Oral Cancer--Minimal Elements for
Screening, Diagnosis, Treatment, Follow-up, and Care Coordination
Office of Oral Health and Center for Cancer Surveillance and Control
Maryland Department of Health and Mental Hygiene
August 2001; Revised July 2005

Major Changes

1. Defined a tobacco user as someone who is a current or past user.

2. Added Section III. C., which defines the individuals who can perform a comprehensive oral cancer exam.

3. Added Section III. D., which lists the equipment needed to perform an oral cancer exam.

4. Section V. D., if the excisional or incisional biopsy shows atypia and the lesions still persists after 2-4 weeks, a repeat incisional or excisional biopsy (not a brush biopsy) should be performed.

5. Section V. E., the Committee reiterated that if brush biopsy results are "atypical," the only option is referral for excisional or incisional biopsy (not a brush biopsy).

6. Deleted the specific Staging information previously in the Attachment. Staging information varies by site of cancer and it is difficult to summarize the staging for all cancers of the lip, oral cavity, pharynx, salivary glands, etc. See AJCC manual for specific information.

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These are the current minimal elements to be used by the Oral Cancer Screening Program subject to new screening and diagnostic tools that will become available.

I. Definition

"Oral cancer" is defined as cancer of the mouth and pharynx including cancer of the lips, tongue, floor of the mouth, palate, gingiva, alveolar mucosa, buccal mucosa, oropharynx, tonsils, uvula, or salivary glands.

II. Risk factors for oral cancer include:

- Personal history of oral cancer (these people are at risk for primary tumor recurrence and for a second primary tumor)

- Tobacco use (current or past):
  - Smoking: cigarettes, cigars, pipes, or other methods of smoking
  - Spit tobacco: chewing tobacco, snuff, or other smokeless tobacco exposure

- Chronic and/or heavy alcohol use (a person who drinks alcohol to excess habitually)

Other factors can increase the risk of oral cancer: nutritional deficiencies; sunlight exposure; chronic candidiasis; infection with viruses such as human papillomavirus, herpes simplex and Epstein Barr virus.

III. Screening and Risk Reduction

A. Screening and risk reduction for those at AVERAGE RISK of oral cancer

"Average risk" includes individuals 40 years and above, without any history of tobacco use or regular alcohol use, without other risk factors, and with no suggestive symptoms.

i. <u>Actions</u>
- Perform comprehensive <u>oral cancer examination</u> yearly
  - Perioral and intraoral soft tissue exam by visualization and palpation
  - Extraoral exam by visualization and bi-manual palpation
- Educate on risk factors and preventive measures, e.g., avoiding tobacco, alcohol, sun, and using sun block lip balm

B. Screening and risk reduction for those at INCREASED RISK of oral cancer

"Increased risk" or "high risk" for oral and pharyngeal cancer includes individuals 40 years and above who have a personal history of oral cancer, use tobacco (current or past user), or have chronic or heavy alcohol use.

i. Actions

- Perform comprehensive oral cancer examination at least yearly
- Perioral and intraoral soft tissue exam by visualization and palpation
- Extraoral exam by visualization and bi-manual palpation
- Counsel on tobacco use cessation, alcohol use cessation or reduction, and other risk factor reduction (e.g., sun block lip balm)

C. Individuals who can perform a comprehensive oral cancer exam

Dentists, dental hygienists, physicians, physician assistants, and nurse practitioners can all perform a comprehensive oral cancer exam in Maryland. Continuing education training on how to conduct and oral cancer exam should be based on standards set forth by the National Institute of Dental and Craniofacial Research.

D. Equipment needed to perform an oral cancer exam

Screening can be done in any setting. Equipment should consist of appropriate lighting (flash light or pen light) gauze, gloves, mask, mouth mirror or tongue blade—special chair is optional.

IV. Result Categories

A. Negative comprehensive oral cancer examination: negative findings on perioral, intraoral, and extraoral exam

B. Positive comprehensive oral cancer examination

Positive oral cancer examination may include:

Extra-oral examination

- enlarged regional lymph nodes
- facial asymmetry
- parotid mass
- perioral skin discoloration
- other palpable masses

Perioral and Intraoral soft tissue examination

- discoloration
- surface abnormalities
- induration
- ulcerations
- erythroplakia
- leukoplakia
- proliferative verrucous leukoplakia
- erythroleukoplakia
- vascular lesions
- variation in size or texture of or asymmetry in the following areas:

- lips, labial mucosa, buccal mucosa, gingiva, tongue, floor of the mouth, tonsils, uvula, oropharynx, hard and soft palate

C. Exam Positive for other findings: Other oral examination findings may include:

- thyroid gland enlarged or nodular
- gum disease
- tooth decay, abscess, etc.

