


It is provided to you as information only.

Infection Control Manual		
	Policy Name	Radiation Oncology
	Policy Number	IC 0051
	Date this Version Effective	Mar 2012
	Responsible for Content	Hospital Epidemiology

I. Description

Describes infection prevention practices to reduce the risk of infection for patients and personnel in Radiation Oncology.

Table of Contents

I. Description.....	1
II. Rationale.....	1
III. Policy.....	1
A. Personnel.....	1
B. Patients.....	2
C. Equipment.....	3
D. High-Dose-Rate (HDR) Room.....	4
E. Housekeeping.....	4
F. Implementation.....	5
IV. Reviewed/Approved by.....	5
V. Original Policy Date and Revisions.....	5

II. Rationale

Radiation Oncology patients may be at greater risk of acquiring infections because of their immunosuppression and they may reactivate disease that can be transmitted to patients and personnel. Strict adherence to the following guidelines can reduce the risk of infection for patients and personnel.

III. Policy

A. Personnel

1. Personnel should adhere to guidelines established by the Occupational Health Service (OHS). See the policy entitled “Infection Control and Screening Program – OHS.”
 - a. Immunizations must be up-to-date. Documented immunity for pertussis, rubella, measles, mumps, and varicella is required.
 - b. Influenza, tetanus/diphtheria/pertussis, varicella and hepatitis B immunizations are available free of charge through the OHS and are encouraged. (See “Exposure Control Plan for Bloodborne Pathogens” for hepatitis B vaccine information.) Yearly influenza vaccines are encouraged and offered free of charge through OHS.
 - c. Tuberculosis screening is required initially upon employment and testing is offered annually thereafter.
 - d. Personnel with communicable infections (URI with fever, diarrhea, open draining lesions, herpes simplex, herpes zoster [shingles], conjunctivitis) should not have direct patient contact. They should be evaluated by OHS as to work status.
 - e. When OHS is closed, employees with urgent work related illnesses will be seen in the Emergency Department. Consultation with the Infection Preventionist on call may be helpful in determining appropriate referrals to the Emergency Department.

- f. Personnel exposed to communicable diseases such as meningococcal infection, tuberculosis, pertussis, hepatitis A should report the contact to the supervisor, complete an incident report and be seen in the OHS for the necessary prophylaxis and follow-up.
 - g. Personnel exposed to rubella, measles, mumps, or varicella and who are not immune (immunity is provided by natural disease or vaccination), or who have questionable immunity, should report the exposure to the supervisor, fill out an incident report, and be seen in OHS for follow-up.
 - h. Personnel must be prompt in reporting any exposures (e.g., needlesticks, splashes to the eyes or mucous membranes or non-intact skin) to blood or other potentially infectious materials (refer to the Infection Control Policy: "[Exposure Control Plan for Bloodborne Pathogens](#)"). Personnel should call the **Needlestick Hotline at 6-4480**.
2. Drinking, eating, application of cosmetics or lip balm, and handling contact lenses are prohibited in patient care areas.
 3. Hand hygiene should be performed with the approved antiseptic (chlorhexidine gluconate) or an alcohol-based hand rub before and after each patient contact. Refer to the [Hand Hygiene Policy](#).
 4. Clothing should be clean.
 5. Long hair should be secured so as not to come into direct contact with patients or sterile fields.
 6. Infection Control education, to include Bloodborne Pathogens and Tuberculosis, will be provided via LMS annually.
 7. There will be periodic review by Hospital Epidemiology to assess compliance with established infection control policies and procedures.
 8. Standard Precautions are followed for all patients. Personnel are responsible for following the policy entitled "[Isolation Precautions](#)".
 9. The "[Exposure Control Plan for Bloodborne Pathogens](#)" and the "[Tuberculosis Control Plan](#)" will be followed. These policies are located on Infection Control's website.

