

Navigating Patients With Head and Neck Cancer

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Head and Neck Cancer and the Oncology Nurse Navigator

Competencies

- Care Coordination
- Communication
- Education
- Professional Role

Interventions

- Assess and address barriers to care
- Provide education, resources, and referrals
- Facilitate shared decision making
- Promote advance care planning
- Support palliative care

Incidence of HNC

United States:

- 3-5% of all malignancies
- 50,000+ new cases
- 12,000+ deaths
- 436,000 survivors

Worldwide:

- 500,000+ new cases
- 350,000+ deaths

Sources: ASCO (2017); Marur & Forastiere A (2016); Mourad M et al (2017); NCI (2017).

Risk Factors for HNSCC

- Cigarette smoking and excessive alcohol consumption
- Tobacco products
- Betel quid
- Diet
- Oral health
- Viral infection
- Age
- Socioeconomic status
- Gender
- Race
- Radiation exposure

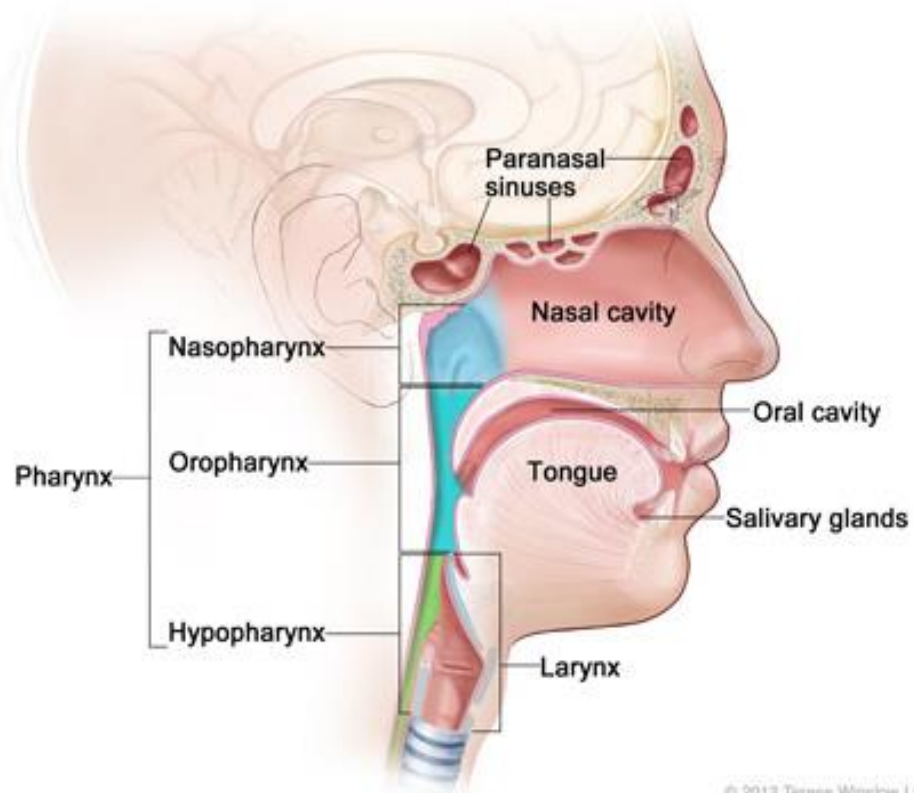
Role of the ONN

- Advocate for oral cancer screening
- Referral to tobacco cessation program
- Education
- Assessing barriers
- Referrals to appropriate providers

HNSCC, Head and Neck Squamous Cell Carcinoma.

