Prevalence of Oral Lesions in Dental Practice
A Weekly Return Study

Background

There is substantial information concerning the prevalence of oral lesions in the population as evidenced by several recent studies (1,2). There is also information concerning the prevalence of oral cancer based on the number of treated cases derived from cancer registries (3). Based on this data, it is estimated that the average dentist sees very few, if any, oral precancerous and cancerous lesions during his or her professional lifetime. Given these estimates, dentists may not be routinely and aggressively looking for oral lesions (4) and preliminary data from our ongoing Direct Observation of Dental Practice study suggests that very few dentists employ the entire recommended examination technique for oral cancer. To provide a better estimate of the type and frequency of oral lesions seen in the general dentist's practice, we propose to conduct a weekly return study, a methodology developed by Green (5) that is commonly used for clinical studies in Practice Based Research Networks. It is the purpose of this study, using a weekly return methodology, to determine the prevalence of oral lesions in patients who present in the dental office.

Objectives

It is the purpose of this study, using a weekly return methodology, to determine the prevalence of oral lesions in patients who appear in the dental office.

Study Questions:

1. What is the frequency with which patients present with oral lesions in the general dentist's office?
2. How do oral lesions vary with age and gender of patient?
3. How often is the lesion the reason for the visit and how often does the patient know the lesion is present?
4. What follow-up is recommended for different types of lesions?

Protocol:

1. Practice Selection

   Practices will be selected from the Northern Ohio Dental Practice Based Research Network. Twenty offices that have already been visited as part of the on going Direct Observation Study will be randomly selected. Most offices will be within Cuyahoga County.

2. Dentist and Hygienist Orientation

   Dentists and Hygienists from the 20 selected practices will be invited to attend a continuing education course concerning the recognition of oral lesions. This refresher course will provide common definitions for lesions

to be observed. Each dentist and hygienist will be provided with an atlas of lesions to be used chairside to assist in identification if needed. The training course will enable both the dentist and hygienist to earn continuing education "credits" that are required to maintain licensure. Evaluation of this educational component will be conducted in an ancillary study.

3. The Weekly Return Study

Each dentist and hygienist will be provided with a supply of cards (that fit in a pocket) on which they can indicate for a patient the presence and type of lesion, the awareness by the patient of the lesion's presence, the age and gender of the patient, whether the patient is a smoker, and the disposition of the patient if a lesion is present, (i.e. follow-up, referral). No patient identifiers or personal health history will be included. The cards will be collected at the end of the week and the data entered into an SPSS data base. We anticipate 20 offices observing 150 patients over a 3 week period, resulting in 3000 + patients observed. This should be a sufficient number for prevalence data (reference).

The study will be conducted for 3 weeks within each practice. At the conclusion of each week, both the dentist and hygienist will provide the total number of patients seen during the data collection week. This will provide the denominator for the prevalence study.

Data Management and Analysis

Data will be collected from the offices and entered into an SPSS database for management and analysis. Prevalence estimates of overall lesions and most common lesion types will be calculated from the entire sample of observed patients. Descriptive statistics of oral lesions by patient age, gender, smoking status and lesion duration will be generated. Descriptive statistics of lesion management and follow-up will also be calculated.

Expected Gains

Screening all dental patients for the frequency and type of oral lesions will provide information about the relative frequency or probability of possible lesions in the population of patients who present in the general dentist's office. Currently, it is likely that dentists underestimate the probability of lesions, particularly among young adults where a rise in the incidence of oral cancer has occurred ( ), and thus do not routinely look for oral lesions. Importantly, we are including the patients seen by the hygienists as well as the dentists. Improving the information about the prevalence of lesions is critical to motivating dentists to implement appropriate screening and diagnostic procedures to identify potentially cancerous lesions.

This study will provide pilot data for a larger study of oral cancer screening and risk factor assessment in the dental office. This study will necessarily be small in scope, including 20 offices in and around Cuyahoga County. Three thousand patients should be

sufficient to observe a wide range of lesions (Candida-related, tobacco-related, acute conditions, etc.) for all but the rarest types. This is not a probability based sample, but the dentists who participate in our Practice Based Research Network are representative of Ohio dentists on age, years of experience, and gender. From census data, we will be able to characterize (income level, educational level) the population from which the participating dental offices draw. Size, scope and selection do provide some threats to validity, but the study will provide important information about what dentists should be aware of in their routine practices.

References

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5. Green LA. The weekly return as a practical instrument for data collection in office based research. Fam Med 1988; 20: 183-184.