

Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient's care. This algorithm should not be used to treat pregnant women.

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

## 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<sup>1</sup> or MRI 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<sup>2</sup>

## CONSULTATIONS

- If no biopsy/pathology, consider examination under anesthesia (EUA), direct laryngoscopy (DL), biopsy, esophagoscopy
- Radiation Oncology
- Thoracic/Head and Neck Medical Oncology (THNMO) 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
- 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

Patient information presented at multidisciplinary planning conference

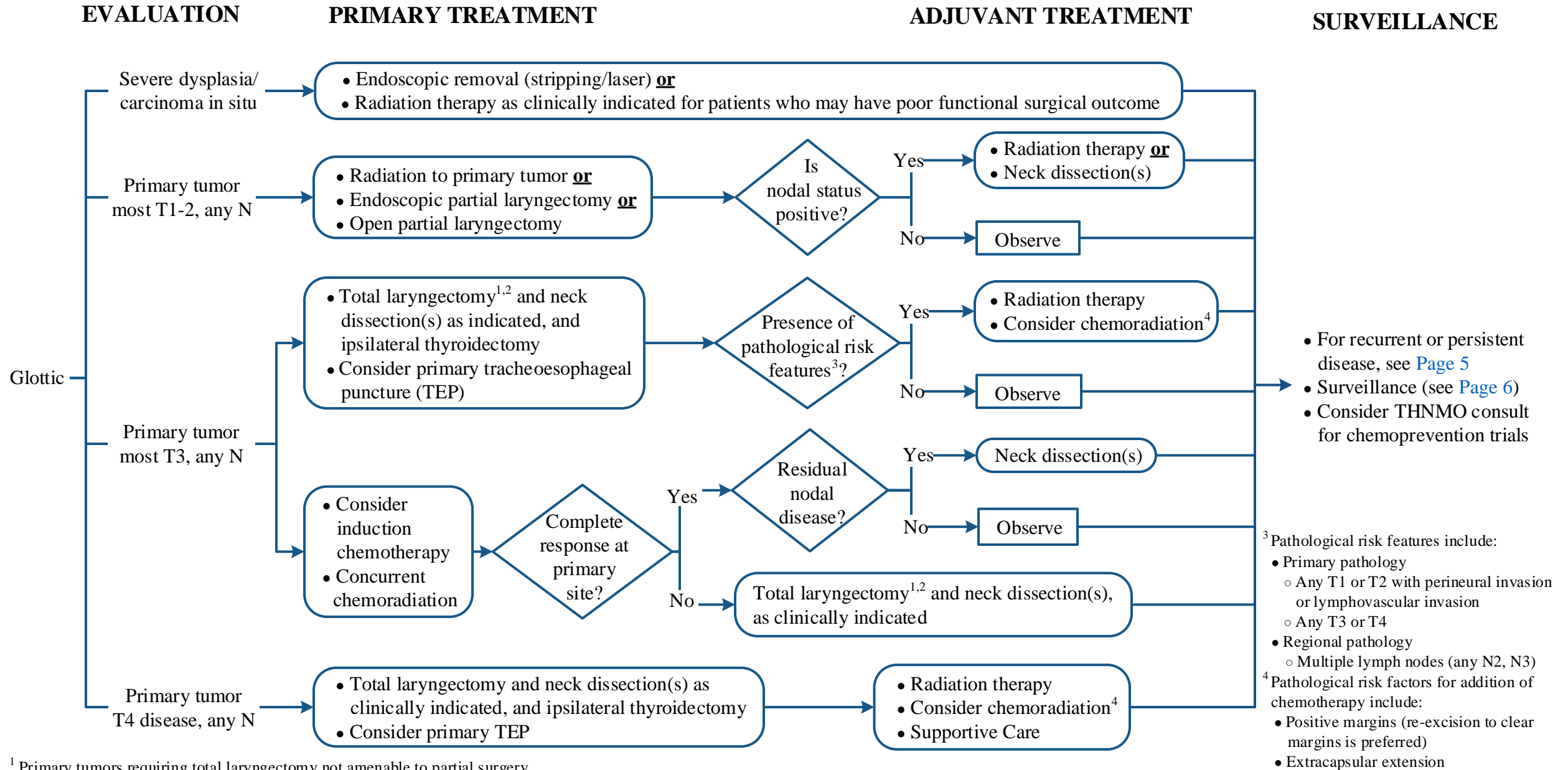
- Glottic → See Page 2
- Supraglottic: Node negative (based on clinical and/or radiographic imaging) → See Page 3
- Supraglottic: Node positive (based on clinical and/or radiographic imaging) → See Page 4

