



# Implementing a Standardized Home Chemotherapy Spill Kit: A Nurse-Led Interprofessional Approach to Best Practice

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Chemotherapy administration in the home setting poses risks to patients, caregivers, and the environment, particularly in the event of spills. Although the response to chemotherapy spills in the hospital setting is vigorous and includes standard disposal practices for contaminated items, the management of spills in the home setting may vary. A standardized method for managing chemotherapy spills at home that includes education and distribution of spill cleanup materials is imperative to reduce these risks.

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Since it was first implemented in the 1970s (DeMoss, 1980), the practice of administering chemotherapy in the home setting has been associated with greater satisfaction with the treatment process and potentially fewer complications than chemotherapy administration in the hospital (Garvey, 1987; Rischin et al., 2000; Teich & Raia, 1984). As in any setting, chemotherapy administration at home carries risks of hazardous medication exposure for patients, caregivers, and healthcare providers, particularly exposure resulting from chemotherapy spills. Although recommendations for the management of chemotherapy spills at home have evolved and are now standardized, as in the *Chemotherapy and Biotherapy Guidelines and Recommendations for Practice* (Polovich, Olsen, & LeFebvre, 2014), inconsistencies remain in how pa-

tients and caregivers are educated about and provided with resources to manage spills at home. When the authors of this article conducted an informal survey of 11 peer institutions, a majority of them responded that they do not provide spill kits to patients receiving IV chemotherapy at home. At the authors' National Cancer Institute–designated comprehensive cancer center, patient and caregiver education about home spill risks recently became standardized, as did the provision of spill kit materials for patients receiving chemotherapy in the home setting.

## Identification of the Practice Issue

The educator responsible for nursing education in the ambulatory treatment centers at the cancer center observed

that, although patients were well educated about their chemotherapeutic regimens, the IV equipment they would use at home, and issues to report to the healthcare team, inconsistencies arose in how patients were advised to handle chemotherapy spills at home and the materials they were given to do so. Patients were given spill supplies when receiving chemotherapy at home, yet not all patients received the same amount and type of supplies, and not all patients received consistent education regarding safe handling of chemotherapy at home.

In a typical month, more than 800 individuals are sent home from the authors' institution with chemotherapy infusing via IV. The chemotherapy is initiated by a nurse at the clinic, and the patient is sent home with a backpack containing an ambulatory chemotherapy pump. Patients and caregivers are trained in the management of the pump, and they attend a central venous catheter class which uses a teach-back method to verify that they are able to complete dressing changes and disconnect infusions from the catheter. This education is also provided in a video format that may be accessed from any location. Patients have the option to have the chemotherapy disconnected and the dressing changed in the clinic if they feel unable to do so or do not have a trained caregiver who can assist. Spills, although infrequently reported, have largely been from connection issues or pump malfunctions that led to small-volume leaks that often were reported as being absorbed by the patient's clothing or collected within the backpack. The authors' institution saw an opportunity to improve patient and caregiver safety by standardizing education and materials