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Policy Area Infection Prevention  
Applicability UNC Medical Center

## Infection Prevention Guidelines for Imaging Services

### I. Description

Describes guidelines to minimize the risk for transmission of infection among patients and personnel in Imaging Services areas.

### II. Policy

#### A. Infection Prevention Considerations for Imaging Services

1. Whenever possible, elective imaging procedures for patients with communicable diseases should be deferred until the patient is no longer infectious.
2. The unit requesting imaging services must notify the Imaging Services department of the isolation precautions status prior to the patient's arrival, via Epic or verbally.
3. Ideally, procedures for patients on Isolation Precautions will be done in the patient's room. If patients on Isolation Precautions must have an imaging procedure performed in the Imaging Services department, they should be scheduled at a time when activity is at a minimum to prevent contact with others, and the waiting time be kept to a minimum, when possible based on the patient's acuity.
4. Waiting room areas will be monitored by all staff for patients with signs or symptoms of communicable diseases (e.g., coughing, sneezing, vesicular lesions), and whenever possible, these patients will be moved to private areas. For patients with signs of respiratory illness, refer to the Infection Prevention policies: [Isolation Precautions](#) and [Infection Prevention Guidelines for Safe Patient Care](#).

5. In Nuclear Medicine, when the patient is to receive radioactive-tagged blood cells, the following is to occur:
  - a. Radioactive tagged blood is transported to the patient's room in an appropriately shielded container placed in a biohazard bag or container displaying a biohazard symbol.
  - b. When the radioactive-tagged blood has been administered to the patient, the empty syringe will be transported back to the Nuclear Medicine Lab in the appropriately shielded container or bag displaying a biohazard symbol for disposal.
  - c. The interior and exterior of the appropriately shielded container must be disinfected with an EPA-registered disinfectant before and after it is used to carry a blood sample.
  - d. Countertops, workspaces and equipment in the Nuclear Medicine Radiopharmacy should be cleaned with an EPA-registered disinfectant daily, when visibly soiled, or when known to be contaminated following Nuclear Medicine Pharmacy Protocols.

## B. Reusable Equipment and Devices

**NOTE:** Refer to the [Infection Prevention Policy: Cleaning and Disinfection of Non-Critical Items](#) for additional guidance on items not addressed here.

1. All radiological equipment must be cleaned after every procedure in the operating room.
2. Lead aprons should be cleaned weekly and when visibly soiled.
3. Cassettes and grids should be placed in plastic bags before placed in contact with the patient and cleaned with an EPA-registered disinfectant after each use. When feasible, all positioning equipment should be placed in a plastic bag or covered before placed in contact with the patient and cleaned with an EPA-registered disinfectant after use.
4. Portable Machines:
  - a. Upon completion of the procedure, the cover should be removed before placing the equipment into the portable machine. This can be done by opening the compartment, sliding the cassette out of the bag and into the compartment, and then closing it with a gloved hand, discard the plastic cover while inside the patient's room.
  - b. Remove and discard in the regular trash all personal protective equipment including the cover used for the procedure and perform hand hygiene before leaving the patient's room.

- c. Move the machine into the hallway for cleaning. The parts of the portable x-ray machine that have been touched by the tech or patient or may have come into contact with contaminated items in the room will be cleaned. Using a new pair of gloves, wipe down the portable machine, taking care to include the control pad, hand held device, and push bar, as well as the compartment handle. After removal of gloves, immediately perform hand hygiene.
- d. Portable radiography equipment must be cleaned before entering the room of a patient on Protective Precautions.

## C. Invasive Imaging Services Procedures (e.g., Fluoroscopy, Myelogram, CT Scan, Ultrasound Image-Guided Biopsies)

The following guidance applies to all individuals entering the procedure rooms.

