

Emergency Department Protocol for Management of Radiation Accident Victims



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U.S. Department of Energy (DOE)

24/7 Emergency Phone 865-576-1005

<http://orise.orau.gov/reacts/resources/guide/procedures.htm>

Terminal Objective

Understand how to select and prepare an appropriate treatment area within the hospital and determine staff and patient needs

Enabling Objectives

- Understand the appropriate priorities and adaptations required for the medical management of a patient contaminated with radioactive material
- Describe the sequence of activities in the hospital emergency care of the contaminated injured or ill patient

Protocol for Radiation Accidents

- Activation and Notification (Alert Process)
- Information Synthesis
- ED Preparation
- Patient Processing
- Decontamination
- ED Discharge
- Clean-up and Recovery

1. Activation and Notification (Alert Process)

- Who activates Emergency Plan?
- Who is notified and by whom?
- Where, When, and How to report in?
- Assigned Position and Function?

2. *Information Synthesis*

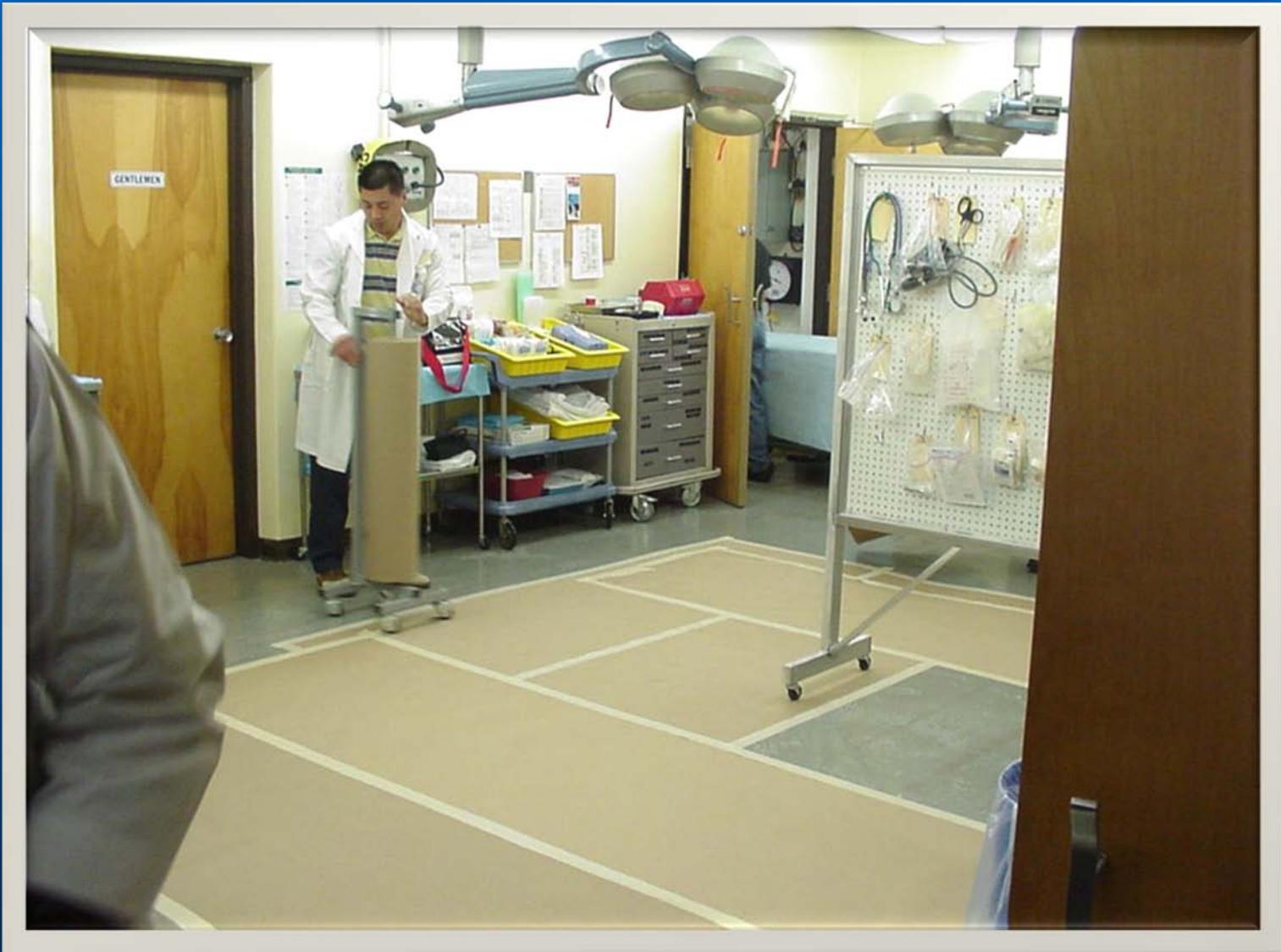
- Scene communications
- Incident commander/POC/designee
- Location and Time of accident
- Mechanism of injury

