



EMS System for Metropolitan Oklahoma City and Tulsa 2022 Medical Control Board Treatment Protocols



Approved 9/8/21, Effective 1/17/22, replaces all prior versions

15G – RADIOLOGICAL WEAPONS

EMERGENCY MEDICAL DISPATCHER
EMERGENCY MEDICAL RESPONDER
EMT
EMT-INTERMEDIATE 85
ADVANCED EMT
PARAMEDIC

1. Potential radiologic weapon devices in the United States include:
 - a. Simple radiation emitting devices (example would be dumping radioactive waste in a water supply – typically NOT a significant threat due to dilution effect of large amount of water).
 - b. Conventional explosive device containing radiation (“dirty bomb”) – typically NOT a significant threat due to the fact that explosions are very inefficient in producing radioactive particles of a size that are easily inhaled.
2. Either of the above devices may be utilizing radioactive isotopes initially manufactured for medical use (eg. nuclear imaging).
3. Radiation types include the following:
 - a. Irradiation = gamma radiation passing through a body
 - b. External contamination = radioactive “dust” particles falling on a body
 - c. Internal contamination = radioactive “dust” particles being ingested or inhaled
4. Protection takes the simple format of:
 - a. Reducing time of exposure.
 - b. Increasing distance from exposure source – biggest factor in protection. Radiation does not travel far, but contamination can.
 - c. Shielding device use to minimize exposure uptake. Airborne illness PPE protection is excellent for radiation protection as well). Think of radioactive particles as “dirt” that shouldn’t be inhaled (wear N95 masks) and shouldn’t be in contact with skin.
5. Three **myths** that can paralyze medical response:
 - a. “Radioactive contamination is highly dangerous & requires extraordinary protective measures.” (see above)
 - b. “Decon is highest medical priority.” Decon is actual very simple = remove clothing and shower. Most of radiation goes away with removal of clothing.
 - c. “Special skills are needed to handle radioactive patients.” (see above)



EMS System for Metropolitan Oklahoma City and Tulsa 2022 Medical Control Board Treatment Protocols



Approved 9/8/21, Effective 1/17/22, replaces all prior versions

PROTOCOL 15G: Radiological Weapons, cont.

6. Multiple resources exist to aid in the understanding and response planning for radiological weapons. The following are suggested resources:

Radiation Emergency Medical Management
www.remm.nlm.gov

National Alliance for Radiation Readiness (NARR)
www.radiationready.org

Society of Nuclear Medicine and Molecular Imaging
www.snmmi.org

Health Physics Society
www.hps.org

National Disaster Life Support training
Basic Disaster Life Support (one day classroom course)
Advanced Disaster Life Support (two day classroom/practical exercise course)

Special acknowledgement to John C. White, CNMT, Radiation Safety Officer, The University of Texas Southwestern Medical Center at Dallas for material integral to this protocol's preparation.