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Evaluation & Management of Patients with Anal and Rectal Cancer

Description of the Activity	Surgical oncologists are expected to evaluate and manage patients who present with anal or rectal cancer in different clinical scenarios. Surgical oncologists must be able to diagnose, treat, and provide surveillance for adult patients with primary anorectal cancer and accurately and cost-effectively differentiate those who will benefit from multimodality treatment and operative resection from those who require palliative or systemic treatments. The surgical oncologist should comfortably lead multidisciplinary discussions that promote patient-centered application of the current diagnostic and treatment guidelines.
Functions	❖ Nonoperative/Preoperative ➢ Designate patients to an anorectal cancer screening regimen based on individual risk profiles. ➢ Diagnose and manage hereditary polyposis and colorectal cancer syndromes (see Colon Cancer EPA). ➢ Synthesize essential information from a patient's records, history, physical examination, and initial diagnostic evaluations to develop a differential diagnosis. ➢ Complete a cost-effective, evidence-based diagnostic evaluation, staging evaluation, or both with bloodwork (including essential genetic mutational analysis and relevant tumor markers) and imaging studies (including pelvic magnetic resonance imaging/endoscopic ultrasound for locoregional evaluation). ➢ Using pelvic MRI, identify patients with compromised circumferential resection margins to adequately plan for surgical resection with other surgical specialties as indicated. ➢ Understand differences in management strategies between low/mid- and high-rectal tumors with respect to the timing of operative intervention. ➢ Mark the patient preoperatively for possible ostomy at the optimal site. ➢ Communicate a diagnosis and potential treatment options to the patient/caregiver(s) and consultants, including the potential need for an ostomy. Use shared decision-making to develop a treatment plan consistent with a patient's goals and beliefs. ➢ Discuss options for fertility-preserving strategies for patients receiving pelvic surgery or radiation as a component of their care. ➢ Describe barriers to receipt of pelvic radiation (eg, history of radiation, connective tissue diseases). ➢ Identify treatment goals, including curative intent, life prolongation without curative option, palliation, or end-of-life care. Communicate sympathetically in a culturally appropriate manner when de-escalation of care is appropriate because of poor prognosis or based on the patient/caregiver's goals of care. ➢ Identify impending surgical emergencies (eg, obstruction, perforation, bleeding), and assess the need for urgent/emergent procedures (eg, endoscopic stent, decompressive percutaneous endoscopic gastrostomy) or fecal diversion. ➢ Collaborate with other specialties to manage comorbidities that will affect treatment, such as chronic anticoagulation, cardiac disease, or immunosuppression, and optimize metabolic parameters that affect outcomes, such as physical and nutritional prehabilitation. ➢ Coordinate anticipated multivisceral resections with consulting services (eg, urology, gynecologic oncology) ahead of planned operations. ➢ Lead a multidisciplinary tumor board conference to develop a patient-specific treatment strategy. ➢ Implement current evidence-based literature to develop the correct sequence of oncologic treatment, including surgery, neoadjuvant or adjuvant chemotherapy, radiation, and other treatments as necessary according to the clinical presentation and patient/caregiver goals.