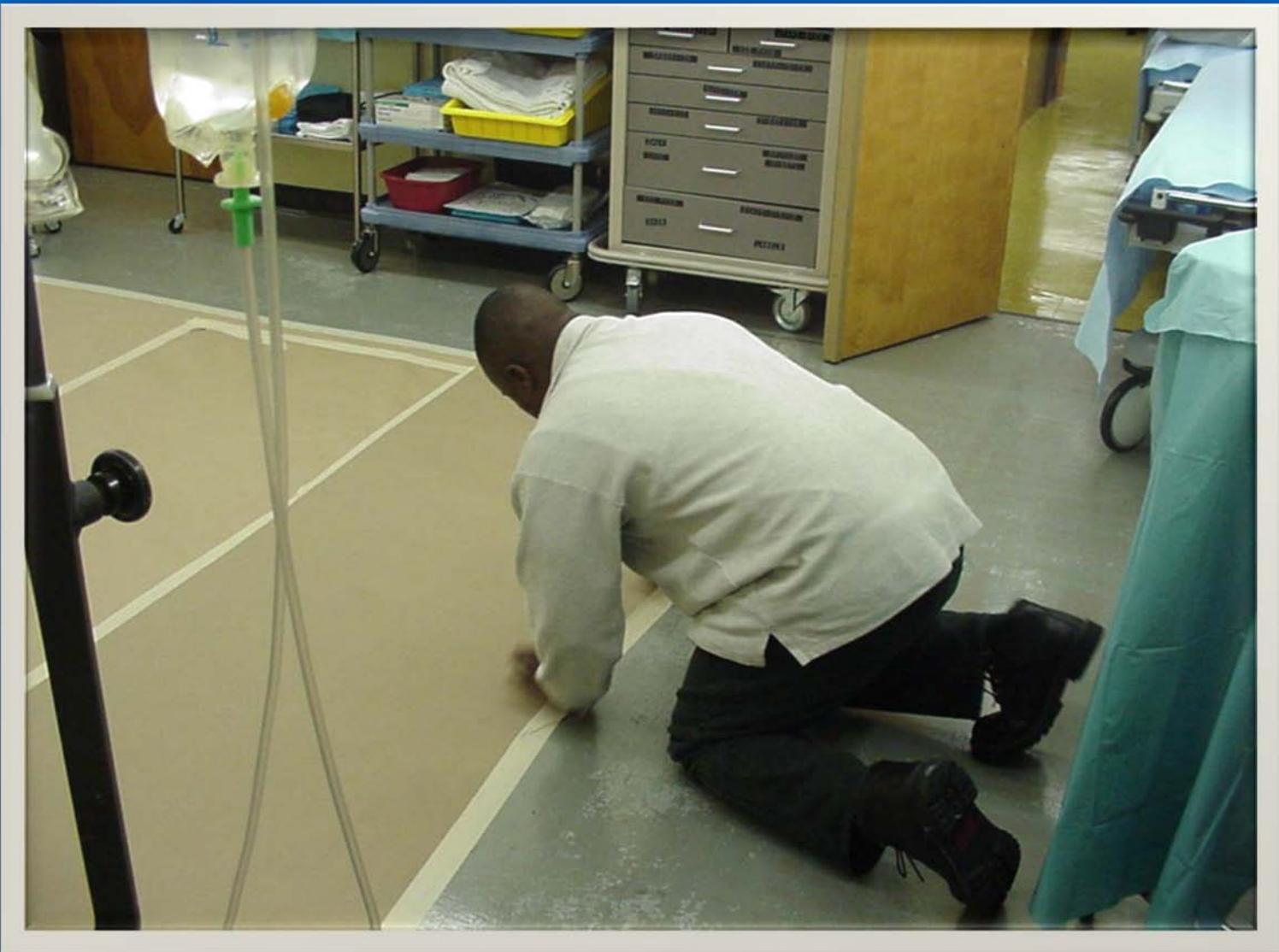
2. *Information Synthesis*

- Number of patients and condition
(Medical and Radiological)
- Identification of radioactive material
- Type(s) of radiation injury
- In-house or outside expertise

3. *REA Preparation*

- Establish security
- Designate Areas - entrance, reception-triage, bathroom-showers, treatment, holding
- Removal of unnecessary items and personnel
- Floor covering
- Personnel preparation and monitoring
- Ventilation considerations