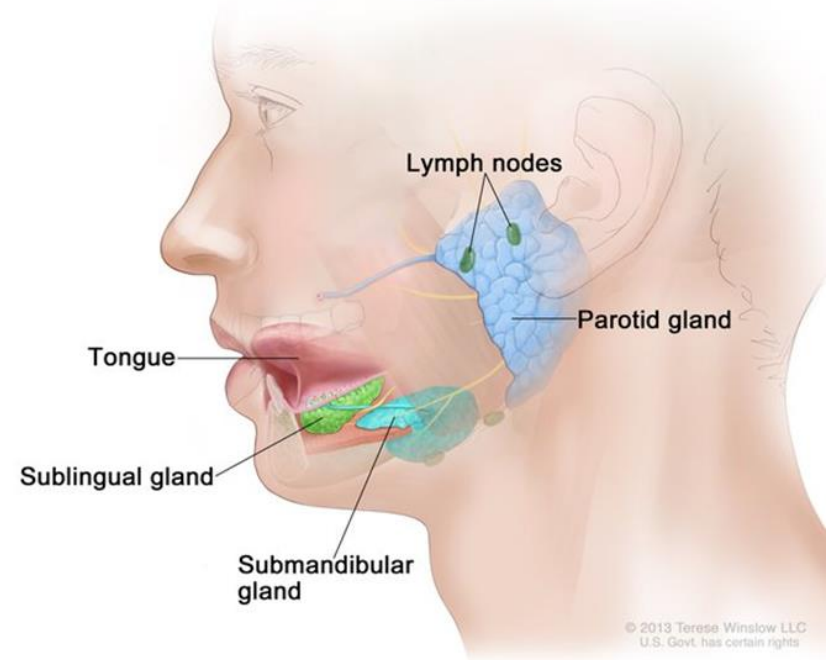
References: Chen, et al (2017); Chu E (2008); Mourad, et al (2017); NCI (2017).

Head and Neck Cancer Regions



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Anatomy of the Salivary Glands

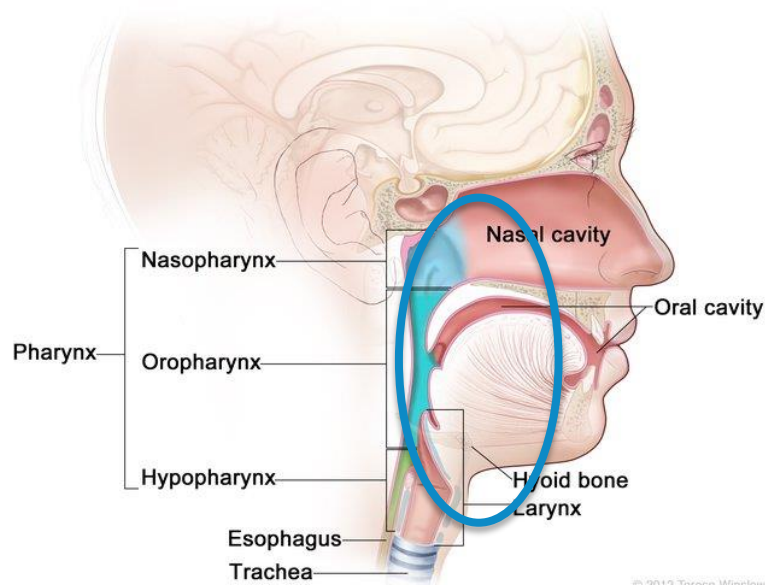


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Badlani, et al (2018); Chu, et al (2018); Marur, & Forastiere (2016); Moustafa, et al (2017); NCI (2017); Vigneswaran (2014).

Human Papilloma Virus in HNC

Anatomy of the Pharynx



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HPV-Related HNSCC

- Widely prevalent viral infection
- Two distinct etiologies in OPC
 - ETOH and tobacco
 - HPV infection
- Incidence is rising while other HNC are declining
- Set to outpace cervical cancer rates by 2025
- Prognosis

ETOH, Ethyl Alcohol; OPC, Oropharyngeal Cancer.

