

# Center for Diagnostic Sciences BULLETIN



April 2004

Issue #4

This bulletin focuses on Oral Cancer. We thank Dr. David Crowe for his contribution to this issue. As always, we invite your comments, questions, and suggested topics for future bulletins. Please forward your comments to Ms. Latresa Lawson at [llawson@usc.edu](mailto:llawson@usc.edu) or (213) 821-2336.

## What is oral cancer?

Oral cancer is the most common malignant tumor of the oral cavity. It is anticipated that 28,260 new cases (18,550 men and 9,710 women) will be diagnosed in the United States in 2004. An estimated 7,230 people (4,830 men and 2,400 women) will die of oral cavity and oropharyngeal cancer in 2004. The overall 5-year survival rate is approximately 50%. These survival rates have not changed much in the last 20 years. More than 90% of cancers of the oral cavity and oropharynx are a type called squamous cell carcinoma.

## Who gets oral cancer?

Most people who get oral cancer have one or more risk factors for the disease. The main risk factors are:

**Tobacco:** About 90% of people with oral cavity and oropharyngeal cancer use tobacco, and the risk of developing these cancers increases with the amount smoked or chewed and the duration of the habit. Smokers are six times more likely than nonsmokers to develop oral cancer. About 30% of patients who continue to smoke will develop second cancers of the oral cavity, oropharynx, or larynx, compared with only 6% of those who stop smoking. People who smoke and drink alcohol have a much higher risk of cancer than those using alcohol or tobacco alone.

**Age:** The number of people with oral and oropharyngeal cancer increases with age, especially after age 40.

**Gender:** Oral and oropharyngeal cancer is twice as common in men as in women. This may be because men are more likely to use tobacco and alcohol. 30% of patients will develop a second cancer of the oral cavity or oropharynx at a later time. For this reason, it is very important for patients with oral and oropharyngeal cancer to have follow-up examinations for the rest of their lives and to avoid risk factors, like smoking and drinking, which increase the risk for these second cancers.

## Can oral cancer be detected early?

Most cancers of the oral cavity can be found early, during routine screening examinations by a dentist or physician. Regular dental checkups that include an examination of the entire head and neck region are important in the early detection of oral and oropharyngeal cancers and precancerous conditions.

Oral cancers may arise from potentially cancerous lesions known as dysplasias. Dysplasias may appear as raised red or white areas that bleed easily. The seriousness of dysplasia in each person can be accurately determined only by a biopsy, a sampling of tissue for examination under the microscope. These white or red areas may be a cancer, a dysplasia, or some relatively harmless condition. There are mild, moderate, and severe forms of dysplasia, which are distinguished from one another based on how abnormal the tissue appears under the microscope. Knowing the degree of dysplasia may help predict how likely the abnormality is to progress to cancer, go away on its own, or require treatment. The most frequent causes of these conditions are smoking or chewing tobacco.

## What are the symptoms of oral cancer?

There are different signs and symptoms of oral cancer depending on the location of the tumor and the length of time it has been present. Among these signs and symptoms are: a sore in the mouth that does not heal, pain in the mouth that does not go away, a persistent lump or thickening, a persistent white or red patch on the gums, tongue, tonsil, or lining of the mouth, a persistent sore throat or a feeling that something is caught in the throat, difficulty chewing or swallowing, difficulty moving the jaw or tongue, numbness of the tongue or other area of the mouth, swelling of the jaw that causes dentures to fit poorly or become uncomfortable, loosening of the teeth or pain around the teeth or jaw, voice changes, and a lump or mass in the neck. Your dentist or physician can diagnose oral cancer after performing a biopsy (the removal of a small piece of the lesion with a scalpel).

## How is oral cancer treated?

The treatment options for people with oral cancers are surgery, radiation therapy, and chemotherapy either alone or in combination.

**Surgery:** There are several operations commonly used in treating oral cancers. Depending on the exact location and stage of the cancer, one or more of these may be used to remove the cancer, and to help restore the appearance and function of the tissues affected by the treatment.

**Radiation therapy** uses high-energy rays or particles to destroy cancer cells or slow their rate of growth. Radiation therapy can be used as the main treatment for small cancers. Patients with larger cancers may need both surgery and radiation therapy. After surgery, radiation therapy can be used to kill any remaining cancer cells that cannot be seen during surgery.

