



Head and Neck Cancer Screening and Prevention

Background

Worldwide, approximately 650,000 new patients are diagnosed with head and neck cancers annually – resulting in more than 330,000 deaths each year. More than 90 percent of head and neck cancers (excluding skin cancers) arise from the mucosal layers of the oral cavity, oropharynx and larynx.¹ Oral and oropharyngeal cancer accounts for 1.6 percent of all cancer deaths in the United States.²

Risk Factors

Major risk factors for oral and oropharyngeal cancer include tobacco use, alcohol consumption, the synergistic interaction of tobacco use and alcohol consumption, betel quid (“paan”) chewing, infection with certain strains of the human papillomavirus, and a previous history of oral and oropharyngeal cancer.^{2,3,4,5,6} Individuals with rare inheritable diseases and other disorders – such as Fanconi anemia, Li-Fraumeni syndrome, dyskeratosis congenita, Bloom syndrome, Plummer-Vinson syndrome and acquired immunodeficiency – also are at increased risk for developing head and neck cancer.^{2,4,5,7}

Screening

The five-year relative survival rate after being diagnosed with oral or oropharyngeal cancer is approximately 65.3 percent. Improved survival rates are seen at earlier stages of diagnosis – 84.4 percent for localized disease, 66 percent for regional lymph node metastasis and 39.1 percent for distant metastasis. Unfortunately, 67 percent of all new cases of oral and oropharyngeal cancers are diagnosed at a late stage (having regional and/or distant spread).⁸ A delay in the diagnosis of oral cancer has been shown to increase the risk for advanced stage and mortality, highlighting the importance of early identification and diagnosis.⁹

Currently, there is a lack of evidence to either support or refute the benefit and cost-effectiveness of screening the general population for head and neck cancer. However, there is evidence that a visual examination as part of an

opportunistic screening – or screening as part of a periodic health examination – has been effective in reducing the mortality rate of oral cancer in high-risk individuals who use tobacco and/or alcohol.^{10,11,12} Adjunctive technologies – such as toluidine blue, cytologic testing, autofluorescence, tissue reflectance and salivary adjuncts – have demonstrated limited diagnostic accuracy to routinely be used as screening tools for head and neck cancer.^{12,13}

Based on the current evidence available, the American Association of Oral and Maxillofacial Surgeons (AAOMS) recommends healthcare providers conduct a history with risk assessment of patients regularly and perform a visual and tactile exam of the head and neck in patients identified as having risk factors and/or signs and symptoms for oral and oropharyngeal cancer. For dental providers, it is recommended that a thorough head and neck exam be performed at each dental visit.

For patients who have already been treated for head and neck cancer, AAOMS supports the follow-up recommendations outlined by the National Comprehensive Cancer Network (NCCN) to evaluate for both recurrence of the initial cancer and development of a second primary cancer.

The NCCN follow-up recommendations for head and neck cancers include:

- Year 1: every one to three months
- Year 2: every two to six months
- Years 3 to 5: every four to eight months
- Beyond 5 years: every 12 months

Patients who have a surgically unexcisable or recurrent dysplastic oral lesion should also be followed. Biopsies may be performed as needed for suspicious changes in these lesions.

The recommended history risk assessment with a visual and tactile head and neck exam should follow the protocol described by the National Institute of Dental and Craniofacial Research (NIDCR) and the World Health Organization (WHO).

Any suspicious lesions or masses (e.g., leukoplakia, erythroleukoplakia, erythroplakia, ulcerated lesions, oral submucous fibrosis) should be evaluated and considered for biopsy for a definitive diagnosis or referred to a specialist for evaluation and monitoring.

Position Paper



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