



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supersedes/Updates: 03-02

No. 13 - 08

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**Re: EMS Response
Planning to a Suspected
Biological/Infectious
Disease Incident**

Page 1 of 6

Recommendation on CBRNE AWARENESS

This policy was developed to assist EMS providers and agencies in adopting policies and procedures that will address all-hazards awareness to incidents that include acts of terrorism involving Weapons of Mass Destruction (WMD) specifically chemical & biological agents, radiological, nuclear and explosive (CBRNE) incidents. The intention is for responders to have a keen understanding on how to recognize the unfamiliar risks they may encounter at the scene of a CBRNE event.

Background

The use of terrorism is not a new phenomenon; however, since the early 1970's terrorist attacks on U.S. interests and citizens has grown in popularity as a strategy or tactic to elicit change. There are many definitions for terrorism, but all contain factors that use force or fear to further an objective.

Terrorism is about the fear of violence. The availability of CBRNE elements allows for a variety of weapons. Additionally, there is increased concern that arson and firearms may also be used as a tactic. History shows that explosives are overwhelmingly the weapon of choice, yet all forms of terrorism have the potential to impact all responders. Although the probability of a significant CBRNE incident is low, the consequences are too severe to ignore. A CBRNE incident can happen anywhere, anytime! EMS providers must be alert and recognize what they may confront when responding to an act of terrorism involving CBRNE.

FBI Definition of Domestic Terrorism

Activities that involve acts dangerous to human life that are a violation of criminal laws of the United States or of any state; appear to be intended to intimidate or coerce a civilian population; to influence the policy of a government by mass destruction, assassination, or kidnapping; and occur primarily within the territorial jurisdiction of the United States. (U.S. Congress, par. 3)

Policy

EMS responders will operate within the Incident Command System (ICS). ICS is one element of the National Incident Management System (NIMS). During a CBRNE response, EMS shall follow ICS as the New York State standard for command and management system.

Department of Homeland Security maintains a two tiered terrorism alert, non-credible & credible threat. EMS agencies should maintain a working relationship with other local and regional responding agencies i.e. law

enforcement, fire, county emergency management office, local & county elected officials. When a credible threat has been determined, these disciplines, including EMS, should meet to be briefed and discuss a mitigation strategy. Consideration should also be given to information and intelligence products which are available to the emergency services community. Maintaining an awareness of events which may impact your community, such as severe weather or mass-gatherings, is a good way to be better prepared for potential incidents.

EMS responders must play a role in the prevention and anticipation of a terrorist attack. The threat of a terrorist attack is real and responders need to understand what makes up the components of such aggression. These factors include:

- Element of surprise. Few people may have prior knowledge of the attack. The suddenness of an attack has much shock value.
- Means of the attack. Attacks can be conducted using a range of CBRNE elements, with improvised explosive devices (IEDs) being the most common. Arson and firearms may be used as well.
- Foreknowledge of a response. Terrorists will gather intelligence by conducting surveillance of potential targets to understand first responder's response and resource capabilities.
- EMS is in a unique position to observe things. We are invited into areas to provide care. During this response we may see things that are not right. Be observant when doing the Scene Safety Survey. **"IF YOU SEE SOMETHING, SAY SOMETHING"**, report any suspicious activity to the NYS Terrorism Tips Line at **1-866-SAFE-NYS (866 723-3697)**. Or call your dispatch; do not transmit over the radio.
- Significant dates. Terrorist attacks may occur on noteworthy dates i.e. April 19th, September 11th.
- Target of the attack. Targets can include: responders (secondary device/ambush), the public, critical infrastructures and other potential targets such as schools, sports arenas, malls, places of worship and mass gathering special events.

Scene Awareness:

Scene awareness begins well before any response to a CBRNE incident. Each community should conduct a collaborative effort among emergency responder disciplines and their regional Office of Emergency Management to conduct a threat and vulnerability analysis. Pre planning and preparedness should include assessing resource capabilities, potential terrorist targets, training and exercising together, and knowing each agency's roles and responsibilities. Responders need to be familiar with their community, existing violence from gangs, protests, union/labor/political issues, nearby military bases, nuclear plants, VIP visits, pharmaceutical plants, interstate commerce, railways, federal buildings and mass gathering events.