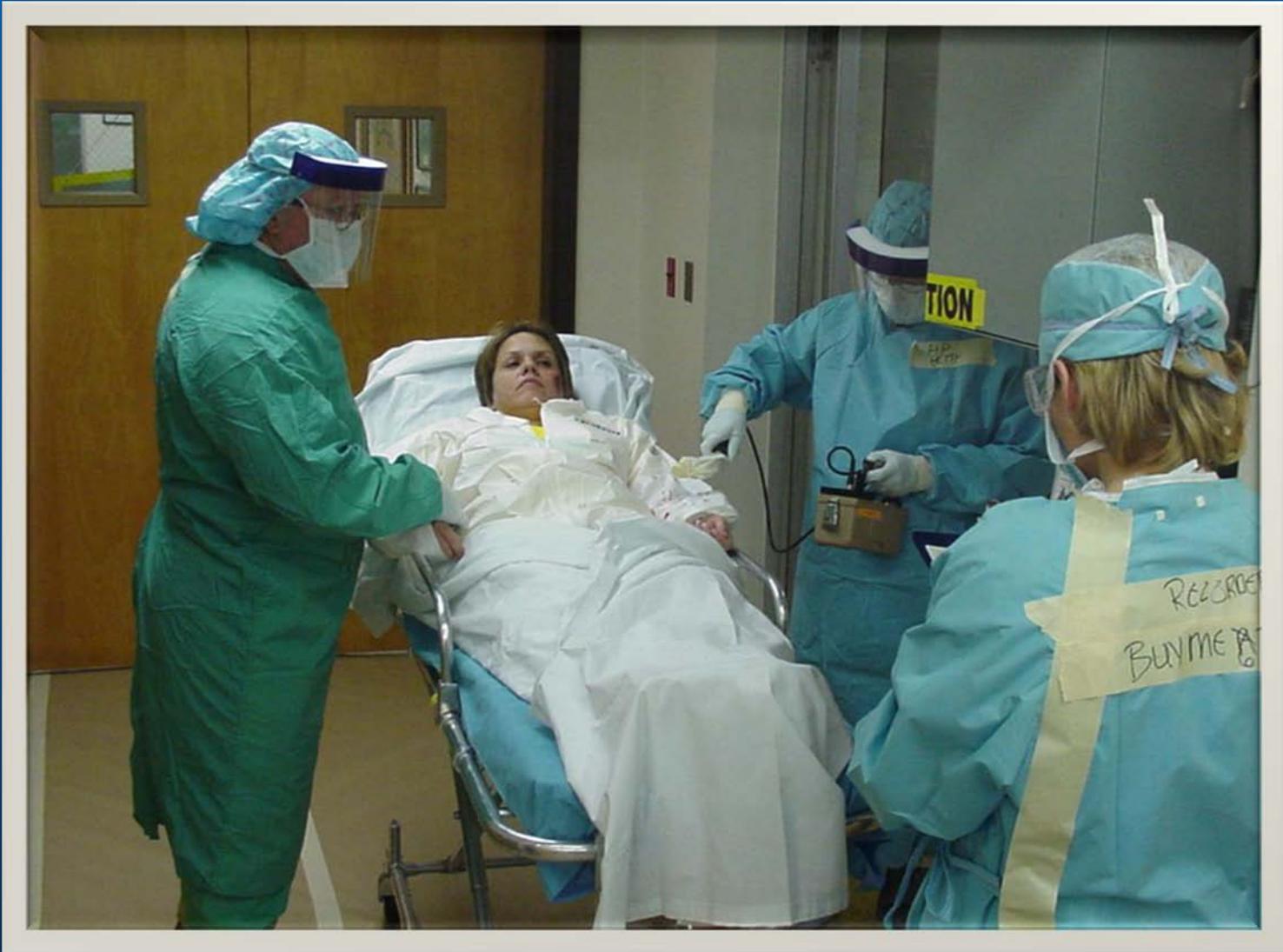






4. *Patient Processing*

- Triage (Medical)
- Triage (Radiological)
- Identification, H&P, lab
- Psychosocial support



5. Decontamination

- Clothing removal if not accomplished
- Radiological survey and documentation
- Collection of samples and specimens

5. *Decontamination*

- Prioritize DECON effort:
 - Open wounds
 - Body orifices
 - Intact skin

- Type of DECON procedure and documentation