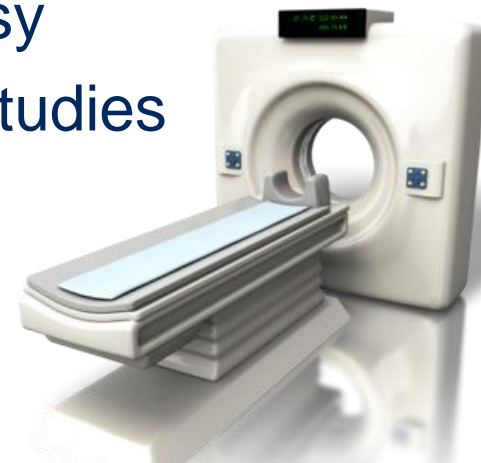
Sources: Berman (2017); Bonanni, et al (2015); Bruni, et al (2017); Chaturvedi, et al (2011); CDC (2013, 2016 & 2017); Giuliano, et al (2011); Guo, et al (2016); Knepper, et al (2015); Singal, et al (2009).

Role of the ONN

- Provide duration, resources, and referrals
- Implications from time of diagnosis to survivorship
- Educational interventions should cover:
 - Explanation of HPV and its relationship to cancer
 - Prevalence and long periods between infection and development
 - Implications for prognosis and treatment
 - Modes of transmission: Protection for future sexual partners
 - Role of vaccine prevention for children
- Resources
 - Online resources (CDC, NCI websites)
 - Evidence-based fact sheets
- Referrals to social worker or therapist for couple's concerns

Diagnosis of HNC

- Screening
- Symptoms
 - Pain
 - Dysphagia
 - Weight loss
 - Respiratory
 - Voice change
 - Neck mass
- Diagnostic Tests
 - Physical Exam
 - Endoscopy
 - FNA/Biopsy
 - Imaging Studies



Diagnosis of HNC: Role of the ONN

- **Assess and address barriers to care**

- ~ Psychosocial
- ~ Financial/Insurance
- ~ Transportation
- ~ Home/family situation

- **Education**

- ~ Knowledge deficit
- ~ Assess for health literacy
- ~ Disease and site specific
- ~ Refer to reliable internet sources
- ~ Factsheets

- **Referrals**

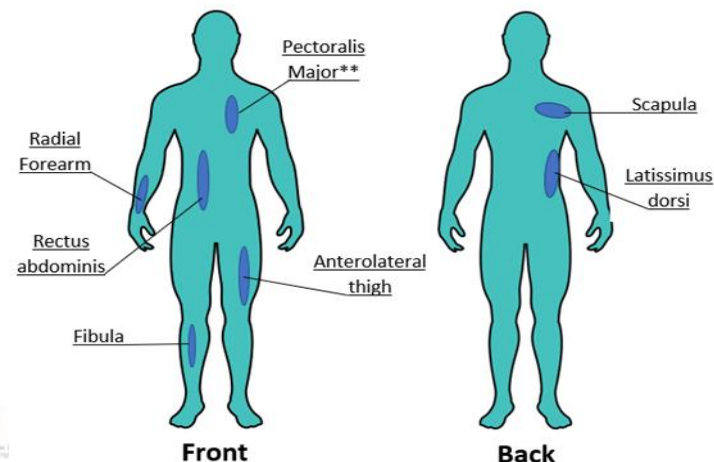
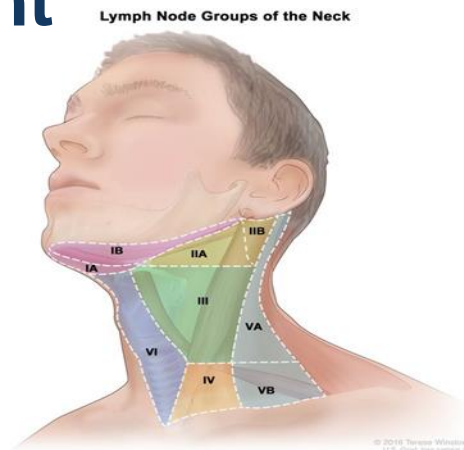
- ~ Dentistry
- ~ Head and Neck Surgery
- ~ Speech therapy
- ~ Registered Dietician
- ~ Social work/psychiatry
- ~ Financial counselor
- ~ Tobacco cessation
- ~ Substance abuse

