

Oral Cancer:

An important and often scary subject

10am–12:30pm • 2.5 CEU Sacramento District Dental Society February 10, 2017

- Worldwide the problem is far greater, new cases annually exceed 640,000
- Approximately 48,250 people in the US will be newly diagnosed with oral cancer in 2016; about 132 per day! and 9575 will die from this. (www.oralcancerfoundation.org)
- 90% of oral cancer occurs in patients 45 years or older, which encompasses "all" 84+M Baby Boomers (www.oralcancerfoundation.org)
- Death rate for oral cancer higher than cervical cancer, Hodgkin's disease, cancer of the brain, liver, testes, kidney, or skin cancer (malignant melanoma).

What is Oral Cancer?

- . Cancer cells develop as a result of a mutation or change that occurs to the DNA in genes. Some mutations are caused by inherited factors while other mutations occur for no known reason.
- . The mutation that occurs in the gene results in an abnormal cell that can develop into cancer.
- . Mutations can be found through genetic testing.

Oral Cancer Facts

- . One person dies every hour from oral cancer
- . Survival rate has not changed significantly in over 40 years
- . Late detection: 70% of oral cancer lesions identified during visual exam are detected in stages III and IV

Oral Cancer Risk Profile

- . Increased risk
 - Patients age 40 and older (95% of all cases)
 - 18-39 years of age combined with the following:
 - Tobacco use
 - Chronic alcohol consumption
 - Oral HPV infection
- . Highest risk
 - Patients age 65 and older with lifestyle risk factors
 - Patients with history of oral cancer

Cancer Screening

- . "A means of detecting disease early in asymptomatic people".
- . "Positive results of examinations in cancer screenings are usually not diagnostic but identify persons at increased risk for the presence of cancer who warrant further evaluation."
 - National Cancer Institute www.cancer.gov

CARE

CARE (Customizable Assessment and Risk Evaluator) tool

Based on your evaluation and the clinical data you provide, the CARE tool will generate an assessment and make recommendations for you to consider — showing your patient’s low, moderate, high or extreme risk factors. You’ll then be given instructions that will help you manage your patient’s ongoing oral health.

Philips Oral Healthcare www.philipsoralhealthcare.com/en_us/care/

Become involved!

Oral Cancer Foundation Message ~

“The RDH community is uniting to be part of the much needed change, moving us from a history of late discovery and diagnosis of oral cancers to a world in which a disease is found at early survival stages. With your commitment to perform opportunistic oral cancer screenings on all your patients you could discover suspect tissues and even cancers themselves. You and the screenings you do are the beginning of the end of oral cancer! “

Oral Cancer Foundation www.oralcancerfoundation.org

Oral Cancer High Risk Sites

- . Lateral tongue
- . Lip
- . Anterior floor of the mouth
- . Soft palate, including anterior and posterior tonsillar pillars and uvula
(Most aggressive lesions)
- . Ventrolateral tongue
- . Retromolar trigone
- . Buccal mucosa

★ Recognition of traditional / new risk factors

- . High risk of producing second, primary tumors.
- . From a gender perspective, the ratio is 2 men to each 1 women are affected.
- . Occurs twice as often in the black population as in whites, survival statistics for blacks over five years are also poorer at 33%, versus 55% for whites.
- . Smokeless Tobacco
Not proven to be *any* safer to those who use it when referring to oral cancers.

E-cigarettes may contain harmful substances. However, the types or concentrations of chemicals, including nicotine, vary based on the brand. Because e-cigarettes have only been readily available in the United States since 2006, there is limited research on their health risks.

Prolonged use of smokeless tobacco products can lead to serious health issues, such as cancer and heart disease. Some smokeless tobacco contains greater amounts of nicotine—three to four times more—than cigarettes. These products also contain numerous substances that increase the risk of

cancer of the mouth and throat. Chewing tobacco also may lead to white patches, called leukoplakia, on the gums, tongue, or lining of the mouth. Although most of these are noncancerous, some show early signs of cancer, and oral cancer often occurs near patches of leukoplakia. Chewing tobacco and other forms of smokeless tobacco can also cause gum disease and increase tooth decay.

