

Oral Cancer Screening in the Vancouver Downtown Eastside -- a High-Risk Underserved Population

Running Title: Oral Screening in High-Risk Underserved

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ABSTRACT

Background: With the advent of new technology and a better understanding of the natural history of oral cancer, there is increasing pressure to develop screening strategies for its prevention and early detection. This need is even more imperative among marginalized high-risk communities. The objective of this paper is to describe our first year's experience in a screening clinic using innovative visualization aids in the Vancouver Downtown Eastside (DTES).

Methods: Demographics, risk factors and medical history were collected by personal interview from patients seen at the Portland Community Dental Clinic located in the Vancouver DTES. Patients received a full head and neck examination including the use of novel visualization aids (fluorescence visualization and toluidine blue stain).

Results: Of 133 patients examined, the majority were at high-risk: ever smokers (86%) and regular consumers of alcohol (83%). On clinical examination, 26 had clinical leukoplakia. All 26 showed clinically significant alteration in fluorescence at the lesion site, with 31% also showing retention of toluidine blue. To date, 6 have been biopsied, showing 1 case with oral cancer and 4 with oral premalignant dysplasia.

Conclusion: We were able to recruit patients from Vancouver DTES, a poor, medically underserved population, and were able to identify cases with significant disease that required further triage for treatment. Challenges and possible solutions with recruitment for screening and subsequent treatment are discussed.

Keywords: Oral cancer screening, High-risk, Underserved, Visualization aid.