

Department of Radiology  
General Radiology Section

**Purpose:** To provide optimum patient care and minimize the risk of healthcare-associated infections within the Department of Radiology with adherence to established procedures and guidelines in handling of equipment and in the performance of procedures will be reduced.

**Policy:**

**ASSESSMENT OF PATIENTS**

1. Standard Precautions are used for all patients.
2. Patients are assessed in waiting rooms and during procedures for any infectious process.
3. If a patient or visitor is coughing, he is given tissue and/or submicron mask. If excessive coughing, the patient is placed in a single room as soon as possible.
4. Every effort is made to keep body fluids confined and contained.

**HAND WASHING**

1. For complete procedure, refer to the handwashing procedure in IC 2.0 Hand Hygiene.
2. Routine Patient Care: A thorough handwashing with soap and water is done before and after contact with any patient.
3. Hospital approved alcohol-based hand sanitizer is available and may be used when hands are not visibly soiled.

**PATIENT SKIN PREPARATION RECOMMENDATIONS**

1. The Skin is cleaned with soap and water if grossly soiled. Chlorhexidine solution or Chloraprep One Step (Chlorhexidine 2% with alcohol) is used before invasive procedures. Chloraprep Sepp or alcohol swabs are used for IV punctures. For complete instructions refer to IC Policy 22.0 Skin Preparation for Invasive Procedures.

**GENERAL INFECTION CONTROL GUIDELINES**

1. Occupational Health Guidelines are followed. All new employees are initially evaluated by OHC. Annual evaluations are required thereafter. All employees are encouraged to keep immunizations. Current supervisors should promptly schedule all employees with OHC for evaluation, immunization, and follow-up as appropriate.
2. Personnel maintain good personal hygiene while working with patients such as wearing clean uniforms, coughing into disposable tissue, and not performing direct patient care when hands have cuts or draining areas.

3. Clean gloves are worn when it is anticipated what personnel may have contact with blood and other potentially infectious material (OPIM), mucus membranes and non-intact skin. Gloves are worn when performing vascular-access procedures and when handling contaminated items.
4. Routinely, the cleaning up of spills is done by Environmental Services. However, when spills occur in high-traffic areas, Radiology personnel should clean up spills immediately.
5. Clean gloves are worn for cleaning-up spills of body fluids. Strict handwashing is also ~~observed~~ performed after removing the gloves.
6. Splash-proof disposable gowns are available and worn if exposure to blood or OPIM is reasonably anticipated.
7. Mask and goggles may be used if there is possibility of heavy splashing.
8. Sinks are not used for discarding any patient secretions or excretions; a designated toilet is used and the material is flushed down the drain. Staff must wear appropriate PPE when emptying containers.
9. A suction machine is maintained with a sterile suction catheter to ensure that suction is readily available. The suction canister, tubing, and catheter are changed between each patient use. They are placed in a contaminated box for ultimate incineration.
10. The emergency cart contains an ambu bag or other breathing bag and three clean masks, (small, medium, large), which are covered with plastic dust covers, as well as assorted sizes of airways, clean and ready for use at all times. They are sent to Central Service for processing after each use.
11. Linen is stored in a clean, designated area. Linen is changed between each patient procedure. The table is cleaned thoroughly with disinfectant if contaminated with blood or OPIM.
12. Sterile supplies are checked and rotated to ensure package integrity. Chemical indicators in each pack as well as the packaging integrity is checked before use.
13. In departments such as O.R., OB, and NICU requiring special attire, the person performing these procedures must be appropriately attired and follow the Infection Control guidelines for that area.
14. Used needles and syringes are handled cautiously and not recapped. The used needle and syringe is placed in a sharps container for ultimate disposal.
15. Sterile and clean supplies are stored separately but can be stored in the same room. They are stored no less than 12 inches from the floor and 18 inches from the ceiling. Only dirty items are stored in the dirty utility room.
16. Special considerations for prevention of infection:
  - a. IV catheters in place are not disturbed.
  - b. IV's are not connected until immediately before use.
  - c. IV solutions are not premixed.
  - d. When handling patients with indwelling urinary catheters, care is taken not to elevate the urine bag above the bladder to reduce the incidence of

reflux back into the bladder. Bags are attached to the side of the bed or a bag holder is used.

e. Single vials of medication are used once and then discarded.

17. The *Infection Control Bit*, which includes the Bloodborne Pathogens Control Plan, TB Control Plan, and Isolation Guidelines are followed. The BIT can also be accessed on line at:

[http://www.medcom.lsuhs-c-s.edu/cfdocs/policies/IC\\_Revisions.cfm](http://www.medcom.lsuhs-c-s.edu/cfdocs/policies/IC_Revisions.cfm)

### **ISOLATION PROCEDURES**

1. Standard precautions are used for all patients. When a patient who is in isolation is brought to the Radiology Department, personnel refer to the Infection Control BIT located in the department or available online. The transferring department must notify the receiving department when the patient requires isolation.
2. If the patient requires respiratory isolation, the patient is immediately placed in procedure room D2-15A (Room 7 44). The exam is prioritized and the patient is returned to the nursing unit as quickly as possible. The healthcare worker wears a mask whenever in the room. The patient wears a mask in transport. The Infection Control nurse is consulted as needed.
3. If the procedure is to be done in the patient's room, personnel wear the attire recommended on the isolation signage or as directed by the nursing service.
4. If the patient is coughing and is to have a chest x-ray it should be done in room D2-15A (Room 7 44). If other procedures are ordered, it may be necessary for the procedure to be done in other rooms.
5. Rooms where respiratory isolation patient are seen are left vacant for the appropriate time. (Refer to TB Exposure Control Plan)

### **PROCESSING OF EQUIPMENT**

1. Disposable items are never reused.
2. Reusable items: Reusable items are sent to Central Service for cleaning and processing after each use. These items are not rinsed in this department. Refer to IC Policy 7.1: Reuse of Disposable Items and Equipment.

