Safe Handling: Implementing Hazardous Drug Precautions

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As part of the review process, Martha Polovich, MN, RN, AOCN®, editor of Safe Handling of Hazardous Drugs (Polovich, 2003), presented to the Oncology CN III/IV leadership group and nurse managers on the safe-handling practices of hazardous drugs. The leadership team then clarified concerns and discussed how to implement the recommendations into daily practice in a cost-effective manner.

Hazardous Drug Precautions Developed

Members of the Oncology CN III/IV leadership group decided that chemotherapy gloves would be used for disposing of bodily fluids into the toilet and for disposing bed pans and other contaminated items. It was determined that biohazard trash cans should be placed in each patient’s bathroom for easier disposal of chemotherapy-contaminated waste. Finally, a hazardous drug precaution sign was to be placed on the door of patients’ rooms to identify to nursing staff and interdisciplinary members the patients who are receiving chemotherapy. The sign would remain visible for 48 hours after chemotherapy administration.

The group recognized the financial challenge to the hospital’s budget of increasing the amount of personal protective equipment available to staff and, therefore, presented a formal letter to senior nursing leadership outlining concerns and proposed solutions. The response was positive, and financial support was granted for proceeding with the documented improvement plans. One of the challenges of implementing the policy included the need to easily identify the patients requiring these precautions during chemotherapy administration and the 48 hours afterward. The group decided that a sign on the door was best. With support from UNCH Environmental Health and Safety Department representatives, hazardous drug precaution signs were created (see Figure 1). The precautions focused on the requirements for handling urine, stool, emesis, and soiled linens. These precautions outlined personal protective equipment requirements and appropriate disposal methods.

The sign was presented to the Nursing Professional Practice Council (one of the shared governance councils at UNCH) to allow feedback from those who were unfamiliar with the precautions. The council members concurred that the sign and precautions were easily understood and added a start and end date. The sign was translated into Spanish and was printed within the hospital—piloted first in the oncology areas, and then shared throughout the hospital.

Education

To increase education and compliance regarding the UNCH handling and disposal of hazardous drugs policy and the recommendations of NIOSH, ONS, and APHON, two of the authors, both of whom were new graduate nurses on the inpatient pediatric oncology unit, created a patient and family educational brochure (see Figure 2). The brochure contains information for staff, patients, and families about safe handling and disposal of hazardous waste in the hospital and at home. Once designed, the brochure was sent to the Oncology CN III/IV leadership group where the content was edited. The patient and family education committee at UNCH then approved it. Patients and families in adult and pediatric inpatient and outpatient areas did field testing, with field testing designed to ensure that the brochure was understandable and that patients and families obtained the appropriate information from the brochure (California Family Health Council, 2011). After field testing, final revisions were made to the brochure and it was approved for distribution to patients and families. Both English and Spanish versions are currently available for use with adult and pediatric populations in inpatient and outpatient areas.

Education of inpatient and outpatient nurses required multiple planning sessions. Roll out of the revised policy included staff meetings, weekly update e-mails, practice reviews by clinical nurse IIIs, and through an online module that was developed by the Nursing Professional Development, Practice, and Research Department and by the UNCH nurse educators for oncology. Online modules at UNCH exist in an online education system to allow staff to complete required modules prior to annual performance evaluations. The UNCH online modules are learner-paced and can be used by existing staff, for new nurse orientation, or as refresher training.

In addition, staff members were oriented to the new hazardous drug precautions sign at staff meetings, weekly update e-mails, and practice reviews by its placement on patients’ doors and by the development of the educational brochure. The Oncology CN III/IV leadership team developed a script to assist nurse communication with patients and their families regarding the use of appropriate personal protective equipment. The Environmental Services Department was educated on the precautions by their own management team, and physicians were educated during their orientation to the oncology unit. Finally, an addition was made to the UNCH handling and disposal of hazardous drugs policy to include a section outlining patient and family education expectations.
Conclusions

Any institution with a group of dedicated staff nurses, a clinical practice group, a leadership group, or a network of specialized oncology nursing leaders (e.g., the Oncology CN III/IV leadership group) can conduct a review of their institution’s policy comparing it to recommendations from NIOSH, APHON, and ONS. In this pilot project, local leaders in the field and a literature review provided valuable support. The group identified gaps in best practices and determined sustainable changes that could be made. Ancillary staff and senior leadership were invited to participate in the process. Group members

![Safe Contact With Patient Body Waste During Hazardous Drug Therapy](image1)

**Safety in the hospital**

(during treatment and for 48 hours afterwards)

- Wear gloves and gown to place waste into the toilet. Wear a face shield if splashing may happen.
- Cover any bedpan, urinal, or basin with a plastic-backed absorbent pad (chux) when taking it to the toilet.
- Place a plastic-backed absorbent pad (chux) over the toilet prior to flushing (Please do not flush the chux).
- Place the pad, gown, gloves, and face shield into red biohazard trash bags. This trash is separate from regular trash.
- Wash hands well with soap and water.
- If possible, family members should use a different toilet from the patient’s during treatment days and for 48 hours after receiving a hazardous drug. Staff will show you where public restrooms are located.

**Safety once you leave the hospital**

- Wash hands well with soap and water after using the toilet.
- Wash the patient’s clothing and linens apart from other laundry with detergent and warm water.

**Patients in diapers or briefs**

- Wear gloves to change diapers or briefs.
- Put used diapers or briefs, wipes, and gloves in a trash bag. Place the trash bag in a second trash bag. This is called double-bagged trash.
- Dispose of double-bagged trash in your regular trash, but try to limit your contact with it.
- Wash hands well with soap and water.

**Why is safety important?**

- Some drugs used to treat diseases can also harm healthy body cells.
- Frequent skin contact with urine, stool, and vomit from patients being given these drugs can have harmful effects on the caregiver.
- Using gloves and gowns safely can prevent harmful effects.

**When do we need to use precautions?**

- While the patient is receiving chemotherapy or any hazardous drugs
- For 48 hours after finishing chemotherapy or hazardous drug treatment
- Pregnant caregivers should try to avoid contact with the patient’s bodily wastes for 48 hours after the patient is given chemotherapy or hazardous drugs.

**Safety once you leave the hospital**

(during treatment days and for 48 hours afterwards)

- Put the toilet lid down before flushing. Flush twice.
- If possible, family members will use another toilet. If not possible, wear gloves to clean the toilet seat after each use by the patient.
- After using a bedpan, urinal, or basin, cover the open area completely to avoid splashing when taking it to the toilet.

These guidelines will help with the safe handling of other body fluids such as urine, vomit, and blood.

Avoid sexual activity during and for 48 hours after receiving chemotherapy or hazardous drugs.

Please ask your nurse or doctor if you have any other questions or concerns.

**University of North Carolina Hospitals**

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FIGURE 2. Patient Education Pamphlet on Safe-Handling Procedures

Note. Courtesy of the University of North Carolina Hospitals. Used with permission.
volunteered to work on nursing education, ancillary staff education, patient and caregiver education, the creation of an online educational module, or the follow through on the hazardous precautions sign. The group worked for months to ensure complete dissemination of policy and practice changes. This model is replicable and demonstrates the commitment to safety that oncology nurses have for their patients, colleagues, and institution.

References


Do You Have an Interesting Topic to Share?

Safety provides readers with information on safety issues affecting patients with cancer and those caring for them. Length should be no more than 1,000–1,500 words, exclusive of tables, figures, insets, and references. If interested, contact Associate Editor Camille A. Servodidio, RN, MPH, CRNO, OCN®, CCRP, at cservod@harthosp.org.