Psychosocial Impact of Cutaneous Toxicities Associated With Epidermal Growth Factor Receptor–Inhibitor Treatment

Kathryn J. White, RN, MN, PhD, Jessica K. Roydhouse, BA, MPH (Hons), and Kathleen Scott, BSc (Hons), PhD

Epidermal growth factor receptor inhibitors (EGFRIs) are an increasingly important class of anticancer agents. Cutaneous toxicities, the most common adverse effects of EGFRI therapy, require dose modification or treatment cessation when moderate or severe and may compromise treatment compliance. To date, assessment has focused on physical symptoms associated with cutaneous toxicities; however, the psychosocial impact of those effects requires greater consideration. This article reviews current knowledge of assessment of cutaneous toxicities and identifies gaps in evidence, with particular focus on the psychosocial impact of cutaneous toxicities. Promising new assessment tools and approaches including the use of electronic patient-reported outcome measures are discussed, as well as implications for research in evaluating psychosocial interventions.

Epidermal growth factor receptor inhibitors (EGFRIs) continue to garner significant attention in cancer research (Boone et al., 2007; Hu, Sadeghi, Pinter-Brown, Yashar, & Chiu, 2007). Drugs in the EGFRI class include the monoclonal antibodies cetuximab and panitumumab, as well as the tyrosine kinase inhibitors erlotinib, gefitinib, and lapatinib (Lynch et al., 2007). To date, the drugs are used for a range of tumors, including lung, pancreatic, breast, head and neck, and colorectal cancers (Lynch et al., 2007). Research in EGFRI therapies has increased because the agents have demonstrated efficacy and more clinically acceptable toxicity profiles compared to other treatment options in clinical trials (Lacouture & Melosky, 2007). Interest also is significant in the potential clinical benefits of EGFRI and chemotherapy combination treatment (Perez-Soler, 2007). As a result, this article will explore the challenges in comprehensively assessing cutaneous toxicities associated with EGFRIs and make recommendations for further research.

At a Glance

- Epidermal growth factor receptor inhibitors have a favorable toxicity profile, but associated cutaneous effects can compromise compliance to treatment and reduce quality of life.
- The prevalence and severity of the psychosocial impact of cutaneous toxicities have not been reported comprehensively.
- Patient-reported outcome measures can play a greater role in the assessment of cutaneous toxicities and their psychosocial impact, but they require further testing and validation.

Although EGFRIs have a more acceptable toxicity profile compared to other anticancer therapies (e.g., chemotherapy), adverse treatment effects unique to EGFRIs have been identified. The toxicities primarily are cutaneous, particularly papulopustular eruption, and have been described as "acneform" (Segaert

Kathryn J. White, RN, MN, PhD, is the Cancer Institute of New South Wales Chair of Cancer Nursing, director of the Cancer Nursing Research Unit, and a professor in the Sydney Nursing School at the University of Sydney in Australia and in the School of Nursing, Midwifery, and Postgraduate Medicine at Edith Cowan University in Joondalup, Australia; Jessica K. Roydhouse, BA, MPH (Hons), is a senior research officer in the Cancer Nursing Research Unit in the Sydney Nursing School at the University of Sydney and in the Sydney Cancer Centre at the Royal Prince Alfred Hospital in Sydney; and Kathleen Scott, BSc (Hons), PhD, is a senior lecturer in the Sydney Nursing School at the University of Sydney. 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. (Submitted June 2010. Revision submitted July 2010. Accepted for publication July 19, 2010.)

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