<sup>1</sup> 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

<sup>2</sup> See [Physical Activity](#), [Nutrition](#), and [Tobacco Cessation](#) algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

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<sup>3</sup> 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)

<sup>4</sup> Pathological risk factors for addition of chemotherapy include:

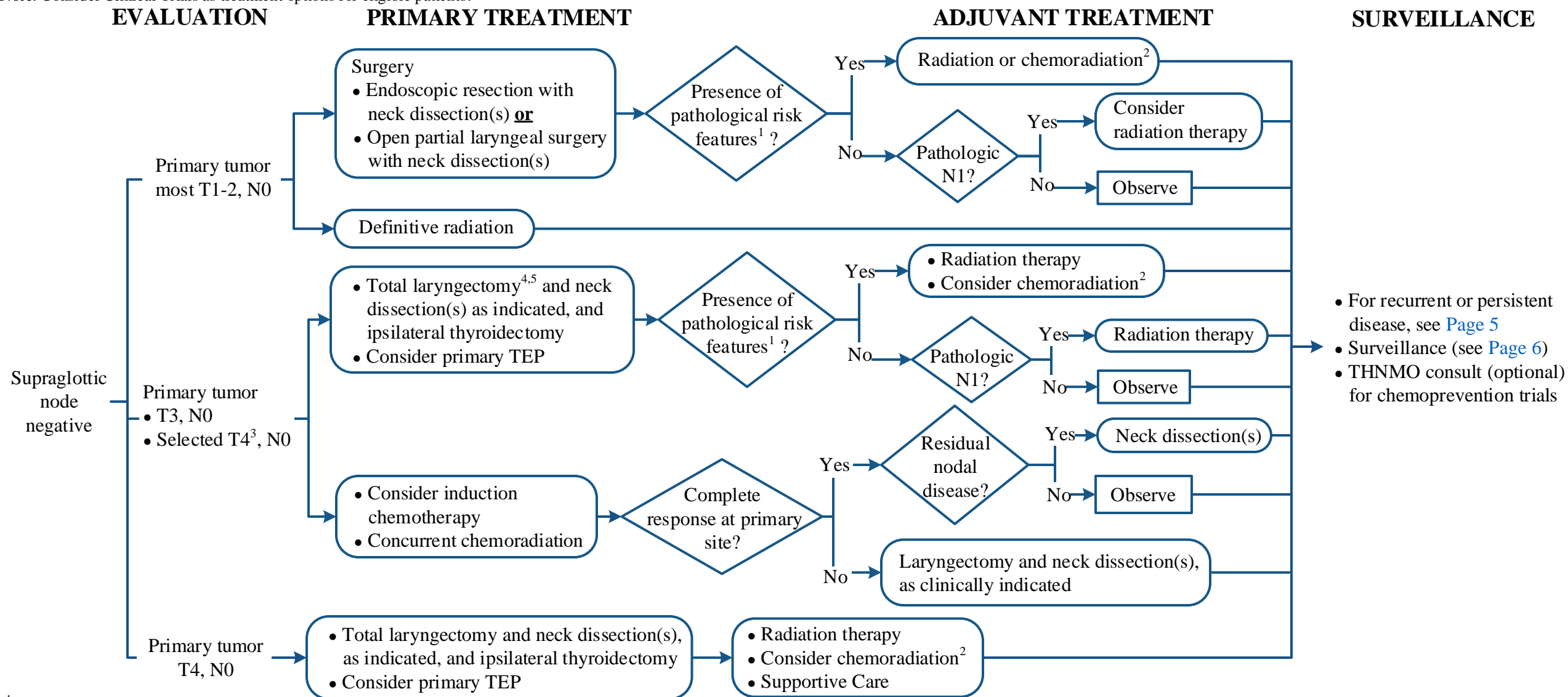
- Positive margins (re-excision to clear margins is preferred)
- Extracapsular extension

