006, in a consensus guideline endorsed by the AGA, and the

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American Society for Gastrointestinal Endoscopy, the American Cancer Society (ACS) and the US Multi-Society Task Force on Colorectal Cancer together recommended that patients undergoing curative resection for colon or rectal cancer should undergo a colonoscopy 1 year after the resection and if normal, then repeat colonoscopy can be performed every 3 to 5 years.[9]

- In 2006 the American Society for Gastrointestinal Endoscopy recommended that surveillance colonoscopy be performed 1 year after surgical resection of colon cancer, and if normal, again in 3 years. If the repeat colonoscopy is normal, then the patient should undergo repeat colonoscopy in 5 years.[15]

Source
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Denominator Definition
Continuously enrolled members who are status post resection of colorectal cancer during the year prior to the measurement year.

Denominator Codes
Partial Colectomy
CPT-4 code(s): 44110, 44111, 44139-44141, 44143-44147, 44160, 44204-44208, 45110-45114, 45116, 45119, 45123, 45126, 45160, 45170, 45395, 45397
ICD-9 surgical proc code(s): 45.4x, 45.7x, 48.35, 48.36, 48.4x, 48.5, 48.6x, 48.8x

Total Colectomy
CPT-4 code(s): 44150, 44151, 44152*, 44153*, 44210
ICD-9 surgical proc code(s): 45.8

Colorectal Cancer
ICD-9 diagnosis code(s): 153.xx, 154.0, 154.1, 154.8

Denominator Exclusion Definition
Members who are status post resection of colon cancer any time prior to the index date, or members who were in hospice care 0 to 15 months after the index date.

Denominator Exclusion Codes
Colorectal Cancer
ICD-9 diagnosis code(s): 153.xx, 154.0, 154.1, 154.8

Resection of Colon or Rectum
CPT-4 code(s): 44110, 44111, 44139-44141, 44143-44147, 44150-44153, 44155-44158, 44160, 44204-44208, 44210-44212, 45110-45114, 45116, 45119, 45123, 45126, 45160, 45170, 45395, 45397
ICD-9 surgical proc code(s): 45.4x, 45.7x, 45.8, 48.35, 48.36, 48.4x, 48.5, 48.6x, 48.8x

Hospice Care
ICD-9 diagnosis code(s): V66.7
CPT-4 code(s): 99376*, 99377, 99378, G0065*, G0182, G0337, Q5001-Q5009, S0271, S9126, T2042-T2046
UB revenue code(s): 0115, 0125, 0135, 0145, 0155, 0235, 0650-0652, 0655-0659

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UB type of bill code(s): 81x, 82x
Place of service code(s): 34

Numerator Definition	Members receiving a colonoscopy, sigmoidoscopy, or protoscopy as appropriate during the 15 months after the index date.
Numerator Codes	Colonoscopy: CPT-4 code(s): 44388-44394, 44397, 45355, 45378, 45380-45387, 45391, 45392 HCPCS code(s): G0105, G0121 ICD-9 surgical proc code(s): 45.22, 45.23, 45.25,45.42, 45.43 Sigmoidoscopy: CPT-4 code(s): 3017F, 45330-45335, 45337, 45338-45342, 45345 HCPCS code(s): G0104 ICD-9 surgical proc code(s): 45.24 Proctoscopy: CPT-4 code(s): S0601
Physician Attribution Description	Score all physicians (in the selected specialties) who saw the member during the 0-15 months after the index date.

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