

4.2 Cancer of the Pharynx

Definition

Primary Sites and Subsites. The pharynx (including base of tongue, soft palate, and uvula) is divided into three regions: nasopharynx, oropharynx and hypopharynx.¹

Regional Lymph Nodes. The risk of regional nodal spread from cancers of the pharynx is high. Primary nasopharyngeal tumours commonly spread to retropharyngeal, upper jugular, and spinal accessory nodes, often bilaterally. Oropharyngeal cancers involve upper and mid-jugular lymph nodes and (less commonly) submental/submandibular nodes. Hypopharyngeal cancers spread to adjacent parapharyngeal, paratracheal, and mid- and lower jugular nodes. Bilateral lymphatic drainage is common.²

Metastatic Sites. The lungs are the commonest site of distant metastases; skeletal or hepatic metastases occur less often. Mediastinal lymph node metastases are considered distant metastases.³

4.2.1 Cancer of the Oropharynx

Definition

The oropharynx is bounded by the anterior tonsillar (faucial) pillars anteriorly, the posterior pharyngeal wall posteriorly, the horizontal plane of the hard palate superiorly, and the horizontal plane of the vallecula inferiorly. The oropharynx includes the following anatomic subsites: soft palate, tonsils, base-of-tongue, and

pharyngeal walls (lateral and posterior). Squamous cell carcinomas of the oropharynx present clinically with changes in speech (the so-called “hot-potato” voice), difficulty swallowing, sore throat, (referred) ear pain, trismus or weight loss. Less common symptoms include airway obstruction and conductive hearing loss from middle ear effusion. This area is replete with lymphoid and minor salivary gland tissue, and biopsy is fundamental to rule out neoplasms arising from these tissues.

Staging

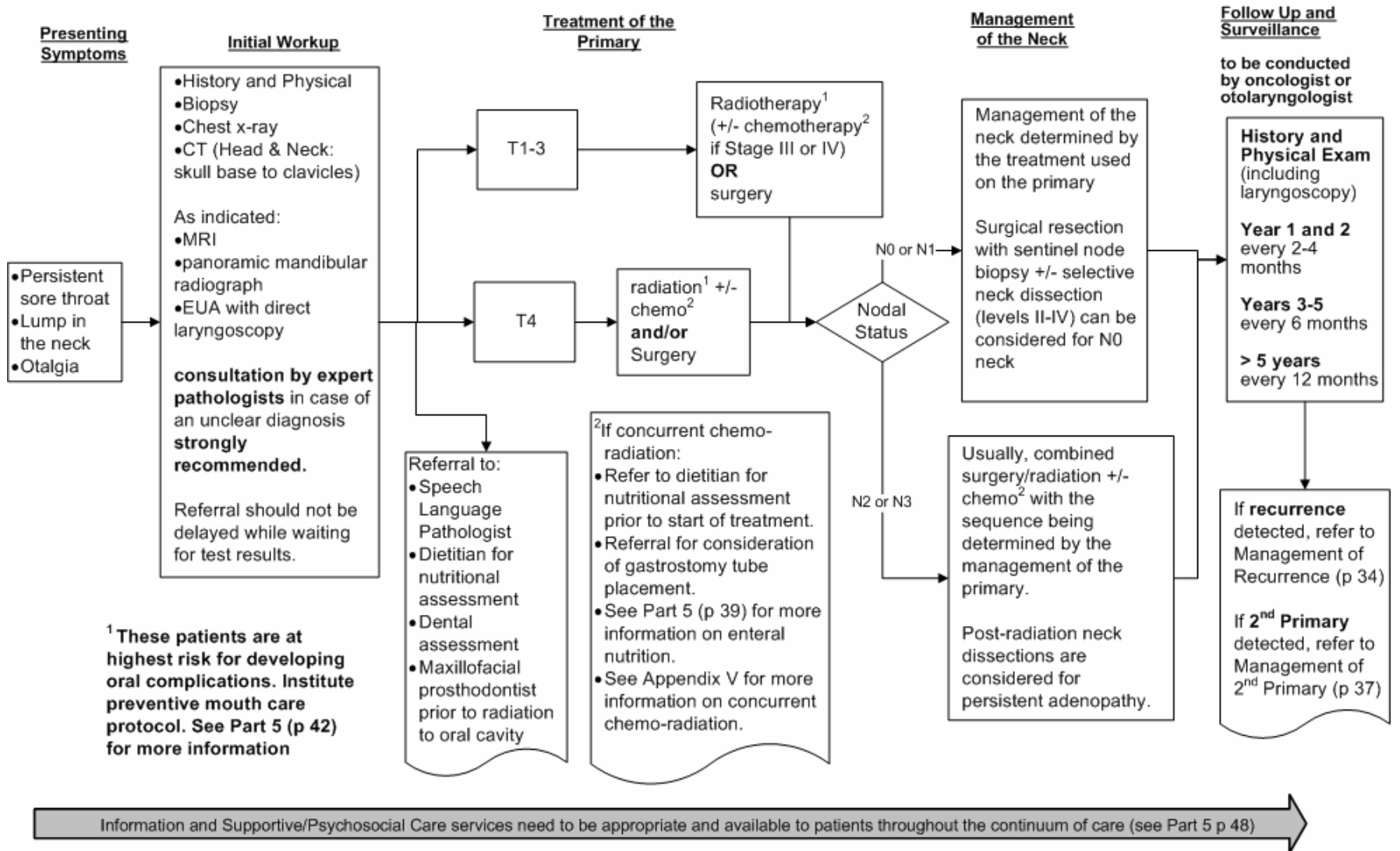
Staging of these tumours is fundamental and directly affects treatment. History and physical examination are supplemented by enhanced axial CT imaging of the neck and a chest x-ray. Tumours approaching the retromolar trigone should be investigated with a panoramic mandibular radiograph to rule out bone invasion. Tissue diagnosis is paramount and biopsy can often be performed under local anesthetic in the outpatient setting. Alternatively, an EUA with direct laryngoscopy approach can be undertaken to map larger tumours and to obtain tissue for diagnosis. Other investigations may be indicated based on symptoms or findings.

