4.4 Nasal Cavity and Paranasal Sinuses

General Information

The majority of tumours of the paranasal sinuses present with advanced disease, and cure rates are generally poor (50% or less). Squamous cell carcinoma is the most frequent type of malignant tumour in the nose and paranasal sinuses (70%-80%). The cancers grow within the bony confines of the sinuses and are often asymptomatic until they erode and invade adjacent structures.

Generally, the first opportunity to treat patients with head and neck cancers is the most effective, although occasionally salvage surgery or salvage radiation therapy, as appropriate, may be successful. Since most treatment failures occur within 2 years, the follow-up of patients must be frequent and meticulous during this period. In addition, because nearly one third of these patients develop second primary cancers in the aerodigestive tract, a lifetime of follow-up is essential.

Nodal involvement is infrequent. Although metastases from both the nasal cavity and paranasal sinuses may occur, and distant metastases are found in 20% to 40% of patients who do not respond to treatment, locoregional recurrence accounts for the majority of cancer deaths since most patients die of direct extension into vital areas of the skull or of rapidly recurring local disease.

Stage Information

Staging of nasal cavity and paranasal sinus carcinomas is not as well established as for other head and neck tumours.

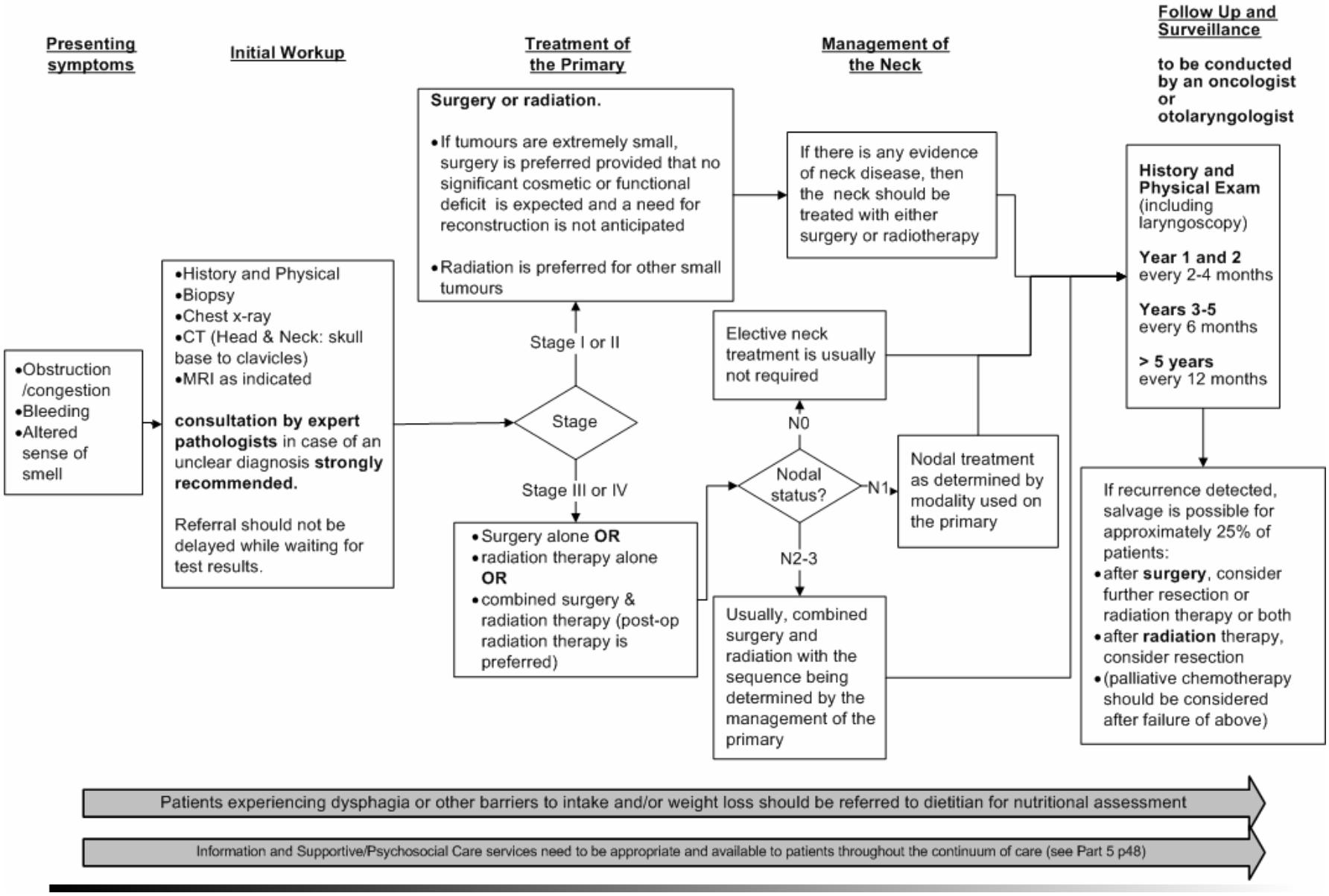
Primary Sites. Cancer of the maxillary sinus is the most common of the sinonasal malignancies. Ethmoid sinus and nasal cavity cancers are equal in frequency but considerably less common than maxillary sinus cancers. Tumours of the sphenoid and frontal sinuses are rare.

