Preventing Severity of Oral Mucositis for the Adult Receiving In-patient Chemotherapy

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Background

Thirty to seventy-five percent of patients receiving chemotherapy experience oral mucositis (Cawley & Benson, 2005). Mucositis disrupts normal function of mucosal lining, causing erythema, ulcerations, and dry mouth (Oncology Nursing Society, 2005). With its prevalence, it is important for nurses to intervene appropriately to manage patient needs. Current practice consists of Magic Mouthwash and general oral care. Assessment of the oral cavity is often neglected until the patient complains of pain. Inpatient nursing documentation lacks assessment and interventions to manage mucositis. In addition, patient education on self-care and treatment interventions is commonly overseen by the nursing staff.

Clinical Question

In the adult patient receiving in-patient chemotherapy, initiation of an oral care protocol could be a better practice than general oral care and Magic Mouth Wash in decreasing the intensity of oral mucositis.

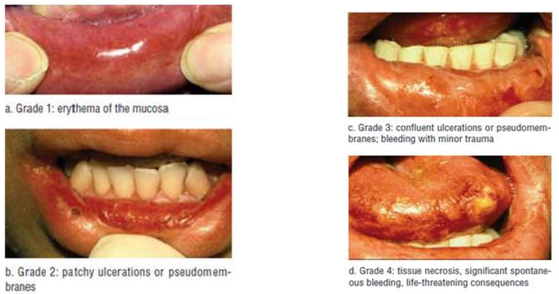
Purpose

Unmanaged oral mucositis increases health care cost and decreases quality of life. For the patient, it is important to establish the best practice for managing mucositis. Neglect of appropriate management leads to increased health care cost (Deeken & Weiner, 2010). Several dollars are allocated to treating infections, intubation, and total parenteral nutrition. Readmission for managing oral mucositis alone is an additional unplanned hospital stay which contributes to increased need for financial resources. Nurses need to be more active in preventing the suffering of patients with oral mucositis

Mucositis Grading Scale

Grade	Symptoms
0	None
1	Soreness/erythema
2	Erythema/ulcers/can eat solids
3	Ulcers/requires liquid diet
4	Alimentation not possible

Recommendations for Grading of Acute and Subacute Toxic Effects (World Health Organization)[9]



a. Grade 1: erythema of the mucosa

c. Grade 3: confluent ulcerations or pseudomembranes; bleeding with minor trauma

b. Grade 2: patchy ulcerations or pseudomembranes

d. Grade 4: tissue necrosis, significant spontaneous bleeding, life-threatening consequences

Examples of Grades of Mucositis Based onNational Cancer Institute Criteria. *Note:*Photos courtesy of Mark Schubert, MSD. Reprinted with permission.
Cawley, M.M. & Benson, L.M. (2005). Current trends in managing oral mucositis. *Clinical Journal of Oncology Nursing (9)* 5. 584-592

Results

•Magic Mouthwash is not effective in preventing/treating mucositis. Patients receiving this treatment had cessation of symptoms equivalent to the time it would be expected to heal naturally, about twelve days. (Dobb et al., 2000).

•Magic Mouthwash shows no benefit in comparison to salt and soda washes and should be incorporated into an oral care protocol. The salt and soda rinses prove cost effective; one pint of this mixture is equivalent to the cost of a teaspoon of Magic Mouthwash (Dobb et al., 2000).

•Oral mucositis incidence decreases with the use of an oral care protocol. Much of this prevention is due to nursing assessment and awareness. In a research study, Yupin, Jatupol, and Marayart (2010) found that mucositis incidence decreased from 22% to 9.9% when a protocol was utilized.. In addition, 93% of nurses found the guidelines within the protocol easy to follow. (Cheng, Chang, & Yuen, 2003; Yupin, Jatupol, & Marayart, 2010).

•Implementation of a standardized oral care protocol for patients at risk of oral mucositis resulted in positive patient outcomes. Use of protocols decreased incidence and duration of mucositis by 25%. Severity grades of one and three were decreased by 56% and 70% (respectively). Narcotic use was decreased by 19%. Need for parenteral nutrition was reduced by 41%. Incidence of infection was reduced by 35%. Overall length of stay was decreased by seven days. (Bhatt et al., 2010).

• When dental referrals are included in an oral care protocol, provider and nursing awareness of mucositis presence increases and the severity of mucositis decreases. (Qutob et al., 2013)

Conclusion

Strong evidence supports that an oral care protocol is the best practice for managing and decreasing the severity of oral mucositis for the adult patient receiving in-patient chemotherapy. Use of protocols has decreased incidence and severity of mucositis (Bhatt et al, 2010; Cheng et al., 2003; Qutob et al., 2013; Salvador et al., 2012; & Yupin et al., 2010). Patients' whose mucositis is managed according to an oral care protocol experience a decreased rate of infection, malnutrition, and a shorter hospital stay in comparison to those who were not managed according to a protocol (Bhatt et al., 2010). Oral care protocols produce an increased awareness to the healthcare team as well as provide a guide for detailed assessments (Qutob et al., 2013). The positive outcomes resulting from the use of an oral care protocol increase the quality of life for the patient at risk of developing oral mucositis from chemotherapy.

Plan for Intervention

•Update the current management protocol to include salt and soda rinses, and a mucositis grading scale to be utilized during baseline and routine assessments. Documentation of assessment would reflect the grading scale.
•Review of appropriate grading scale from evidence-based literature review and committee of expert oncology nurses
•Approved grading scale will be presented to the Nursing Informatics Committee (NIC) for approval
•If approval granted by NIC, grading scale will be built in the electronic medical record.
•Education on the grading scale will be provided to RNs on the in-patient oncology unit. Routine audits will be performed by education nurse to ensure compliance of new assessment grading tool.

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