V. Actions and Follow-Up

A. Actions and follow-up of NEGATIVE oral cancer examination findings

♦ Recommend annual oral cancer examination

B. Actions and follow-up of "positive for other oral examination findings"

♦ Recommend follow-up by appropriate dental or medical care provider

C. Actions and follow-up of POSITIVE oral cancer examination findings

♦ For mucosal lesions that appear cancerous or are large and suspicious for cancer, non-mucosal lesions, lymph node enlargement, or skin abnormalities:

- Refer for biopsy (excisional or incisional; scalpel, punch, or needle) to grade and stage the lesion or to rule out cancer

♦ For mucosal lesions that are small (<2cm), innocuous lesions that are of questionable significance:

- Ask if the patient has noticed the lesion and ask how long it has been present
- Advise to stop smoking, drinking, exposure to sun, etc. i.e., remove risk factors)

Minimum follow-up:

- Re-examine in 2-4 weeks
- Lesion resolves: No treatment; routine oral cancer exam every year
- Lesion persists: Refer for biopsy (excisional or incisional; scalpel, punch, or needle)

Optional alternate action or follow-up strategies:

Option 1: Take a transepithelial oral brush biopsy and await result
(Note OralCDx® is the only brand available as of July, 2001)
Option 2: Refer for biopsy (excisional or incisional; scalpel, punch, or needle)

D. Actions and follow-up of Incisional or Excisional Biopsy – (that is, *other than Brush Biopsy)* results and their management

♦ No atypia on biopsy: no treatment; routine oral cancer examination every year or sooner if clinically indicated

♦ Atypia on biopsy: Re-examine in 2-4 weeks

- Lesion resolves: No treatment; Recommend routine oral cancer examination every year
- Lesion persists after 2-4 weeks: Re-biopsy (excisional or incisonal biopsy; NOT brush biopsy)

- Dysplasia on biopsy, i.e., carcinoma in situ or carcinoma
  - Refer for definitive treatment

E. Actions and follow-up of Transepithelial Brush Biopsy results and their management

- "Negative" brush biopsy--no epithelial abnormality was detected
  - Notify patient; patient reports that lesion has resolved: No treatment; recommend routine oral cancer examination every year
  - Notify patient; patient reports that lesion persists or has enlarged: Refer to dental or primary care provider for medical decision on management

- "Positive" brush biopsy--indicates that definitive cellular evidence of epithelial dysplasia or carcinoma may be present
  - Refer for biopsy (excisional or incisional; scalpel, punch, or needle; do NOT repeat brush biopsy) and histology to grade and stage the lesion

- "Atypical" brush biopsy--abnormal epithelial changes are present (These abnormal cells originate most often from a precancerous or cancerous lesion, although they may also develop in a benign inflammatory lesion such as lichen planus.)
  - Refer for biopsy (excisional or incisional; scalpel, punch, or needle; do NOT repeat brush biopsy) and histology to grade and stage the lesion or rule out cancer

VI. Diagnosis and Further Evaluation (as indicated)

Staging Evaluation as Indicated

Complete head and neck examination
Triple endoscopy to evaluate tumor extent
Panendoscopy (laryngoscopy, rigid esophagoscopy, and bronchoscopy) – selected cases
Chest radiograph
Laboratory evaluation
Computer tomography (CT)
Magnetic resonance imaging (MRI)

Histologic Classification of Tumors in the Oral Cavity and Pharynx

Squamous cell carcinoma/epidermoid
Sarcoma
Lymphoma – Hodgkins and non-Hodgkins
Melanoma
Salivary gland tumor – adenoid cystic or adenocarcinoma
Lymphoepithelioma

VII. Staging

See American Joint Committee on Cancer (AJCC) Cancer Staging Manual for tumor staging information (American Joint Committee on Cancer: AJCC Cancer Staging Manual. New York:Springer -Verlag Publishers, 6th[h] ed., 2002, pp 17-45; 69-75). TNM and staging information differs by anatomical site: lip and oral cavity, pharynx, major salivary glands, etc.

VIII. Treatment

Treatment will be performed as recommended by the medical, dental, and surgical team (medical case manager[s]), on an individual basis. Treatment may include:

- Primary radiation therapy
- Surgery
- Elective neck dissection
- "Pull through" or composite resection (jaw-neck resection/dissection)
- Induction chemotherapy – investigational protocols/clinical trials
- Concomitant chemoradiography
- Chemoradiation
- Other

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