

TRIAGE AND PRE-HOSPITAL TREATMENT

Capability Definition

Triage and Pre-Hospital Treatment is the capability to appropriately dispatch emergency medical services (EMS) resources; to provide feasible, suitable, and medically acceptable pre-hospital triage and treatment of patients; to provide transport as well as medical care en-route to an appropriate receiving facility; and to track patients to a treatment facility.

Outcome

Emergency Medical Services (EMS) resources are effectively and appropriately dispatched and provide pre-hospital triage, treatment, transport, tracking of patients, and documentation of care appropriate for the incident, while maintaining the capabilities of the EMS system for continued operations.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs):

ESF #1: Transportation

ESF #8: Public Health and Medical Services

ESF #9: Urban Search and Rescue

ESF #10: Oil and Hazardous Materials Response

Preparedness Tasks and Measures/Metrics

Activity: Develop and Maintain Plans, Procedures, Programs and Systems	
Critical Tasks	
Res.C1a 1.1	Assess, categorize, and track health and medical resources at the State, regional, and local levels, including but not limited to trauma centers, burn centers, pediatric facilities, acute care facilities, and other specialty facilities
Res.C1a 1.1.1	Ensure appropriate protective resources are available, including vaccinations, prophylaxis, and PPE for pre-hospital providers and their families
Res.C1a 1.1.2	Ensure sufficient EMS personnel and resources are available to respond to day-to-day emergencies in the community
Res.C1a 1.1.3	Ensure sufficient EMS personnel, supplies, and equipment are available to respond to and manage a catastrophic incident until Federal resources become available
Res.C1a 1.2.1	Develop procedures for effective, reliable interoperable communications between EMS, incident command, public health, and healthcare facilities
Res.C1a 1.2.2	Establish and maintain intrastate and interstate EMS communications systems
Res.C1a 1.3.1	Develop protocols and procedures for tracking triage and pre-hospital treatment response staff and equipment during day-to-day operations as well as catastrophic incidents
Res.C1a 1.1.4	Ensure that EMS systems include an education, licensure, and credentialing system consistent with national standards

Res.C1a 1.2.3	Identify and coordinate with public safety access points that have enhanced capabilities (e.g., automatic location identification) and redundancy and are capable of handling a surge in call volume	
Res.C1a 1.3.2	Establish a means to allow EMS resources to be used across jurisdictions, both intrastate and interstate, using the National Incident Management System (NIMS) (e.g., mutual aid agreements)	
Res.C1a 1.4	Develop and/or maintain protocols and procedures for EMS dispatch, assessment, triage, treatment, transport, logistical support, medical command and coordination, safety, communications, and tracking of patients during day-to-day operations as well as catastrophic incidents	
Res.C1a 1.5	Develop mechanisms to ensure freedom of movement of medical response, transport, and personnel when faced with restricted travel laws, isolation/quarantine, or security measures	
Res.C1a 1.3.3	Develop plans and mechanisms for obtaining reimbursement for both public and private expenditures for triage and pre-hospital treatment following a declared catastrophic incident	
Preparedness Measures		Metrics
State EMS personnel certification and licensure system is in place modeled after the principles of the National EMS Education Agenda for the Future (and its five components) and NIMS		Yes/No
Written mutual aid protocols and procedures have been developed		Yes/No
Sufficient certified/licensed EMS personnel available to staff the current EMS system 24 hours per day, 7 days per week and with response consistent with established local response times		Yes/No
Recall procedures are in place to summon off-duty personnel when needed		Yes/No
Sufficient numbers of ambulance transport and support vehicles are available to handle routine call volume 24/7 with response consistent with established local response times		Yes/No
For all cities a minimum of one spare ALS vehicle. For cities greater than 300,000, at least one spare vehicle for every 100,000 maintained on an in-service basis (i.e., stocked and garaged) to support immediate surge needs		Yes/No
EMS personnel participate on a regular basis with emergency management planning and operations		Yes/No
Jurisdiction-wide EMS data collection system is in place that complies with the National EMS Information System (NEMIS) version 2.0 or later		Yes/No
Written protocols are available—approved by medical control—for EMS assessment, triage, transport, and tracking of patients during a catastrophic event		Yes/No
Written EMS dispatch procedures include the dispatch of personnel and equipment in the unique circumstances of a catastrophic event		Yes/No
Redundant public safety answering points (PSAPs) that comply with phase II Federal Communications Commission (FCC) requirements for cell phone access are available and are capable of handling a large volume of calls		Yes/No
The vehicle tracking system is consistent with a written infrastructure protection plan and NIMS resource typing		Yes/No
Written plans and procedures for coordination of the local EMS system with the National Disaster Medical System are available		Yes/No
Sufficient PPE is available for all EMS personnel who would respond to a catastrophic or routine incident (scenario-specific)		Yes/No
Adopt a NIMS-compliant plan that enables communicable disease first responders and receivers to understand their roles, responsibilities, and requirements when responding to		Yes/No

