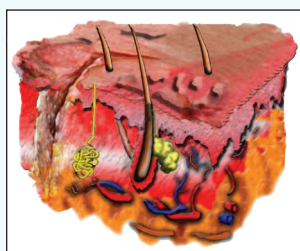


■ CNE Article

A Feasibility Study of Low-Cost, Self-Administered Skin Care Interventions in Patients With Head and Neck Cancer Receiving Chemoradiation

Catherine Marie Mannix, RN, MSN, OCN®, Marian Mahin Bartholomay, RN, MSN, AOCN®, Carol S. Doherty, RN, BSN, OCN®, Maryellen Lewis, RN, BSN, OCN®, and Mary-Liz Connors Bilodeau, RN, MS, CCRN, ACNP-BC



Courtesy of Nicholas Zaorsky, MD, per <http://creativecommons.org/licenses/by-sa/3.0/deed.en>

Current evidence for the management of radiation skin toxicities demonstrates equivocal outcomes using a variety of interventions, leaving substantial gaps in knowledge. Skin toxicities can lead to treatment delays, infection, pain, and increased costs for the patient. Patients with head and neck cancers receiving chemoradiation (N = 100), a population particularly vulnerable to disruptions in skin integrity, were enrolled into a prospective, descriptive study. Data collection was conducted and photographs were taken at baseline and weekly throughout treatment. Patients received skin care kits, instructions, and a diary to record adherence.

Skin toxicity was measured and validated by at least three observers using serial photographs with 100% interrater agreement. Data were analyzed using descriptive statistics, graphs, and bivariate analysis. Adherence to both washing and moisturizing was consistently high. Although a correlation existed between the radiation dose and skin toxicity at week 6, no correlation existed between skin toxicity and adherence. Given the rate of grade 3 toxicities at week 6 and product costs, this proved to be an affordable regimen to which patients could easily adhere. Positive patient outcomes can be promoted through teaching and reinforcement of self-care measures to reduce skin toxicity.

Catherine Marie Mannix, RN, MSN, OCN®, is the nursing director in the Department of Radiation Oncology; Marian Mahin Bartholomay, RN, MSN, AOCN®, is an oncology clinical nurse specialist in the Department of Patient Care Services—Nursing; Carol S. Doherty, RN, BSN, OCN®, and Maryellen Lewis, RN, BSN, OCN®, are staff nurses in radiation oncology; and Mary-Liz Connors Bilodeau, RN, MS, CCRN, ACNP-BC, is an acute care nurse practitioner in surgery, Division of Burns; all at Massachusetts General Hospital in Boston. The authors take full responsibility for the content of the article. The authors did not receive honoraria for this work. The content of this article has been reviewed by independent peer reviewers to ensure that it is balanced, objective, and free from commercial bias. No financial relationships relevant to the content of this article have been disclosed by the authors, planners, independent peer reviewers, or editorial staff. Mention of specific products and opinions related to those products do not indicate or imply endorsement by the *Clinical Journal of Oncology Nursing* or the Oncology Nursing Society. Joint first authors Mannix can be reached at cmannix@partners.org and Bartholomay can be reached at mbartholomay1@partners.org, with copy to editor at CJONEditor@ons.org. (First submission June 2011. Revision submitted August 2011. Accepted for publication September 3, 2011.)

Digital Object Identifier:10.1188/12.CJON.278-285

Nurses from radiation oncology, ambulatory infusion, and inpatient oncology units perceived an increase in skin toxicities in patients receiving chemoradiation within their respective clinical settings. The group formed a skin care task force (SCTF) and was joined by a nurse practitioner from the ambulatory burn clinic who had previously consulted on patients with treatment-related toxicities. The SCTF's preliminary work identified several areas for improvement. Nurses were using a variety of tools from the Radiation Therapy Oncology Group (RTOG) and National Cancer Institute (NCI), as well as descriptive documentation, to measure and describe grades of toxicity, including the RTOG skin toxicity tool and the NCI's Common Terminology Criteria for Adverse Events (CTCAE), version 3.0.

No standard skin care regimen was used to minimize or prevent treatment-related skin toxicities. This resulted in inconsistent management and prevention of treatment-related skin toxicities. The SCTF also surveyed staff regarding the wide range of skin care products used and found that the products varied in cost, availability, and evidence of efficacy.

To address these problems, the SCTF proposed using a standardized tool (see Figure 1) that would promote consistent skin toxicity grading across settings, implement an algorithm for management of skin toxicities to establish guidelines, and encourage consistent skin care across settings. In addition, an evidence-based literature review was conducted to determine best practice. The literature review revealed insufficient and inconclusive evidence supporting use of specific products;