B. Patients

1. Procedures should be scheduled so there is minimum patient waiting time in the department.
2. Patients on isolation precautions should only be transported to Radiation Therapy when absolutely essential. Personnel are responsible for following the [Isolation Precautions Infection Control Policy](#). When patients with suspected or known communicable diseases are transported to other departments, the receiving department must be notified of the patient's impending arrival so that appropriate isolation/precaution guidelines can be followed. Hospital Epidemiology personnel are available to assist with problems or questions regarding isolation precautions (6-1638).
3. Patients who have pulmonary symptoms of uncertain etiology should be requested to wear a mask. If unable to do so, they should be instructed to use tissues and cover their mouth and nose when coughing or sneezing. They should spend a minimum of time in common waiting areas.
4. Patients with suspected or untreated known *Mycobacterium tuberculosis* should be placed on Airborne Precautions in a room with a HEPA filter. The patient should be seen at the end of the day when no other patients are in the clinic. The patient should don a mask on entry into the facility. Place the patient in an exam room immediately. The patient may remove the

mask after being placed in Airborne Precautions. Keep the door closed. After the patient leaves the clinic, keep the exam room door closed 30 minutes with the HEPA filter running before use by another patient.

5. Patients with known or suspected chicken pox or active Herpes zoster (≥ 3 dermatones or in immunocompromised patients) should be placed on Airborne and Contact Precautions in a room with a HEPA Filter. The patient should be seen at the end of the day when no other patients are in the clinic. The patient should don a mask on entry into the facility. Place the patient in an exam room immediately. The patient may remove the mask after being placed in Airborne Precautions. Keep the door closed. After the patient leaves the clinic, keep the exam room door closed 30 minutes with the HEPA filter running before use by another patient. Clean all surfaces with an EPA-approved disinfectant/detergent (e.g. MetriGuard, Sani-Wipes). If a patient can be rescheduled at a time when they are no longer infectious (i.e. all lesions dried and crusted), that would be preferable.
6. Patients on Protective Precautions (e.g., patients for Total Body Irradiation or neutropenic patients) will be placed in an exam room by the transporter upon arrival in the department. Patients will return to an exam room after treatment if they are not immediately taken back to the unit.
7. Staff marking the sites for patients undergoing radiation therapy shall comply with the following procedure: Markers (e.g., Sharpee™) may be used for multiple patients unless the marker comes in contact with nonintact skin (e.g., rash), or mucous membranes, or the patient is on Airborne, Enteric Contact, Contact or Droplet Precautions. In these cases, the marker must be discarded after use on the patient. Markers used for multiple patients should be disinfected daily and when visibly soiled with an alcohol pledget.
8. Patients whose sites warrant tattooing shall undergo the following procedure: A new, sterile lancet will be used for each patient and will be managed in an aseptic manner during the procedure. Skin should first be prepped using an alcohol pledget. One drop of the black India ink is dropped onto the lancet for each puncture. It will be managed in a clean and sanitary manner. The tip of the dropper will not come in contact with the lancet at any point in the procedure. The dropper should be returned to the bottle when not in use and the bottle recapped snugly once the procedure is concluded. The bottle should be labeled "For Tattoo Only" and will be stored in a manner that would preclude its use for purposes other than tattooing.

C. Equipment

1. Disposable equipment should not be reused. (Refer to the "Reuse of Single-Use Devices" policy for exceptions.) All nondisposable equipment (procedure trays, etc.) should be cleaned and sent to Central Processing Department (CPD) for sterilization. Tongs or forceps should be used to pick up or separate contaminated sharps equipment. Appropriate personal protective equipment will be worn when cleaning the blood and secretions from reusable items.
2. Intravenous poles, blood pressure cuffs and lamps should be cleaned with an EPA-approved disinfectant detergent (e.g., MetriGuard, Sani-Cloth) or a 70% isopropyl alcohol solution when visibly soiled and once a week routinely.
3. Implant equipment (applicators) used by Radiation Therapy should be soaked in enzymatic cleaner (e.g., Klenzyme) and water for a minimum of 30 minutes. The implant equipment is then packaged and sent to CPD for sterilization.
4. Surgical instruments should be cleaned with enzymatic cleaner and water, and rinsed. The surgical instruments are packaged and sent to CPD for sterilization.

