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
  - Consider PET scan for stage III/IV
  - Modified barium swallow/esophagoscopy
  - Chest imaging, as clinically indicated (if smoking history of greater than 30 pack-year, consider CT chest)

CONSULTATIONS

- If no biopsy/pathology: consider examination under anesthesia (EUA), direct laryngoscopy (DL), biopsy, esophagoscopy
- Radiation oncology
- Medical oncology for patients with stage III or IV
- 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
- IMPAC1 (for surgical management)
- Plastic surgery for patients who will require major reconstruction (pharyngeal reconstruction)
- Nutritional assessment and follow up with all patients
- Smoking cessation for active smokers only (refer to Tobacco Cessation Algorithm - Adult)

PRE-TREATMENT EVALUATION

Patient information presented at multidisciplinary planning conference

Glottic
- Node negative
  
See Page 2

Supraglottic
- Node positive
  
See Page 3

Supraglottic
  
See Page 4

1 Conditions for pre-operative internal medicine consult:
- Hypertension
  - Uncontrolled or newly diagnosed
  - Poorly compliant patient
  - Multi-drug regimen for control
- Cardiac disease
  - History of myocardial infarction or angina
  - History of cardiac or vascular surgery
  - Cardiac murmur or valvular heart disease
  - Congestive heart failure
- Pulmonary disease
  - 20 or more pack per year smoking history
  - Moderate to severe chronic obstructive pulmonary disease (COPD) with less than 2 flight exercise tolerance
  - Reactive airway disease
  - Previous lung resection
  - Multiple history of pneumonias
  - History of tuberculosis
- Cerebrovascular disease
  - Previous cerebrovascular accident
  - History of transient ischemic attack
  - Carotid bruit or known stenosis
- Diabetes
  - Type I
  - Type II
- Hepatic disease
  - History of cirrhosis
  - Laboratory of hepatic dysfunction
- Anticoagulation

AJCC = American Joint Committee on Cancer
IMPAC = Internal Medicine Perioperative Assessment Center

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

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

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Approved by the Executive Committee of the Medical Staff on 07/25/2017
Clinical Evaluation

Primary tumor T4 disease, any N

Primary tumor most T3, N0-N1

Glottic

Primary tumor most T1-2, any N

Severe dysplasia/carcinoma in situ

Primary pathology:
- Any T1 or T2 with perineural invasion or lymphovascular invasion
- Any T3 or T4

Regional pathology:
- Multiple lymph nodes (any N2, N3)

Pathological risk factors for addition of chemotherapy include:
- Positive margins (re-excision to clear margins is preferred)
- Extracapsular extension

Clinical Evaluation

Primary Treatment

Endoscopic removal (stripping/laser)

Is nodal status positive?

- Radiation therapy or Neck dissection(s)
- Observation

Presence of pathological risk features?

- Radiation therapy or Consider chemoradiation
- Observation

Complete response at primary site?

- Total laryngectomy1,2 and neck dissection(s) as clinically indicated
- Observation

Residual nodal disease?

- Total laryngectomy1,2 and neck dissection(s), as clinically indicated
- Observation

ADJUVANT TREATMENT

- Radiation therapy
- Consider chemoradiation

SURVEILLANCE

- Surveillance (see Page 6)
- Medical oncology (optional) for chemoprevention trials

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

1 Primary tumors requiring total laryngectomy not amenable to partial surgery
2 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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**Supraglottic node negative**

**CLINICAL EVALUATION**

**Primary tumor**
- Most T1-2, N0

**Primary tumor**
- T3, N0
  - Selected T4¹, N0

**Primary tumor**
- T4, N0

**Definitive radiation**

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

**Concurrent chemoradiation**

**Presence of pathological risk features⁴ ?**
- Yes → **Radiation or chemoradiation⁵**
  - Yes → Consider radiation therapy
  - No → **Pathologic N1?**
    - Yes → **Radiation therapy**
    - No → Observe

**Pathologic N1?**
- Yes → **Pathologic N1?**
  - Yes → **Radiation therapy**
  - No → Observe
- No → Observe

**Complete response at primary site?**
- Yes → **Radiation therapy**
  - Consider chemoradiation⁵
- No → **Residual nodal disease?**
  - Yes → **Neck dissection(s)**
  - No → Observe

**Residual nodal disease?**
- Yes → **Neck dissection(s)**
- No → Observe

**ADJUVANT TREATMENT**

**SURVEILLANCE**

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

1 Low-volume base-of-tongue involvement
2 Primary tumors requiring total laryngectomy not amenable to partial surgery
3 Total laryngectomy to be considered for patients with significant pretreatment laryngopharyngeal dysfunction or are medically unable to tolerate organ preservation therapy

**Supraglottic node negative**

**Larynx Cancer**

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Department of Clinical Effectiveness V6

Approved by the Executive Committee of the Medical Staff on 07/25/2017
Supraglottic node positive

Primary tumor
- T1-2, N+ and
- Selected T3 (not requiring total laryngectomy)

Concurrent chemoradiation

Complete response at primary site?

Yes

Complete response of nodal disease?

Yes

N1 (initial stage) → Observe

No

N2-3 → Neck dissection

No

Salvage surgery as clinically indicated

Primary tumor
- Most T3, N+ or
- Selected T4

Concurrent chemoradiation

Complete response at primary site?

Yes

Total laryngectomy2 and neck dissection(s) as indicated, and ipsilateral thyroidectomy
- Consider primary TEP

No

Salvage surgery as clinically indicated

Primary tumor
- T4, N+

Concurrent chemoradiation

Complete response at primary site?

Yes

Total laryngectomy2 and neck dissection(s) as indicated, and ipsilateral thyroidectomy
- Consider primary TEP

No

Radiation or chemoradiation4

Surveillance (see Page 6)

Yes

Observe

No

Neck dissection

Pathological risk features include:
- Primary pathology
  - Any T1 or T2 with perineural invasion or lymphovascular invasion
  - Any T3 or T4
- Regional pathology
  - Multiple lymph nodes (any N2, N3)
- Positive margins (re-excision to clear margins is preferred)
- Extracapsular extension

3 Pathological risk features include:
- Primary pathology
  - Any T1 or T2 with perineural invasion or lymphovascular invasion
  - Any T3 or T4
- Regional pathology
  - Multiple lymph nodes (any N2, N3)
- Positive margins (re-excision to clear margins is preferred)
- Extracapsular extension

4 Pathological risk factors for addition of chemotherapy include:
- Positive margins (re-excision to clear margins is preferred)
- Extracapsular extension

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

Recurrent disease

- Restage
  - CT head and neck
  - CT chest or PET to evaluate for distant metastatic disease

Presence of distant metastatic disease?

- Yes
  - Consider systemic therapy/phase I clinical trial
  - Palliative care as clinically indicated
- No

Is recurrence resectable?

- Yes
  - Consider salvage surgery, as clinically indicated
- No

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)

1 Pathological risk factors should be taken into consideration when making concurrent treatment decisions.
LARYNX CANCER SURVEILLANCE

<table>
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<th>Total years for surveillance</th>
<th>Year 1</th>
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<th>Year 3</th>
<th>Year 4</th>
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<td>Head and neck history and physical exam</td>
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<td>Chest x-ray (CT chest, if smoker)</td>
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<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Thyroid function</td>
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<td>x</td>
<td>x</td>
<td>x</td>
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</tr>
</tbody>
</table>

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SUGGESTED READINGS


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