a communicable disease outbreak (scenario-specific)	
A plan is in place for prophylaxis and issuance of PPE to non-surge first responders and first receivers within 24 hours of a communicable disease outbreak, including the logistical chain to support this effort	Yes/No
A plan is developed that accounts for the multi-jurisdictional pre-hospital response to a catastrophic incident that considers mutual aid agreements and associated equipment, staff, command and control, and nontraditional patient movement and transfers	Yes/No
Compatible communications equipment and communications radio frequency plans are in place for: <ul style="list-style-type: none"> ▪ common hospital diversion and bed capacity situational awareness at the local, State, and regional levels; ▪ command and control dispatch procedures for task force operations 	Yes/No Yes/No
A statewide interoperable patient tracking system is in place that allows patient tracking from the first response site to a healthcare facility and allows data to be accessible among statewide users	Yes/No
A plan to return to normal operations post-incident is in place	Yes/No

Activity: Develop and Maintain Training and Exercise Programs

Critical Tasks

Res.C1a 2.1.1	Conduct appropriate medical training of dispatch personnel in dealing with mass casualty incidents
Res.C1a 2.1.2	Develop and implement multi-disciplinary training programs for EMS personnel, based on local risk vulnerability assessments and lessons learned
Res.C1a 2.2	Develop and implement multi-disciplinary exercise programs for EMS personnel, based on local risk vulnerability assessments and lessons learned

Preparedness Measures

Metric

Frequency of exercises using scenarios based on a jurisdiction-specific risk vulnerability assessment and Homeland Security Exercise and Evaluation Program (HSEEP) guidelines	At least annually
Percentage of field responders who received statewide training programs for dispatch, triage, treatment, and transport protocols and procedures	80%
Percentage of dispatchers who received statewide training programs for dispatch, triage, treatment, and transport protocols and procedures	80%

Performance Tasks and Measures/Metrics

Activity: Direct Triage and Pre-Hospital Treatment Tactical Operations

Definition: In response to a notification for emergency medical assets, provide the overall management and coordination of the Triage and Pre-Hospital Treatment Response, through to demobilization.

Critical Tasks

Res.C1a 3.1.1	Establish Medical Branch/Group officer
Res.C1a 3.1	Coordinate triage and pre-hospital treatment operations with on-site Incident Command

Res.C1a 3.1.2	Coordinate and integrate triage and pre-hospital treatment operations with the National Disaster Medical System
Res.C1a 3.2	Implement and coordinate effective, reliable interoperable communications between EMS, incident command, public health, and healthcare facilities
Res.C1a 3.3.2	Assess need for additional EMS resources/mutual aid
Res.C1a 3.3.3	Initiate recall and/or mutual aid to staff spare ambulances and provide immediate surge capability
Res.C1a 3.3.4.1	Implement and maintain accountability procedures for EMS personnel, equipment, and supplies
Res.C1a 3.3.4.2	Provide medical support, safety considerations, and appropriate PPE for EMS responders
Res.C1a 3.3.1	Organize and distribute resources for triage and pre-hospital treatment operations
Performance Measures	
Metric	
Time for medical dispatch to react and respond to the increased call volume	Within 30 minutes – 1 hour from start of increased call volume
Time to provide medical coordination of on-scene EMS system personnel and other health resources	Within 30 minutes from initial units arrival on scene
Time to provide medical coordination of public health services, hospitals, and healthcare providers	Within 1 hour from the establishment of Medical Command
Time to establish primary and secondary communication	Within 15 – 30 minutes from the establishment of Tactical Operations
Time to execute recall and mutual aid agreements with State and local partners	Less than 1 hour from initial request for additional resources
Time to ensure that sufficient and appropriate medical equipment and supplies are readily available to on scene personnel	Within 2 hours of initial units arrival on scene
Time to organize and provide accessible PPE to all on scene medical response personnel	Within 30 minutes of initial units arrival on scene (note: 15 minutes is ideal)
Ongoing safety, health, and well-being of on-scene personnel is provided	Yes/No

