# Esophageal Cancer

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**Note:** Consider Clinical Trials as treatment options for eligible patients. Consider referral to a Comprehensive Cancer Center.

## WORK UP
- History and Physical
- Barium Swallow (optional)
- Esophagogastroduodenoscopy (EGD) to visualize entire upper Gastrointestinal (GI) tract
- Biopsy confirmation and histologic subtyping
- CBC and chemistry profile
- CT of chest and abdominal with contrast
- Bronchoscopy, if tumor is at or above the carina with no evidence of M1 disease
- Endoscopic ultrasound, if no evidence of M1 disease and tumor is at Gastroesophageal (GE) junction
- Biopsy confirmation of suspected metastatic disease
- PET/CT in absence of M1 disease
- HER2-neu evaluation by Immunohistochemistry (IHC) in patients with advanced, metastatic cancer (not localized cancer)
- Additional biomarkers as clinically indicated
- Lifestyle risk assessment

## CLINICAL STAGE
**cTis – cT4, N0-1**

## ADDITIONAL EVALUATION
- Multidisciplinary evaluation is required for all localized cases (not for metastatic patients)
- Nutritional assessment
- [for preoperative nutritional support, consider nasogastric or jejunostomy tube (J-tube); PEG is not recommended]
- [Barium enema or colonoscopy if colon interposition or bypass planned]
- [Consider arteriogram (optional) if performing colon interposition]

## PRIMARY TREATMENT

<table>
<thead>
<tr>
<th>cTis to less than or equal to cT1b(^4)</th>
<th><strong>Medically operable?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Esophagectomy(^6)</td>
</tr>
<tr>
<td>No</td>
<td>Definitive chemoradiation</td>
</tr>
<tr>
<td></td>
<td>Follow-up, See Page 3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>cT1b(^4), Any N</th>
<th>Not medically operable or patient declining surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medically operable</td>
<td>Definitive chemoradiation</td>
</tr>
<tr>
<td></td>
<td>Preoperative chemoradiation</td>
</tr>
<tr>
<td></td>
<td>Surgery or combined modality therapy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>cT2, N0(^4)</th>
<th>Medically operable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Surgery(^7)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>cT1b-T2, N+(^3)</th>
<th>Palliative treatment as clinically indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>cT3-T4, N0-3</td>
<td></td>
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</tbody>
</table>

**Stage IV Metastatic cancer**

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\(^1\) Confirmation should be completed on outside MD Anderson specimen and inside MD Anderson specimen

\(^2\) Consider HER2-neu evaluation initially by IHC and if IHC score 2+, follow-up with FISH test

\(^3\) See MDA Approved Biomarkers for additional information – click here

\(^4\) See Physical Activity, Nutrition, and Tobacco Cessation algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

\(^5\) Consider diagnostic EMR for all cT1b patients and T2N0 patients who have tumors less than 2 cm in size with low standardized uptake values (SUV) (less than or equal to 3)

\(^6\) Whenever possible, N+ status in patients with limited depth of invasion should be confirmed histologically

\(^7\) Preferred for non-cervical cT1b disease

\(^8\) Patients who receive preoperative chemoradiation should be followed after surgery

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Department of Clinical Effectiveness V5
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Surgical Outcomes After Esophagectomy

Clinical Pathologic Findings

Yes

Node negative?

Adenocarcinoma

Tis, T1, N0

Observe as clinically indicated

T2, N0

• Observe or chemoradiation (fluoropyrimidine-based) for selected patients
• Adjuvant chemotherapy if patient received chemotherapy preoperatively

T3, N0

• Chemoradiation (fluoropyrimidine-based)
• Adjuvant chemotherapy if patient received chemotherapy preoperatively

Squamous

Observe as clinically indicated

No

Adenocarcinoma

Proximal or mid esophagus

Observe or chemoradiation (fluoropyrimidine-based) for selected patients

Distal esophagus, GE junction

• Chemoradiation (fluoropyrimidine-based)
• Adjuvant chemotherapy if patient received chemotherapy preoperatively

Squamous

Observe as clinically indicated

Macroscopic residual cancer

Chemoradiation (fluoropyrimidine-based) or palliative therapy

1 Consider diagnostic EMR for all cT1b patients and T2N0 patients who have tumors less than 2 cm in size with low standardized uptake values (SUV) (less than or equal to 3)

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FOLLOW-UP

- If asymptomatic:
  - History and Physical
  - every 4 months for 1 year,
  - every 6 months for 2 years,
  - then annually
- Chemistry profile and CBC, as clinically indicated
- CT chest and abdomen with oral and IV contrast as clinically indicated
- Upper GI as clinically indicated
- Dilatation for anastomotic stenosis
- Nutritional counseling
- Vitamin D level check

RECURRENT

Local/regional only recurrence: prior surgery, no prior chemoradiation

- Concurrent chemoradiation (fluoropyrimidine-based) (preferred) or
- Surgery or
- Chemotherapy and/or
- Best supportive care

Metastatic cancer

PALLIATIVE THERAPY

Local/regional recurrence: (prior chemoradiation, no prior surgery)

Resectable and medically operable

Yes → Salvage surgery

No → Palliative therapy

1Patient with Tis or T1a who undergo EMR should have endoscopic surveillance every 3 months for one year, then annually.

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SUGGESTED READINGS

PRINCIPLES OF MULTIDISCIPLINARY TEAM APPROACH FOR GASTROESOPHAGEAL CANCERS


PRINCIPLES OF SURGERY


Continued on next page
SUGGESTED READINGS - continued

PRINCIPLES OF SYSTEMIC THERAPY FOR ESOPHAGEAL OR GASTROESOPHAGEAL JUNCTION CANCER


OTHER SUPPORTIVE READINGS


DEVELOPMENT CREDITS

This practice algorithm is based on majority expert opinion of the Gastrointestinal Center Faculty at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

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