

# ABCDEFGHIJ

## The ABCs of USP: Understanding 800

Katie Gauen, PharmD  
Medication Safety and Compliance Pharmacist  
Northwestern Memorial Hospital  
[kgauen@nm.org](mailto:kgauen@nm.org)


This speaker has no actual or potential conflicts of interest to disclose.

### Learning Objectives

- Identify the differences in the NIOSH groups and the implications for handling
- Describe engineering controls and personal protective equipment (PPE)
- Describe communication strategies used to educate staff on practice changes associated with USP 800
- List the differences between deactivation, decontamination, cleaning, and disinfection

### United States Pharmacopeia (USP)

- Group founded in 1820 that establishes product quality standards and verification
- Enforceable on state and national level
  - Joint Commission, CMS, state boards of pharmacy, etc.
- Multiple existing standards, such as:
  - USP <795> Nonsterile preparations
  - USP <797> Sterile preparations
- **Upcoming:** USP <800> Hazardous drugs – Handling in Healthcare settings
  - Enforceable July 1<sup>st</sup>, 2018
  - Purpose: to describe practice and quality standards for handling hazardous drugs in healthcare settings and help promote patient safety, worker safety, and environmental protection

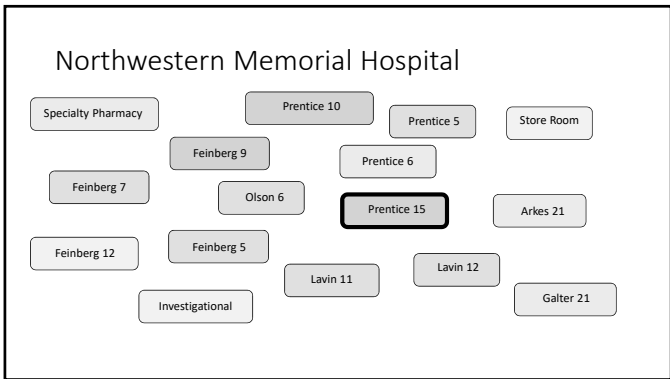
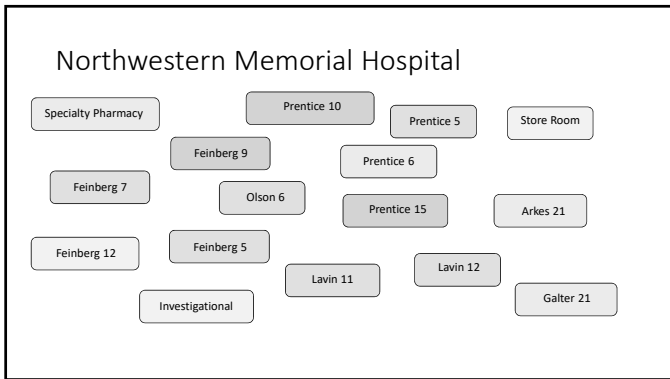


Frequently Asked Questions: United States Pharmacopeia Available at: <http://www.usp.org/frequently-asked-questions/hazardous-drugs-handling-healthcare-settings>

### Northwestern Memorial Hospital




Feinberg and Galter Pavilions      Prentice Women's Hospital



Poll Anywhere Question 1 (open ended)

*What are examples of some medications from the NIOSH list?*

### Hazardous Drugs

- List compiled by the National Institute for Occupational Safety and Health (NIOSH)
  - Part of the Centers for Disease Control and Prevention (CDC)
- List of Antineoplastic and Other Hazardous Drugs in Healthcare Settings, 2016

NIOSH List of Antineoplastic and Other Hazardous Drugs in Healthcare Settings, 2016. Available at: <https://www.cdc.gov/niosh/docs/2016-161/pdf/2016-161.pdf>

### Hazardous Drugs

- NIOSH defines hazardous drug as medications that have at least one of the following characteristics:

Classification	Definition
Carcinogenicity	Cells become cancerous
Teratogenicity or developmental toxicity	Disturb the development of an embryo or fetus
Reproductive toxicity	Fertility impairment
Organ toxicity at low doses	Evidence of serious organ or other toxicity at low doses
Genotoxicity	Damage to genetic information in cells, causing mutations
Similar structure	Chemical makeup similar to another agent already deemed hazardous

NIOSH List of Antineoplastic and Other Hazardous Drugs in Healthcare Settings, 2016. Available at: <https://www.cdc.gov/niosh/docs/2016-161/pdf/2016-161.pdf>

**Group 1**

- Antineoplastic drugs, such as chemotherapy

**Group 2**

- Non-antineoplastic drugs that meet  $\geq 1$  NIOSH criteria for being a hazardous drug

**Group 3**

- Non-antineoplastic drugs that have primarily adverse reproductive effects

**Examples:**  
Bleomycin, bortezomib, carboplatin, cisplatin, daunorubicin, docetaxel, etoposide, 5FU, methotrexate, oxaliplatin, tamoxifen

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- Antineoplastic drugs, such as chemotherapy

**Group 2**

- Non-antineoplastic drugs that meet  $\geq 1$  NIOSH criteria for being a hazardous drug

**Group 3**

- Non-antineoplastic drugs that have primarily adverse reproductive effects

**Examples:**  
Carbamazepine, cyclosporine, estrogen products, ganciclovir, mycophenolate, phenytoin, risperidone, tacrolimus, zidovudine

NIOSH List of Antineoplastic and Other Hazardous Drugs in Healthcare Settings, 2016. Available at: <https://www.cdc.gov/niosh/docs/2016-161/pdf/2016-161.pdf>