Activity: *Activate Triage and Pre-Hospital Treatment*

Definition: In response to a notification, respond, mobilize, and arrive on scene to begin emergency medical operations.

Critical Tasks

Res.C1a 4.1	Dispatch EMS to provide medical care
Res.C1a 4.2	Complete scene survey
Res.C1a 4.2.1	Establish scene safety for EMS personnel, based on the type and severity of the incident
Res.C1a 4.3	Establish triage, treatment, and transport areas
Performance Measures	
Metric	

Time for EMS responders to be notified and dispatched toward the scene	Within 5 -10 minutes from 911 receipt of initial call
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Activity: *Triage*

Definition: Once on scene, provide initial and ongoing emergency medical triage of ill and injured patients that prioritizes their respective treatment and transport.

Critical Tasks

Res.C1a 5.1	Conduct initial and on-going pre-hospital triage
Res.C1a 5.2	Initiate a patient tracking system
Res.C1a 5.3.1	Ensure decontamination of patients prior to treatment and transport
Res.C1a 5.4	Move patients to safe, secure, and easily accessible treatment area(s)

Performance Measures	Metric
Time to initiate triage of ill/injured patients	Within 30 minutes of receipt of call
Time to initiate a patient tracking system	Within 30 minutes from the initiation of on scene triage
Data management system is operational	Yes/No

Activity: *Provide Treatment*

Definition: Provide medical treatment appropriate to the patient's injuries and the incident.

Critical Tasks

Res.C1a 6.1	Establish immediate, minor, and delayed treatment areas
Res.C1a 6.2	Provide pre-hospital treatment appropriate to the nature of incident and number of injured/ill
Res.C1a 6.2.1	Administer antidotes for victims of WMD attacks
Res.C1a 6.2.2	Provide ongoing pain management therapy as needed to victims awaiting transport
Res.C1a 6.3	Ensure documentation of patient care and transfer, in accordance with mass casualty protocols

Performance Measures	Metric
Time in which ill/injured patients receive initial treatment by appropriately credentialed on scene medical personnel	Within 30 minutes of initial units arrival on scene
Time in which on-line medical control is notified of incident	Within 10 minutes of initial patient triage on a not-to-interfere basis with immediate patient treatment

Activity: *Transport*

Definition: Transport ill and injured patients via the most appropriate mode of transport available (e.g. Ambulances, helicopters, etc.), provide ongoing medical assessment and treatment en route to the designated receiving facility, and upon arrival transfer medical care of the patient(s) to the receiving facility's staff.

Critical Tasks

Res.C1a 7.1	Identify transport vehicles, victims, and priority of transport
Res.C1a 7.1.1	Provide for alternative modes of transport should air or other operations be necessary (e.g. – helicopters along with a corresponding landing zone [LZ])
Res.C1a 7.2	Coordinate and transport patients to the appropriate treatment facility
Res.C1a 7.2.1	Provide ongoing assessment and treatment en route
Res.C1a 7.2.2	Transfer care of the patient to the medical staff at the facility

Performance Measures**Metric**

Time in which patients are transported in vehicles appropriate to each patient's conditions and the nature and magnitude of the incident	Within 2 hours of initial units arrival on scene
Time in which patient transportation is coordinated with appropriate treatment facility	Within 30 minutes of initial unit arrival on scene for single patient transfers (Within 30 minutes of EMS Transportation/ Communications Officer arrival for mass casualty incidents)

Activity: *Demobilize Triage and Pre-Hospital Treatment*

Definition: Upon completion of duties, clear the incident scene, reconstitute as appropriate, and return to service or end duty tour.

