THE AMERICAN BOARD OF SURGERY

# Evaluation & Management of Patients with Gastric and Esophageal Cancers

| | |
|---|---|
| **Description of the Activity** | Surgical oncologists are expected to evaluate and manage patients who present with signs and symptoms of gastric and esophageal cancers. Surgical oncologists must be able to accurately and cost-effectively diagnose, treat, and provide guideline-adherent surveillance for adult patients with gastric and esophageal cancers and recognize complex disease requiring multidisciplinary treatment. |
| **Functions** | ❖ Nonoperative/Preoperative<br>➢ Synthesize essential information from a patient's records, history, physical examination, and initial diagnostic evaluations to develop a differential diagnosis.<br>▪ Recognize familial genetic syndromes, and refer patients for genetic screening. Discuss the role of risk-reduction gastrectomy versus high-risk surveillance.<br>▪ Consider previous gastric procedures and altered anatomy (eg, gastric bypass/sleeve).<br>➢ Complete a cost-effective, evidence-based diagnostic or staging evaluation, including potential molecular biomarkers, endoscopic evaluation, and imaging studies as indicated.<br>▪ Recognize the role of endoscopic ultrasound staging in selecting and determining the sequence of therapeutic options.<br>▪ Determine the role and timing of diagnostic laparoscopy with cytology.<br>▪ Determine the role and timing of molecular biomarker testing (eg, mismatch repair status, HER2 amplification, programmed death-ligand 1 expression).<br>▪ Propose the role and use of guideline-concordant endoscopic resections.<br>➢ Communicate a diagnosis and potential treatment options to the patient/caregiver(s) and consultants. Use shared decision-making to develop a treatment plan consistent with a patient's goals and beliefs.<br>➢ Describe the role and timing of referrals to multidisciplinary specialties (medical oncology, radiation oncology, thoracic surgery) for planning and treating gastric and esophageal cancers.<br>➢ Succinctly identify treatment goals (curative intent, life prolongation without curative option, palliation, end-of-life care). Communicate in a sympathetically and culturally sensitive manner when de-escalation of care is indicated due to poor prognosis or based on the patient/caregiver's goals of care.<br>➢ Use current evidence-based literature to develop the correct sequence of oncologic treatment by stage, including surgery, neoadjuvant or adjuvant therapy (chemotherapy, targeted therapy), radiation, and other treatments as necessary. Select a treatment approach based on disease presentation, comorbid conditions, and patient preferences. Discuss the timing of neoadjuvant and adjuvant therapy in relation to surgery pending unique patient factors. Manage multidisciplinary treatment of the disease.<br>➢ Participate in a multidisciplinary conference or discussion regarding treatment plans.<br>➢ Discuss reconstructive option(s) with key anatomic and vascular assessment with indicated surgical consultants.<br>➢ Address comorbidities affecting treatment, such as chronic anticoagulation, cardiac disease, malnutrition, pulmonary function assessment, and immunosuppression, and consult additional specialties as needed. Assess nutritional status to determine the need for feeding access. Order pulmonary function tests to determine the patient's ability to tolerate single-lung ventilation.<br>➢ Obtain informed consent with cultural humility. |

# Evaluation & Management of Patients with Gastric and Esophageal Cancers

- 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.

➢ Screen patients for and propose clinical trials when appropriate.

❖ Intraoperative

➢ Manage the perioperative environment, including room setup, equipment check, preprocedural time-out, specimen processing, counts, wound classification, and debriefing functions.
- Communicate bidirectionally with anesthesia.
- Discuss and coordinate single-lung ventilation when thoracic access is planned.

➢ Discuss volume resuscitation and avoidance of vasopressors for the critical portion of anastomosis and reconstruction.

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

➢ Position the patient to expose the operative field, taking precautionary measures to prevent iatrogenic injury.

➢ Coordinate with operating room team members to use specialized equipment or procedures, including esophagogastroduodenoscopy.

➢ Perform the procedures required to manage gastric and esophageal cancers:
- Assess intraoperative margins.
- Perform lymphadenectomy based on evidence-based guidelines.
- Discuss the role of an open versus minimally invasive approach.
- Discuss the optimal approach to feeding access.