**Chemotherapy** uses anticancer drugs that enter the bloodstream and can reach cancer that has spread to organs beyond the head and neck. Chemotherapy is sometimes given to shrink the cancer before surgery or radiation therapy. Chemotherapy has also been used

for oral cancers that are too large to be completely removed and that radiation treatment has not been able to control.

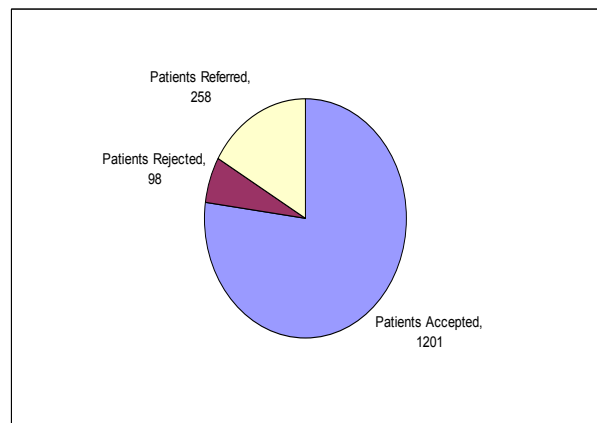
## How can oral cancer be avoided?

Tobacco and alcohol are the most important oral cavity and oropharyngeal cancer risk factors. The best way to avoid these cancers is to never start smoking or using smokeless tobacco. Limit your intake of alcoholic beverages. Quitting tobacco and alcohol significantly lowers your risk of developing these cancers. See your dentist regularly for a thorough head and neck examination.

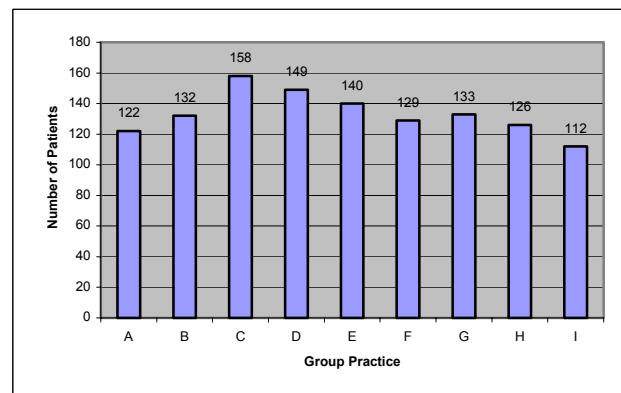
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## Did you know?

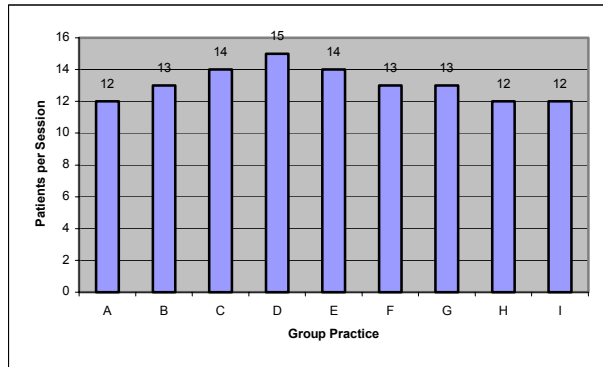
### Number of patients accepted, rejected, & referred between September 29, 2003 and February 26, 2004



### Number of patients assigned to each group practice



## Average number of accepted patients per session



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### HAVE YOU MARKED YOUR CALENDAR?

- **Dr. Alice Horowitz, Tuesday April 6<sup>th</sup>**  
**5:15pm “Oral Cancer Prevention from Research to Policy: Maryland’s Model”**  
**Blair Rooms 160A & B**
- **Dr. David Crowe, Friday April 16<sup>th</sup>**  
**12:30pm “Prevention, Early Detection and Management of Oral Cancer”**  
**Lecture Room C**
- **Oral Cancer Screening, Friday April 23<sup>rd</sup>**  
**10:00am to 4:00pm**
- **Dr. Stuart White, Friday April 30<sup>th</sup>**  
**12:30pm “Volumetric Tomography in a Dental School**  
**Lecture Room C**