Critical Tasks

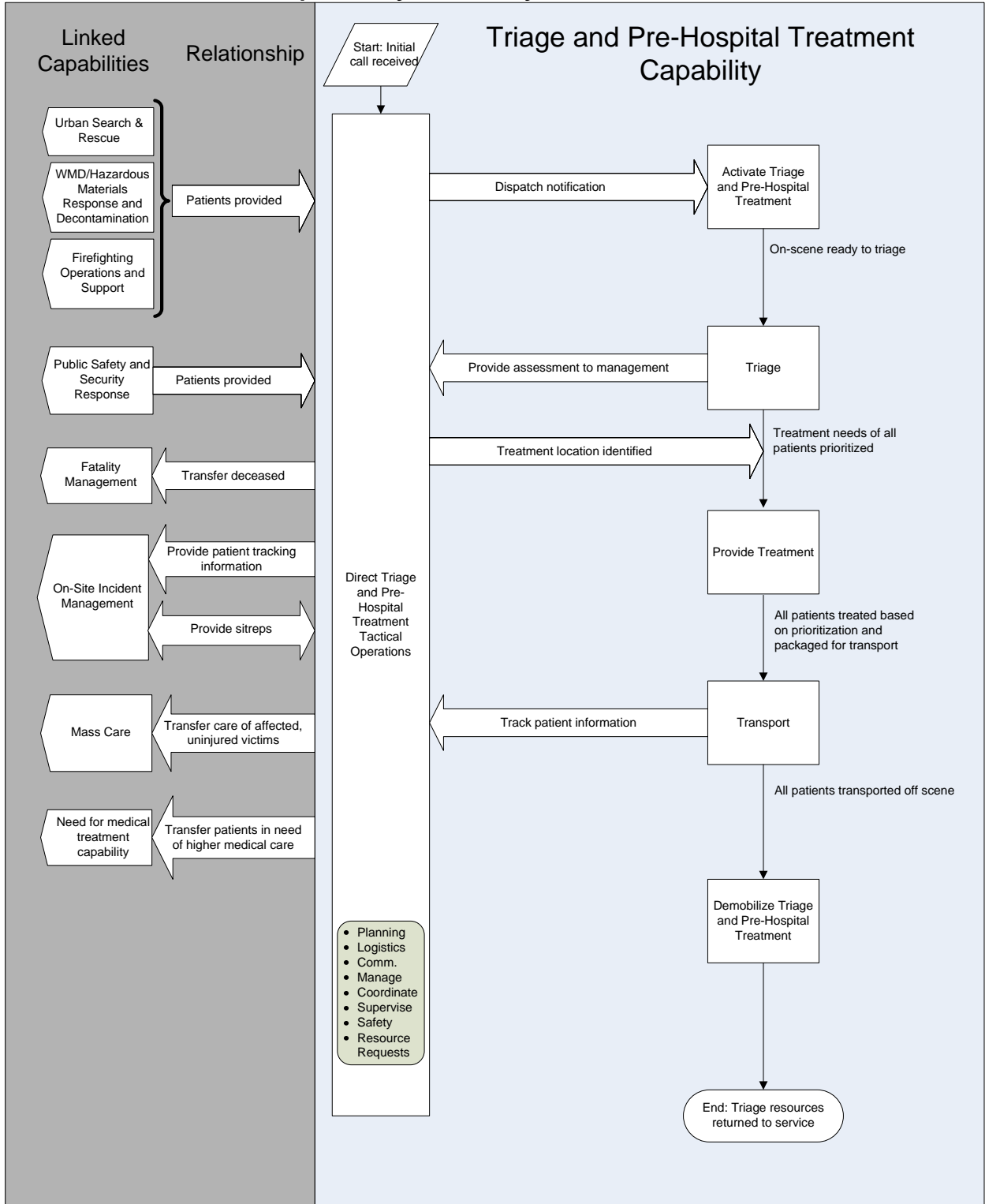
Res.C1a 8.1.1	Reconstitute EMS personnel and equipment
Res.C1a 8.1.2	Participate in incident debriefing for triage and pre-hospital treatment operations
Res.C1a 8.3.1	Identify EMS staff needs dependent upon their level of involvement and/or hours committed to the incident
Res.C1a 8.3.2	Implement comprehensive stress management strategies and programs for all emergency responders and other workers
Res.C1a 8.2	Reestablish normal EMS operations
Res.C1a 8.3.3	Ensure post-event medical monitoring and care of pre-hospital/triage responders
Res.C1a 8.3.4	Conduct post-event analysis, including development and dissemination of lessons learned; revise plan as indicated

