

# Nurse-Delivered Telephone Intervention to Reduce Oral Mucositis and Prevent Dehydration

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**PROBLEM STATEMENT:** This study evaluates the feasibility of a nurse-delivered telephone intervention to reduce oral mucositis severity and prevent dehydration in patients with lung or head and neck cancer undergoing chemotherapy and radiation therapy.

**DESIGN:** This study used a two-phase, qualitatively driven, mixed-methods descriptive design.

**DATA SOURCES:** 11 participants were recruited from an academic cancer center in southern Florida. Participants received symptom management education followed by twice-weekly tailored nurse coaching telephone calls.

**ANALYSIS:** Questionnaires measuring symptom severity, health-related quality of life, perceived self-efficacy, and symptom self-management were administered at four data points. Data on unscheduled medical visits were collected. Guided interviews were conducted four weeks post-treatment and analyzed qualitatively using content analysis.

**FINDINGS:** Participants found the intervention to be acceptable. Oral mucositis symptom severity was minimized, and dehydration was avoided. The intervention enabled symptom self-management and improved perceived self-efficacy.

**IMPLICATIONS FOR PRACTICE:** Emotional support provided by the nurse was crucial, exemplifying improvement over an automated system.

**KEYWORDS** oral mucositis; telephone intervention; dehydration; symptom management; pilot study

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Patients with cancer receiving chemotherapy and radiation therapy experience multiple co-occurring symptom clusters from side effects of treatment (Honea et al., 2007). Oral mucositis is a frequent symptom experienced within a symptom cluster by a significant majority of patients with lung or head and neck cancer (Bar-Ad et al., 2014; Elting et al., 2008). Oral mucositis is an acute, painful condition precipitated by symptoms of a sore mouth or sore throat, leading to difficulty swallowing or speaking, mood disturbances, and other symptoms. If left untreated, patients can become dehydrated and malnourished, resulting in treatment delays, inadequate cancer treatment, and, ultimately, a poorer prognosis (Arrieta et al., 2013; Deek et al., 2016). Uncontrolled oral mucositis symptoms worsen overall symptom severity and negatively affect a patient's health-related quality of life (HRQOL) (Bar-Ad et al., 2014; Elting et al., 2008). Patients with lung or head and neck cancer are the most frequent visitors to emergency departments and urgent care centers seeking symptom relief (Barbera et al., 2010, 2013; Eskander et al., 2018; Mayer et al., 2011; Ruegg, 2013).

Anxiety and depression coupled with symptom severity and distress are found more often in patients with lung or head and neck cancer than in other patients with cancer (Buchanan et al., 2010; Liao et al., 2011; Mehnert et al., 2014; Salvo et al., 2012; Zabora et al., 2001), resulting in reduced symptom management, decreased HRQOL, and twice the risk of an accelerated death than patients not experiencing anxiety and depression (Arrieta et al., 2013; Chen et al., 2011). Patients with oral mucositis also experience increased depressed mood as a correlative symptom while undergoing chemotherapy and radiation therapy (Mason et al., 2016). In addition, these patients have high levels of supportive care needs in health information and communication, leading to increased