**Group 1**

- Antineoplastic drugs, such as chemotherapy

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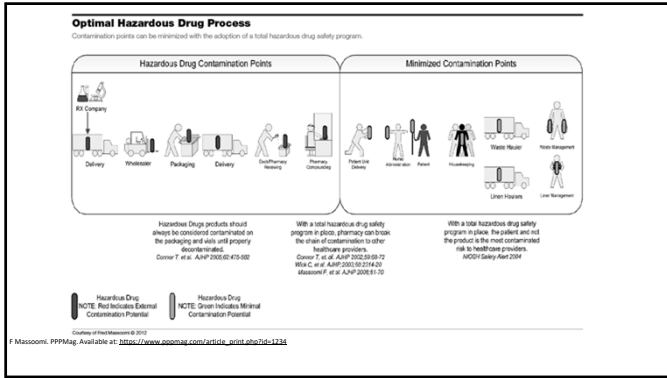
- Non-antineoplastic drugs that meet  $\geq 1$  NIOSH criteria for being a hazardous drug

**Group 3**

- Non-antineoplastic drugs that have primarily adverse reproductive effects

**Examples:**  
Clonazepam, colchicine, fluconazole, oxytocin, paroxetine, tretinoin, valproate, voriconazole, warfarin

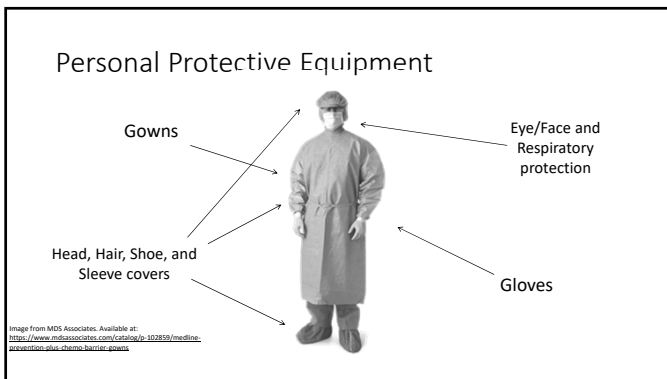
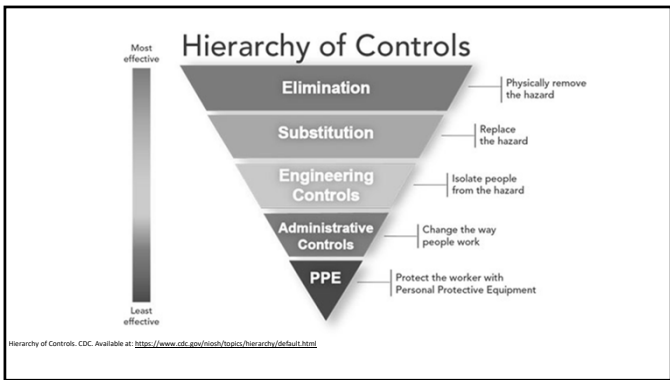
NIOSH List of Antineoplastic and Other Hazardous Drugs in Healthcare Settings, 2016. Available at: <https://www.cdc.gov/niosh/docs/2016-161/pdf/2016-161.pdf>



Which of the following are medications are considered hazardous by NIOSH?

- A. Albuterol
- B. Warfarin
- C. Levetiracetam
- D. Tamoxifen
- E. Both albuterol & tamoxifen
- F. Both warfarin & tamoxifen
- G. All of the above

What are some examples of engineering controls or personal protective equipment?



Which of the following is **NOT** an example of engineering controls or PPE appropriate for USP 800?

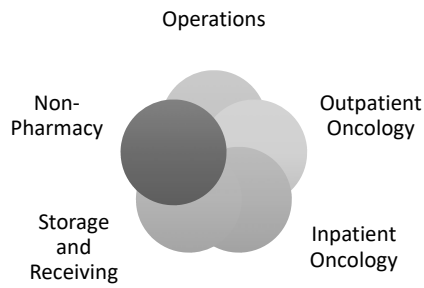
- A. Closed system transfer devices
- B. N95 mask
- C. Positive pressure hood
- D. Shoe covers

Poll Anywhere Question 3 (open ended)

*What are some examples of effective communication strategies within a pharmacy department?*

Hazardous communication

Image from Afriland Properties. Available at: <http://afrilandproperties.com/7-cs-of-effective-communication-in-business/>

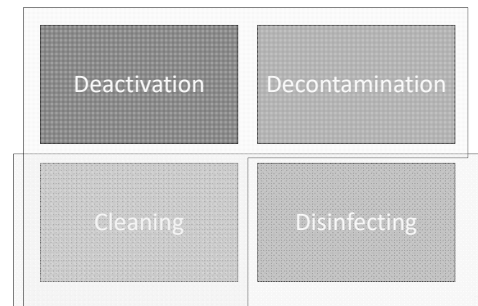


Which members of your health system are important to engage in USP 800 discussions?

- A. Occupational health
- B. Risk Management
- C. Environmental Services
- D. Compliance and Regulatory
- E. All of the above

Poll Anywhere Question 4 (open ended)

*Which products or tools are needed for deactivation? Decontamination? Cleaning? Disinfection?*



Which of the following has the right product paired with the right activity?

- A. Deactivation = Rendering compound inert or inactive
- B. Decontamination = Remove organic and inorganic material
- C. Cleaning = Destroy microorganisms
- D. Disinfection = Remove HD residue

Importance of Standard Operating Procedures

- Designated USP 800 person can help coordinate
- Outline procedures for onboarding and re-education purposes
- Find “key players” outside the pharmacy department to support efforts where other procedures may be needed

Summary

- Must have a list of hazardous drugs
- Must consider all areas of potential exposure
- Develop policies and procedures to support staff
- Reach out to colleagues at other institutions

**Questions?**

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