INITIAL EVALUATION

- Confirm outside pathology
- History
  - Chief complaint
  - History of present illness and previous treatment
- Past medical history including but not limited to:
  - Social history (including tobacco and alcohol use)
  - Previous radiation therapy – head and neck, thoracic, breast (for previous primary or benign diagnosis)
- Physical examination
  - Full head and neck examination
  - Fiberoptic exam
  - Videostroboscopy (optional)
  - General medical examination
- Stage T and N (AJCC)
- Imaging studies
  - CT head and neck with contrast\(^1\) or MRI neck with contrast
  - Consider PET-CT scan for stage III/IV
  - Modified barium swallow/esophagoscopy
  - Chest imaging (PET-CT preferred, but CT chest with contrast acceptable)
- Lifestyle risk assessment\(^2\)

CONSULTATIONS

- If no biopsy/pathology, consider examination under anesthesia (EUA), direct laryngoscopy (DL), biopsy, esophagoscopy
- Radiation Oncology
- Thoracic/Head and Neck Medical Oncology (THNMO)
- Dental Oncology for dentulous patients except those receiving narrow field radiation
- Speech Pathology for all patients and videostroboscopy, if indicated
- Consider esophagoscopy or barium swallow
- Perioperative Evaluation and Management (POEM)
- Plastic Surgery for patients who will require major reconstruction (pharyngeal reconstruction)
- Nutritional assessment
- Smoking cessation for active smokers only

PRE-TREATMENT EVALUATION

- Glottic
  - Node negative (based on clinical and/or radiographic imaging)
- Supraglottic
  - Node negative (based on clinical and/or radiographic imaging)
  - Node positive (based on clinical and/or radiographic imaging)

Note: Consider Clinical Trials as treatment options for eligible patients.

AJCC = The American Joint Committee on Cancer

\(^1\) CT is tailored to oncologic imaging: high-resolution, bone and soft tissue window, 90-100s contrast delay for optimal opacification of mucosa and soft tissues

\(^2\) See Physical Activity, Nutrition, and Tobacco Cessation Treatment algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

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**EVALUATION**

**PRIMARY TREATMENT**

- **Surgery**
  - Endoscopic resection with neck dissection(s) **or**
  - Open partial laryngeal surgery with neck dissection(s)

- **Definitive radiation**
  - Total laryngectomy **and** neck dissection(s) as indicated, and ipsilateral thyroidectomy
  - Consider primary TEP

- **Consider induction chemotherapy**
  - Concurrent chemoradiation

- **Complete response at primary site?**

- **Residual nodal disease?**

- **Pathologic N1?**
  - Yes
    - Radiation therapy
    - Consider chemoradiation
  - No
    - Observe

**ADJUVANT TREATMENT**

- **Radiation or chemoradiation?**
  - Yes
    - Consider radiation therapy
  - No
    - Observe

- **Pathologic N1?**
  - Yes
    - Radiation therapy
    - Consider chemoradiation
  - No
    - Observe

- **Laryngectomy and neck dissection(s), as clinically indicated**
  - Radiation therapy
  - Consider chemoradiation
  - Supportive Care
  - Discuss GCC with patient or if clinically indicated, with Patient Representative

**SURVEILLANCE**

- For recurrent or persistent disease, see Page 5
- Surveillance (see Page 6)
- THNMO consult (optional) for chemoprevention trials

---

1 Pathological risk features include:
- Primary pathology: Any T1 or T2 with perineural invasion or lymphovascular invasion **or** any T3 or T4
- Regional pathology: Multiple lymph nodes (any N2, N3)

2 Pathological risk factors for addition of chemotherapy include positive margins (re-excision to clear margins is preferred) **and/or** extracapsular extension

3 Low-volume base-of-tongue involvement

4 Primary tumors requiring total laryngectomy not amenable to partial surgery

5 Total laryngectomy to be considered for patients with significant pretreatment laryngopharyngeal dysfunction or are medically unable to tolerate organ preservation therapy

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Note: Consider Clinical Trials as treatment options for eligible patients.

Department of Clinical Effectiveness V9

Approved by the Executive Committee of the Medical Staff on 09/19/2023
Larynx Cancer

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Note: Consider Clinical Trials as treatment options for eligible patients.