<http://www.cancer.net/navigating-cancer-care/prevention-and-healthy-living/stopping-tobacco-use-after-cancer-diagnosis/health-risks-e-cigarettes-smokeless-tobacco-and-waterpipes>

- . A small percentage of people (under 7 %) do get oral cancers from no currently identified cause. It is currently believed that these are likely related to some genetic predisposition.

★ New research

- . DNA changes ~ mutation of the *p53* gene
- . Chemoprevention

★ Various Treatments

- . Surgery
- . Chemotherapy
- . Radiotherapy
- . Targeted Therapy
- . Vaccines
- . Gene Therapy

★ Educate to improve success rate

Cancer of the oral cavity includes:

- . Lips
 - . Tongue
 - . Salivary glands
 - . Periodontal tissues
 - . Mouth
 - . Pharynx
 - . Oropharynx
 - . Hypopharynx / floor of the mouth
- Overall, only a fraction (~20%) of Americans receives an oral cancer examination.
 - An inspection of the oral cavity is often part of a physical examination in a dentist's or physician's office. High-risk individuals visit their medical doctors more frequently than they visit their dentists. Although physicians are more likely to provide risk-factor counseling (such as tobacco cessation) they are *less* likely than dental professionals to perform an oral cancer examination.

Common Symptoms

- . White patches (*leukoplakia*) are the most common
- . Mixed red and white patches (*erythroleukoplakia*)

- . Red patches (*erythroplakia*) A sore on lip or inside mouth that won't heal
- . Bleeding in mouth, loose teeth
- . Difficulty or pain when swallowing
- . Difficulty wearing dentures
- . Lump in neck
- . Earache
- . Sore throat, hoarseness

★ Embrace old and new modalities for screening

Standard oral cancer screening

- . Self Examination
 - o Teach your patients to do this at home
- . In office examination on a routine basis (annually at a minimum)
 - o Educate them so they understand what you are doing and why!
 - o Review with all team members on a regular basis how to perform a complete exam including documentation and education.

Guideline for the Early Detection of Oral Cancer in British Columbia 2008
http://www.bccancer.bc.ca/screening-site/Documents/OC_Guideline_2008.pdf

★ Adjunctive Screening Tools!!

VELscope www.velscope.com

- . Patented Technology
 - o VELscope is an adjunctive device that uses a narrow band of blue light and specialized filtering technology to help evaluate oral mucosa for abnormal areas of concern, such as potentially cancerous lesions that can be non-apparent under white light.
- . Based on direct visualization of human tissue fluorescence as an aid to identifying disease.
- . The VELscope Handpiece emits a safe blue light into the oral cavity, which excites the tissue from the surface of the epithelium through to the basement membrane (where premalignant changes typically start) and into the stroma beneath, causing it to fluoresce. The tissue's fluorescence response typically changes when abnormalities are present.
- . Aids in the early discovery of diseased (e.g., precancerous or cancerous) tissue that may otherwise go unnoticed
- . Allows for photo-documentation of suspicious tissue for follow-up or referral to a specialist.

Identafi www.identafi.net

- Uses white, violet and amber wavelengths of light to excite oral tissue in distinct and unique ways. Biochemical changes can be monitored with fluorescence, while morphological changes can be monitored with reflectance. The combined system of fluorescence and reflectance uses the body's natural tissue properties as an adjunctive tool for oral mucosal examination.
- Conventional examination of tissue is performed using a highly concentrated **White** light. Wearing reusable Identafi filtered eyewear to enhance visual effects and allow transmission of reflected light, the health professional then switches to Violet for a second observation.

- The clinician's photosensitive glasses block the violet excitation light and allow the observance of the tissues natural fluorescence. **Violet** light enhances normal tissue's natural fluorescence; however, suspicious tissue appears dark because of its loss of fluorescence.
- When suspect abnormalities are present the selector is switched to **Amber** light, which enhances normal tissue's reflectance properties so the clinician may directly observe the difference between normal and abnormal tissue's vasculature. This independent view of vascular architecture may assist in the assessment of confounders when screening and diagnosing oral cancer.