- Radiological reassessment and documentation



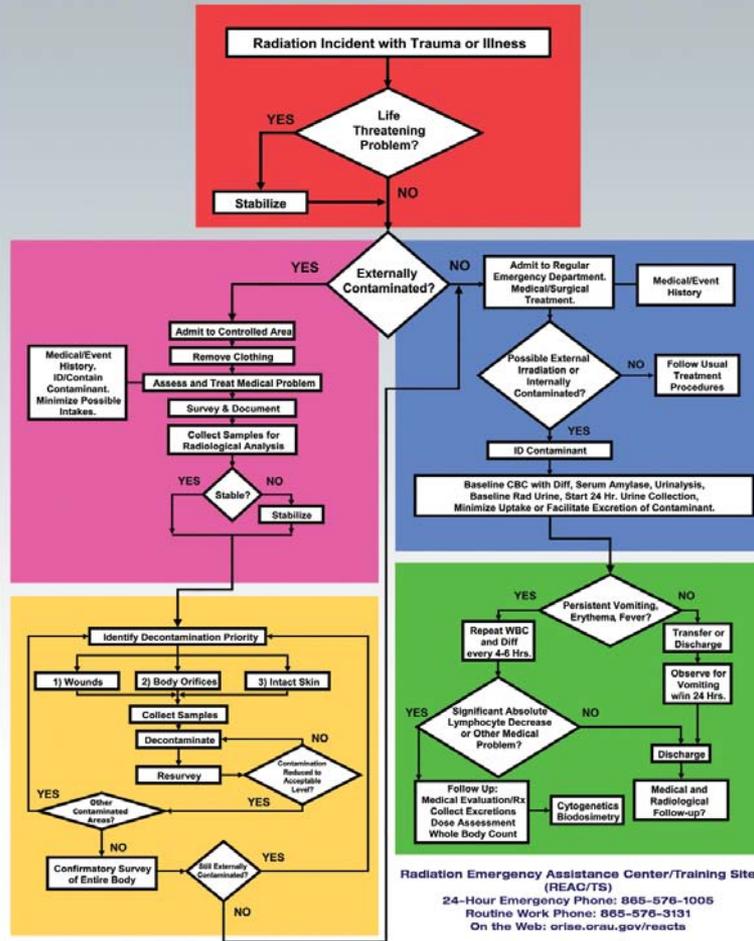
6. *Discharge*

- Consultation of Radiation Safety Officer (RSO)
- Method of discharge
- Discharge instructions

7. *Clean-up and Recovery*

- Exit procedure of DECON team
- Radiological surveys
 - personnel
 - room
 - equipment
- Handling of contaminated waste
 - disposal
 - ownership
 - monitoring
 - security