Terrorists will plan their impending attacks by acquiring CBRNE materials necessary for their attacks. As responders, we need to maintain a situational awareness when approaching and on scenes. Are there suspicious materials or supplies that indicate preparation of a weapon? For example:

- nitrogen-based fertilizer
- fuel containers/drums
- bomb making materials
- pipes with caps

- propane tanks
- strong chemical smells
- large quantities of fire strike match books
- unknown powder
- castor beans or plants, which could be used to make Ricin
- bottles of hydrogen peroxide
- containers filled with urine
- fireworks, gun powder
- spraying equipment for dissemination
- blueprints of a facility to gain illicit entry
- books or literature on bombing making, etc.
- extremist materials, such as flags, posters, literature, and websites
- the presence of potentially hazardous materials (especially high concentrations are present)
- the unusual presence of equipment which could be used to manufacture CBRNE materials (such as grinders, blenders, mixers, glassware, ice bath, distillers, filters, hot plates, and/or safety equipment to provide protection from hazardous materials)
- quantities of an item, which is unusual for the context in which it is found (such as the presence of several GPS devices, cell phones, backpacks, or other items which could be used to construct an explosive device or aid in an attack)

Be aware of:

- suspicious persons who exhibit apprehensive behavior, improperly dressed for the location or season
- vehicles abandoned with multiple parking tickets, unattended or appear to be out of place
- abandoned packages, luggage or mail left unattended in a crowded place
- mail packages with excessive postage and signage alerts i.e. fragile or handle with care, no return address, oil stains and wires protruding
- chemical fires or toxic odors
- unusual explosions in rural or wooded areas
- the theft or attempted theft of gear, equipment, or vehicles, which could be used to gain access into

secure areas, or aid in criminal or terrorist activity

- statements by individuals that they may engage in violent acts
- individual(s) posing unusual questions related to staffing levels, security, and response plans related to your facility or a location where you may respond
- any unusual activity or circumstance in your community or workplace.

A CBRNE incident can be violent. While enroute, listen to the radio traffic and ask for informational updates. The scene will be the hot zone, and may include CBRNE hazards, weapons being fired, secondary devices, partially exploded devices, booby traps, blood from arterial bleeds, body parts, debris, collapsed structures, fire, smoke, and injured victims screaming for assistance. Know your wind direction!

Responders need to recognize the hazard/threat and make a mental assessment. Avoid the hazard by not getting contaminated or injured. Stay away from liquids, unknown powders, clouds or vapors. Remain alert for suspicious objects/packages/vehicles, and persons who appear to be acting unusual for the circumstances (such as not panicked or surprised by an explosion). If a hazard is detected, isolate or remove yourself from the threat, remove others from the contaminated zone and keep civilians/people from going into the contaminated zone. Encourage anyone within the danger zone to self-evacuate if possible. Notify your dispatch. Ask or find the command post (CP) or establish a CP. Identify the kill zone. Practice the concept of time, distance and shielding. Keep victims within the CBRNE hot zone.

General scene precautions to protect providers include:

