

## **Hazardous Materials and Waste**

### **Standard FMS.05.00**

The hospital implements a program for the management of hazardous materials and waste.

#### **Intent of FMS.05.00**

The hospital uses a variety of hazardous materials and waste. When staff are educated about safe handling, storage, and disposal of hazardous materials and waste, they are more likely to follow the process that will maintain a safe environment for patients, staff, and visitors. Therefore, it is critical for a hospital to develop and implement a written program for the management of hazardous materials and waste that includes identifying and safely controlling these materials and waste throughout the facility.

The hospital identifies and develops an inventory of its hazardous materials. The hospital starts by doing a thorough search for all areas within the organization where hazardous materials may be located. Documentation from this search should include information about the type of each hazardous material being stored, the quantities of the material(s), and the location(s) in the organization. This documentation should also address the maximum quantities allowed for storing the hazardous material in one location/area. For example, if the material is highly flammable or toxic, there are limits on the quantities of the material that can be stored in one location. An inventory of hazardous materials is created and updated, at least annually, to reflect changes in the hazardous materials used and stored in the organization.

Hazardous materials can be categorized by the following:

- Chemicals (for example, chemicals used for cleaning, disinfection, sterilization, water treatment, pathology, pharmacy, hand hygiene)
- Cytotoxic and hazardous drugs
- Radioactive material
- Hazardous gases and vapors

The hospital also establishes the types of hazardous waste generated by the organization and how they are identified (for example, color-coded and labeled waste bags/bins). The following are categories of hazardous waste:

- Infectious
- Sharps
- Pathological and anatomical
- Pharmaceutical
- Chemicals/heavy metals/pressurized containers
- Genotoxic/cytotoxic
- Radioactive material

The hospital's hazardous materials and waste program complies with all applicable laws and regulations and national standards, and addresses hazardous materials and hazardous waste to include processes for the following:

- Taking inventory of hazardous materials and waste, including the type, the location(s), and the quantities (for example, approximate or average in each location)
- Updating the maximum allowed quantity for each location at least annually
- Safely handling, storing, and using hazardous materials
- Properly and clearly labeling hazardous materials, consistent with information from the safety data sheets (SDS)
- Establishing and identifying categories of hazardous waste
- Safely handling and storing hazardous waste

- Tracking the quantity of and proper disposal of hazardous waste in accordance with local laws and regulations
- Employing proper protective equipment and procedures for spills and exposures
- Reporting and investigating spills, exposures, and other incidents
- Documenting permits, licenses, or other regulatory requirements

Information regarding procedures for handling or working with hazardous materials and waste in a safe manner must be immediately available at all times and includes information about the physical data of the material (such as its boiling point, flashpoint, and the like), its toxicity, what effects using the hazardous material may have on health, identification of proper storage and disposal after use, the type of protective equipment required during use, and spill-handling procedures, which include the required first aid for any type of exposure. Many manufacturers provide this information in the form of SDS.

In the event of a hazardous materials spill, the hospital has procedures for responding to and managing spills and exposures. Procedures include having spill kits available where needed with the appropriate personal protective equipment and spill control materials for the potential type and size of spill. Procedures also address how to report spills and exposures.

Hospitals implement procedures for responding to a hazardous material exposure, including initial first aid, obtaining appropriate medical care, reporting incidents, and so on. Exposure to a hazardous material requires immediate access to the appropriate first aid. In some cases, such as with an exposure to a corrosive or caustic chemical, access to an eyewash or shower station may be necessary for immediate and continuous flushing to prevent or minimize injury. An eyewash station is designed to flush both eyes simultaneously for 15 continuous minutes at a flow rate of 1.5 liters per minute (0.4 gallons per minute). However, an eyewash station may not be needed in all cases of hazardous material exposures. Hospitals should conduct a risk assessment to identify where in the organization eyewash stations are required, taking into account the physical properties of the hazardous chemicals used, how these chemicals are used by staff to perform their work activities, and staff's use of personal protective equipment. Alternatives to an eyewash station may be appropriate depending on the types of risks and potential for exposures. For example, personal eyewash bottles may be appropriate in areas where exposure to a mild irritant is a risk, or where individuals could use the bottles for immediate flushing as they make their way to a proper eyewash station or get to an area for medical attention. Hospitals that have eyewash or shower stations installed must ensure proper maintenance, including a weekly flush and annual preventive maintenance.

### Measurable Elements of FMS.05.00

1. ☉ The hospital develops and implements a written program for the management of hazardous materials and waste. (*See also* HRP.02.01, ME 2)
2. ☉ The hazardous materials and waste program identifies the type, quantities, and locations of hazardous materials and waste, and has a complete inventory, which is updated at least annually, to reflect changes in the hazardous materials used and stored in the organization. (*See also* AOP.03.05, MEs 1 and 5; MMU.03.00, ME 2; PCI.05.00, ME 1)
3. The hazardous materials and waste program establishes and implements procedures for clear labeling, safe handling, storage, and use of hazardous materials that is consistent with safety data sheets.
4. The hazardous materials and waste program establishes and implements the proper protective equipment required during handling and use of hazardous materials.
5. The hazardous materials and waste program establishes and implements procedures for the management of spills and exposures, including the use of proper protective equipment and reporting of spills and exposures.
6. Information about the hazardous materials related to safe handling, spill-handling procedures, and procedures for managing exposures are up to date and available at all times.
7. Staff can describe and/or demonstrate precautions and procedures for handling and managing hazardous materials and waste, as applicable to the staff member's role and responsibilities.