



Office of Counterterrorism  
and Counterproliferation

## Nuclear Incident Policy and Cooperation

### Course content:

- Practical radiation health physics for emergency personnel
- Basic radiation instrumentation
- Diagnosis and treatment of radiation injuries and illnesses
- Demonstrations and exercises focused on radiological decontamination techniques
- Management of internal radiological contamination
- Medical triage of radiologically contaminated and medically injured patients
- Demonstrations and exercises on the use of radiological surveys for patient screening
- Interactive hands-on capstone exercise
- Signs and symptoms of acute radiation exposure
- Surveying patients for radiological contamination
- Effective radiological contamination containment techniques
- Pre-hospital and hospital radiation management procedures and best practices

For nuclear or radiological emergency assistance, please contact the U.S. Department of Energy, Emergency Operations Center 24/7 at +1 202 586 8100



U.S. Department of Energy, National Nuclear Security Administration  
Office of Counterterrorism and Counterproliferation  
Office of Nuclear Incident Policy and Cooperation

# International Medical Management of Radiation Injuries (I-MED)



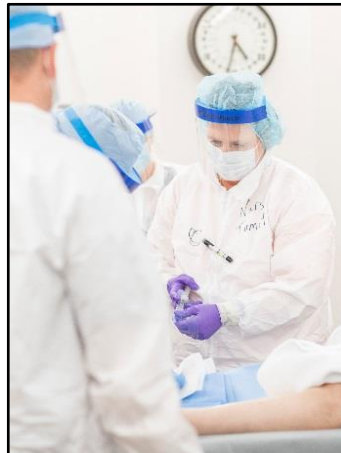
## *COURSE OVERVIEW*

The increasing use of radiological materials in many industrial, medical, and commercial applications creates an increased potential for radiation-related injuries. Treating radiation injuries, especially when combined with non-radiation injuries in a patient who may be contaminated, presents unique challenges to health care providers. The I-MED course is designed to teach participants how to respond to medical emergencies involving radiation exposure/contamination and how to improve the treatment and care of the injured. The course is applicable to hospital and pre-hospital settings and stresses the integration of professional medical care, radiation protection, and health physics. The course consists of a combination of classroom lectures, demonstrations and exercises that reinforce the course lessons. The course emphasizes the emergency

medical treatment of the patient and methods to reduce the risk of radiation exposure and contamination to both the patient and health care provider.

The facilitators for this course are experienced physicians, nurse/paramedics, and health physicists from the DOE's Radiation Emergency Assistance Center/Training Site (REAC/TS). REAC/TS was created in 1976 to provide professional subject matter expertise on the medical management of radiation injuries.

The I-MED course is encouraged to be taught in conjunction with host country instructors/facilitators or can be taught entirely by DOE personnel. The course typically lasts 4.5 days but can also be customized to meet training requirements.



## ***COURSE OBJECTIVES***

- Improve the treatment and care of radiation injuries and illnesses caused by nuclear or radiological incidents or accidents
- Protect medical personnel involved in treating radiation injuries
- Diminish the spread of radioactive contamination during patient transport and treatment

## ***REAC/TS CONSULTATION***

REAC/TS physicians, nurse/paramedics, and health physicists are on call 24 hours a day to provide consultation services or direct medical support during emergency incidents. The REAC/TS maintains a cytogenetic biodosimetry laboratory for clinical determination of dose levels received by an individual in a radiation incident or accident. REAC/TS is also registered in the IAEA's Response and Assistance Network (RANET). REAC/TS emergency consultation and assistance can be requested through the DOE Emergency Operations Center at +1 (202) 586-8100.

## ***FOR MORE INFORMATION PLEASE CONTACT***

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### **Quick Facts:**

- Target audience: physicians, nurses, pre-hospital medical providers, and health physicists with the responsibility for responding to radiation medical emergencies
- Class size: 25–35 participants
- Facilitators: 3 (physician, nurse/paramedic, and health physicist)
- Length: 4.5 days
- Focus: classroom instruction, demonstrations, and exercises

### **Other Training Courses:**

- International Radiological / Nuclear Training for Emergency Response (I-RAD)
- Nuclear Security at Major Public Events
- Emergency Operations Center Assistance
- Radiological Plume Modeling
- Geographic Information Systems
- International Maritime Advanced Radiological Search Operations
- Consequence Management
- Exercise Development and Support

### **International Reachback Capabilities:**

- TRIAGE (spectral analysis, advice, and consultation)
- IXP (International Exchange Program) for radiological plume modeling
- REAC/TS (Radiation Emergency Assistance Center/Training Site) for radiological medical assistance and consultation

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