**EVALUATION**

- **Supraglottic node positive**
- **Primary tumor**
  - T1-2, N+ and
  - Selected T3 (not requiring total laryngectomy)
- **Pathological risk factors for addition of chemotherapy include positive margins (re-excision to clear margins is preferred) and/or extracapsular extension**

**TREATMENT**

- **Concurrent chemoradiation**
- **Complete response at primary site?**
  - Yes
  - No
- **Total laryngectomy** and neck dissection(s) as indicated, and ipsilateral thyroidectomy
- **Consider primary TEP**

**SURVEILLANCE**

- **Complete response of nodal disease?**
  - Yes
  - No
- **Pathological risk features**
  - **Yes**
  - **No**
- **Salvage surgery as clinically indicated**
- **Observe**

- **Pathological risk features:**
  - **Primary pathology:** Any T1 or T2 with perineural invasion or lymphovascular invasion or any T3 or T4
  - **Regional pathology:** Multiple lymph nodes (any N2, N3)

1. Pathological risk factors for addition of chemotherapy include positive margins (re-excision to clear margins is preferred) and/or extracapsular extension
2. Low-volume base-of-tongue involvement
3. Total laryngectomy to be considered for patients with significant pretreatment laryngopharyngeal dysfunction or are medically unable to tolerate organ preservation therapy

## Larynx Cancer Notes

- For recurrent or persistent disease, see Page 5
- Surveillance (see Page 6)
- THNMO consult (optional) for chemoprevention trials

5 GCC should be initiated by the Primary Oncologist. If Primary Oncologist is unavailable, Primary Team/Attending Physician to initiate GCC discussion and notify Primary Oncologist. Patients, or if clinically indicated, the Patient Representative should be informed of therapeutic and/or palliative options. GCC discussion should be consistent, timely, and re-evaluated as clinically indicated. The ACP note should be used to document GCC discussion. Refer to GCC home page (for internal use only).

Department of Clinical Effectiveness V9
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CLINICAL PRESENTATION

- Restage
  - CT head and neck with contrast
  - MRI neck with contrast
  - CT chest or PET-CT to evaluate for distant metastatic disease
  - Discuss GCC with patient or if clinically indicated, with Patient Representative

Presence of distant metastatic disease?

- Yes
  - Consider systemic therapy/phase I clinical trial
  - Palliative care, as clinically indicated

- No
  - Consider salvage surgery, as clinically indicated

Primary treatment chemoradiation?

- Yes
  - Consider systemic therapy
  - Clinical trial
  - Palliative care, as clinically indicated

- No
  - Is recurrence resectable?
    - Yes
      - Consider salvage surgery, as clinically indicated
      - Consider postoperative chemotherapy and radiation therapy
    - No
      - Consider chemotherapy and radiation therapy

Surveillance (see Page 6)

Note: Consider Clinical Trials as treatment options for eligible patients.

1 CT is tailored to oncologic imaging: high-resolution, bone and soft tissue window, 90-100s contrast delay for optimal opacification of mucosa and soft tissues

2 GCC should be initiated by the Primary Oncologist. If Primary Oncologist is unavailable, Primary Team/Attending Physician to initiate GCC discussion and notify Primary Oncologist. Patients, or if clinically indicated, the Patient Representative should be informed of therapeutic and/or palliative options. GCC discussion should be consistent, timely, and re-evaluated as clinically indicated. The ACP note should be used to document GCC discussion. Refer to GCC home page (for internal use only).

3 Pathological risk factors should be taken into consideration when making concurrent treatment decisions

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Larynx Cancer Surveillance

<table>
<thead>
<tr>
<th>Total years for surveillance</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of surveillance by month</td>
<td>3 6 9 12 16 20 24 30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head and neck history and physical exam including flexible laryngoscopy</td>
<td>x x x x x x x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline/Surveillance CT(^1) or MRI</td>
<td>x x x x x x x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chest x-ray (CT chest, if smoker)</td>
<td>x x x x x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thyroid function(^2)</td>
<td>x x x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Supportive care:
- Speech and hearing evaluation
- Swallow evaluation
- Nutrition assessment
- Depression screening
- Smoking cessation
- Alcohol counseling
- Lymphedema evaluation
- Dental evaluation
  
  As clinically indicated

\(^1\) For T1 glottic cancers, initial post treatment CT may not be indicated
\(^2\) If radiation to the neck, thyroid function should be checked every 6-12 months

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Refer to Survivorship - Larynx/Hypopharynx Cancer algorithm

Department of Clinical Effectiveness V9
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SUGGESTED READINGS


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

**Development Credits**

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