A Research Review of the Current Treatments for Radiation-Induced Oral Mucositis in Patients With Head and Neck Cancer

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Purpose/Objectives: To review the research studies on the current treatments for radiation therapy- (RT-) induced mucositis in patients with head and neck cancer.

Data Sources: MEDLINE® search of the literature from 1966–2001.

Data Synthesis: Four types of agents (i.e., antimicrobial, coating, anti-inflammatory, and cytokine-like agents) have been evaluated for the management of RT-induced oral mucositis in patients with head and neck cancer. Most of the published studies had relatively small sample sizes and used inconsistent measures to evaluate the extent and severity of oral mucositis. Therefore, definitive conclusions regarding the effectiveness of any of the agents tested in the prevention and treatment of RT-induced oral mucositis cannot be drawn.

Conclusions: Oral mucositis remains the most common complication among patients with head and neck cancer. Although a number of strategies and products are being investigated and new directions are promising, the therapies tested to date have not produced consistent results.

Implications for Nursing: The most effective measure to treat RT-induced mucositis in patients with head and neck cancer is frequent oral rinsing with a bland mouthwash, such as saline or a sodium bicarbonate rinse, to reduce the amount of oral microbial flora. Dental care, consistent oral assessments, and the initiation of a standardized oral hygiene protocol before the initiation of cancer treatment are the most effective approaches for oral mucositis.

Goal for CE Enrollees:

To further enhance nurses' knowledge in the current treatment for radiation therapy-induced oral mucositis.

Objectives for CE Enrollees:

On completion of this CE, the participant will be able to

1. Describe treatment regimens currently available for the treatment of radiation therapy-induced oral mucositis.
2. Describe research limitations discovered during review of current treatments for radiation therapy-induced mucositis.
3. Discuss the nurse's role in the care of patients with radiation therapy-induced oral mucositis.

Key Points . . .

- More than 50 published papers document the clinical investigations aimed at the prevention, palliation, or reduction of radiation therapy- (RT-) induced oral mucositis in patients with head and neck cancer.
- Antimicrobial, coating, anti-inflammatory, and cytokine-like agents are the main modalities used in the treatment of RT-induced oral mucositis.
- Based on the findings of the studies conducted to date, concluding whether antimicrobials, coating agents, or anti-inflammatory agents decrease the severity of RT-induced oral mucositis is not possible.
- Promising new treatments that include the use of cytokine mouthwashes may facilitate epithelial healing and maturation during RT.

According to the National Institutes of Health (NIH) Consensus Development Panel (1990), the prevention and treatment of oral complications associated with radiation therapy (RT) and chemotherapy should include dental treatment before cancer treatment and the use of antimicrobial and cytoprotective mouth rinse agents during therapy. The use of cleansing agents (e.g., saline, sterile water, sodium

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Digital Object Identifier: 10.1188/02.ONF.1063-1080