ADMINISTERING HAZARDOUS DRUGS 20

(See Section 14 in <800>.)

APIs of any HD and antineoplastics (except those that require only counting or packaging) must comply with all containment listed in <800>, which allows the entity to perform an Assessment of Risk to evaluate exempting specific dosage forms of HDs from the containment strategies and/or work practices. Antineoplastics that require only counting or packaging, non-antineoplastic agents, and reproductive hazards may be considered for the entity's Assessment of Risk if alternative containment strategies and/or work practices are identified and implemented.

20.1 What PPE is required for administration of parenteral HDs?

Two pairs of chemotherapy gloves and a gown shown to resist permeability by hazardous drugs (HDs) are required for administration of parenteral antineoplastic agents. The organization's policy needs to define personal protective equipment (PPE) for other HDs. Some organizations require gowns to be worn for any hazardous medication if they are liquid, manipulated on the patient care unit (e.g., crushing tablets or opening capsules), or inhaled. Additionally, some organizations require gowns to be worn for men and women who are trying to conceive, women who are pregnant, and women who are breast-feeding.

20.2 Is PPE (other than gloves) required for the administration of oral HDs?

This needs to be part of your policy and procedure and included in your Assessment of Risk.

20.3 Is there a list of recommended PPE to wear based on the dosage form administered?

Yes. The National Institute for Occupational Safety and Health (NIOSH) list of HDs[5] has a list of recommended PPE based on the dosage form administered and the manipulation required to administer that dose.

20.4 If nurses have to wear gloves for administration of HDs, do they need to change the gloves between patients?

Of course. They would not use a single pair of gloves for multiple patients.

20.5 Can a nurse crush a HD tablet at the bedside?

USP <800> allows a nurse to crush a single dose if necessary, provided they don appropriate PPE (as defined by your policy) and use a plastic pouch to contain any particles. However, if possible, pharmacy should do this under the proper containment conditions and provide a ready-to-administer form to the nurse.

20.6 What does <800> means by a *plastic pouch* to contain particles?

Plastic pouches are commercially available from pharmacy suppliers. They are individual pouches that can be used with a tablet crusher to contain any particles. The pouch is sturdy enough to withstand crushing and can be used as the container to administer the drug or place the drug in another vehicle (e.g., applesauce) for administration.

20.7 What PPE should a nurse wear when crushing HDs?

That needs to be defined in your Assessment of Risk. USP <800>[8] requires appropriate PPE and use of a plastic pouch. The appendix of the 2016 NIOSH list of HDs[8] recommends use of a gown, double gloves, and respiratory protection.

20.8 Our Emergency Department nurses might administer IM methotrexate at night when the pharmacy is closed. Do they need to take any precautions when they prepare the dose?

Nursing should *not* be doing this without the proper facilities; pharmacy should come in to prepare that dose in the proper facilities.

20.9 Why do nurses need to use a CSTD when administering chemo?

Pharmacy has robust engineering controls—hoods and negative pressure rooms—that protect the compounder. Without closed system drug-transfer devices (CSTDs), nurses have no protection other than PPE. The CSTD provides protection to personnel and the environment while they are administering antineoplastic agents.

20.10 What precautions must be made for administering oral chemotherapy through a feeding tube? There are issues in mixing the doses administered to the patient, but there are no CSTDs for this process.

Many of the oral oncology agents have no stability information available, so pre-packaging and/or pre-mixing them is often not supported. Nursing may need to crush the tablet or open the capsule at the bedside and immediately administer the agent through a tube. Of course, check with the manufacturer for information. Evaluate this in your Assessment of Risk and include the specific details (e.g., PPE, procedure) to be used. USP <800> requires use of a CSTD to administer a drug when the dosage form allows; because no such CSTD is available at this time, it does not need to be included in your procedure.

20.11 What happens when a stat oxytocin drip is needed?

Oxytocin is listed on Table 3 (reproductive hazards) of the NIOSH list of HDs.[5] It is a *situational hazard* to women in the third trimester of pregnancy. It can be handled in your Assessment of Risk, but be sure to include protection from staff who are in their third trimester of pregnancy; they should not be mixing the drug. *This particular situation is much easier to solve than some other drugs:* provide premixed, standardized solutions to your obstetric department. Be sure Anesthesia is involved in the policy and procedure development because they are usually the personnel who would mix the drug. Other than a rare need for an intramuscular (IM) dose (which should also be part of your Assessment of Risk), there is no need for anyone to prepare this drug on the patient care unit.