The location as well as the extent of the mucosal lesion within the maxillary sinus has prognostic significance. Historically, Ohngren's line, connecting the medial canthus of the eye to the angle of the mandible, is used to divide the maxillary sinus into an anteroinferior portion (infrastructure), which is associated with a good prognosis, and a superoposterior portion (suprastructure), which has a poor prognosis. The poorer outcome associated with superoposterior cancers reflects early access of these tumours to critical structures, including the eye, skull base, pterygoids, and infratemporal fossa.

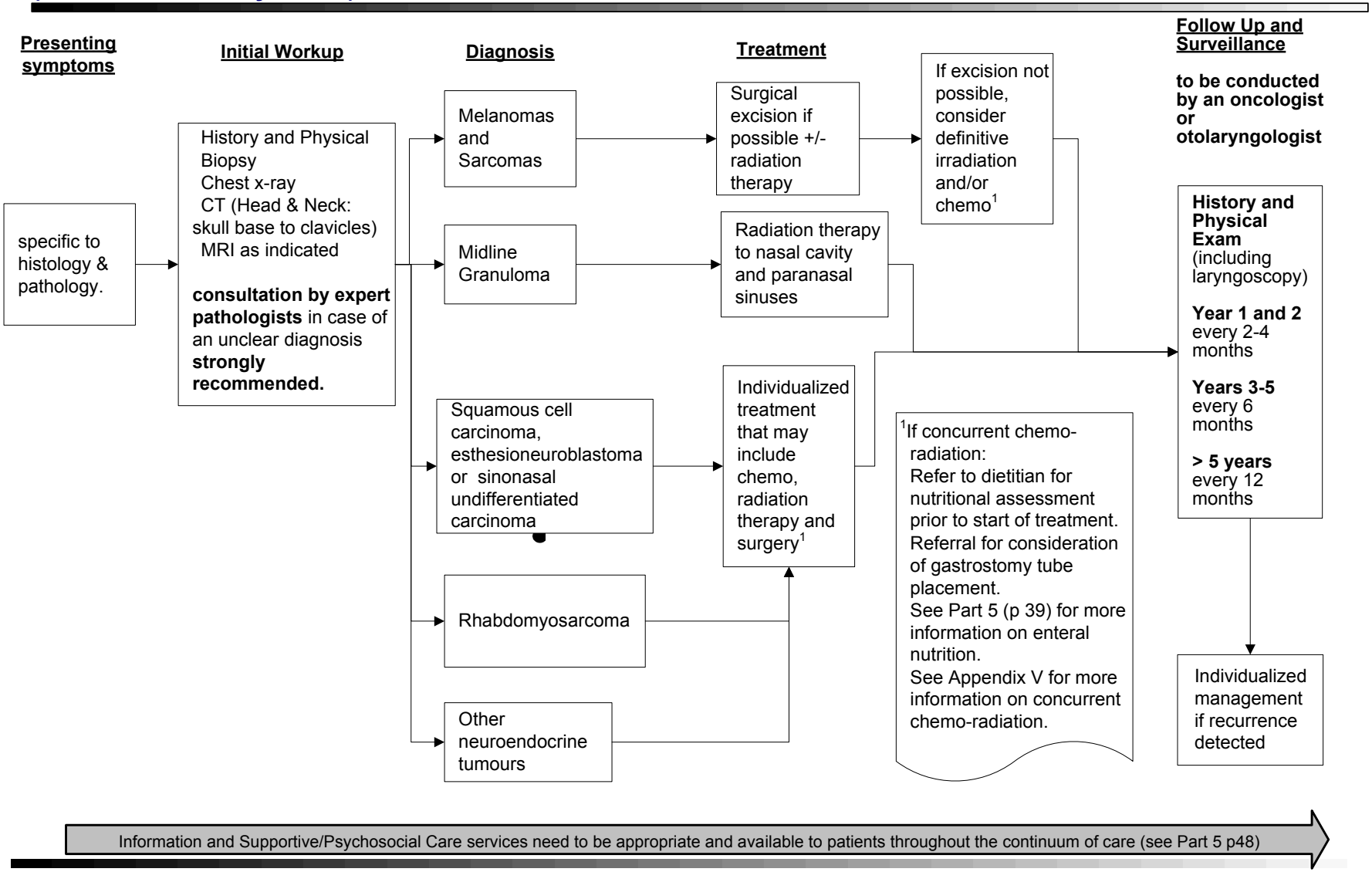
For the purpose of staging, the nasoethmoidal complex is divided into two sites: nasal cavity and ethmoid sinuses. The ethmoids are further subdivided into twosubsites: left and right, separated by the nasal septum. The nasal cavity is divided into four subsites: the septum, floor, lateral wall, and vestibule.

For more detail on the treatment of these sites, please see the National Cancer Institute Physician Data Query (PDQ) cancer information summary. For the most current version of the PDQ summary please go to **http://www.cancer.gov/cancertopics/pdq/treatment/paranasalsinus/healthprofessional/**

Practice Pathway for Cancer of the Nasal Cavity



Practice Pathway for Other Cancers of the Nose, Ethmoid and Frontal Sinuses
(excludes Maxillary Sinus)



Practice Pathway for Cancer of the Maxillary Sinus