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- Anorectal adenocarcinoma
  - Differentiate patients who are candidates for local excision from those who require a multimodality management plan. Preemptively discuss the risk of pathologic upstaging and the potential need for surgical resection.
  - Identify the nuances of total neoadjuvant therapy and employment of a "watch and wait" protocol in patients with a clinical complete response. Plan surveillance with a multidisciplinary team and patients who are committed to intensive surveillance.
  - Offer surgery for patients who do not achieve a clinical complete response or who have relapsed after a complete response.
  - Identify patients requiring lateral pelvic lymphadenectomy.
  - Recognize when abdominoperineal resection is indicated, such as inability to obtain adequate distal margin, involvement of anal sphincter complex/levator ani muscles, or concern for incontinence.
  - Synthesize an operative plan that demonstrates an understanding of the advantages and limitations of various approaches (open vs minimally invasive/robotic), taking into account the patient-specific anatomy, physiology, indications, and risks. Prepare for possible intraoperative deviations from the plan.
- Anal canal squamous cell carcinoma
  - Include indicated infectious disease testing (eg, HIV, human papillomavirus) in the preoperative workup, and coordinate gynecologic evaluation for concomitant assessment of cervical malignancy.
  - Differentiate squamous cell carcinoma of the anal canal from the anal margin, and modify treatment as indicated. Use wide local excision for appropriate anal margin lesions.
  - Recognize the role of definitive chemoradiation in nonmetastatic anal canal squamous cell cancer.
  - Perform guideline-adherent clinical and radiographic restaging following chemoradiation.
  - Offer abdominoperineal resection with or without inguinal lymph node dissection when indicated for recurrent or persistent disease.

➢ Obtain informed consent with cultural humility.
- Describe the indications, risks, benefits, alternative therapies, and potential complications of the planned procedure, and incorporate a discussion of the goals of care.
- Ensure patient/caregiver comprehension using applicable language services and audio/visual aids as necessary.
- Ensure that the patient/caregiver(s) can ask questions and address any expressed concerns, taking patient/caregiver preferences into account.
- Discuss potential limitations in the desire for resuscitation (eg, do-not-resuscitate order) and how this will be addressed in the perioperative period.
- Document the consent discussion.

❖ Intraoperative

➢ Manage the perioperative environment, including room setup, equipment check, preprocedural time-out, specimen processing, counts, wound classification, and debriefing functions.

➢ Develop a safe, collaborative anesthetic approach for the clinical situation with the anesthesiology team, depending on the environment selected for the performance of the procedure.

➢ Create and maintain an intraoperative environment that promotes safety and patient-centered care.

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- Position the patient to expose the operative field (lithotomy, split leg), taking precautionary measures to prevent iatrogenic injury.
- Confirm accessibility of necessary equipment. Coordinate with other members of the operating room team to use specialized equipment or procedures.
  - Appropriately determine the need for/utility of adjunctive tools (eg, ureteral stents, endoscope, indocyanine green dye).
  - Perform flexible sigmoidoscopy for on-table evaluation of the lesion and intraoperative decision-making as necessary.
- Perform the procedures required to manage resectable lesions of the mid-to-low rectum and anal canal with a transabdominal approach (low anterior resection, abdominoperineal resection) using open and minimally invasive techniques.
  - Identify and preserve autonomic nerve branches and sphincter complex for optimal postoperative function.
  - Perform a guideline-adherent total mesorectal excision.
  - Perform a tension-free stapled or hand-sewn colorectal or coloanal anastomosis using maneuvers to gain colonic length as needed.
  - Evaluate the integrity of the anastomosis with flexible or rigid sigmoidoscopy, and perform an anastomotic leak test.
  - Perform diverting loop ileostomy when indicated to reduce the severity of pelvic sepsis in patients who are at higher risk for anastomotic leak.
- Perform procedures required to manage resectable lesions of the anal canal and anal margin with a perineal approach.
  - Obtain indicated radial and deep margins on the tumor.
  - Avoid injury to the sphincter complex without compromising oncologic margins.
  - Orient the specimen for pathologic evaluation.

❖ Postoperative

- Direct postoperative care.
- Demonstrate appropriate implementation of Enhanced Recovery After Surgery (ERAS) pathways.
- Manage common early and late complications related to anorectal procedures, including:
  - Anastomotic leak or stricture
  - Incontinence
  - Intra-abdominal abscess
  - Ostomy-related complications (bleeding, hernia, obstruction, prolapse)
  - Pelvic sepsis
  - Postoperative bleeding
  - Sexual dysfunction
  - Surgical site infection
  - Ureteral injury
  - Urinary retention
- Communicate a postencounter plan with a patient/caregiver(s) and other health care team members that considers intraoperative and pathologic findings, future treatment needs, postencounter needs, outcome expectations, and follow-up.
- Recognize and mitigate patient-specific barriers to care.

