IT’S ALL COMING OUT - Safe Handling of Body Fluid After Hazardous Drug Administration: Protecting Patients and Family Using a Dedicated Educational Brochure

Team members: Linda Chan BSN, RN, OCN®
Tracy McGaw MSN, RN, CCRN, CNRN
Deborah Spitzer MSN, RN, OCN®

Background and Significance

Hazardous drugs including chemotherapy are administered in non-oncology settings for many patient conditions, for example, methotrexate in ectopic pregnancy, hydroxyurea in sickle cell disease, and cyclophosphamide (CPA) in autoimmune disease (Jiggitts, Priest, Roesser, Sebastian-Deutsch, & Yamamoto, 2014). Health problems, such as organ toxicity, fertility problems, cancer, birth defects, or gene mutation, may occur as a result of hazardous drug exposure (Polovich, 2011). In a study with eight cancer patients who received CPA and ten same household family members, researchers found urine samples tested positive for CPA in all of the eight patients and in six of the ten family members (Yuki, Ishida, & Sekine, 2015). Samples were collected for seven days. The last urine sample positive for CPA was excreted by a family member 6.5 days after administration (154 hours) (Yuki, Ishida, & Sekine, 2015).

Purpose

To ensure safe handling of body fluids (SHBF) through the use of a teaching brochure. The brochure provides specific information about SHBF in the hospital, clinic, and home settings; addresses handling of soiled material; and informs why special safety measures are indicated.

Methods

A comparison of current literature and practice was initiated. In collaboration with in-patient and out-patient clinical nurse educators, a patient - family teaching brochure was developed. English and Spanish versions were created. Various medications take longer than 48 hours to excrete (Polovich, 2011) therefore SHBF precautions were extended from 48 hours to seven days in the hospital, clinic, and home settings. Approval for the project was obtained through Nursing Research and Evidence Based Practice Council, Patient Education Council, Shared Governance Council, Nursing Leadership, Medical Director, Medication Safety Committee, and the Environmental Health and Safety Department.

Findings

Extending SHBF precautions to seven days provides a consistent and safer response, given the variations in excretion time frames. Patient and family education is standardized with a dedicated educational brochure.

Implications for Practice

Hazardous drugs including chemotherapy are used for many non-oncology conditions for longer periods of time, potentially exposing family members and healthcare workers to low levels of hazardous drugs via body fluids. Safe exposure limits have not been determined (Zack, 2012). Teaching the patient and family SHBF, utilizing a standardized approach, may lead to improved adherence to safety measures and limit inadvertent exposure to hazardous drugs and their metabolites. Additional nursing research is needed to evaluate the effectiveness of the educational brochure.

References


Contact Information: Linda.Chan@UTSouthwestern.edu