Members of the Interprofessional Team

- Physicians
- Advanced Practice Nurses
- Registered Nurses
- Dentist, Prosthodontist
- Social Worker
- Speech Language Pathologist
- Registered Dietician
- Pharmacist
- Radiation Therapist, Physicist, Dosimetrist
- Ancillary Staff
- Oncology Nurse Navigator
- Financial Counselor



Surgical Management



Ablative

- Endoscopic evaluation
- Endoscopic resection
- Transoral Robotic Surg-TORS
- Composite resection
- Tracheotomy

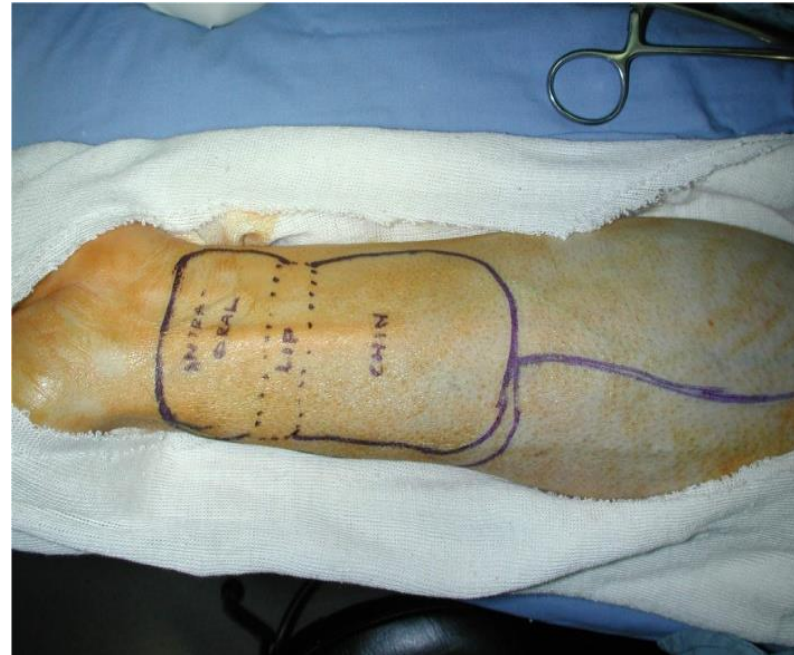
Neck Dissection

- Predictable spread
- Neck dissections
 - Selective
 - Radical
 - Modified radical
- Sentinel lymph node biopsy

Free Tissue Transfer

- Microanastomosis
- Fasciocutaneous
- Myocutaneous
- Osteocutaneous

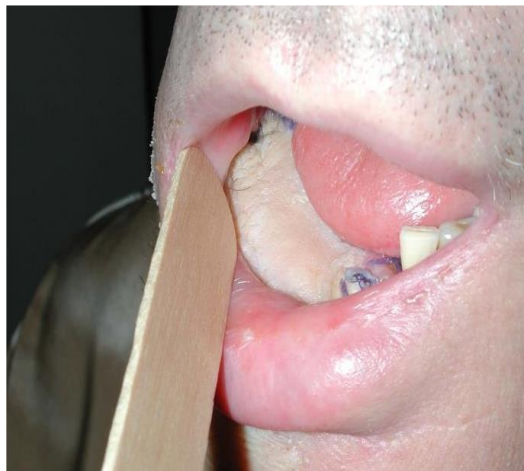
Fasciocutaneous Free Flap Reconstruction



