

# Outcomes Evaluation of a Weekly Nurse Practitioner-Managed Symptom Management Clinic for Patients With Head and Neck Cancer Treated With Chemoradiotherapy

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**P**atients with locally advanced oropharyngeal cancer are at risk for poor outcomes because of the multimodal nature of treatment and the potential for treatment-related toxicity. Primary treatment of patients with locally advanced oropharyngeal cancer includes a nonsurgical organ-preservation approach. Chemoradiotherapy (concurrent chemotherapy with radiation therapy) for seven weeks has replaced surgery, avoiding the permanent alteration of the patient's ability to speak and swallow (Takes et al., 2012). Although organ preservation is possible for many of these patients, the side effects of chemoradiotherapy can be debilitating. Common toxicities include pain, weight loss, dehydration, copious secretions, aspiration, mucositis, nausea, vomiting, and constipation (Argiris, Karamouzis, Raben, & Ferris, 2008). When these toxicities are not properly managed, they can lead to treatment delays, chemotherapy dose deviations, and hospitalizations (Bensinger et al., 2008). Research findings suggest that treatment with chemoradiotherapy has dramatically increased the supportive care needs of patients with advanced oropharyngeal cancer (Mallick & Waldron, 2009).

Toxicity management of patients undergoing chemoradiotherapy for advanced oropharyngeal cancer is both challenging and costly. Patients who developed severe mucositis from combined chemoradiotherapy for head and neck cancer are reported to incur 52% higher costs during their treatment phase than patients without severe mucositis (Nonzee et al., 2008). As healthcare costs continue to rise, clinicians must develop efficient and effective interventions to manage these significant toxicities. Nurse practitioners (NPs) have an important role to play in intervention development (Hinkel et al., 2010). Data suggest that NP-led clinical programs for patients with advanced cancer have excellent outcomes

**Purpose/Objectives:** To determine whether improved monitoring through close follow-up with a nurse practitioner (NP) could enhance treatment compliance and decrease frequency of hospitalizations.

**Design:** Retrospective chart review.

**Setting:** An academic National Cancer Institute–designated comprehensive cancer center.

**Sample:** 151 patients aged 45–65 years diagnosed with stage III or IV oropharyngeal cancer.

**Methods:** Patients were nonrandomized to one of two groups: a prechemotherapy clinic group and a weekly NP-led clinic group. After examination of descriptive statistics, multiple linear and logistic regressions were used to compare groups across patient outcomes.

**Main Research Variables:** Hospitalization, chemotherapy dose deviations, and chemotherapy treatment completion.

**Findings:** The average number of visits during traditional treatment was three and, after initiation of the NP-led clinic, the number was six. The hospitalization rate was 28% in the traditional clinic group compared to 12% in the NP-led group. The rate of chemotherapy dose deviations was 48% in the traditional clinic group compared to 6% in the NP-led clinic group. Forty-six percent of patients in the traditional clinic group received the full seven scheduled doses of chemotherapy compared to 90% of patients seen in the NP-led clinic group.

**Conclusions:** A weekly NP-led symptom management clinic reduces rates of hospitalization and chemotherapy dose deviations and increases chemotherapy completion in patients receiving intensive chemoradiotherapy for oropharyngeal cancer.

**Implications for Nursing:** Patients receiving chemoradiotherapy benefit from close monitoring for toxicities by NPs to successfully complete their treatment and avoid hospitalization.

**Knowledge Translation:** Early interventions to manage toxicities in patients with head and neck cancer can improve outcomes. NPs are in a key position to manage these toxicities and, when symptoms are controlled, costs are reduced.