5. Needles, syringes and sharps must be discarded in puncture-resistant containers. Full, closed sharps disposal containers must be disposed of in a red trash bag. Refer to the Infection Control Policy, “Guidelines for Disposal of Regulated Medical Waste.”
6. Single dose medication vials are intended for one-time use only. They should be discarded immediately after use. For management of multi-dose vials, refer to the UNC Health Care Policy, “Medication Management: Use of Multi-Dose Vials in Acute Care and Ambulatory Care Environments.”
7. Atomizers should be cleaned in the following manner:
 - a. after each use the caps or tips are removed, washed with soap and water, soaked in glutaraldehyde for 20 minutes at room temperature, then rinsed with tap water
 - b. the atomizer unit is then wiped down with 70% alcohol
 - c. every 30 days the atomizer contents are removed, washed inside and out with soap and water. The atomizer contents are soaked in alcohol for 20 minutes, then rinsed with tap water and air-dried.
8. Glutaraldehyde should be used according to the Infection Control policy: “Cleaning, Disinfection and Sterilization - Patient-Care Items.”
9. Non-lumened flexible endoscopes should be reprocessed according to the Endoscope Infection Control Policy (refer to the section: “High-Level Disinfection of Non-Lumened Flexible Endoscopes”).
10. Bite blocks should be resterilized in CPD after each patient use. Alternatively, bite blocks can be high level disinfected by soaking in glutaraldehyde for 20 minutes, followed by a sterile water rinse, between patient uses.
11. Head Casts and Mouth Guards

The electric frying pan and kettle used to heat water for softening head casts and mouth guards should be emptied, cleaned, and dried at the end of each work day. They should remain dry overnight and be refilled the next morning. Mouth guards and head casts are dedicated to an individual patient. The mouth guard should be cleaned with an alcohol swab after each use. The head casts should be stored in a clean space in a manner that prevents touching another person’s head cast.

D. High-Dose-Rate (HDR) Room

The HDR room is used for procedures where radioactive seeds are implanted. Aseptic technique and instrument reprocessing is used to reduce the risk of procedure-related infections. Prior to the procedure, the physician performs a surgical hand antisepsis with Avagard and dons sterile gown and gloves. Sterile drapes are used to drape the patient. The treatment table is cleaned with an EPA-approved disinfectant detergent after each patient. To remove all visible organic soil (e.g., blood, proteinaceous matter) seed implant devices are cleaned in an ultrasonic machine following the manufacturer’s recommendations. Detergent specifically designed for ultrasonic cleaning is used in the process. The instruments are wrapped in a peel pack with a chemical indicator strip and sent to the Central Processing Department to be sterilized.

E. Housekeeping

1. All work surfaces and equipment should be cleaned with an approved disinfectant solution (e.g., MetriGuard, Sani-Cloth, 70% alcohol) daily and when visibly soiled. Grossly soiled walls should be similarly cleaned.

2. Routine daily cleaning of floors is required following guidelines provided in the "Environmental Services Infection Control Policy."
3. All blood spills should be flooded with a bleach solution (1:10 dilution – expires in 30 days) or an EPA registered disinfectant and wiped up immediately, using appropriate PPE.
4. The medication preparation area should be free of clutter and the countertop wiped with an EPA-approved disinfectant or 70% alcohol at least once each day.

F. Implementation

It is the responsibility of the Nursing Supervisor and the Medical Director of Radiation Oncology to implement this policy.

IV. Reviewed/Approved by

Hospital Infection Control Committee

V. Original Policy Date and Revisions

Revised on Aug 2004, July 2006, Mar 2009, Mar 2012