

# Current Trends in Managing Oral Mucositis

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Oral mucositis is an inherent complication of cancer therapy for many patients. A basic definition of mucositis is erythema and ulceration of the mucosa. Oral mucositis plays a significant role in the physical and psychosocial aspects of patients undergoing cancer therapy. From a public health perspective, oral mucositis is a larger problem than is currently recognized. Because of the significant number of patients affected by this side effect, nursing knowledge and research regarding oral mucositis must increase. Managing oral mucositis is as important as managing decubiti, fatigue, nausea and vomiting, and many other side effects that can occur in patients with cancer.

Oral mucositis has emerged as one of the most frequent causes of treatment delay and dosage reductions in cancer therapy, and it affects patients across all treatment modalities. Patients' quality of life can be affected by pain, infection, altered nutrition, and impairment of oral function, resulting in potential treatment delays and economic burden. Through education and research, nurses can be actively involved in reducing and managing these debilitating effects.

## Incidence and Impact

The incidence of oral mucositis varies widely based on the specific type of cancer and the modality used for treatment, but about 400,000 people develop oral complications from cancer therapy each year (Brown & Wingard, 2004). Mucositis often

Oral mucositis is an inflammatory and ulcerative process of the oral cavity that results from an assault on the epithelial mucous membrane tissue and most commonly is associated with the administration of radiotherapy and chemotherapy. The incidence of oral mucositis ranges from 15%–40% in patients receiving stomatotoxic chemotherapy or radiotherapy and 70%–90% in bone marrow recipients. Knowledge regarding the pathophysiology of oral mucositis has evolved and now guides practice. Assessment tools to measure the level of mucositis provide valuable data concerning the status of the oral cavity. No single oral assessment tool has been found to be appropriate in all clinical settings. Mucositis has a significant impact on patients' quality of life and treatment plan. Management of oral mucositis is aimed at minimizing this side effect and its subsequent sequelae. The strategies of care are geared toward early intervention and supportive care for patients at risk for developing mucositis and include specific targeted therapies for the management of debilitating side effects. This article provides an overview of the risk factors, pathophysiology, incidence, impact, clinical presentation, oral assessment tools, management strategies, and nursing implications related to oral mucositis.

is associated with radiotherapy to the head and neck and with high-dose chemotherapy regimens, especially those used in stem cell transplantation. According to Elting et al. (2003), mucositis also occurs with the use of myelosuppressive chemotherapy for solid tumors (see Table 1).

In their review of the literature, Epstein and Schubert (2003) found that 30%–75% of chemotherapy patients experienced oral mucositis. In head and neck radiotherapy (i.e., doses greater than 5,000 cGy) and in stem cell transplants, the incidence was

100% and almost 90%, respectively.

In a retrospective study of clinical outcomes, Elting et al. (2003) reviewed the records for a random sample of 599 patients who had myelosuppression related to chemotherapy. Oral mucositis occurred in 37% of the 1,236 cycles of chemotherapy. The researchers found that therapy dosage reductions occurred at a rate of 21% after cycles with mucositis episodes (grades 3 and 4) versus 11% for cycles without mucositis episodes. In addition, the review identified bleeding, infections, and the need for nutritional support in more cycles when grade 4 oral mucositis was present. Oral mucositis was discovered more frequently during cycles with fluorouracil (5-FU) (51%) than during cycles without 5-FU (27%,  $p < 0.001$ ).

Oral mucositis obviously has a potential impact on clinical outcomes. Delayed treatment and reduced dosages may be necessary to provide time to heal damaged tissues. Therefore, managing

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