

NO SToPS is an interprofessional supportive care program implemented in 2008 for patients with head and neck cancer undergoing chemoradiation. The goals of the program are to reduce radiation treatment breaks and hospitalizations related to toxicity from this difficult treatment. Breaks lead to lower locoregional control and survival rates in this population. This article describes the effect of the NO SToPS program.

#### AT A GLANCE

- Radiation treatment breaks decreased significantly after implementation of the NO SToPS supportive care program.
- Social work intervention was associated with a significant reduction in hospitalizations during chemoradiation.
- Daily RN/advanced practice provider assessment and spray and weigh were key to the program's success.

#### KEYWORDS

treatment interruption; head and neck cancer; supportive care; chemoradiation

#### DIGITAL OBJECT IDENTIFIER

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# NO SToPS

## Assessment of a supportive care program to reduce treatment breaks in patients with head and neck cancer

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Adding concurrent chemotherapy to head and neck radiation improves survival by 7%–8% at five years when compared with radiation alone, but toxicity increases considerably (Bourhis, Le Maître, Baujat, Audry, & Pignon, 2007). Side effects may include the pain of oral mucositis and radiation dermatitis, dysphagia, excessive secretions with gagging, dysgeusia (taste distortion), nausea, vomiting, anorexia, weight loss, volume depletion, infection, fatigue, aspiration, immunosuppression, emotional distress, and financial strain, often resulting in radiation treatment breaks and hospitalization (Rosenthal & Trotti, 2009). Unplanned breaks in radiation treatment or extended time between surgery and the end of adjuvant radiation therapy lower survival rates in these patients and may reduce tumor control rates at least 1% for every day that radiation is interrupted (Ghanem et al., 2017; Russo, Haddad, Posner, & Machtay, 2008; Yom & Harari, 2018).

An interprofessional team from St. Luke's Mountain States Tumor Institute in Boise, Idaho, developed and implemented a supportive care program called NO SToPS, focusing on nutrition, oral care, skin care, therapy needs (swallowing, range of motion, lymphedema), pain management, and support for psychosocial issues. Development took place in 2008. Standardized medical orders and oral and skin care protocols based on the literature and best practice were implemented across four treatment sites from 2008–2010 (Lambertz et al., 2010).

The NO SToPS program recommends pretreatment dental evaluations, treatment learning classes, prophylactic gastrostomy tube placement, weekly nutrition counseling, baseline swallowing evaluation/exercises and oral eating throughout treatment, social work support, a minimum of weekly follow-up for four weeks after treatment completion, and daily “spray and weigh” throughout treatment. Spray and weigh is RN/advanced practice provider assessment and management of weight, nutrition, hydration, oral mucositis, radiation dermatitis, swallowing, jaw and neck range of motion, pain, and social issues (financial, transportation, home management, psycho-emotional), along with spray cleansing of the oral cavity (Lambertz et al., 2010).

#### Methods

A team representing the NO SToPS program conducted a retrospective chart review of 295 patients with head and neck cancer who received chemoradiation in the four clinics from 2005–2016. Study data were collected and managed using Research Electronic Data Tools (REDCap) from the University of Washington (Harris et al., 2009).

Data analysis included comparisons between binary outcomes (yes or no) and chi-square analysis. To examine comparisons on duration measures, one-way analyses of variance (ANOVAs) compared the means. Cochran-Armitage Trend tested for changes over time. Alpha for significance was set at 0.05. All analyses were performed using SAS, version 9.4.