<sup>1</sup> Primary tumors requiring total laryngectomy not amenable to partial surgery

<sup>2</sup> 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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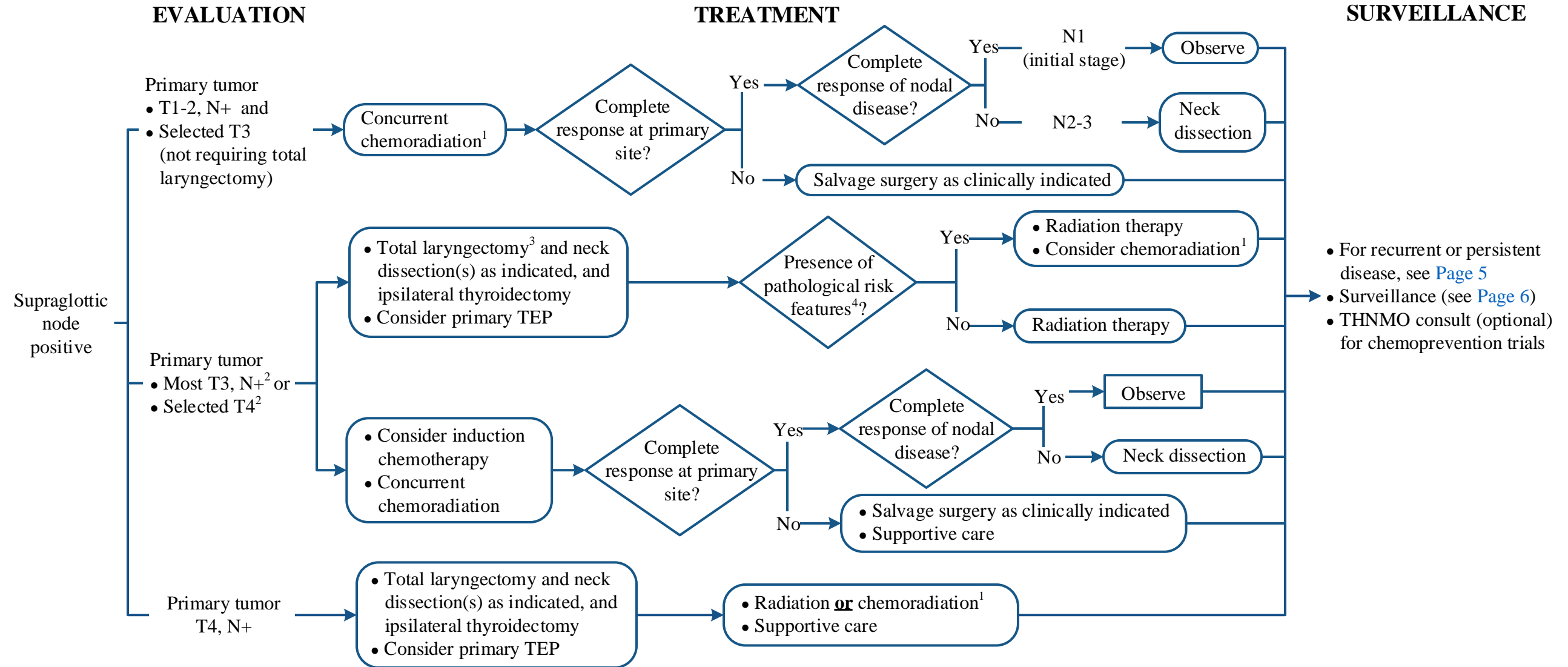
<sup>3</sup> Low-volume base-of-tongue involvement

<sup>4</sup> Primary tumors requiring total laryngectomy not amenable to partial surgery

