

Sample Hospital
Patient Decontamination Program

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Policy # DCN_POL3.DOC

Date:

Procedure for care of patients thought to be contaminated with hazardous materials or radioactive materials in the emergency department

Notification of accident

- I. If the Emergency Department receives a call that a hazardous material victim or radiation victim is to be received, person receiving the call should obtain the following data:
 - A. Number of victims
 - B. Medical status of victims
 - C. Identification of hazardous material if known
 - D. If radiological victim, whether patient is contaminated or irradiated (Alpha, Beta, Gamma)
 - E. Estimated time of arrival
 - F. Record number of caller to call back to verify validity of call, if information is received by other than normal emergency channels
 - G. Request that clothing be removed and left at the scene if possible. Remind EMS to bring patient to door marked HAZ-MAT.
- II. Nursing supervisor will notify administration that the radiation/hazardous material plan has been implemented (Irradiated victims need no special precautions if non-contaminated).
- III. Notification of other personnel by:
 - A. Outpatient registration clerk:
 1. Director of Emergency Department
 2. Assistant Director of Emergency Department
 3. 2 staff nurses - after consulting Director or Assistant Director
 4. 1 other Emergency Department physician if necessary
 5. Nursing supervisor covering the house
 - B. Emergency Department Unit Clerk
 1. Security
 2. Maintenance
 3. Public Relations
 - C. R. N. on duty:
 1. Environmental Health (*If unable to reach anyone at these numbers, call EMS)
 2. Poison Control
 3. Radiologist- if radiation accident
 4. Surgery - if injuries involved may require emergency surgery

Decontamination team

- I. Emergency Department physician
- II. Emergency Department nurses
- III. Radiation Safety Officer
- IV. Security
- V. Maintenance
- VI. Lab technicians
- VII. Nursing supervisor
- VIII. Administration
- IX. Public Relations

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Emergency Department Preparation

- I. Evacuation of Emergency Department
 - A. Move other E.D. patients away from decontamination area.
 - B. All pregnant patients or staff should be moved or reassigned to another area of the hospital.
- II. Preparation of decontamination area before arrival of victims
 - A. Maintenance:
 1. Cover floor and walls with plastic in outer room of Decontamination area.
 2. Cover ramp from ambulance arrival site to decontamination area with plastic covered runners.
 - B. Security:
 1. Station person at main entrance of Emergency Department to prevent entrance of contaminated victim into the department and direct vehicle transporting victim to appropriate area.
 - C. Emergency Department Personnel:
 1. Cover stretchers with plastic.
 2. Remove non-essential equipment from area (this may be done by maintenance if large pieces of furniture or equipment needs to be removed).
 3. Place large plastic pool on floor in outer room.
 4. Prepare large metal containers with plastic bags to discard contaminated clothes and supplies. Put each persons clothes in separate bag and drop in drum.
- III. Decontamination Team Duties: (*This may vary with number of victims received and type of contamination.)
 - A. Radiation Safety Officer (If radiation accident)
 1. Check equipment and take background test.
 2. Survey victims as they enter area. Ambulance crew may be included.
 3. Remain in area to monitor all victims, personnel, equipment, and samples leaving area.
 4. Check dosimeters every 15 minutes. Personnel receiving up to 100 rem will be replaced.
 - B. Nurse "A"
 1. Meet Ambulance to assess condition of victim.
 2. Assign victims a letter or number.
 3. Obtain pre-decontamination swabs.
 4. Records on assessment sheet.
 5. Assist with decontamination procedure if needed.
 6. Places clean plastic over dirty for exit if necessary.
 - C. Nurse "B"
 1. Set up eye irrigation sets if appropriate.
 2. Conduct decontamination procedure.
 - D. Nurse "C" and/or Emergency Department personnel
 1. Receives pre-decontamination swabs from Nurse "A".
 2. Obtains extra supplies as needed.
 3. Obtains post-decontamination swabs.
 4. Assists with medical exam.
 - E. Additional Personnel:
 1. Have 2 nurses available to relieve "A" and "B" after reasonable length of time. (Approximately 1 ½ hours).

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IV. Decontamination Team Preparation:

- A. Remove uniform and put on scrub suit. Remove jewelry.
- B. Each member labels film badge with name and attaches to scrub suit. (If radiation accident).
- C. Don full protective dress.
 1. Plastic shoe covers.
 2. Face mask - make sure there is a tight seal around face.
Optional - persons with longer hair may put on surgical cap before mask.
 3. Disposable (Saranex coated Tyvek) suits with hood and booty built in - tape hood at neck.
Tape ankles if suit is too long.
 4. Surgical gloves - tape to sleeves (Put gloves inside sleeves).
 5. Second pair of gloves (Nitrile). Tape and change whenever torn.
- D. Attach personal dosimeter to suit at neck. (If radiation accident).