Fasciocutaneous Free Flap Reconstruction



External view of flap
and external incisions



Intraoral view of flap



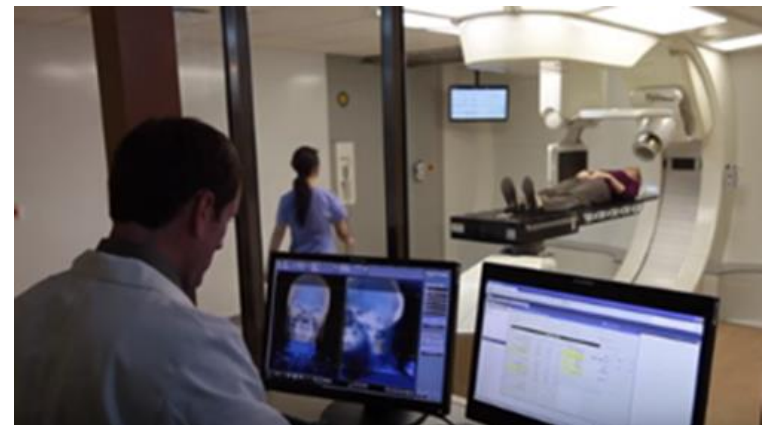
Healing incisions

Surgical Complications

- General surgical complications
- Site specific surgical complications
 - i.e. exposed hardware in mandibular reconstruction
 - Fistula formation in previously radiated
- Surgery in previously radiated tissue
- Delayed or poor healing due to malnutrition
- Nerve injury (CN VII, X, XI, XII, brachial plexus, phrenic...)
- Vascular injury (Carotid, internal jugular, subclavian)
- Cosmetic deformity or functional impairment

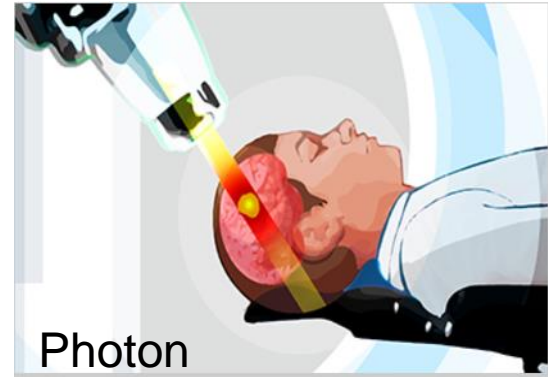
Radiation Therapy

- Treatment based on site, stage, histology
- Typically 6-7 weeks
- Total dose given in daily fractions
- Should start ≤ 6 wks post op
- Given in small doses 5 days/week
- Acute toxicities
- Late toxicities



Radiation Techniques

- External Beam Radiation
- 3-dimensional Conformal Radiation
- Intensity-Modulated Radiation Therapy (IMRT)
- Tomotherapy
- Stereotactic Body Radiation (SBRT)
- Proton Therapy
- Brachytherapy



Toxicities of HNC Radiation Therapy

- Acute
 - Salivary gland dysfunction
 - Dysphagia
 - Radiation dermatitis
 - Orofacial pain
 - Trismus
 - Fibrosis
 - Weight loss - malnutrition
 - Anxiety - depression
- Chronic
 - Salivary gland dysfunction
 - Dysphagia
 - Orofacial pain
 - Trismus
 - Fibrosis
 - Osteoradionecrosis
 - Radiation caries
 - Anxiety - depression

Systemic Therapy

- Selection of systemic therapy
 - Site of disease
 - Goals of therapy
 - Patient status
- Primary systemic therapy + Concurrent RT
- Postop chemoradiation
- Induction/sequential chemotherapy
- Immunotherapy
- Targeted therapy
- Palliative

Oral/Dental Side Effects of Treatment

Surgery

Infection

Trismus

Tooth Loss

Chemotherapy

Infection

Mucositis

Xerostomia

Microdontia (children)