➢ Adapt operative steps and the operative plan to information discovered intraoperatively, calling consulting services as necessary.
- Prepare for an inadequate conduit or other anastomotic challenges.
- Discuss the approach to positive resection margins.
- Prepare for an unanticipated en bloc resection (pancreas, spleen, lung, diaphragm, liver, colon).
- Change to open during an originally planned minimally invasive procedure.
- Recognize metastatic disease, and consider palliative options if indicated.

❖ Postoperative

➢ Direct postoperative care.

➢ Manage common early and late complications related to gastroesophageal procedures, including:
- Anastomotic leak
- Anastomotic stricture

THE AMERICAN BOARD OF SURGERY

# Evaluation & Management of Patients with Gastric and Esophageal Cancers

| | |
|---|---|
| | ▪ Bile reflux<br>▪ Chylothorax/chyle leak<br>▪ Dumping syndrome<br>▪ Duodenal stump leak<br>▪ Empyema/abscess<br>▪ Pneumothorax and persistent air leak<br>▪ Recurrent laryngeal nerve injury<br>➢ 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.<br>➢ Recognize and mitigate patient-specific barriers to care.<br>➢ Coordinate care with other specialties and ancillary care as needed (physical therapy, rehabilitation, nutrition services).<br>➢ Review intraoperative and pathologic findings in a multidisciplinary tumor board, and modify the treatment plan if indicated. Discuss the role and indications of genomic sequencing/genetic testing of the surgical specimen.<br>➢ Develop a plan for surveillance based on current cancer care guidelines after the initial treatment of gastric and esophageal cancers. |
| **Scope** | ❖ In scope<br><br>➢ Diagnoses<br>▪ High-risk and genetic predisposition scenarios<br>▪ Squamous cell carcinoma of the esophagus<br>▪ Primary adenocarcinoma<br>○ Gastric<br>○ Esophageal<br>▪ High-grade dysplastic lesions<br>○ Gastric<br>○ Esophageal<br><br>➢ Procedures<br>▪ Total esophagectomy<br>▪ Distal esophagectomy<br>▪ Total gastrectomy<br>▪ Partial/subtotal gastrectomy<br>▪ Lymphadenectomy as appropriate with the above procedures<br>▪ Staging laparoscopy<br>▪ Enteral feeding access |

THE AMERICAN BOARD OF SURGERY

# Evaluation & Management of Patients with Gastric and Esophageal Cancers

- Populations
  - Adults

- Out of scope
  - Diagnoses
    - Benign stricture
    - Gastrointestinal stromal tumor
    - Leiomyoma
    - Lymphoma
    - Peptic ulcer disease
    - Traumatic perforation
    - Tumors metastatic to the stomach or esophagus
  - Procedures
    - Ablation
    - Endoscopic mucosal resection
    - Intraperitoneal chemotherapy
  - Populations
    - Pediatric patients
    - Pregnant patients

THE AMERICAN BOARD OF SURGERY

# Evaluation & Management of Patients with Gastric and Esophageal Cancers

| Level | Nonoperative/Preoperative | Intraoperative | Postoperative |
|---|---|---|---|
| **1**<br><br>**<u>Limited Participation</u>**<br><br>**Demonstrates understanding of information and has very basic skills.**<br><br>**<u>Framework:</u>**<br>**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<br><br>• Discusses surgical options, including types of esophagectomy and gastrectomy<br><br>• Considers the role of a multidisciplinary tumor board and participates in but cannot lead the case discussion; needs guidance to develop a multidisciplinary treatment plan<br><br>• Interprets biopsy results to guide operation extent and additional genetic workup<br><br>• Needs prompting to identify and discuss the role of molecular biomarkers<br><br>• When prompted, accesses available evidence to develop the correct sequence of treatment (eg, surgery, chemotherapy, radiation therapy)<br><br>• Establishes a professional rapport with a patient/caregiver(s) and respectfully and clearly communicates basic facts about the condition but may need assistance when discussing nuances of treatment decisions and potential outcomes<br><br>• Accurately records information in the patient's record but may omit some important information or include some | • Lists potential intraop findings (unidentified metastatic disease, invasion into adjacent structures) but does not articulate how this would change the surgical plan<br><br>• Needs prompting to assess resection margins and the extent of lymphadenectomy<br><br>• Needs guidance to plan reconstruction options<br><br>• Describes laparoscopy for evaluation of metastatic disease but does not articulate the potential change in the surgical plan based on diagnostic laparoscopy findings<br><br>• Demonstrates basic knowledge of cancer biology and clinical implications, including the extent of resection<br><br>• Demonstrates basic knowledge of cancer biology as it relates to the operative plan<br><br>• Actively participates in the discussion with the anesthesia team regarding intraoperative airway management<br><br>• Creates a basic operative note but omits some important information; may need prompting for timeliness | • Demonstrates knowledge of and manages routine postop care following esophagectomy and gastrectomy<br><br>• Identifies evidence-based guidelines for surveillance of esophageal and gastric cancers but needs assistance to develop a detailed surveillance plan tailored to a patient's preferences<br><br>• Accesses evidence-based guidelines for postop care and surveillance but needs assistance to formulate a plan based on tumor factors and patient preferences<br><br>• Reviews pathology results but may need prompting to communicate the results to a patient/caregiver(s)<br><br>• Needs prompting to discuss patient prognosis, role of palliative care or hospice, and goals of care<br><br>• Documents postop care but may omit nuances of progress or minor complications; may choose an inappropriate means of communication (paging for minor details or email for urgent issues) |