1 American Joint Committee on Cancer. Cancer Staging Manual, Sixth Edition New York: Springer-Verlag New York. 2002 p 47

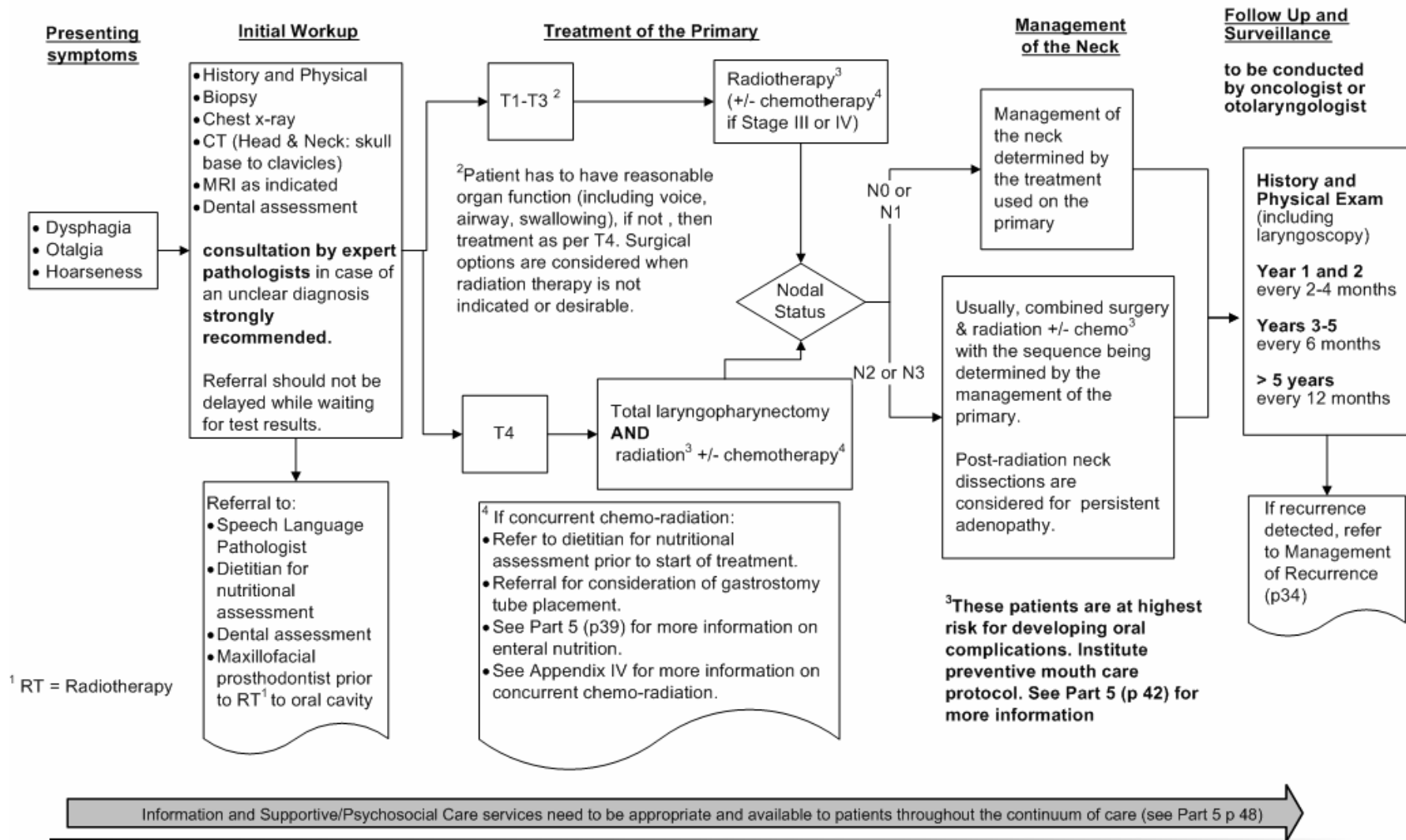
2 Cancer Staging Manual p 48

3 Cancer Staging Manual p 49

Practice Pathway for the Management of Cancer of the Oropharynx



Practice Pathway for the Management of Squamous Cell Carcinoma of the Hypopharynx



4.2.3 Cancer of the Nasopharynx

Introduction

Unlike other head and neck squamous cell carcinomas, cancer of the nasopharynx is not linked to excess alcohol or tobacco use. Etiology may be linked to Epstein-Barr virus, genetic determinates: H2, BW46, B17 antigens on HLA locus or diet (salted fish).

Prognosis is dependent on stage and histology. The 5 year survival for T1 lesion is 67% versus 15% for T4 or N3 or M1. The 5 year survival for type 1 pathology (keratinizing squamous cell carcinoma) is 15% versus 60% for type 3 pathology.

Histology and Pathology

Nasopharyngeal carcinoma (NPC) is defined by the WHO as “a cancer arising in the nasopharyngeal mucosa that shows light or ultrastructural evidence of squamous differentiation. It encompasses squamous cell carcinoma, non-keratinizing carcinoma (differentiated or undifferentiated) and basaloid squamous cell carcinoma. Adenocarcinoma and salivary gland carcinoma are excluded”.