Radiation
Therapy

Infection

Mucositis

Trismus

Xerostomia

Microdontia

Tooth Loss

Fibrosis

Osteoradionecrosis



ONN Role: Dental

- Identification of cancer patients who require dental evaluation and treatment
- Education of patients and family in proper dental care
- Long-term dental side effects of cancer treatment and implications for survivorship
- Identification of barriers to care: insurance, financial, geographic, availability, fear

Speech Therapist

- Voice Rehabilitation
 - Oral cavity surgery; Laryngectomy
- Dysphagia Prevention and Management
 - Refer to speech therapy early for evaluation
 - Specialized swallowing exercises
 - Recommendation for dietary restrictions and fluid consistency
 - Manage late effects of CRT, fibrosis, lymphedema, and neural structure damage

Role of the ONN

Role of the ONN

Assessment:

- Weight loss
- Coughing while swallowing (Aspiration?)
- Food sticking in the throat
- Regurgitation of food into the nasal cavity
- Drooling
- Voice changes

Referral to Speech Therapist

Education: need for compliance in dietary restrictions, reinforcing swallowing exercises as directed

Coordination of care: continued follow up with SLP and RD for management of dysphagia and nutritional management

Registered Dietician

- HNC patients are at high risk of malnutrition due to:
 - Alcohol and tobacco
 - Oral side effects, fatigue, nausea, vomiting, diarrhea, constipation, and depression
- Malnutrition increases morbidity
- Importance of nutritional screening and intervention
- Enteral tube placement (Gastroscopy, NG) for nutritional support

Role of the ONN

Role of the ONN

Assessment:

- Amount of weight recently lost (intentional and unintentional)
- Presence of dysphagia, odynophagia, trismus, location of tumor
- Alcohol intake

Referrals: Registered Dietician; Speech Therapist

Barriers to care:

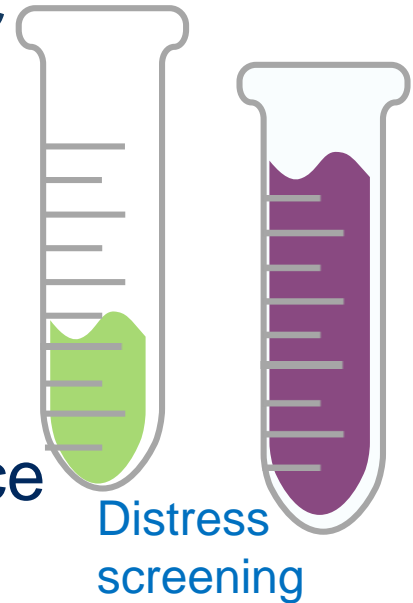
- Cost of supplements
- Cost of supplies
- Presence or absence of feeding tube
- Ability to perform self-care

Education:

- Reinforce dietary regimen and associated restrictions
- Care of feeding tube, self-administration of enteral feedings

Psychosocial Aspects of HNC

- Physical
- Emotional/psychological
- Interpersonal relationships
- Social stigma
- Continued substance abuse or dependence
- Financial distress
- Impacts on employment status and productivity



Body Image Disturbances: Surgery & Radiation

- Visible scars
- Changes in facial contours
- Changes in facial animation/expression
- Dysphagia
- Visual changes
- Dysgeusia
- Anosmia
- Lymphedema
- Skin changes
- Fibrosis
- Alopecia

Survivorship

- End of treatment visit
- Care plan
- Surveillance
- Symptom management
- Referrals to other specialty services to manage and treat long-term side effects of HNC and treatment

Case Study: Surgical Management Oral Cavity Cancer

- 45-year-old female
- Oromandibular squamous cell carcinoma
- Non-smoker



Composite Resection Scapular Free Flap



Pathologic Review



Results

Consider:

- Cosmesis
- Function
- Need for prosthetics
- Speech
- Swallowing
- Trismus



Questions



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