THE AMERICAN BOARD OF SURGERY

# Evaluation & Management of Patients with Gastric and Esophageal Cancers

| Level | Nonoperative/Preoperative | Intraoperative | Postoperative |
|---|---|---|---|
| | extraneous information; requires correction or augmentation of documentation of services; may need prompting for timeliness | | |
| **2**<br><br>**Direct Supervision**<br><br>**Manages cases at the level of a newly graduated general surgery resident. Manages less complicated cases independently but needs active guidance for complex cases.**<br><br>**Framework:**<br>**The learner can manage simple or straightforward cases.**<br><br>**The learner may require guidance in managing multidisciplinary care (eg, planning neoadjuvant treatment or postoperative chemotherapy).**<br><br>**During surgery, the attending gives active** | • Obtains a focused patient H&P and uses relevant oncologic information to determine the need for additional endoscopic procedures, possible biopsy, or other additional diagnostic procedures and testing<br><br>• Participates in a multidisciplinary tumor board discussion to develop a treatment plan but needs assistance to guide the discussion; demonstrates awareness of multidisciplinary treatment options, including endoscopic resections and definitive chemoradiation, but needs guidance to formulate multimodality treatment<br><br>• Using evidence-based guidelines identifies and discusses treatment approaches for a straightforward case and solicits patient preferences<br><br>• Identifies molecular biomarkers but needs assistance with determining the timing of testing and their role in treatment<br><br>• 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 | • Identifies intraop findings such as unidentified metastatic disease or invasion into adjacent structures but requires redirection when encountering unanticipated intraoperative findings<br><br>• Independently identifies the need to assess resection margins but may need assistance to interpret the results and determine next steps<br><br>• Identifies operative reconstruction options but needs prompting or assistance with critical steps of anastomosis<br><br>• Demonstrates understanding of the need to perform laparoscopy to evaluate for metastatic disease but may need prompting to articulate a potential change in the surgical plan based on laparoscopy findings<br><br>• Demonstrates comprehensive knowledge of cancer biology and clinical implications, including the extent of resection<br><br>• Leads a discussion with the anesthesia team regarding intraop airway management | • Demonstrates management of routine postop care, including common postop complications, but needs assistance to recognize and manage complex postoperative complications, including those related to neoadjuvant therapy<br><br>• Identifies evidence-based guidelines for surveillance of straightforward esophageal and gastric cancers, tailored to the patient's preferences<br><br>• Requires prompting to elicit patient preferences and values to guide evidence-based adjuvant care and surveillance<br><br>• Reviews and communicates pathology results to a patient/caregiver(s) but may need assistance to discuss a postop treatment plan and tailor it to a patient's preferences<br><br>• Recognizes the roles of palliative care and hospice and the importance of discussing goals of care with patients/caregivers in a compassionate manner but may require assistance to conduct a family discussion |