Performance Measures	Metric
Time in which triage and pre-hospital personnel are restored to normal or original operations	Less than 12 hours from start of Demobilization
Triage and pre-hospital treatment personnel are debriefed	Yes/No

Linked Capabilities

Linked Capability	Relationship
Urban Search and Rescue	Triage and Pre-Hospital Treatment receives extricated patients from Urban Search and Rescue.
WMD/Hazardous Materials Response and Decontamination	Triage and Pre-Hospital Treatment receives decontaminated patients from WMD/Hazardous Materials Response and Decontamination.
Firefighting Operations and Support	Triage and Pre-Hospital Treatment receives patients from Firefighting Operations and Support.
Public Safety and Security Response	Triage and Pre-Hospital Treatment provides information on, or the location of, potential witnesses to Public Safety and Security Response, while Public Safety and Security Response provide patients to Triage and Pre-Hospital Treatment.
Fatality Management	Triage and Pre-Hospital Treatment notifies Fatality Management of the location of deceased human remains, or they directly transfer these remains to Fatality Management.
On-Site Incident Management	Triage and Pre-Hospital Treatment provides patient tracking information to On-Site Incident Management, and they both provide situational reports to each other.
Mass Care	Triage and Pre-Hospital Treatment transfers care of uninjured affected victims to Mass Care.
Medical Surge	Triage and Pre-Hospital Treatment transfers medical care of injured victims requiring a higher-level of definitive care during surge to Medical Surge. Non-surge emergency medical care will need to be addressed in a future capability.

Capability Activity Process Flow



Capability Element Description Details

Capability Elements	Components and Description
Command, Control, Communication, Coordination (C4) Infrastructure	NIMS compliant Emergency Medical Services (EMS) C4 component integrated with local, State and Federal C4 components. While any direct jurisdictional linkages to Federal components are not meant to bypass State C4 components, this may be appropriate under certain conditions
Emergency Medical Services Communication System	A State interoperable EMS communication system capable of coordinating cross-jurisdictional EMS operations and supporting State EMS command, control, and coordination. This system must enable communications among pre-hospital providers, EMS operations, hospital facilities, public health and safety, and emergency management.
Emergency Medical Task Force	Per NIMS, any combination (within span of control) of resources (e.g., ambulances, rescues, engines, squads) assembled for a medical mission, with common communications and a leader (supervisor).
Emergency Medical Services preparedness assessment capability	The capacity to assess national, State and local triage and pre-hospital treatment capabilities in support of the National Preparedness Goal and coordinated with the Federal Interagency Committee on EMS, and the ability to coordinate pre-event emergency preparedness efforts

Planning Assumptions

General

- The primary role of the EMS system during an incident is triage, treatment and transportation of patients to definitive care facilities. The EMS system will have a graded response and may be required to adopt alternate standards of care from the norm depending on the locality, demographics, type of incident and number of people affected. At any point of an incident or outbreak, there could be spikes or reductions in pre hospital needs.
- EMS will coordinate scene safety, security and law enforcement investigate needs with law enforcement authorities.
- Neighboring States/jurisdictions may resist accepting patients that are contaminated or infectious.
- The national capacity requirement should focus on maintaining the integrity of the health care system and delivery of health care services to the general population. As the incident wears on through potential multiple phases, relief of medical staff will become necessary.
- An unknown percentage of EMS workers will become injured/ill during any given incident rendering them unavailable for duty.
- Planning, response, and preparedness activities should focus on reducing morbidity and mortality rates, which will vary based upon the type of agent involved, time, geography and availability of resources.
- Non standard dispatch, triage and treatment criteria will need to be applied due to the huge demands on limited health care resources.
- Special needs populations, i.e. pediatrics, geriatrics and the disabled, will need to be given particular consideration.