Victim Arrival:

- I. Nurse meets the ambulance.
- II. Evaluate airway, breathing, and cardiac status.
- III. If victim is critical go directly to emergency area where drugs, fluids, and medical or surgical procedures can be administered for stabilization of victim. This would be outer room of Decontamination Room. If emergency surgery is required, call OR to bring set-up to Decontamination Center personnel.
- IV. If not critical, remove clothing and leave in ambulance (cover with sheet) and take to decontamination area.
- V. If radioactive contamination, attendants stay with ambulance until they and the ambulance are monitored for contamination.
 - A. If non-contaminated, release for duty.
 - B. If contaminated, proceed to decontamination area.
- VI. If radiation accident, radiation safety officer checks for degree of radioactive contamination.
- VII. Nurse assesses victim for other injuries.
- VIII. Remove prosthetic devices (i.e. contact lens) and place in appropriate solution.
- IX. Take swab samples, if indicated, of eyes, mouth, ears, skin, hair, nails, and any wound. Place swabs in glass test tube and label: "Pre-decontamination, name or number and site".
- X. The recorder will note on victim's chart: time of arrival, areas of contamination, and area swabs were obtained from.

Decontamination:

- I. All water must be contained either in a holding tank, swimming pool, or metal drum.
- II. Contaminated wounds have first priority.
 - A. Tape plastic field and drape around contaminated wound. Irrigate with warm normal saline for 3 minutes-if chemical times 3.
 - B. Remove field and dry area.
 - C. Monitor - if radiation accident.
 - D. Repeat process until area is within acceptable limits.
 - E. If contamination persists:
 1. Wash with 38 Hydrogen Peroxide.
 2. Consider surgical debridement.
 3. Save and monitor all tissues removed. If contaminated, place in lead receptacle.
 - F. After wounds are decontaminated, cover them if other areas need decontamination.

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III. Eyes:

- A. Inset Morgan Therapeutic Lens in each eye. Connect to 1500 cc sterile N/S for irrigation.*

IV. Ears and Nails:

- A. Rinse gently with water.*

V. Mouth:

- A. Have victim rinse mouth copiously with water, or if victim is unable to do so, hang 1500 cc of water and irrigate using tonsil tip suction.
1. Urge victim not to swallow water.
 2. Depending upon contaminate, give Ipecac or insert N/G tube and suction gastric contents, if indicated.*

VI. Skin (Intact)

- A. wash with a mixture of Tide and cornmeal or soap depending on the nature of the contaminate for 3 minutes. Repeat 3 times.
1. If contaminate is an oily base, use ½ Tide and ½ cornmeal mixture with water to form a paste.
 2. Do not irritate the skin with harsh scrubbing or hot water.
 3. An ambulatory victim may scrub self and/or shower if water can be contained.*

VII. Hair:

- A. Shampoo hair with mild soap for 3 minutes. Repeat 3 times.
- B. If contamination present, clip off hair. Do not shave. *See Decontamination, II C & D

Removal of Victim from Decontamination Area:

- I. Place clean piece of plastic on floor for victim exit to clear area.
- II. Bring clean stretcher or wheelchair to door by attendant who has not, taken part in decontamination procedure for transfer of victim if not ambulatory.
- III. Take post-decontamination swabs taken of all previous sites. Place in glass containers and label as pre-swabs were.
- IV. Physician performs physical examination.
- V. Appropriate lab work is drawn and x-rays taken.

Exit of Decontamination Team:

- I. Pre-swabs are placed in plastic bag being held by attendant in clean area. Place victim name on outside of bag.
- II. Team members remove protective clothing in the following sequence at the "Clean line", placing clothing in drum.
 - A. Remove outer gloves turning them inside out as they are removed.
 - B. Dosimeters are given to R.S.O. - if radiation accident.
 - C. Remove tape securing gloves to suit.
 - D. Remove suit turning it inside out and avoid shaking.
 - E. Remove plastic shoe cover from one foot and step over "clean line".
 - F. Remove face mask. Last member removing mask should wash all masks with soapy water before removing suit and gloves. Place masks in plastic bag and hand over clean line to another member to place in second bag. Send to be gas autoclaved.
 - G. Remove gloves and discard in drum inside dirty area. If not radiation accident, leave area.
 - H. Close off dirty area until level of contamination is established and area is properly cleaned. If radioactive contamination, R.S.O. surveys each member to determine if contamination is present. If present, the contaminated member must re-enter area and follow decontamination procedure.

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Cleaning and Disposal

- I. If it has been established there has been contamination of room and water, a contaminated waste removal company must be contacted to dispose of water in holding tanks and clean room.
- II. Change filter in ventilation system if there has been contamination of room and air.
- III. If room and water were not contaminated, have maintenance pump the holding tanks and environmental services assist with cleaning the room after Metropolitan Sewer District has been notified of decontamination and has approved water disposal.

AGENCIES TO BE CONTACTED:

1. Disaster Emergency Service
2. Physicist
3. Contaminated Waste Disposal Company
4. Environmental Consultants
5. Metropolitan Sewer District