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	➢ Coordinate care with other specialties and ancillary care as needed, such as physical therapy, rehabilitation, nutrition services, ostomy teaching, and multimodality oncologic management. ➢ Review intraoperative and pathologic findings in multidisciplinary tumor board, and modify the treatment plan, if indicated. ➢ Develop a plan for surveillance after the initial treatment.
Scope	❖ In scope ➢ Diagnoses ▪ Anal adenocarcinoma ▪ Hereditary colorectal cancer involving the rectum or anus ▪ Polyposis syndromes ▪ Rectal adenocarcinoma ▪ Squamous cell cancer of the anal canal/rectum ▪ Synchronous metastatic disease ➢ Procedures ▪ Abdominoperineal resection ▪ Lateral pelvic lymph node dissection ▪ Low anterior resection ▪ Open, minimally invasive, and robotic approaches ▪ Pelvic exenteration/multivisceral resection ▪ Proctectomy with coloanal anastomosis ▪ Total mesorectal excision (TME) ▪ Transanal endoscopic excision/endoscopic submucosal resection/transanal minimally invasive surgery ➢ Populations ▪ Adults ❖ Out of scope ➢ Diagnoses ▪ Benign conditions (eg, prolapse) ▪ Gastrointestinal stromal tumors ▪ Inflammatory bowel disease ▪ Neuroendocrine tumors ▪ Perianal Paget disease ➢ Procedures ▪ Transanal TME ➢ Populations

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	▪ Pediatric patients

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Level	Nonoperative/Preoperative	Intraoperative	Postoperative
1 **<u>Limited Participation</u>** **Demonstrates understanding of information and has very basic skills.** **<u>Framework:</u>** **Performs at the general surgery resident level, lower than expected for a typical residency graduate. Has some experience with simple cases but has been an observer of complex cases.**	• Synthesizes essential information from a patient's records, H&P, family history, and initial diagnostic evaluations to develop a differential • Describes common staging studies performed and needs guidance to identify the most cost-effective and evidence-based imaging required • Recognizes the differences between histologies and needs guidance to discuss the nuances of their etiologies, workup, and treatment with a patient • Demonstrates awareness of the need to coordinate multivisceral resections with consulting services • Demonstrates awareness of the potential impact of patient factors, tumor biology, and anticipated surgical planning on fertility • Recognizes the role for pelvic MRI in the staging of rectal cancer, needing prompting to consider the images to plan surgical management • With prompting, considers additional surgical specialties to orchestrate multivisceral/exenterative surgery to achieve negative margins	• Lists potential intraop findings (eg, unidentified metastatic disease, invasion into adjacent structures) • Performs guideline-adherent proximal and distal transection sites to obtain negative pathologic margins, requiring assistance to access appropriate tissue planes for TME • Needs assistance to recognize the need for involvement of ancillary services (urology, gynecology) in surgical planning • Sites and matures stomas with assistance • Efficiently and safely positions a patient for the procedure with assistance needed for more complex cases or patient factors • Needs guidance to determine the equipment necessary for the operation • Identifies normal anatomy with assistance • Assists with exposure for dissection and high ligation of the IMA and vein • With prompting, coordinates with subspecialty services on multivisceral resection and reconstruction	• Demonstrates knowledge of ERAS protocols and management of routine postop care • Accesses evidence-based guidelines for postop care and surveillance but needs assistance to formulate a plan based on tumor factors and patient preferences and values • Establishes a professional rapport with a straightforward patient and communicates in a clear and understandable manner • Provides a basic summary of an operation but needs guidance to discuss pathology results with a patient/caregiver(s) • Documents postop care, omitting nuances of progress or minor complications; may choose an inappropriate means of communication (eg, paging for minor details or email for urgent issues)