- Information will need to be provided in multiple languages.
- Public Health Emergency under HHS authority and a Stafford Act Emergency declaration will be declared in order to obtain needed Federal resources.
- Response to the demand for emergency medical services will require an altered standard approach to treatment and transport of injured or ill patients.
- In areas with climate extremes EMS systems will need the ability to create sheltered (warmed or cooled, as needed) treatment areas
- EMS systems are functioning close to peak capacity at time of incident.
- Professional responders and volunteers may fail to participate as expected due to dual roles in emergency care delivery and/or fear of the unknown.
- EMS systems will have education, licensure and credentialing systems in place consistent with national standards.
- States will have in place trauma and triage protocols identifying transportation of large numbers of victims across regional and State boundaries to assure appropriate distribution of patients.
- Local, regional and response agencies will have access to specialized medical resources from public/private sector agencies and academia.
- EMS responders will have participated in multi-disciplinary exercises with State and local emergency management agencies, fire-rescue, public health, hospitals, law enforcement and other related agencies.
- Patient transportation to and from airheads and medical treatment facilities (MTFs) will be problematic due to excessive congestion on local roads and limited patient movement alternatives (e.g. rotary wing lift)

Planning Factors from an In-Depth Analysis of a Scenario(s) with Significant Demand for the Capability

Event	Victims per Population	Duration of EMS role	Required Ambulances/ Other Transport	EMS Personnel	Comments
Biological – Communicable (plague, avian flu)	20-30% of population	Days to months	50% of sick population requires transport	2 EMS personnel per transport vehicle	Numbers reflect 200 – 300 % increase in average daily activity
Biological – Non-communicable (anthrax – 330,000 exposures)	4% of exposed become infected (13,000 infected)	Days to weeks	25% of infected population requires transport	2 EMS personnel per transport vehicle	Majority of patient transports will occur in the first week
Chemical	100% of exposed population	Hours to days	25% of exposed population (Up to 75% of victims in a major	2 EMS personnel per transport vehicle; each ambulance	Majority of transports will be in the first hours

Event	Victims per Population	Duration of EMS role	Required Ambulances/ Other Transport	EMS Personnel	Comments
			incident will self-transport.)	transporting twice. On-scene: 1:4 ratio of personnel to patients	
Explosive (may be multiple IEDs)	100 fatalities 500 injured per each major IED	Hours	50% of injured	2 EMS personnel per transport vehicle (approx. 125 ambulances, each transporting twice). On-scene: 150 EMS personnel (1:4 ratio of personnel to patients)	Majority of transports will be in the first hours
Radiological Dispersion Device	180 fatalities 270 injuries Up to 20,000 exposed/ potentially exposed	Hours	50% of injured	2 EMS personnel per transport vehicle (135 ambulances - each ambulance transporting only one patient due to decontamination requirements). On-scene: 135 EMS personnel (1:2 ratio of personnel to patients due to safety and logistic concerns)	Injuries include blast, burn, radiological exposure, and trauma
Nuclear (10 kiloton)	Several hundred thousand over thousands of square miles	Hours to days due to logistical issues	Several hundred thousand	Only EMS personnel with specialized training and equipment can enter on-scene. EMS personnel receive decontaminated victims. 10s of 1000s EMS personnel	Injuries include blast, burn, radiological exposure, and trauma

National Targets and Assigned Levels

Responsible	Element Resource Unit	Type of Element	Number of Units	Unit Measure (number per x)	Capability Activity supported by Element
Federal	Command, Control and Communications	Resource Organization	1	Per Joint Field Office	Direct Operations Activate Triage and

Responsible	Element Resource Unit	Type of Element	Number of Units	Unit Measure (number per x)	Capability Activity supported by Element
	Infrastructure				Pre-Hospital Treatment Demobilize
State	Command, Control and Communications Infrastructure	Resource Organization	1	Per State	Direct Operations Activate Triage and Pre-Hospital Treatment Demobilize
Jurisdictional	Command, Control and Communications Infrastructure	Resource Organization	1	Per Jurisdiction	Direct Operations Activate Triage and Pre-Hospital Treatment Demobilize
State	Emergency Medical Services Communication System	Resource Organization	1	Per State	Direct Operations
State	Emergency Medical Task Force	Resource Organization	1	Minimum per State	Triage Provide Treatment Transport
All levels	Emergency Medical Services preparedness assessment capability			As needed	Direct Operations

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