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Policy Area Infection Prevention
Applicability UNC Medical Center

Pharmacy

I. Description

Describes the infection prevention and control guidelines followed by Pharmacy for the compounding and distribution of patient medications.

II. Rationale

Aseptic technique is critical to reduce the risk of infection associated with pharmaceutical products. Strict adherence to the guidelines in this policy can reduce the risk of product contamination and potential infection.

III. Policy

A. Personnel

1. Personnel should adhere to the following Infection Prevention policies where applicable:
 - a. [Ambulatory Care Clinical Services](#)
 - b. [Exposure Control Plan for Bloodborne Pathogens](#)
 - c. [Guidelines for Disposal of Regulated Medical Waste](#)
 - d. [Hand Hygiene and Use of Antiseptics for Skin Preparation](#)
 - e. [Infection Control and Screening Program: Occupational Health Service](#)
 - f. [Infection Prevention Guidelines for Adult and Pediatric Inpatient Care](#)

- g. [Isolation Precautions](#)
 - h. [Sterilization of Reusable Patient-Care Items](#)
 - i. [Tuberculosis Control Plan](#)
2. Personnel with signs or symptoms of communicable diseases per the Infection Prevention policy: [Infection Control and Screening Program: Occupational Health Service](#) must not handle IV fluids or other medications. Personnel should be evaluated by Occupational Health Service (OHS) and follow established policy guidelines.
 3. Department of Pharmacy personnel who participate in IV fluid compounding follow guidelines as outlined in Pharmacy Administrative policy: [Compounded Sterile Preparations](#).
 4. Personnel should avoid direct hand contact with medications. Clean counting trays, spatulas, and/or other devices should be used.
 5. If it is necessary for personnel to directly handle medications (e.g., tablets or capsules being prepackaged in the Unit Dose Strip-Packer), hand hygiene must be performed and a clean pair of examination gloves must be used to protect the person and the medications.
 6. Food must not be consumed in the work areas of the Pharmacy. Drinks may be consumed in all areas except the Anteroom or Cleanroom where compounding occurs.
 7. Education
 - Infection Prevention education via LMA including OSHA Bloodborne Pathogen and TB training is required initially upon employment and annually thereafter.

B. Recall of Contaminated Items

- If any medications are found to be contaminated, they will be retrieved according to Pharmacy Administrative policy: [Medication Recalls](#).

C. Equipment

1. Inpatient medication storage bins in the Pharmacy Department are cleaned on a routine basis and when visibly soiled with 70% isopropyl alcohol or EPA-registered disinfectant. Equipment cleaned with 70% isopropyl alcohol should be allowed to air dry prior to using.
2. Tablet counting trays are cleaned with 70% isopropyl alcohol on a routine basis (e.g. daily) and when the tray is visibly contaminated.
3. No food, drinks or specimens may be stored in refrigerators, freezers, or other areas

intended for the storage of pharmaceuticals, supplies, or equipment.

4. Pharmacy refrigerators (housed in the pharmacy [e.g. central inpatient or satellites]) and freezers are wired to sound alarms in the Plant Engineering Department. An alarm will activate if the temperature goes outside the proper range. Plant Engineering will notify Pharmacy of any alarms. Pharmacy personnel are responsible for the routine cleaning of refrigerators and when spills occur. Cleaning of the medication refrigerators (e.g. Pyxis refrigerators) on the patient care units is the responsibility of nursing personnel.
5. Storage areas within the automated dispensing machines (e.g., Pyxis) are the responsibility of the Pharmacy Department. The interior and shelving should be cleaned when dust/debris has accumulated, upon request, or after a spill of a medication.
6. Cleaning of the top work surface is the responsibility of Nursing and Environmental Services (ES).

D. General Housekeeping

1. Countertops are wiped down with an EPA-registered disinfectant (preferred) according to the manufacturer's instructions for use, or 70% isopropyl alcohol at least once during each shift and when visibly soiled or known to be contaminated by department personnel. Surfaces cleaned with 70% isopropyl alcohol should be allowed to air dry prior to using.
2. Floors are cleaned according to Infection Prevention policy: [Environmental Services](#).
3. Floors should remain clear of boxes and clutter to allow for adequate cleaning of the floors.