THE AMERICAN BOARD OF SURGERY

# Evaluation & Management of Patients with Gastric and Esophageal Cancers

| Level | Nonoperative/Preoperative | Intraoperative | Postoperative |
|---|---|---|---|
| **help throughout the case to maintain forward progression.** | • Establishes a professional rapport with a patient/caregiver(s) and respectfully communicates the diagnosis, treatment options, and potential outcomes for a straightforward patient but may need assistance with a complex patient<br>• Considers the potential for hereditary cancer syndrome but needs assistance to incorporate this information into a preop plan<br>• Demonstrates organized diagnostic and therapeutic reasoning through notes in the patient record; demonstrates timely and efficient use of the EHR to communicate with the health care team | • Creates an operative note with a complete description of the procedure | • Thoroughly documents postop progression and the presence of any complications within the plan of management |
| **3**<br>**Indirect Supervision**<br>**Can do a basic operation but will not recognize abnormalities and does not understand the nuances of an advanced case.**<br>**Manages multidisciplinary care of straightforward cases. Seeks assistance in managing complex cases.** | • Needs prompting to integrate oncologic information (patient history, imaging, endoscopic findings, pathology) to design a succinct diagnostic and workup plan<br>• Leads a discussion of routine cases at an interdisciplinary cancer care conference, incorporating multimodality treatment options into a treatment plan; requires assistance to develop a plan for a complex case or when conflicting opinions exist<br>• With assistance, creates a diagnostic and therapeutic plan for a patient with gastric or esophageal cancer based on patient-specific comorbidities and medical history | • With assistance, refines the preop surgical plan based on information discovered intraoperatively, such as unidentified metastatic disease, invasion into adjacent structures, suspicious lymphadenopathy not seen on imaging, or a poorly perfused conduit<br>• Independently identifies the need to assess resection margins and interprets the results to determine next steps<br>• Identifies alternate reconstruction options and performs an anastomosis with limited assistance but needs guidance on which reconstruction is optimal for the level of disease | • Independently manages complicated postop care, including complications related to neoadjuvant therapy (eg, anastomotic leak with sepsis)<br>• Recognizes the role of molecular tumor analysis but requires assistance to recognize its implications and impact on adjuvant treatment<br>• Uses evidence-based guidelines for esophageal and gastric cancers to develop a surveillance plan for straightforward and complex patients but may need assistance tailoring |

THE AMERICAN BOARD OF SURGERY

# Evaluation & Management of Patients with Gastric and Esophageal Cancers

| Level | Nonoperative/Preoperative | Intraoperative | Postoperative |
|---|---|---|---|
| **Framework:**<br>**The learner can perform 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.** | • With assistance, interprets biopsy results and diagnostic imaging to determine the need for neoadjuvant therapy<br>• With assistance, interprets results of genetic testing to guide further diagnostic workup as well as subsequent treatment decisions<br>• 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 the available evidence<br>• Conducts an informed consent discussion with a patient/caregiver(s) regarding operative risks and morbidities but omits discussion of lifestyle changes associated with gastrectomy and esophagectomy; engages ancillary services as needed (nutrition, prehabilitation)<br>• Discusses palliative options with a patient/caregiver(s) but does not approach the discussion in a shared decision-making manner and does not consider cultural differences<br>• Concisely integrates all relevant data from outside systems and prior encounters and reports diagnostic and therapeutic reasoning in the patient record | • Independently evaluates for metastatic disease and refines the surgical plan based on findings of laparoscopy in a straightforward case<br>• Demonstrates comprehensive knowledge of cancer biology and patient-specific tumor factors and their impact on the extent of resection in a common scenario but may need guidance with intraop decision-making in a more complex case (eg, persistent positive margin)<br>• Needs guidance on the extent of resection based on the significance of patient-specific tumor biology and intraop decision-making in the setting of persistent positive margin<br>• Leads a discussion with the anesthesia team regarding intraop airway management but needs assistance to optimize intraop lung desufflation<br>• 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 | • Locates and applies the best available evidence for adjuvant therapies and surveillance, integrated with patient preference<br>• Reviews pathology results and synthesizes a postop treatment plan for a straightforward case; communicates the plan clearly and respectfully to the patient/caregiver(s)<br>• Actively engages with a patient/caregiver(s) but requires assistance when discussing the prognosis, role of palliative care and hospice, and goals of care<br>• Selects direct (telephone, in-person) and indirect (progress notes, secure text messages) forms of communication based on context and urgency |