1. **Dress code:** Upon entering the procedure room, personnel must wear clean apparel. Hair on the head and face must be fully covered to prevent shedding of hair and squamous cells. **Surgical masks should be worn when performing a myelogram or a lumbar puncture.**
2. **Air Control:** Movement in and out of the room should be kept at a minimum. Doors should remain closed to the procedure room.
3. **Patients' Dress:** Patients entering the procedure room should be dressed in clean attire such as a clean hospital gown or other hospital attire (e.g. pajamas). For certain procedures or injections, the physician may allow the patient to wear their personal clothing into the procedure area.
4. **Skin preparation and drape:** Skin preparation of the procedure site will be performed using aseptic technique. Two percent CHG and alcohol (Chloraprep) is the preferred antiseptic agent for skin preparation. Tincture of iodine 1% - 2%, iodophors or 70% alcohol may be used. Sterile towels will be used to isolate the site. The patient will then be covered with the exception of prepared areas, using sterile towels or sterile drapes.
5. **Instrument Control:** All opened reusable instruments and supplies regardless of whether they are used or not during the case must be properly reprocessed before reuse. Refer to the Infection Prevention policy: [Sterilization of Reusable Patient-Care Items](#). While a case is in progress in the procedure room, only personnel performing the procedure may have access to the instrument tables with open instruments. Single-use devices/supplies may not be reprocessed.
6. **Equipment**

- a. **Sterile Tray:** A sterile tray appropriate for the procedure will be set up by staff trained in aseptic principles and techniques. A sterile drape covers the tray. A sterile field should be prepared as close as possible to the time of use.
- b. **Transducers:** Perform hand hygiene with an antimicrobial product before handling the transducer. During the procedure, the transducer will be covered with a sterile probe cover or drape, as appropriate. Only use single-use ultrasound gel products labeled as "sterile" for ultrasonography in preparation for or during percutaneous procedures.
- c. After the procedure, the device and cable will be wiped per manufacturer's instructions for use (MIFU) and UNC Hospitals policies followed for disinfection or processing prior to reuse.
- d. **IV Fluids/Contrast Media:** All IV fluids and connectors will be newly opened for each case using the closed system in the special procedures rooms.
- e. **Medications:** Aseptic technique must be used when entering medication vials. Vials should be handled with clean hands or clean gloves. Cleanse the rubber diaphragm of the medication vial with sterile alcohol before withdrawing contents of vial. Use a new sterile syringe with a new sterile needle for each access. Single use medication vials must be discarded immediately after initial use. For multi-dose vials, refer to the Patient Care -Medication Management policy: [Medication Management: Use of Multi-Dose Medications and Vaccines in Acute, Operative, and Ambulatory Care Environments](#).

## D. Implementation and Monitoring

The responsibility for both the implementation and monitoring of this policy belongs to the Imaging Supervisors, the Medical Director, the Section Chiefs, as well as the Administrative Director of Imaging Services. New staff will be instructed in the method of compliance to this policy. The technical supervisor, Patient Services Managers, and chief technologists serve with the Director as monitors.

## III. References

Kuan Kok, William C. Torreggiani, Deborah M. Nihill, Addressing Imaging Services and Radiation Oncology. In: Dean R, Popescu S, eds. APIC Text 2024. Available at <https://text.apic.org/toc/infection-prevention-for-practice-settings-and-service-specific-patient-care-areas/imaging-services-and-radiation-oncology> Accessed May 23, 2025

## IV. Related Policies

[Infection Prevention Policy: Chlorhexidine Gluconate \(CHG\) Treatment and Skin Antisepsis](#)

[Infection Prevention Policy: Cleaning and Disinfection of Non-Critical Items](#)

[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](#)

[Infection Prevention Policy: Infection Prevention Guidelines for Perioperative Services](#)

[Infection Prevention Policy: Infection Prevention Guidelines for Safe Patient Care](#)

[Infection Prevention Policy: Isolation Precautions](#)

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

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

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

[Patient Care Policy: Medication Management: Use of Multi-Dose Medications and Vaccines in Acute, Operative, and Ambulatory Care Environments](#)

[Radiology Policy: Infection Prevention - Soiled Equipment Mammo](#)

[Radiology Policy: Infection Prevention Mammo Ultrasound Procedures](#)

[Radiology Policy: Infection Prevention Mammography](#)

## V. Responsible for Content

Infection Prevention

### Approval Signatures

Step Description	Approver	Date
Policy Stat Administrator	Judith Strubin: Mgr Program-IP	11/2025
AVP Quality UNCMC	Erin Burgess: HCS Exec Dir Quality Improvement Complex AMC	11/2025
Dir Epidemiology	Emily Vavalle: HCS Exec Dir Infection Prevention	11/2025

## Applicability

UNC Medical Center

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