

Standard Intent:

Vaccine storage and handling are key components in maintaining the efficacy of immunization programs. Vaccines are biological substances that may lose their effectiveness quickly if they become too hot or too cold at any time, especially during transport and storage. Storage outside of the recommended temperature range, including during transport and storage, may speed up loss of potency, which cannot be reversed. Inappropriate storage may result in vaccines wastage, or if undetected, failure of the vaccine to protect. Due to the delicate nature of vaccines, continuous monitoring of temperature is indicated. The devastating effect of electric power outage shall be mitigated through connection of vaccine refrigerators to emergency power supply. To avoid contamination, refrigerated medications, biologicals and vaccines shall not be stored with food, drinks, biological samples, and culture media in the same refrigerator.

Refrigerated and frozen pharmaceuticals must be secured and access be limited to authorized personnel only. Routine inspection of refrigerated and frozen pharmaceuticals by qualified pharmacy staff is indicated to ensure compliance with given standards. The objectives of drug storage shall be to ensure stock security and the maintenance of the quality of drugs throughout their shelf life.

MM.13 The hospital has a safe and secure system for the storage and safe management of hazardous medications and pharmaceutical chemicals.

- MM.13.1 There is a written policy on proper storage and handling of hazardous medications and pharmaceutical chemicals.
- MM.13.2 The hospital has a list of hazardous medications and pharmaceutical chemicals in areas where they are stored or used.
- MM.13.3 Hazardous medications and pharmaceutical chemicals are stored separately on low shelves and in the original labeled containers.
- MM.13.4 Flammables and volatile substances are stored in appropriate safety cabinets in well ventilated areas.
- MM.13.5 Spill kits and personal protective equipment are readily available.
- MM.13.6 For staff involved in the handling of chemicals and hazardous medications (such as chemotherapeutic agents) who are attempting to conceive, pregnant, or breast feeding, a structured process is in place to review potential exposure risks and offer alternative work assignment.
- MM.13.7 Material safety data sheets (MSDS) for all available hazardous medications and pharmaceutical chemicals are available and accessible to staff.

MM.13.8 Eye wash station and emergency water shower are available where hazardous medications and pharmaceutical chemicals are located.

MM.13.9 The hospital staff are well educated on the proper storage and handling of hazardous medications and pharmaceutical chemicals and spill management.

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Worker exposure to hazardous drugs has been identified by OSHA as a problem of increasing health concern. Improper storage and handling of hazardous medications and pharmaceutical chemicals may expose healthcare workers to potentially significant levels of these chemicals. Antineoplastic cytotoxic medications, anesthetic agents, anti-viral agents, and others, have been identified as hazardous. These hazardous medications are capable of causing serious effects including cancer, organ toxicity, fertility problems, genetic damage, and birth defects. Hospital should create and keep a current list of drugs considered to be hazardous in their workplace. Use the criteria and sources of information provided by NIOSH, as well as specific information found in each manufacturer's Material Safety Data Sheet (MSDS) to create a list of Hazardous Drugs used in their specific department.

Hazardous drugs are stored in a separate, labelled and secured cabinets away from non-hazardous drugs while flammables require special fire-safety cabinet with proper ventilation. Spill control protocols (e.g. spills kits and use of emergency eyewash stations and showers) should be readily available. A key element of this safety program is the availability of Material Safety Data Sheet (MSDS) for all hazardous agents in the workplace. Personal Protective Equipment (PPE) are essential for handling hazardous drugs. Staff education on safe handling and spill management is of paramount importance.

MM.14 The hospital has a system for ensuring stability of medications available in multi-dose containers.

MM.14.1 The hospital develops and maintains a set of guidelines for ensuring stability of multi-dose vials, vaccines, multi-dose oral liquids, and other multi-dose medications (e.g., eye, ear, and nasal drops, creams, ointments, nebulization solutions).

MM.14.2 The hospital ensures that all open multi-dose containers are labeled with open date, expiry date, initials, and time (if necessary).

MM.14.3 The hospital ensures that no expired open or unlabeled open multi-dose containers are available in patient care areas.