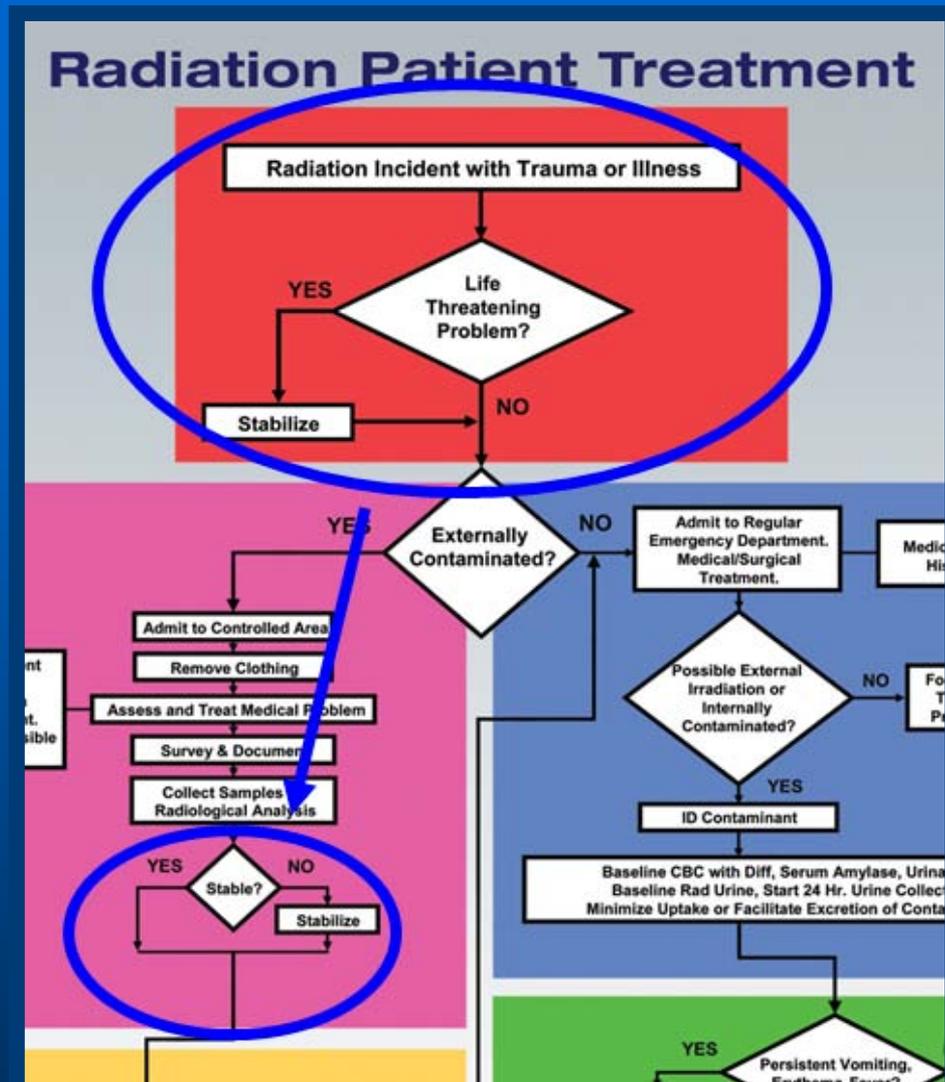
Radiation Patient Treatment



REAC/TS Radiation Patient Treatment Algorithm

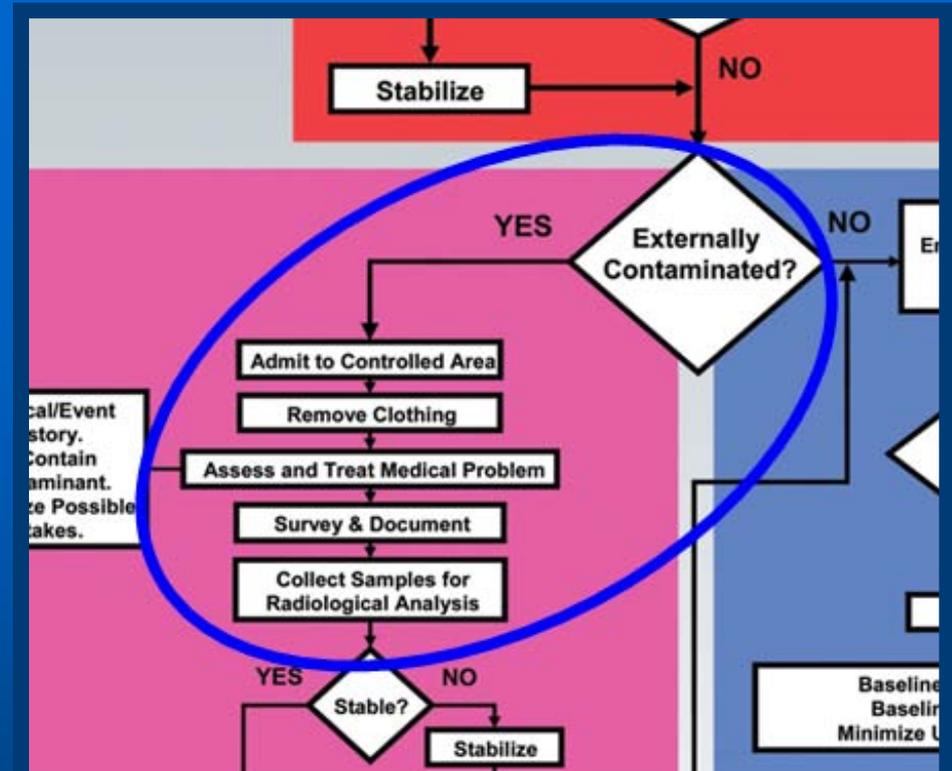
In the ED

- Medical and surgical emergencies are always the top priority – period
- If the patient becomes unstable at any time during medical management, let the emergency physician handle it



