On-Body Injector
An administration device for pegfilgrastim

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Fever is a potentially life-threatening side effect of chemotherapy, which is why it is often administered with a granulocyte–colony-stimulating factor (G-CSF). Primary prophylaxis with a G-CSF starting with the first cycle and continuing through subsequent cycles of chemotherapy is recommended in patients who have a 20% or higher risk for febrile neutropenia based on disease and treatment-related factors (Smith et al., 2015). A new delivery kit for Neulasta® (pegfilgrastim) was introduced in 2015, featuring the on-body injector (OBI) Onpro®. The device has a timed mechanism to deliver an injection 27 hours after the device is placed on a patient. This delivery method eliminates the need for patients to return to healthcare facilities for injections after chemotherapy. Because pegfilgrastim and the OBI are used only in oncology practice, this is a topic of significant importance to oncology nursing. The goal of this study was to deliver pegfilgrastim via the OBI safely and effectively and to ensure that patients in an outpatient cancer center were satisfied with the delivery system. In addition, the effects of this new device on outpatient clinic workflow were evaluated, and reimbursement issues were monitored.

Methods
Outpatient oncology nurses received education and training related to the use and application of the pegfilgrastim OBI on patients and how to educate patients through a series of in-services taught by a nurse educator in the center and a nurse educator from Amgen, Inc. Education was provided by the trained oncology nurse during the patient’s treatment. In addition to a comprehensive OBI brochure, patients received a one-page information sheet adapted from the Amgen, Inc., patient guide, which summarized key points and instructions related to the recognition of potential device failure.

The OBI was applied by the oncology nurse within the last hour of the patient’s treatment. Patients were contacted by phone within 48 hours of placement to confirm dose delivery. If patients experienced device failure, leakage, or dislodgement, they were instructed to remove the device and return to the clinic for a manual injection.

Results
A total of 41 patients were given 104 doses of pegfilgrastim via the OBI from September 1, 2015, to January 5, 2016. After the initial four-month period,