

## A VIEW FROM THE TRENCHES: EMERGENCY MEDICAL RESPONSE PLANS

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The intentional detonation of a nuclear device upon the citizens of the United States is one of the highest threats this nation faces. A terrorist would seek to kill or injure the most number of citizens, and cause the most significant damage to infrastructure, and cause the most panic.

In an intentional nuclear detonation there would be no warning, there would be very large numbers of casualties presenting with varying degrees of traumatic and burn injuries all with different levels of radiation exposure. Many citizens who are not directly injured or irradiated would also be seeking medical care. The scene would be chaotic, the suffering immeasurable and the loss unimaginable.

Through this unimaginable event, however, order must take hold and patients must be triaged and subsequently treated. Lives can and must be saved and illness must be prevented or minimized to the best of our ability.

Current clinical screening for an intentional nuclear attack is potentially inaccurate or logistically impractical. 'Time to vomit' is the current accepted practice of assessing patients clinically after a nuclear event. There is wide range of presenting symptoms, significant comorbidities, and potential significant individual variations in response to the same dose.

Laboratory screening methods may include serial lymphocyte counts, or measurement of chromosomal aberrations, for example. Both methods would give practitioners a more accurate reading on the individual patients response to the individual dose received, however in a mass casualty setting, these methods would be logistically difficult if not impossible to achieve for catastrophic numbers of patients.

EPR screening has significant potential for screening large numbers of patients, in a more timely and accurate manner, than the previously described methods. In addition to utilizing this new technological advance to assist this nation to respond to a significant threat, another major advantage is the ability to incorporate EPR screening into the current massive national efforts to provide mass casualty care during a number of other incidents.

This talk will outline the potential impact of an intentional detonation on a large civilian population, the difficulties first responders will encounter when responding, and how EPR screening may be incorporated into current response efforts.