### **Oral Cancer Facts**

- Slightly more than 53,000 Americans will be diagnosed with oral cancer in 2020.
- Worldwide the problem is much greater, with new cases exceeding 640,000 annually.
- In the US, approximately 132 new individuals each day will be diagnosed with oral cancer.
- The fastest growing segment of the oral/oropharyngeal cancer population comes from HPV16, a virus that goes unnoticed with no precancerous signs.
- Approximately one person every hour of every day 24/7/365 will die from oral cancer in the US alone.
- While not related to biology, oral cancer occurs in blacks 2 to 1 over whites.
- Oral cancer occurs in men 2 to 1 over women.

#### **Risk Factors**

- Tobacco use in all of its forms and alcohol are major risk factors for developing oral cancer.
- While the vast majority of oral cancers (front/anterior of mouth) are related to tobacco and alcohol, about 10% of these cancers come from unknown causes. This includes all three types of cancers found in the oral environment: Squamous Cell Carcinoma (SCC), Adenoid Cystic Carcinoma (ACC), and Mucoepidermoid Carcinoma (MEC).
- The unknown etiology cancers may arise from a genetic aberration or frailty or from a yet unidentified common shared lifestyle risk factor.

# **Signs and Symptoms**

- Any sore or ulceration that does not heal within 14 days.
- A red, white, or black discoloration of the soft tissues of the mouth.
- Any abnormality that bleeds easily when touched (friable).
- A lump or hard spot in the tissue, usually border of the tongue (induration).
- Tissue raised above that which surrounds it; a growth (exophytic).
- A sore under a denture, which even after adjustment of the denture, that does not heal.
- A lump or thickening that develops in the mouth.
- A painless, firm, fixated lump felt on the outside of the neck, which has been there for at least two weeks.
- All the above symptoms have the commonality of being persistent and not resolving.

# Additional signs found through verbal inquiry

- Patient reports sensation that something is stuck in their throat when swallowing or other difficulty in swallowing.
- Patient reports ear pain that occurs on one side only.
- Patient reports unexplained numbness in the mouth or lips.
- Patient reports hoarseness or sore throat that does not resolve within a few weeks.

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### Overview of HPV and Oral/Oropharyngeal Cancers

There are two distinct pathways by which most people come to oral/oropharyngeal cancers. One is through the use of tobacco and alcohol, which is a long-term problem and historic cause. While the historic tobacco cause has leveled off in incidence, a new etiology is increasing the incidence of these cancers. HPV (Human Papilloma Virus) is the most commonly sexually transmitted virus in the US. HPV oral/oropharyngeal cancers and tobacco/alcohol oral cancers produce very different signs and symptoms, and the anatomical sites they affect are different as well. Here is a quick overview of what you need to know about HPV related oral/oropharyngeal cancers.

- There are nearly 200 strains of HPV. HPV16 is the version most responsible for oropharyngeal (very back of the mouth, areas such as the base of the tongue, the back of throat and tonsils) cancers and it affects both males and females. HPV16 also causes five other cancers, having the most impact in cervical cancer.
- The CDC (Centers for Disease Control) says nearly all sexually active Americans will develop an HPV infection during their lifetime. Almost all HPV infections occur early in peoples' sexual experiences, i.e. their teens and 20's.
- HPV is transmitted through conventional vaginal and oral sex, through skin-to-skin contact, not through body fluid transmission (i.e. saliva and semen). Approximately 99% of people who develop an HPV oral infection will clear the virus on their own. In approximately 1% of individuals the immune system does not clear the virus and it can lay dormant for decades before potentially causing a cancer.
- An important problem with HPV infections is that those who have them will not develop signs or symptoms they will be aware of. Most people will become infected, naturally clear the infection, and never know either event occurred. Only when HPV is producing a cancer will symptomatology develop that they might notice. This is the danger of HPV caused cancers because there are no precancerous warning signs.
- Currently about 72% of all oropharyngeal cancers are the results of an oncogenic HPV infection.
   HPV viruses cause very few front/anterior mouth cancers.
- White, non-smoking males in their 40's and 50's are the most at risk, 4 to 1 over females.
   Remember, these infections occurred in their early sexual experiences, not in their fourth or fifth decade of life.
- Over 16,000 men will develop an oropharyngeal cancer in 2020.
- Over 3,000 women will develop an oropharyngeal cancer in 2020.

#### **HPV Etiology Oropharyngeal Cancer Signs and Symptoms**

- Hoarseness or sore throat that does not resolve within a few weeks.
- A painless, firm, fixated lump felt on the outside of the neck, which has been there for at least two
  weeks.
- Constant coughing that does not resolve after many days.
- Difficulty swallowing; a sensation that food is getting caught in your throat.
- An earache on one side (unilateral) that persists for more than a few days.
- All the above symptoms have the commonality of being persistent and not resolving.