E. Formulations

1. Sterile water for irrigation or commercially prepared distilled water is used for non-IV compounding procedures (e.g., oral suspension reconstitutions). Sterile pour (irrigation) solutions are single-use and the unused portion must be discarded immediately after use.
2. Refer to the Patient Care – Medication Management policy [Medication Management: Use of Multi-Dose Vials/Pens of Injectable Medications and Vaccines in Acute Care and Ambulatory Care Environments](#) for multi-dose vial use outside the pharmacy.
3. Aseptic technique must be used when entering a medication vial. Vials should be handled with clean hands. Cleanse the rubber diaphragm of the medication vial with a sterile alcohol pad before accessing the vial. Use a new sterile syringe with a new needle or a new sterile vial adaptor for each access. If touch contamination occurs before penetrating a vial, repeat alcohol cleansing procedure and discard

contaminated needle/syringe. If contamination occurs after vial is penetrated, discard the vial and needle/syringe.

F. Admixture Services

- Refer to Pharmacy Administrative policy: [Compounded Sterile Preparations](#) for all related policy content.

G. Hazardous Products

1. The following products are prepared in the Class II Biological Safety Cabinet:
 - a. Blood products
 - b. Anti-neoplastic medications
 - c. Parenteral investigational drugs
 - d. Substances which pose a potential hazard to the operator of the equipment
2. Refer to the Environmental Health and Safety policy: [Handling and Administration of Hazardous Drugs](#) for all related content.
3. Needles are discarded in designated needle disposal containers and are not recapped before disposal. Needle disposal containers must conform to OSHA/NIOSH guidelines for sharps containers (refer to the Infection Prevention policy: [Exposure Control Plan for Bloodborne Pathogens](#)). Needle containers, when 2/3 full, are securely closed and discarded in the red trash bags.
4. Materials contaminated with potentially infectious agents (e.g., BCG vaccine) are discarded in red trash bags for incineration. Refer to Infection Prevention policy: [Guidelines for Disposal of Regulated Medical Waste](#) for details on materials that should be discarded in red trash bags.
5. Red bag refuse containers are removed at least once a day by Environmental Services.

H. Quality Control

- Sterile products prepared by the Pharmacy Department in batch (i.e., not patient-specific) are assigned unique lot numbers.

I. Special Formulations Services

1. Sterile products are prepared in accordance with the procedures outlined in Pharmacy Administrative policy: [Extemporaneous Compounding](#).
2. The reuse of commercial containers and disposable supplies is prohibited.

J. Special Services

- Refer to Pharmacy Services Standard Operating Procedure (SOP) [Leech Therapy](#) for all related content.

K. Implementation

The implementation and enforcement of this policy is the responsibility of the Director of Pharmacy.

IV. References

USP <797> Pharmaceutical Compounding - Sterile Preparations. (2014). Association for Professionals in Infection Control and Epidemiology (APIC) Text. Section 110: Pharmacy Services. 2014

V. Related Policies

[Environmental Health and Safety Policy: Handling and Disposal of Hazardous Drugs](#)

[Infection Prevention Policy: Ambulatory Care Clinical Services](#)

[Infection Prevention Policy: Environmental Services](#)

[Infection Prevention Policy: Exposure Control Plan for Bloodborne Pathogens](#)

[Infection Prevention Policy: Guidelines for Disposal of Regulated Medical Waste](#)

[Infection Prevention Policy: Hand Hygiene and Use of Antiseptics for Skin Preparation](#)

[Infection Prevention Policy: Infection Control and Screening Program: Occupational Health Service](#)

[Infection Prevention Policy: Infection Prevention Guidelines for Adult and Pediatric Inpatient Care](#)

[Infection Prevention Policy: Isolation Precautions](#)

[Infection Prevention Policy: Sterilization of Reusable Patient-Care Items](#)

[Infection Prevention Policy: Tuberculosis Control Plan](#)

[Patient Care Policy: Medication Management: Use of Multi-Dose Vials/Pens of Injectable Medications and Vaccines in Acute Care and Ambulatory Care Environments](#)

[Pharmacy Administrative Policy: Compounded Sterile Preparations](#)

[Pharmacy Administrative Policy: Extemporaneous Compounding](#)

[Pharmacy Administrative Policy: Medication Recalls](#)

Approval Signatures

Step Description	Approver	Date
Policy Stat Administrator	Kimberly Novak-Jones: Nurse Educator	04/2022
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