

# Implementation of an Oral Care Protocol to Promote Early Detection and Management of Stomatitis

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This project aimed to promote early identification and treatment of stomatitis in patients with cancer receiving head and neck radiation and chemotherapy. A literature review revealed criteria for identifying high-risk patients, interventions to minimize risk, oral assessment tools, treatment protocols, and instructions for a comprehensive oral examination. Thorough and accurate oral care assessments by RNs, promotion of oral care protocols, and early patient education will improve symptom management and quality of life in this population.

Stomatitis, an inflammation of the mucous membranes, is one of the most painful and debilitating side effects associated with cancer treatment. It occurs in 40% of patients receiving standard-dose chemotherapy and more than 85% of patients receiving radiation for head and neck tumors (Haas, 2009). Historically, stomatitis has been known as a secondary complication following neutropenia. However, since the introduction of growth factors to prevent neutropenia, stomatitis has emerged as a distinct clinical issue that needs research-based evidence on appropriate treatment and management (Sonis, 2009). In addition, a delay in identifying stomatitis can adversely affect speech, nutrition, and treatment compliance.

A review of the nursing literature revealed the importance of conducting an oral assessment and providing oral care, education, and pain management for high-risk patients (Eilers & Million, 2007; Harris, Eilers, Harriman, Cashavelly, & Maxwell, 2008; McGuire, Correa, Johnson, & Wienandts, 2006; Scully, Sonis, & Diz, 2006). A wide variety of assessment tools and interventions are available, which creates confusion among clinicians and makes cross-study comparison difficult. Although many recommendations exist in treating stomatitis, additional randomized, controlled trials are needed. A concurrent audit

of 228 patients performed on a 48-bed inpatient oncology unit in a large, suburban teaching hospital revealed that 19% of patients were at risk for developing stomatitis based on risk factors identified in the literature review (see Figure 1). As a result, a decision was made to improve the identification and treatment of high-risk patients, with the goal of decreasing the severity of stomatitis at the authors' institution.

## Literature Review

Literature from 1979–2009 was searched using several databases, including CINAHL®, the Cochrane Central Register of Controlled Trials, and Medline®. Key words were *stomatitis*, *mucositis*, *mucous membrane*, *treatment protocols*, *clinical practice guidelines*, *radiation therapy*, and *chemotherapy*. The search resulted in 27 journal articles and one book.

Stomatitis is a known clinical complication of chemotherapy and radiation

therapy. Interventions range from recommended for practice (i.e., based on rigorously designed studies, meta-analysis or systemic reviews, and expert opinion), effectiveness not established, effectiveness not likely, to not recommended for practice (Oncology Nursing Society, 2007). Some limitations found in many of the studies were small sample sizes, nonstandardized protocols, wide variety of assessment tools, and frequency of follow-up, making comparisons across studies difficult (Migliorati, Oberle-Edwards, & Schubert, 2006). Therefore, a need exists for well-designed studies focusing on stomatitis prevention and management based on the type of cancer treatment and chemotherapy agent administered.

Common themes throughout the literature were the identification of high-risk patient groups and the importance of recognizing those patients early in their treatment. Patient factors as well as cytotoxic therapy have been identified as risk factors

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