

# Comparing Self-Injection Teaching Strategies for Patients With Breast Cancer and Their Caregivers: A Pilot Study

Erica Fischer-Carlidge, MSN, CNS, CBCN<sup>®</sup>, AOCNS<sup>®</sup>, Sonya Romanoff, MPH, Bridgette Thom, MS, and Chasity Burrows Walters, PhD, RN



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**Background:** A prospective, quasiexperimental pilot study with a sequential design was performed to compare two methods of teaching self-injection: verbal and written instruction versus verbal and written instruction plus simulation.

**Objectives:** The study examined 50 patients with breast cancer undergoing adjuvant or neoadjuvant treatment and their caregivers to determine if simulation during the teaching experience affects patient/caregiver satisfaction, worry, and self-confidence, as well as nurse satisfaction.

**Methods:** Structured questionnaires were administered before the teaching, immediately after the teaching, and after the injection was performed at home. Nurses who performed the teaching also completed a questionnaire after the teaching.

**Findings:** Use of simulation did not affect patient/caregiver satisfaction, worry, or self-confidence. The largest impact on learner worry was the actual teaching experience, regardless of the methodology used. Nurses reported greater levels of satisfaction when simulation was part of the teaching. Patient/caregiver satisfaction with the teaching experience decreased after performing the injection at home. Additional research is needed to identify the best methodology for teaching patients and caregivers self-injection. Data from this study revealed that the addition of simulation during teaching does not always translate to better education. In addition, based on patient/caregiver reports, no substitution exists for actual injection administration.

Erica Fischer-Carlidge, MSN, CNS, CBCN<sup>®</sup>, AOCNS<sup>®</sup>, is a clinical nurse specialist, Sonya Romanoff, MPH, is a health education specialist, Bridgette Thom, MS, is a senior research specialist, and Chasity Burrows Walters, PhD, RN, is the director of Patient and Caregiver Education, all at Memorial Sloan Kettering Cancer Center in New York, NY. The authors take full responsibility for the content of the article. This study was supported, in part, by a grant from the Geri and ME Nursing Fund from Memorial Sloan Kettering Cancer Center and through the National Institutes of Health/National Cancer Institute Cancer Center Support Grant P30 CA008748. 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 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. Fischer-Carlidge can be reached at [fischere@mskcc.org](mailto:fischere@mskcc.org), with copy to editor at [CJONEditor@ons.org](mailto:CJONEditor@ons.org). (Submitted October 2015. Revision submitted January 2016. Accepted for publication January 25, 2016.)

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**M**edication preparations are changing, and reevaluating which education methods translate to best practices for teaching patients and their caregivers how to administer them is prudent. The rise in use of pegfilgrastim (Neulasta<sup>®</sup>), a prefilled subcutaneous injection, led to this evaluation at a National Cancer Institute (NCI)-designated cancer center. Prior to study implementation, nurses were using two different methods to teach patients and caregiv-

ers how to administer pegfilgrastim in the home setting; some were using verbal instruction with written materials and return demonstration, and others were only providing verbal instruction and written handouts. Before purchasing additional clinical supplies for return demonstration on an injection model, evaluation of the evidence to determine best practices for teaching methods was necessary.

Subcutaneous injection is commonly taught to patients with chronic diseases, such as diabetes, rheumatoid arthritis,