The classification has evolved since the original WHO classification in 1978. The most recent WHO classification (2005) is as follows:

1. Squamous cell carcinoma
2. Non-keratinizing carcinoma
 - a. Differentiated non-keratinizing carcinoma
 - b. Undifferentiated carcinoma
3. Basaloid squamous carcinoma

Type I NPC has definite light microscopic evidence of squamous differentiation (intercellular bridges, keratinization) over most of its extent and is associated with a desmoplastic reaction. It can be graded as well, moderately or poorly differentiated.

Type IIA, differentiated non-keratinizing carcinoma, shows no evidence of keratinization. It often has an appearance similar to that of transitional cell carcinoma of the urinary bladder. The cell margins are distinct.

Type IIB, undifferentiated carcinoma, is sometimes difficult to distinguish from type IIA. It is composed of cells with indistinct margins and round to oval nuclei with prominent round nucleoli. The cells grow in a syncytium. Undifferentiated carcinoma has been designated in the past as lymphoepithelioma.

Types IIA and IIB are strongly associated with EBV. Type I has a weak relationship to EBV. Type III, basaloid squamous cell carcinoma, is extremely uncommon. It consists of basaloid cells with extensive necrosis, with an often small and elusive squamous component.

Practice Pathway for the Management of Cancer of the Nasopharynx