<sup>5</sup> 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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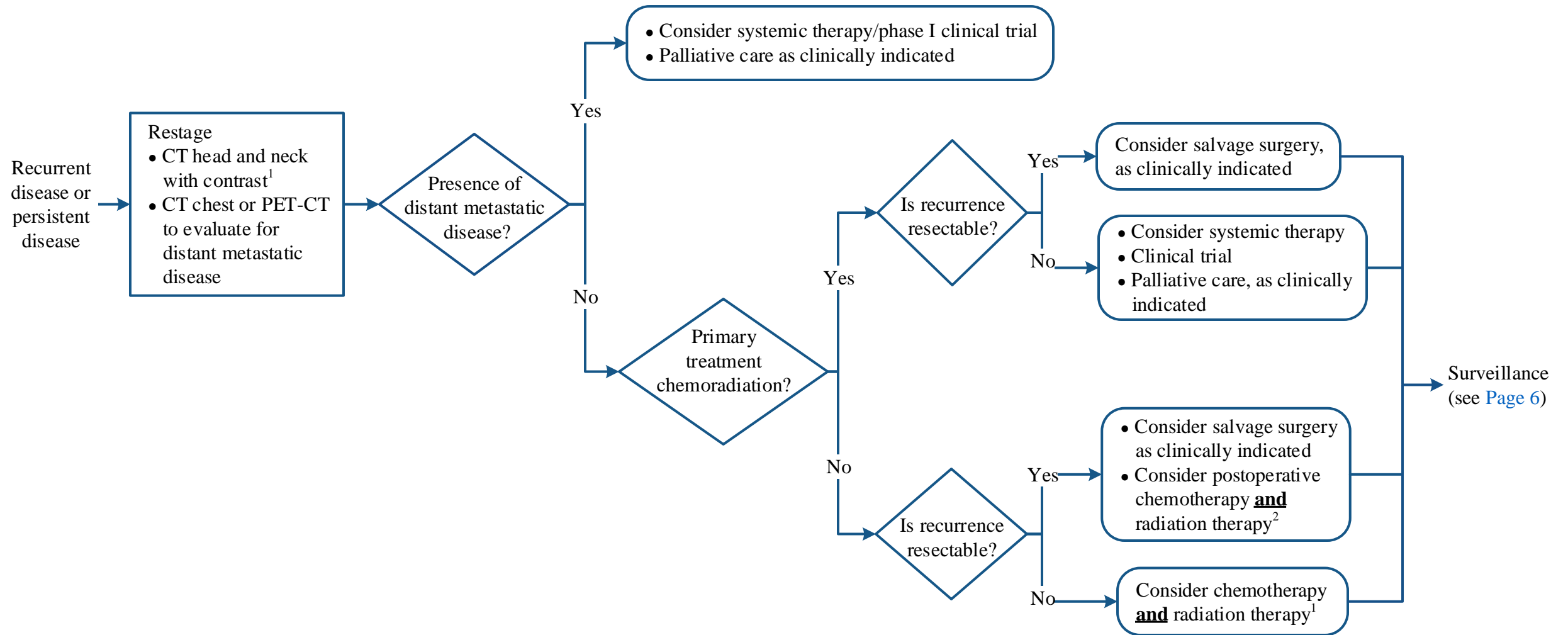
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## CLINICAL PRESENTATION

## RECURRENT TREATMENT



<sup>1</sup> 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

<sup>2</sup> Pathological risk factors should be taken into consideration when making concurrent treatment decisions

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## Larynx Cancer Surveillance

Total years for surveillance				Year 1			Year 2		Year 3	Year 4	Year 5
Frequency of surveillance by month	3	6	9	12	16	20	24	30	36	48	60
Head and neck history and physical exam including flexible laryngoscopy	x	x	x	x	x	x	x	x	x	x	x
Baseline CT <sup>1</sup>	x	x	x	x	x	x	x	x	x	x	x
Chest x-ray (CT chest, if smoker)	x			x			x	x	x	x	x
Thyroid function	x			x			x	x	x	x	x

<sup>1</sup> For T1 glottic cancers, initial post treatment CT may not be indicated



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## SUGGESTED READINGS

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## DEVELOPMENT CREDITS

This practice algorithm is based on majority expert opinion of the Head and Neck 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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