Oral ID www.oralid.com or <http://www.forwardscience.com/oralid>

- Fluorescence technology uses a blue light that allows a clinician to identify oral cancer, pre-cancer and other abnormal lesions at an earlier stage, thus saving lives.

Oscan

Oral cancer screening app for Smart Phone

<http://web.stanford.edu/~manup/Oscan/>

<http://med.stanford.edu/ism/2012/april/vodaphone-0417.html>

http://www.huffingtonpost.com/2012/04/20/oscan-oral-cancer-stanford_n_1438868.html

★ Understand recording and documentation of the screening process – Q & A ★

1. What are a dentist's responsibilities regarding the diagnosis of oral lesions and what is the diagnostic protocol that should be followed?
2. If the dentist observes a suspicious area, should he or she document it thoroughly in the patient's dental record with regard to size, shape, consistency, color and duration?
3. If the dentists chooses to delegate responsibility to one of their staff is that acceptable?
4. How should the office handle referrals of their patients?
5. How do I tell my patient they need a biopsy ?

★ Effectively communicate with your patients

- Routine medical health history
 - Always signed by the patient
 - Routine Oral Cancer screening at least annually
 - Routine radiographs
 - Photographs of lesion, as exact a description of the location of the lesion as possible
 - Follow-up notes should be thorough and *signed or initialed by the dentist*.

- Proper staff training

- Document the cases
 - Use available New Technology!!

- Timely referrals

★ Promote referrals and recognize how to do proper case management

Risk Management

- Failure to diagnose oral cancer is the #2 cause of dental malpractice

- These are the most expensive malpractice suits and most difficult to defend
 - Awards typically exceed \$1,000,000.00 USD
JADA Nov 2005, Vol 136, No 11, 1566-1567. CHARLES P. HAPCOOK SR., D.D.S., F.A.C.D.

- Reviewing auxiliary staff members' findings.

- Recording details of lesions.

- Obtaining photographs.

- Recording patient discussions.



These recommendations should not be construed as rigid clinical or legal guidelines.

If/when a lesion appears benign and a report does not diagnose it as malignant, the dentist must still routinely evaluate and document on an ongoing basis.

The discussion on Risk Management reflects the need for consistent attention to all details from regular examinations, patient/staff communication and administrative detail. Strict attention to referral adherence by the patient as well as timely responses from the Oral Surgeon, etc. should be calendared and followed through by the dentist.

Educate your patients on the need as well as importance of regular dental appointments not only for dental health but for overall total health!

RESEARCH INFORMATION

British Columbia Cancer Agency www.bccancer.bc.ca

American Cancer Society www.cancer.org

American Cancer Society Cancer Facts 2013:
www.cancer.org/acs/groups/content/@epidemiologysurveillance/documents/document/acspc-036845.pdf

National Cancer Institute www.cancer.gov

Support for your patients:

Oral Cancer Foundation www.oralcancerfoundation.org

SEER Program www.seer.cancer.gov

The Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute is the most authoritative source of information on cancer incidence and survival in the United States.

SPOHNC www.spohnc.org 800-377-0928

Support for People with Oral, Head, and Neck Cancer

Offers free telephone support for survivors and their families, as well as resources and referrals on all aspects of oral and head and neck cancer; also has a “survivor-to-survivor network;” and resource and product information, including a free resource guide called “We Have Walked in Your Shoes”

Head and Neck Cancer Alliance www.headandneck.org 1.866.792.4622

Campaign for Tobacco-Free Kids www.tobaccofreekids.org

References:

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<http://www.dentistryiq.com/articles/2015/05/10-steps-to-perform-an-oral-cancer-screening.html>
- ⇒ Introduction: Swallowing a sponge on a string could help detect oral cancer, and turmeric antioxidant shows treatment promise May 14, 2015 By Maria Perno Goldie, RDH, MS
<http://www.dentistryiq.com/articles/2015/05/introduction-swallowing-a-sponge-on-a-string-could-help-detect-oral-cancer-and-turmeric-antioxidant-shows-treatment-promise.html>
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<http://www.bccancer.bc.ca/HPI/CancerManagementGuidelines/HeadnNeck/default.htm>
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