- Take protective actions to preserve health and safety i.e. retreat. Have a verbal (code) phrase with your partner to initiate retreat. Understand the first in responders may be in the hot zone and become a victim of the attack. At this time, the exposed responder can still be a resource in providing intelligence i.e. description of the firearm, signs & symptoms, etc.
- Stage in an area upwind, uphill and upstream from the incident.
- Isolation involves preventing others from entering the affected area.
- Shelter in place if evacuation is not possible or is not appropriate i.e. when evacuation would put others at greater risk. This means shelter inside a building and remain there until the danger passes.
If providers have exited their vehicles and are ambushed, hide behind your wheels to prevent being struck by ricochet bullets fired under your vehicle.
- Try to recognize by sight the following: visible corrosion, chemical reactions, pooling of liquids, condensation on pressure tanks, dead animal, insects, plants, fire or vapor clouds, injured victims or casualties. Multiple victims with same signs & symptoms may indicate a WMD release i.e. seizures, excess salivation, lacrimation, loss of bladder (urination) & bowel control (defecation), gastro-intestinal cramping, emesis, miosis, better known as SLUDGEM of an organophosphate poisoning/nerve agent.
- Listen for sounds i.e. hissing indicative of a pressure release.
- **BE AWARE AND SUSPECT SECONDARY EXPLOSIVE SCENE DEVICES.**
- Smell is a good initial indicator, but the sense of smell can be overwhelmed and cause the responder to think the odor has gone away, for the presence of hazardous materials. If an odor is smelled, you are too close.
- Do not touch or taste any substance that has not been identified!

- Use PPE that includes: gloves, goggles/face shields, masks/positive pressure, full tyvek suits with hoods & booties.
- Taking note of the appearance of smoke, sounds, odors at the scene and on patients, and the image of the scene in general can aid law enforcement in the investigation.

Use your Emergency Response Guidebook (ERG). This is an aid to identify a hazardous material and should be used during the initial phase of arriving on an incident. Refer to guide 111 of the orange pages if the hazard is unknown.

Chemical Agents:

Terrorists may use a toxic warfare chemical i.e. choking, blood, blister or nerve agent, but more likely a more readily available source for WMD will be a toxic industrial chemical (TIC). TICs are within many communities i.e. chlorine, hydrogen cyanide and anhydrous ammonia. Chemical agents can exist in a solid, liquid or gaseous state. Chemical incidents have a rapid onset of symptoms (minutes to hours) and reveal easily seen observations i.e. dead foliage, pungent odor, dead animals/insects and colored residue.

Biological Agents:

A biological agent includes: bacteria, virus or a toxin. These agents cause the same symptoms as a naturally occurring disease. Exposures to a biological agent will begin with flu-like symptoms. There may be delayed onset of symptoms (incubation period) making the initial diagnosis difficult and the actual location of infection difficult to determine. Diseases from a biological attack may be contagious. Public health will be the first to detect such an outbreak.

Radiological Materials and Nuclear Weapons:

Radiological materials emit invisible, unstable energy in the forms of: alpha particles, beta particles, gamma rays and/or neutrons. All forms of radiation are odorless and colorless, thus radiation detectors must be utilized to detect decaying radioactive isotopes. Dependent on the type and dose of energy, radiation can travel in all directions exposing or penetrating individuals causing radiation sickness (ARS). ARS includes: nausea, diarrhea, burns and possible death. Like biological attacks, radiation incidents will take several days to weeks to appear.

A nuclear weapon incident has a low probability of use, but if detonated can produce devastating large scale damage, much larger than a conventional high explosive. A nuclear weapon detonation may not have a mushroom shaped cloud. Remember time, distance and shielding.

Explosives Devices:

Explosive materials have two categories: low and high. Seventy percent of all terrorist incidents involve explosives and can present as an Improvised Explosive Device (IED). IEDs can be deployed in any shape, form or size including: package-type, vehicle-type or suicide (human-borne). When responding, think secondary device!

References:

www.FirstResponderTraining.gov - FEMA /DHS funded training courses
www.NDPC.US – National Domestic Preparedness Consortium

www.cdp.dhs.gov - Center of Domestic Preparedness, Alabama

- National Center for Biomedical Research & Training, Louisiana

www.teex.com/nerrtc - National Emergency Response & Rescue Center, Texas

www.emrtc.nmt.edu - Energetic Materials Research & Testing Center, New Mexico

www.dhSES.ny.gov/training - NYS Division of Homeland Security and Emergency Services, New York

www.dhSES.ny.gov/oct/safeguardNY/ - NYS Division of Homeland Security and Emergency

Services www.bt.cdc.gov/masscasualties/index.asp - Centers for Disease Control and Prevention

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