THE AMERICAN BOARD OF SURGERY

# Evaluation & Management of Patients with Gastric and Esophageal Cancers

| Level | Nonoperative/Preoperative | Intraoperative | Postoperative |
|---|---|---|---|
| **4**<br><br>**<u>Practice Ready</u>**<br><br>**Manages complex disease presentations and performs complex operations independently. Guides a multidisciplinary approach to complex cases. Performs as an expert consultant in surgical oncology.**<br><br>**<u>Framework</u>:**<br>**The learner can treat all common variations of the disease and has a strong understanding of surgical and medical options for different presentations.**<br><br>**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.** | • Independently integrates oncologic information (patient history, imaging, endoscopic findings, pathology) to design a succinct diagnostic and workup plan<br><br>• Leads a multidisciplinary cancer care conference to synthesize patient care plans for routine and complex cases, resolving conflict when needed; independently coordinates multidisciplinary care<br><br>• Independently formulates a comprehensive, evidence-based diagnostic and therapeutic plan for a patient with gastric or esophageal cancer based on patient-specific comorbidities and medical history<br><br>• Independently interprets biopsy results and diagnostic imaging to determine the need for neoadjuvant therapy<br><br>• Independently interprets results of genetic testing to guide further diagnostic workup and subsequent treatment decisions<br><br>• 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<br><br>• Independently conducts an informed consent discussion with a | • Independently refines the preop surgical plan based on information discovered intraoperatively, such as unidentified metastatic disease, invasion into adjacent structures, suspicious lymphadenopathy not seen on imaging, or a poorly perfused conduit<br><br>• Independently identifies the need to assess resection margins and interprets results to determine next steps in straightforward and complex cases<br><br>• Independently modifies the reconstruction plan based on intraop findings and performs an anastomosis in straightforward and complex cases<br><br>• Independently performs laparoscopy to assess metastatic disease in straightforward and complex cases and refines the surgical plan based on findings<br><br>• Demonstrates comprehensive knowledge of tumor biology in the context of intraop findings and how this impacts the preop surgical plan, including the extent of resection or need for further pathological workup; describes the details of this updated surgical plan with limited assistance<br><br>• Independently determines the extent of resection based on the significance of | • Anticipates and provides early intervention for postop complications, including engaging consultative services when needed<br><br>• Reviews and synthesizes pathology to independently create an evidence-based postop treatment plan and tailor it to a patient/caregiver(s) in a comprehensive and compassionate manner<br><br>• Reviews and understands the implications of molecular tumor analysis on adjuvant treatment, directing interdisciplinary discussion to synthesize a patient care plan and ensure referrals are placed<br><br>• Independently uses evidence-based guidelines for surveillance of esophageal and gastric cancers to develop a detailed surveillance plan tailored to a patient's preferences<br><br>• Critically appraises evidence-based rationale for adjuvant therapies, even in the face of uncertain or conflicting evidence<br><br>• Independently conducts a discussion with a patient/caregiver(s) to review pathology results, discuss prognosis and goals of care, and engage in palliative care, hospice, or both |

THE AMERICAN BOARD OF SURGERY

# Evaluation & Management of Patients with Gastric and Esophageal Cancers

| Level | Nonoperative/Preoperative | Intraoperative | Postoperative |
|---|---|---|---|
| | patient/caregiver(s) regarding operative risks and morbidities, detailing the lifestyle changes associated with gastrectomy and esophagectomy, and engages in ancillary services as needed (nutrition, prehabilitation)<br><br>● Discusses palliative options in shared decision-making to align patient/caregiver values, including supportive care without cancer-directed therapy, in a culturally sensitive and compassionate manner<br><br>● Communicates diagnostic and therapeutic reasoning clearly, concisely, promptly, and in an organized written form, including anticipatory guidance; written or verbal communication (patient notes, email) serves as an example for others to follow | patient-specific tumor biology and in the intraop setting of a persistent positive margin<br><br>● Leads a discussion with the anesthesia team regarding intraop airway management and independently makes adjustments to optimize intraop lung desufflation<br><br>● 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 clearly, concisely, promptly, and in an organized written form, including anticipatory guidance so the postop plan of care is clear to other members of the health care team |