



EXPOSURE - RADIOLOGICAL HAZARDOUS MATERIALS



Escambia County, Florida - ALS/BLS Medical Protocol

This protocol is to be used for those patients suspected of exposure to radiological agents via any route of exposure (e.g. ingestion, absorption, etc.).

Scene safety should be of primary concern, with attention to the need for personal protective equipment.

If a radiological agent exposure is suspected, call the HAZMAT team.

All patients who have been exposed to hazardous materials must be properly decontaminated prior to initiation of extensive medical treatment and transportation to the hospital.

THE USE OF AEROMEDICAL TRANSPORT IS CONTRAINDICATED FOR ANY POTENTIALLY CONTAMINATED PATIENT.

It is imperative that the emergency department is made aware early that a contaminated patient is being transported in order for proper preparations to be made to receive the patient.

Types of Radiation Injury

- **External Irradiation occurs when all or part of the body is exposed to penetrating radiation from an external source. Following external exposure, an individual is not radioactive and can be treated like any other patient.**
- **Contamination** means that radioactive materials in the form of gases, liquids, or solids are released into the environment and contaminate people externally, internally, externally, or both. An external surface of the body, such as the skin, can become contaminated, and if radioactive materials get inside the body through the lungs, gut, or wounds, the contaminant can become deposited internally.
- **Incorporation** refers to the uptake of radioactive materials by body cells, tissues, and target organs such as bone, liver, thyroid, or kidney. Incorporation cannot occur unless contamination has occurred.



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These three types of accidents can happen in combination and can be complicated by physical injury or illness.

Irradiation of the whole body or some specific body part does not constitute a medical emergency even if the amount of radiation received is high. The effects of irradiation usually are not evident for days or weeks and while medical treatment is needed, it is not needed on an emergency basis. However, **contamination accidents must be considered medical emergencies**, since they might lead to internal contamination and subsequent incorporation. Incorporation can result in adverse health effects several years later if the amount of incorporated radioactive material is high.

Treatment priorities include:

- Treat life-threatening problems first
- Limit the radiation dose to both victim and personnel (time, distance, shielding)
- Control the spread of radioactive contaminants

Treatment Level 1

Serious medical problems should have priority over concerns about radiation, such as radiation monitoring, contamination control, and decontamination.

However, attention should be given to PPE for medical personnel.

1. [Medical Supportive Care Protocol.](#)

or

[Trauma Supportive Care Protocol.](#)



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ALS Level 2

2. Either, contact the Poison Information Center (1-800-222-1222)

or

contact the receiving emergency department for consultation regarding specific therapy.

Crew Medical Follow –Up:

All public safety personnel who come into close contact with hazardous materials should receive an appropriate medical examination, post-incident, based on information from the designated poison control center, receiving emergency room physician or EMS medical Director.

This should be completed within the shift of the incident and prior to returning to normal duty or returning home.

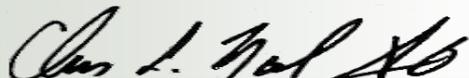
Personnel should be advised of possible latent symptoms at the time of their exams.



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