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	• When prompted, accesses available evidence to develop the correct sequence of treatment (eg, surgery, chemotherapy, radiation therapy) • Respectfully communicates basic facts about the condition to a patient/caregiver(s), needing assistance with nuances of treatment decisions and potential outcomes • Communicates basic elements of an informed consent discussion, omitting nuanced postop complications affecting lifestyle (eg, sexual dysfunction) • Recognizes the role of pelvic MRI in the staging of rectal cancer but needs guidance for interpretation of imaging; needs prompting to consider additional surgical specialties to orchestrate multivisceral/exenterative surgery to achieve negative margins • Records information in a patient's record but may omit some important information or include some extraneous information; frequently requires correction or augmentation of documentation of services; may need prompting for timeliness	• Creates a basic operative note, omitting some important information; may need prompting for timeliness	
2 Direct Supervision	• Obtains the most relevant patient history and performs/documents most	• Identifies common intraop findings (eg, unidentified metastatic disease, invasion into adjacent structures), requiring	• Manages routine postop care and demonstrates understanding of ERAS protocols but needs assistance to

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Manages cases at the level of a newly graduated general surgery resident. Manages less complicated cases independently but needs active guidance for complex cases. **<u>Framework:</u>** **The learner manages simple or straightforward cases.** **The learner may require guidance in managing multidisciplinary care (eg, planning neoadjuvant treatment or postoperative chemotherapy).** **During surgery, the attending gives active help throughout the case to maintain forward progression.**	components of a relevant physical exam in a timely fashion • Orders a guideline-compliant staging workup, needing assistance to interpret imaging findings as they pertain to the treatment plan; needs prompting to consider cost-efficiency • Recognizes the differences between histologies and holds a basic conversation with a patient regarding etiology, workup, and treatment • Coordinates a multivisceral resection with consulting services • Identifies the impact of patient factors, tumor biology, and anticipated surgical planning on fertility, needing guidance to consider referrals to genetics and fertility specialists • Identifies the role of pelvic MRI in the surgical management of rectal cancer but needs assistance to identify pelvic anatomy; recognizes the need for additional surgical specialties for multivisceral/exenterative surgery to achieve negative margins • Accesses available evidence to develop the correct sequence of treatment (eg, surgery, chemotherapy, radiation therapy) but needs assistance to elicit patient preferences when guiding care	redirection when encountering unanticipated intraop findings • Performs guideline-adherent proximal and distal transection sites to obtain negative pathologic margins; accesses appropriate tissue planes for TME with limited assistance • Recognizes the need for involvement of ancillary services (urology, gynecology) in surgical planning but needs assistance to coordinate these aspects of care • Independently sites stomas • Thoughtfully positions a patient for a complex procedure and coordinates with the OR team to improve the flow of the procedure • Reviews and appraises the need for specialized equipment but needs prompting to consider cost-effectiveness • Identifies normal anatomy but requires assistance with variants and navigation of challenging tissue planes • Leads the operative exposure, dissection, and high ligation of the IMA and vein independently; accesses the correct TME plane but requires assistance to complete a guideline-compliant TME	manage complex postop care and complications, including those related to neoadjuvant therapy • Requires prompting to elicit patient preferences and values to guide evidence-based adjuvant care and surveillance • Establishes a professional rapport with straightforward and complex patients and communicates in a clear and understandable manner; navigates discussions with complex patients with assistance • Provides a complete summary of an operation and discusses pathology results and their implications with a patient/caregiver(s) • Thoroughly documents postop progression and the presence of any complications within the plan of management