### **CLEANING OF ROOMS USED FOR INVASIVE PROCEDURES**

1. Rooms are to be thoroughly cleaned by Environmental Services daily. Floors are to be mopped daily and when spillage occurs.
2. Radiology personnel clean tables after each procedure with the hospital approved disinfectant.

### **SPECIFIC PROCEDURES**

1. See IC Policy 22.0, Skin Preparation for Invasive Procedures.
2. See Handwashing Policy, IC 2.0.
3. Personal Protective equipment is available and worn if there is a possibility of splashing.
4. Procedure Group 1
  - a. Myelography

- Handwashing with an antiseptic for 4-6 min.
    - Attire – Sterile gloves
  - b. ERCP (performed in Operating Room)
    - Thorough Handwashing
    - GI nurse accompanies patient and GI Physician does the procedure.
    - Scope processed in Endoscopic Lab.
  
- 5. Procedures Group 2
  - a. Arthrography
    - Handwashing with an antiseptic for 4-6 min.
    - Attire of Physician and Assistant – Sterile gloves.
  
- 6. Procedures Group 3
  - a. Intravenous Pyleography
  - b. Venography
    - Handwashing –routine handwashing
    - No special attire for physician and assistant
    - Gloves
  
- 7. Procedures Group 4
  - a. Fistulography and T-Tube cholangiography
    - Handwashing with antiseptic for 4-6 min.
    - Attire – sterile gloves
    - Skin preparation for the procedure – Chlorhexidine prep
  - b. Hysterosalpingography – Done by Obstetrics Physicians, Upper GI, and Esophogram procedures
    - Handwashing- wash hands thoroughly with antiseptic after each procedure
    - No special attire
    - Skin preparation – No special skin preparation

## **INFECTION CONTROL TECHNIQUES IN BEDSIDE RADIOGRAPHY**

- 1 Soiled equipment is not taken into patient's room. Care is taken that x-ray machines are kept clean daily by Radiology personnel using a the hospital approved disinfectant.
2. CR plates/detectors ~~Cassettes~~ and any parts of the equipment that touch a patient must be wiped with a clean wet cloth with the hospital approved disinfectant between each patient use.
3. When a mobile x-ray machine is taken to a patient in isolation, the technologist wears proper attire, as outlined on the Isolation Precaution Sign

attached to the door, or as otherwise directed by the nursing service personnel.

- a. When two technologists are entering the isolation room one is designated to operate the equipment only (clean person); the other is designated to position the patient and to manipulate the patient's environment (contaminated person), including the door and any other items coming in contact with the patient or his environment.

### **ROUTINE CLEANING OF THE RADIOLOGY DEPARTMENT**

1. Daily routine cleaning of rooms with the Housekeeping disinfectant is the responsibility of Environmental Services.
2. Radiographic tables and other stationary equipment is to be cleaned by Radiology personnel with the hospital approved disinfectant between patients if there is spillage.
3. Machines, chin rest, and x-ray cassettes are routinely cleaned when necessary by radiology personnel.
4. Tables and other equipment used for special procedures are to be thoroughly cleaned with housekeeping disinfectant immediately after use by Radiology personnel.
5. Overhead cables, tube support columns, control boards/panels and all other electrical equipment are dusted daily and PRN by Radiology personnel.
6. Ventilators and fan-outlet parts are to be cleaned during preventive maintenance by appropriate service engineers.
7. Shelves and other storage areas are cleaned monthly.
8. Floors are cleaned with the housekeeping disinfectant daily or more often as needed by Environmental Services personnel.
9. Lead aprons are cleaned with soap and water on a weekly basis and when soiled by radiology personnel.
10. Any spills of body fluids are cleaned by Environmental Services personnel unless spill is in a traffic area; in which case, the spill is cleaned immediately by Radiology personnel.

### **DISPOSAL OF WASTE**

1. All contaminated waste is placed in a contaminated trash box to be incinerated. (Refer to IC Policy 6.0: Waste Policy: Contaminated/Regular.)

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Revised: 84, 85 86, 87, 89, 90, 91, 93,  
95, 97, 99, 01, 2/03, 4/05, 04/07, 4/09

References:

LSUHSC IC 2.0 Hand Hygiene

LSUHSC Infection Control Bloodborne Pathogen, Isolation, Tuberculosis Control Plan (B.I.T.)

Historical note: Policy developed in conjunction with Infection Control Department. Original Policy maintained in Infection Control until revision of April 2005.