

**Standardizing Hazardous Drug Administration
in the Non-Oncology Inpatient Settings**

Rush University Medical Center

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Problem/Background

Nurses have been reported to administer with automation devices or anti-reflection gowns with high-risk medications such as chemotherapy & cytotoxic agents.

These errors can take place in a non-oncology setting by nurses who often do not have the knowledge & expertise to safely administer these medications or to prevent errors from occurring.

No formal national standards or minimum practice competencies (education & certification) exist for oncology nurses who administer hazardous drugs.

Purpose

To increase knowledge in regards to safe administration of hazardous drugs (HDs) & subsequently reduce the number of hazardous drug related safety events (SEs) in non-oncology settings by increasing knowledge & hypersensitivity to medical abbreviations in non-oncology/patient settings.

Analysis of Supporting Literature

Reviewed literature from Oncology Nursing Society, National Institute of Occupational Safety & Health, & Society of Hospital Pharmacists.

Reviewed the hospital's survey findings regarding HD administration practices.

Project Implementation

Setting:
• 24 inpatient non-oncology units at a 664 bed urban academic medical center
Sample:
• 140 non-oncology nurses
Start Date:
• Fall 2012
Methods:
• Oncology Nursing Society's Treatment Basics Course (a four hour abbreviated chemotherapy class for non-oncology nurse champions)
• Chemotherapy Safety Education Modules
• Updated chemotherapy signs & nursing care plan
• Standardized communication
• Standardized pharmaceutical practices (ordering, labeling, & delivery)
• Review of national practice competencies
• Developed patient implementation guidelines

Evaluation Criteria

• Knowledge all non-oncology nurses regarding chemotherapy
• Post-test vs. pre-test comparison upon completion non-oncology chemotherapy knowledge
• Successful completion of 2 competency web-based modules by January 2013
• Frequency of HD dispensed by pharmacy to non-oncology patients
• Length of time to administer HDs (from time of prescription until a dispensable when drug reaches its intended abbreviation)

Program Outcomes

Chemotherapy Test Design

• Pre-Test
• Post-Test
• No training score report

Hospital Outcomes

Frequency of Hazardous/Chemical Drug Dispense at Rush University Medical Center

Non-Oncology Chemotherapy Errors

Non-Hazardous/Chemical Drug Related Safety Events (Percent of Total Chemotherapy Dispensed)

Post-test minus Pre-test

HD Trained Non-Oncology Nurse Champion (%) 2012

Web-Based Modules Completed to Evaluate RNs

Recommendations

• Didactic education improved non-oncology nurse knowledge & more importantly improved both nurse & patient safety by reducing safety events (SEs) associated with the administration of hazardous and non-hazardous medications (abbreviations respectively). & therefore should be provided to all non-oncology nurses who administer these medications.

• Additional activities are important to support non-oncology nurses in adhering to standard pharmaceutical practices (ordering, labeling, & administration practices) (behavioral) to achieve zero tolerance.

• Quality improvement activities are important to support standard practice recommendations are necessary due to the rapidly dynamic field of pharmaceuticals.

• This hazardous drug administration project serves as an efficacious model for other hospitals and other health care institutions to effectively bridge this gap.

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