

Colon Cancer Treatment

About the Guideline

- The American Society of Colon and Rectal Surgeons' Clinical Practice Guidelines committee is made up of members who have demonstrated expertise in colon and rectal surgery.
- Guidelines are meant to provide information to guide treatment but are not prescriptive and are not meant to dictate treatment.
- Guidelines are related to evaluation and treatment of colon and rectal cancer.

Key Clinical Considerations

Evaluation and Risk Assessment

- In patients with colon cancer, perform a history and physical, a family history, and serum carcinoembryonic antigen (CEA) level, as well as an assessment of disease-specific symptoms.
- For patients meeting clinical criteria or with a family history of increased susceptibility to colorectal cancer, provide a referral to a genetic counselor.
- Before any treatment is performed, a full colonic evaluation and histologic diagnosis must be performed and confirmed.

Staging

- Prior to surgery, radiologic imaging should be completed, including computerized tomography (CT) scans of the chest, abdomen, and pelvis.
- Staging should be completed according to the TNM staging system, including designation of residual tumor code "R," which signifies a postsurgical assessment of the tumor resection.
 - T—Definition of primary tumor (TX, T0, Tis, T1, T2, T3, T4a, T4b)
 - N—Regional lymph node involvement (NX, N0, N1, N1a, N1b, N1c, N2a, N2b)
 - M—Distant metastasis (M0, M1a, M1b, M1c)

Surgical Treatment of the Primary Tumor

- Perform a thorough exploratory surgery of the peritoneal cavity and abdominal and pelvic organs.
- The site of the primary lesion and its lymphovascular drainage should determine the extent of resection.
- The routine performance of extended lymphadenectomy is not recommended.
- A complete resection of the tumor along with adherent or actively involved adjacent organs should occur within the same surgery to achieve local tumor control.
- Synchronous lesions (a second primary colon cancer that is diagnosed at the same time or up to 12 months after primary tumor is detected) may be removed by two separate resections or by subtotal colectomy.
- Robotic and hand-assisted laparoscopic surgical methods used in right colon cancer result in outcomes comparable to straight or open laparoscopic approaches.
- The morphology and histology of a malignant polyp determine the treatment.

- If no additional pathology is observed, resection for the colon should include proximal to distal margins of 5 cm to 7 cm.
- Complete lymph node evaluation should be performed, with at least 12 lymph nodes evaluated to assign a N0 stage.

Tumor-related Emergencies

- 20% of colon cancer patients present with surgical emergencies, such as bleeding, perforation, and/or obstruction.
- Goals of treatment are to prevent negative complications, such as sepsis or death; achieve tumor control, and ensure a timely recovery to allow for adjuvant or systemic treatment.
 - Bleeding
 - Acute gastrointestinal (GI) bleed resulting from colon cancer is a rare but life-threatening complication.
 - Nonsurgical approaches to control bleeding include resuscitation of the patient; localization of the bleeding site via radionuclide imaging, CT angiography, conventional angiography, and colonoscopy. Cessation of bleeding may occur via colonoscopy or angiographic embolization. (CT angiography proves superior with a sensitivity of 85%.)
 - Surgical intervention is required if nonsurgical methods fail to control the bleeding.
 - Perforation
 - If perforation of the uninvolved colon next to the obstructing tumor occurs, tumor resection is usually performed, and the perforated segment is repaired or resected.
 - Stent placement is contraindicated in perforated colon cancer.
 - Obstruction
 - Treatment is dependent on whether the surgical approach would be curative or palliative, the patient's age, risk profile, degree of obstruction, and the therapeutic resources available.
 - A colectomy or initial endoscopic stent decompression and interval colectomy may be performed.

Management of Stage IV Disease

A multidisciplinary team should be utilized to individualize and guide patient care. Tumors and metastases are classified as resectable, potentially resectable, and unresectable.

- Resectable and potentially resectable stage IV disease
 - Neoadjuvant treatment (treatment with chemotherapy preoperatively)
 - 5-fluorouracil, leucovorin, and oxaliplatin (FOLFOX regimen)
 - Prophylactic oophorectomy should be considered for women with grossly abnormal ovaries or adjacent extension of colon cancer.
 - Oophorectomy is recommended for suspected or confirmed ovarian metastasis.
 - For isolated colorectal peritoneal carcinomatosis, treatment options include systemic chemotherapy, targeted biologic therapy, resection of the peritoneal cancer, and

intraperitoneal chemotherapy with mitomycin-C or oxaliplatin (with or without hyperthermia).

- Unresectable stage IV disease
 - Widely metastatic colon cancer
 - Resectable disease, but systemic comorbidities
 - Palliative therapy—maintenance of quality of life and symptom relief
 - Palliative surgery for gastrointestinal (GI) tract obstruction and intractable bleeding includes, resection, endoluminal stent therapy, ablative procedures, internal bypass, or a diverting stoma
 - The patient's overall life expectancy should be considered prior to surgery.

Management of Locoregional Recurrence

- The treatment approach should be multidisciplinary.
- Potentially curative resection should be performed when overall survival can be improved.
- There is a low-recurrence risk (2% to 3%) following curative resection of localized colon cancer.
- Salvage surgical resection can be performed in about 30% of patients. Prolonged survival is dependent on the stage of the initial disease, presence of associated distant disease, and whether it is a single-site recurrence.
- Multimodality treatment protocols with chemotherapy and radiation are commonly employed.

Adjuvant Chemotherapy

- Adjuvant chemotherapy is used after curative resection to eliminate micrometastasis.
- It is typically recommended for patients with stage III colon cancer.
- Choice of regimen is based upon the clinical findings from the surgical resection, disease stage, and comorbidities.
- First-line adjuvant chemotherapy for stage III colon cancer should include fluoropyrimidine (5FU/LV or capecitabine) and oxaliplatin. The dose-limiting side effect of grade 3 peripheral neuropathy occurs in 12% of patients.
- Oxaliplatin-based adjuvant chemotherapy should be considered for patients with high-frequency microsatellite instability (MSI) stage III colon cancer.
- There is no evidence to support the addition of biologic agents in the treatment of stage III colon cancer.
- High-risk stage II colon cancer patients may be considered for adjuvant therapy. These patients are considered high risk due to one or more factors: T4 cancer; a primary, perforating or obstructing lesion; poorly differentiated histology, or; resection with fewer than 12 lymph nodes harvested.

Reference:

Vogel, J., et al. (2017). The American Society of Colon and Rectal Surgeons Clinical Practice Guidelines for the Treatment of Colon Cancer. *Diseases of the Colon and Rectum*, 60(10), 999-1017. doi: 10.1097/DCR0000000000000926

Link to Practice Guideline:

https://journals.lww.com/dcrjournal/fulltext/2017/10000/The_American_Society_of_Colon_and_Rectal_Surgeons.3.aspx