

Preparedness to treat casualties from a 10 kT Improvised Nuclear Device

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Preparedness to treat casualties from a 10 kT Improvised Nuclear Device

Even the title is overwhelming...

Preparedness to treat casualties from a 10 kT Improvised Nuclear Device

9-11 New York

“Been a medic in the City 23 years and
I’ve never seen such horrific injuries...”

Paraphrase of a New York City paramedic
describing the injured in the WTC South
Tower before its collapse...



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The strategic issues are mind-boggling,
the tactical are almost incomprehensible...

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Massive numbers of horrific injuries...

- Burns – severe and extensive
- Blast and shrapnel
- Blunt and large penetrating trauma
- Inhalational injuries
- Entrapments with crush & other injury
- Radiation injured and exposed
- Fatally injured reaching medical facilities alive

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Massive physical effects on healthcare services

- Healthcare workers killed and injured
- Healthcare facilities collapsed or otherwise destroyed
- Uncontrolled fires
- Roads & bridges disrupted
- Loss of electricity & potable water
- Loss of communications systems
- Loss of re-supply systems

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Massive functional effects on healthcare services...

- Many people missing & no effective patient tracking systems → overwhelming family searching
- Many dead → processing, storage, notifying families
- Extreme fear → lightly injured/exposed seek care*
- Extreme fear → whose driving in to work? PPE??
- Extreme fear → loss of mutual aid and re-supply
- The need for hospital evacuation... out of region...

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Potentially massive numbers with radiation sickness...

- Resource intensive (reverse isolation, blood products and marrow stimulators)
- Extended time phase of patients presenting
- Extended treatment period for each case
- Long-term surveillance

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Medical Preparedness for this
scenario?

In the Context of Current
Medical - Economic Realities???

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Healthcare response strategy...

- Military warfare model: Fall back to defensible lines, re-group, and strategically advance
- Those behind maintain effective medical tactics
- Re-constitution of healthcare incident management
- Rapid re-constitution of medical & comm services, including those for responders
- Maintenance of public confidence as “salvageable” patients are lost → patient tracking & family services are essential; integrated with US&R

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Effective management methods are critical

- Individual healthcare organization
- Coalition of healthcare organizations
 - Mutual aid, including evac & mass transfer
 - Situational awareness, including expert projection
 - Strategy coordination, including protocol guidance, etc.
- Local and State response
 - The overarching management framework
- Federal response and assistance
- International assistance

Thank you!

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