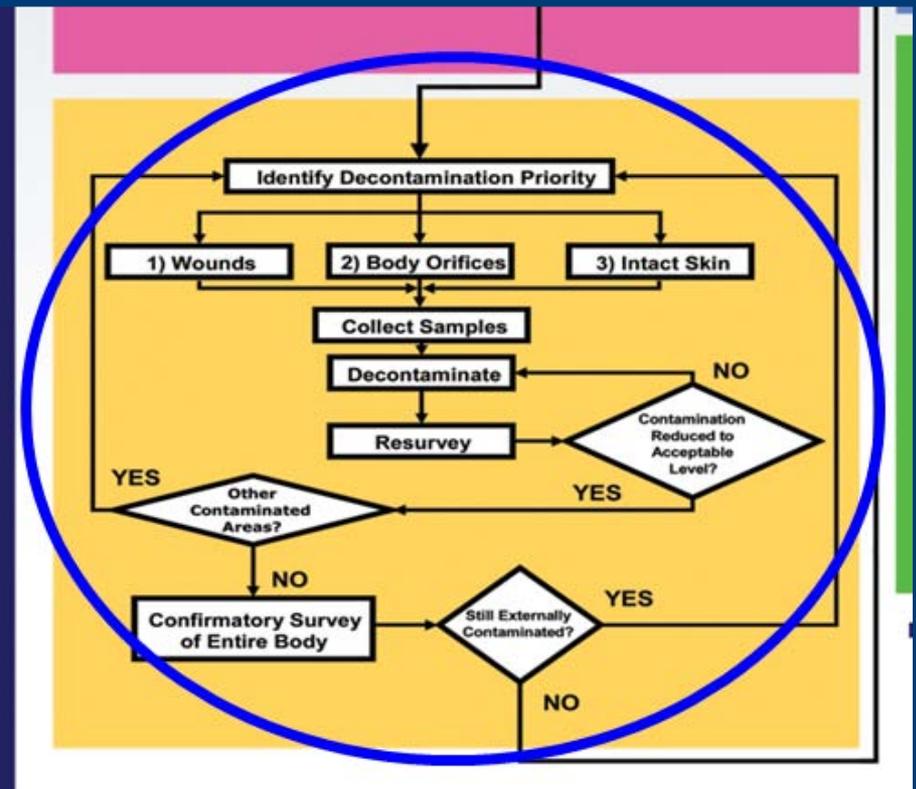
In the ED

- Cordon off a Radiological Treatment Area (RTA)
- While there is rarely a radiological emergency, there is radiological urgency
- Patient care cannot be conducted until the patient is completely undressed and on clean sheets