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	• Independently discusses the diagnosis and its implications with a patient/caregiver(s) but needs guidance conveying the nuances of multimodal therapies and their logistics • Communicates basic elements of an informed consent discussion, omitting nuanced postop complications affecting lifestyle (eg, sexual dysfunction); engages in shared decision-making regarding a temporary or permanent ostomy • Constructs an evidence-based sequence of treatment with respect to tumor stage but is unfamiliar with the logistics of care • Demonstrates organized diagnostic and therapeutic reasoning through notes in a patient's record; demonstrates timely and efficient use of the EHR to communicate with the health care team	• Recognizes the need to coordinate with subspecialty services on multivisceral resection and reconstruction • Creates an operative note with a complete description of the procedure	
3 **<u>Indirect Supervision</u>** **Can do a basic operation but will not recognize abnormalities and does not understand the nuances of an advanced case.**	• Obtains a comprehensive patient history and performs/documents a complete physical exam in a timely fashion • Demonstrates understanding of key differences in complex disease presentations and the use of medical or surgical management • Performs an evidence-based staging workup, appraises imaging independently, and communicates the results to a patient/caregiver(s)	• With assistance, refines the preop surgical plan based on information discovered intraoperatively (eg, unidentified metastatic disease, invasion into adjacent structures) • Safely performs guideline-adherent proximal and distal transection sites to obtain negative pathologic margins; independently accesses appropriate tissue planes for TME in straightforward cases	• Independently manages complicated postop care, including the use of ERAS protocols; manages complex postop complications, including those related to neoadjuvant therapy • Locates and applies the best available evidence for adjuvant therapies and surveillance, integrated with patient preference • Establishes a therapeutic relationship with patients in complex early and late

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Manages multidisciplinary care of straightforward cases. Seeks assistance in managing complex cases. **<u>Framework:</u>** **The learner performs the operation in straightforward circumstances. The attending gives passive help. This help may be given while scrubbed for more complex cases or during check-in for more routine cases.**	• Applies current guideline-based indications for chemoradiation treatment for anal squamous carcinoma; considers patient preferences and recognizes the importance of shared decision-making when constructing a treatment strategy • With assistance, refers a patient to genetic counseling or fertility specialists, considering patient factors, tumor biology, and anticipated surgical planning • Uses pelvic MRI in the surgical management of rectal cancer but has difficulty with the nuances of surgical planes beyond TME; with assistance, coordinates with additional surgical specialties to orchestrate multivisceral/exenterative surgery to achieve negative margins • Independently integrates oncologic information with patient-specific factors to design a succinct diagnostic and workup plan for a straightforward case and adjusts the plan based on available evidence; needs assistance with a complex case that includes surgical and nonsurgical multimodality treatments applied in a guideline-adherent sequence, including the "watch and wait" protocol • Considers patient preferences and demonstrates understanding of the	• Independently coordinates involvement of ancillary services (urology, gynecology) with surgical planning • Independently sites and matures stomas in straightforward cases • Positions the patient for optimal exposure of the operative field • Identifies and comfortably navigates normal anatomy and tissue planes and moves fluidly through the course of a straightforward operation, anticipating next steps without prompting; uses available technology to optimize patient safety • Independently orients the specimen for pathology • Collaborates with subspecialty services on multivisceral resection and reconstruction • Creates an operative note with a complete description of the procedure, including key intraop findings; documents anatomic or disease variants in a thorough and understandable way	postop scenarios; engages in shared decision-making with a patient/caregiver(s), integrating unique goals of care for postop care and management • Constructs a comprehensive operative summary; reviews pathology results and recognizes features that impact prognosis • Selects direct (telephone, in-person) and indirect (progress notes, secure text messages) forms of communication based on context and urgency

