Leveraging Nursing Expertise with USP<800>
Disclosure

• Martha Polovich served as:
  – A volunteer member of the Expert Panel on Hazardous Drugs to the USP Compounding Expert Committee
  – A consultant to the USP to develop educational modules for Safe Compounding and Safe Handling of Hazardous Drugs

• This talk is not endorsed by or affiliated with USP
Remember...

Sharps Safety?
Needlesticks:
Can transmit >20 diseases
- Hepatitis B
- Hepatitis C
- HIV
- Syphilis
- Malaria
- Herpes

Nurses should not have to risk their lives every time they use a needle or sharps device.
Sharps Safety History

1985
Previously unknown exposures widely known

1990
High profile exposures in news

2000
Needlestick Safety Act

2010
80% reduction in needlesticks
Hazardous Drug Exposure

- Carcinogens
- Teratogens
- Reproductive toxins
- Toxic to organs
- Genotoxins

Nurses should not have to risk their lives every time they administer drugs to patients.
Hazardous Drug Safety History

1978: Previously unknown exposures identified

1985-88: ASHP, ONS & OSHA Guidelines

1999: Early surface contamination studies

2004: No reduction in surface contamination

2010: NIOSH Alert
Why?

The power of organized nursing
Progress

• USP Chapter <797> (2008)
  – Standards for sterile HD compounding

• USP Chapter <800> (2019)
  – Standards for all HD handling activities

• Future: Reduced exposure for nurses
NURSES: MAKING THE CASE
Impact on Nurses

• Requirements: drug administration
  – CSTDs when the dosage form allows
  – Protective techniques spiking/ priming IVs
  – PPE tested for use with HDs
  – Procedures that minimize manipulating HDs
• May involve new procedures/ routines/ equipment
• *WILL* require collaboration, education, training
Quality and Safety

• “Speak” USP Chapter <800>

• Quality improvement approach
  – Assess
  – Identify problem
  – Plan intervention
  – Provide intervention
  – Evaluate impact

Craft the message
Past Recommendations → Standards

• Engineering controls:
  – Negative pressure room (drug preparation)
  – External venting of BSCs
  – Closed System Transfer Devices (CSTDs)

• PPE

• Education and Training

• Acknowledgment of Risk

*Focus on the message*
Assess Current Status

• Baseline assessment
  – An honest look at your practice setting

• Document areas of compliance
  – Assess the 18 sections of the chapter
  – Use a checklist for a comprehensive review
## 8. Hazard Communication Program

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Present</th>
<th>Absent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Written plan in place</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>b.</td>
<td>All HD containers are labeled with a hazard warning</td>
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<td>c.</td>
<td>SDS onsite for each hazardous chemical</td>
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<td>d.</td>
<td>SDSs accessible to personnel in all locations and at all times</td>
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<td>e.</td>
<td>Personnel receive initial and updated information and training</td>
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<td>f.</td>
<td>Personnel of reproductive capability confirm understanding of risks in writing</td>
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Perform a Gap Analysis

• Current state → Future state
• Steps
  – Review results of baseline assessment
  – List areas of non-compliance

Share the data
Interprofessional Team

- Pharmacy*
- Nursing*
- Administration
- Purchasing / Products Committee
- Safety Committee
- Industrial Hygiene
- Environmental Services
- Employee Health
- Quality Department*
Compliance = Safety

- Action plan
  - Specific requirements
  - Action Steps
  - Target date(s)
  - Responsible person(s)
<table>
<thead>
<tr>
<th>Specific Requirement</th>
<th>Action Steps</th>
<th>Target Date</th>
<th>Responsible Person</th>
<th>Resources Needed</th>
</tr>
</thead>
</table>
| 1. Designate a person to oversee USP<800> compliance                               | • Develop position description  
• Request applicants  
• Identify training/education needs  
• Identify education source | December 2017                 | John Smith             | XX Committee  
Fees: Education/training          |
| 2. Personnel of reproductive capability confirm understanding of risk in writing     | • Develop policy  
• Develop form  
• Develop training/education plan  
• Implement policy            | April 2018                     | Susan Jones              | Employee Health  
XX Committee                     |
Best Practice #1:
Education, Training & Competency

- Classroom instruction
- Supervised practice with a preceptor
- Measurement of knowledge
- Validation of competency
Ensuring Competent Personnel

- Information
  - Hazard Communication
- Education
  - Knowledge about HDs
- Training
  - “How to” procedures for handling HDs
- Competency validation
  - Observation/confirmation of safe practice
USP <800> Requirements for HD Education

• Job-specific for *ALL* personnel who handle HDs
  – Compounding
  – Administration
  – Handling contaminated excreta

• Training: perform and document
  – Before assuming HD handling responsibility
  – When new policies, equipment, or HDs are introduced

• Competency: demonstrate / document
  – Effectiveness of initial training
  – Reassessment at least every 12 months
Content: Information, Education, Training

• Identifying HDs and their risks
• Policies and procedures for HD handling
• Proper use of safety equipment
• Proper use of PPE
• Response to known or suspected exposure
• Spill management
• Proper disposal of HDs, contaminated items
Best Practice #2: Focus on Safety

• Policies & procedures exist; compliance is expected
• Equipment & supplies necessary for safety are available
• Safe behavior is reinforced & feedback provided
• Management supports safety programs

DeJoy, 1995; 2000; Gershon, 2007; Moore, 2005
HDs: Not Just in Oncology

2016 NIOSH List: 217 Drugs meet criteria

- Table 1: Antineoplastic HDs – 115
- Table 2: Non-antineoplastic HDs – 53
- Table 3: Adverse reproductive HDs – 49

NIOSH, 2016
Settings/ Procedures

- Hospitals
- Home Infusion
- Extended Care Facilities
- Surgery Centers
Policies, Procedures, Equipment

• Standard Operating Procedures (SOPs)
  – From loading dock to handling HD waste

• Strategies to prevent exposure
  – Proper use of engineering controls
  – Availability/ use of PPE
  – Safe work practices
Best Practice #3: Address Barriers

- Assess the workplace
- Identify barriers
  - Work flow
  - Work load
  - Staffing
  - PPE/ safety equipment
- Involve staff in the process
Potential Barriers

• Things that interfere with implementation

• Examples:
  – Financial (increased cost/ “cost shift”)
  – Practical (purchasing / storing protective equipment)
  – Environmental (safety climate)
  – Situational (time constraints)
  – Psychosocial (worker / peer attitudes)
Summary

- Nurses are at risk for HD exposure based on their responsibilities
- HD exposure can be reduced or eliminated
- Nurses have the expertise and experience to make clinical settings safer
How?

The power of nursing
Resources: HD Safety

- https://www.osha.gov/SLTC/hazardousdrugs/controlling_occex_hazardousdrugs.html#training
- www.hazmedsafety.com
- http://www.readyfor800.linqa.revqa.com/
- Safe Handling of Hazardous Drugs (ONS, 2011, 2017*)