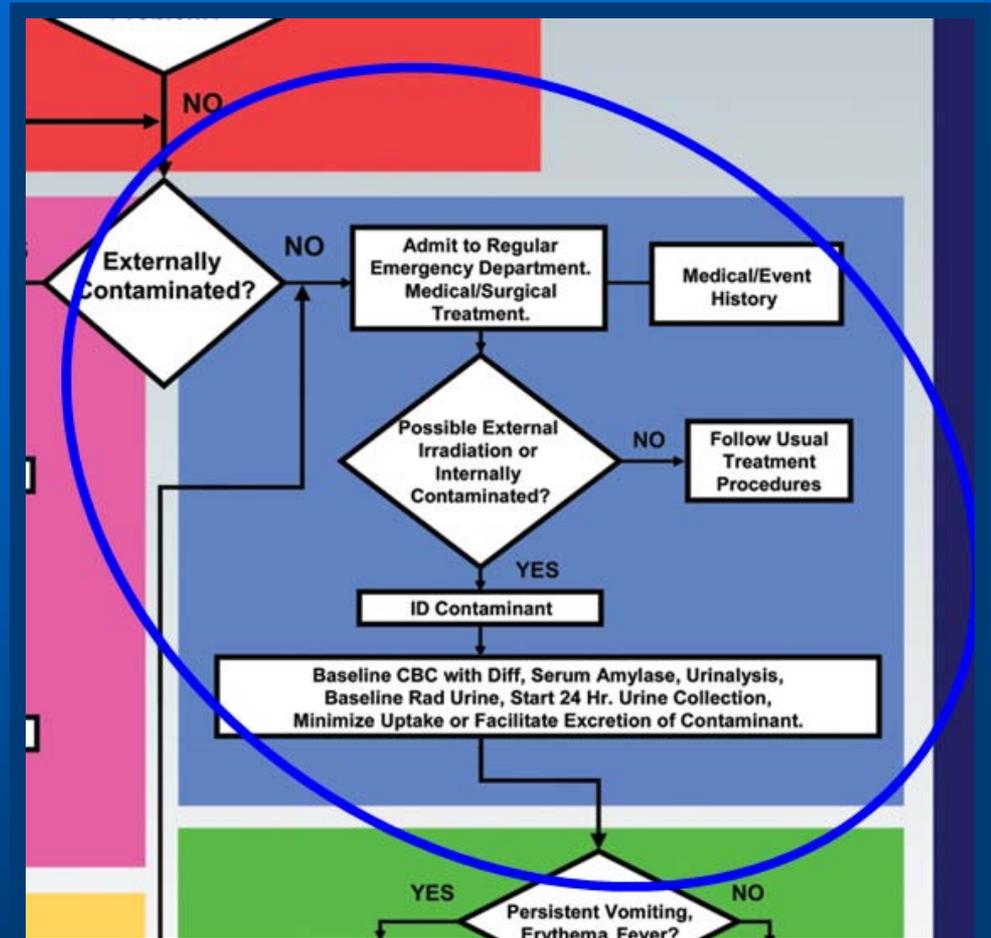
In the ED

- Decontamination priorities are the same order as locating sites and sampling
- Acceptable level of decontamination
 - 2-3 times background or
 - Skin shows evidence of irritation or
 - No improvement with DECON efforts



In the ED

- If no external contamination – treat in regular ED
- Radiological Urgency – treat internal contamination



What We Have Learned

- Treatment priorities are based on the medical needs of the patient
- Common sense precautions and simple adaptations in normal patient care enable the care giver to manage radioactive contamination

Questions?