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	importance of shared decision-making in constructing a treatment strategy • Communicates most elements of an informed consent discussion, including postop complications affecting lifestyle (eg, sexual dysfunction) and temporary or permanent ostomies • Constructs an evidence-based treatment strategy for a simple presentation but needs assistance with a complex presentation that includes surgical and nonsurgical multimodality treatments applied in a guideline-adherent sequence, including the "watch and wait" protocol); actively participates in tumor board discussion on management • Concisely integrates all relevant data from outside systems and prior encounters and reports diagnostic and therapeutic reasoning in a patient's record		
4 **Practice Ready** **Manages complex disease presentations and performs complex operations independently. Guides a multidisciplinary approach to complex cases. Performs as an**	• Obtains a comprehensive and culturally sensitive patient and family history; performs and documents a complete physical exam, including digital rectal examination of the tumor • Performs a cost-effective and evidence-based staging workup, critically appraises imaging independently, and has a complete and compassionate conversation about results with a patient/caregiver(s)	• Independently refines the preop surgical plan based on information discovered intraoperatively (eg, invasion into adjacent structures, suspicious lymphadenopathy not seen on imaging) • Proactively coordinates the involvement of ancillary services (urology, gynecology) with surgical planning • Independently sites and matures stomas in straightforward and complex cases	• Anticipates and provides early intervention for postop complications, including engaging consultative services when needed; adapts ERAS protocols in the setting of complex postop care or complications • Critically appraises evidence-based rationale for adjuvant therapies, even in the face of uncertain or conflicting evidence

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expert consultant in surgical oncology. **<u>Framework</u>:** **The learner can treat all common variations of the disease and has a strong understanding of surgical and medical options for different presentations.** **The attending is available at the request of the learner but is not routinely needed for common presentations, though input may be needed for more complex or unusual presentations.**	• Holds a comprehensive, empathetic, and culturally sensitive discussion regarding the diagnosis with a patient/caregiver(s); considers patient preferences and employs shared decision-making when constructing a treatment strategy • Independently refers a patient to genetics or fertility specialists, considering patient factors, tumor biology, and anticipated surgical planning • Uses pelvic MRI in the surgical management of rectal cancer, including identifying appropriate planes for beyond TME resections; independently coordinates with additional surgical specialties to orchestrate multivisceral/exenterative surgery to achieve negative margins • Independently integrates oncologic information with patient-specific factors to design a succinct diagnostic and workup plan and adjusts the plan based on available evidence in a complex or unusual presentation that includes surgical and nonsurgical multimodality treatments applied in a guideline-adherent sequence, including the “watch and wait” protocol • Communicates all elements of an informed consent discussion, including postop complications affecting lifestyle (eg, sexual dysfunction) and temporary or permanent ostomies	• Performs guideline-adherent proximal and distal transection sites to obtain negative pathologic margins; independently accesses appropriate tissue planes for TME in straightforward and complex cases • Identifies and comfortably navigates challenging anatomy and distorted tissue planes; uses available resources to optimize patient safety • Independently performs meticulous dissection and high ligation of the IMA and vein in a complicated TME • Communicates the surgical plan for multivisceral/exenterative surgery to subspecialty services to achieve appropriate resection margins • Communicates with others clearly and respectfully, even in a challenging situation (eg, airway difficulty, massive bleeding) • Creates an operative note with a complete description of the procedure, a rationale for modifications of the operative plan, and documentation of anatomic or disease variants	• Communicates in a clear and culturally conscious manner; identifies and overcomes barriers to effective communication with a complex patient • Provides a comprehensive operative summary and discussion of pathology results in clear terms • Communicates clearly, concisely, promptly, and in organized written form, including anticipatory guidance so the postop plan of care is clear to other members of the health care team

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	• Recognizes when curative options are not available and discusses noncurative and palliative options; leads an end-of-life goals-of-care discussion involving code status changes and hospice referral • Constructs an evidence-based treatment strategy for a complex patient that includes surgical and nonsurgical multimodality treatments applied in a guideline-adherent sequence, including the "watch and wait" protocol; leads a discussion of management at tumor board • Communicates diagnostic and therapeutic reasoning clearly, concisely, promptly, and in organized written form, including anticipatory guidance; written or verbal communication (patient notes, email) serves as an example for others to follow		