



The Evolution of EMS Response to Active Shooter Incidents

PURPOSE:

Law enforcement agencies have dramatically changed the way they respond to “active shooter” incidents. It is time for prehospital medical response to consider a change from the longstanding practice of waiting for an austere scene to be declared “secure” in these types of situations.

In many areas around the nation, including in some Ohio communities, EMS agencies have developed programs to enter “warm zones” of active shooter incidents (ASIs). These programs enable EMS to provide care for wounded victims while under the protection of armed law enforcement officers. A review of previous incidents shows that this approach will save lives.

The Active Shooter Rescue Task Force (RTF) program takes the best of numerous other protocols, including patient care, and collaborates with area law enforcement agencies to provide rapid treatment for casualties in an active shooter scenario. The Rescue Task Force concept, pioneered in Arlington, Virginia, has been endorsed by the International Association of Firefighters, the International Association of Fire Chiefs, and the United States Fire Administration, among other agencies.

The RTF concept mitigates provider risk by using procedures, training, and protective equipment, while providing rapid stabilization, treatment, and evacuation of the wounded despite hazardous conditions that would otherwise delay treatment. This paper endorses standing medical and tactical orders for EMS that facilitate a unified law enforcement/EMS response to ASIs.

BACKGROUND:

Active shooter incidents in Columbine in 1999, Virginia Tech in 2007, and Mumbai in 2008 are just a few of the examples that have been studied during development of the RTF concept. Subsequent ASIs that occurred in Aurora, CO, Chardon, OH, Oak Creek, WI, and Newtown, CT have also been reviewed.

The number of incidents involving active shooters has increased dramatically. An active shooter is defined as an armed person who continues to use deadly force while having unrestricted access to additional victims. Since 1966, there have been over 200 active shooter events in the United States with greater than 600 dead and 700 wounded. Over 200 deaths have been caused by active shooters in schools alone in the past 25 years. ASIs occur in urban, suburban, and rural settings. According to a 2014 FBI report, ASIs are becoming more frequent. During the first seven years of the study, there were an average of 6.4 incidents annually while the last seven years of the study found 16.4 incidents annually.

Following the shootings at Columbine and other incidents, police response to these situations underwent a paradigm shift. In most law enforcement (LE) agencies, personnel are trained to respond aggressively to immediately pursue, establish contact with, and neutralize the shooter. Rapid response and threat removal results in fewer casualties.

However, emergency medical services (EMS) response to active shooter situations in most areas has not followed suit. Often, the current EMS response to the active shooter is to stage in a secure location until police mitigate the threat and secure the area. Unfortunately, securing such a complex scene can take hours. While EMS is waiting, casualties are not receiving care, and morbidity and mortality are increasing.

The often quoted statistic that ASIs are over within seven minutes is misleading. In the majority of those incidents, including Newtown, CT, multiple uncertainties frequently delayed or impeded rescue and medical care. Uncertainties, which included determination of the shooter, potential presence of additional perpetrators, IEDs or other hazardous devices, extended much longer than seven minutes.

Agencies in Ohio, Colorado, Virginia, Kentucky, North Carolina, California, and other locations have developed protocols to provide a more rapid response. While entailing some new risk for EMS, this type of response fits within the typical EMS risk management paradigm:

- Accept no significant risk when no lives or property can reasonably be saved at an emergency incident.
- Accept some limited level of risk, within normal operational procedures, when it is likely that lives or property can reasonably be saved.
- Accept a significant amount of risk, again within operational guidelines, when it is likely that a life can be saved.

TRAINING RECOMMENDATIONS:

Participation in an RTF protocol should require the following:

1. Approval of your agency
2. Ohio EMS certification.
3. Completion of RTF training and continuing education approved by your agency.

RTF Personnel Training should include the following topics:

- Program overview
- LE procedures and expectations
- Principles of Tactical Emergency Casualty Care (TECC)
- Mass Casualty Incident (MCI) procedures
- RTF protocol

Drills and Exercises

- Interoperable, collaborative, and multi-jurisdictional exercises and drills including all entities should be organized and provided as often as possible.
- In addition to LE and EMS, participating entities in local drills should include schools, hospitals, businesses, and other community stakeholders at every opportunity.
- Improve interdisciplinary communications and relationships with LE and involve LE personnel in Incident Command or Unified Command (IC/UC) as appropriate in your local area.

Awareness Training

- Provide training for Fire and EMS personnel who are not RTF participants.
- Provide training specifically for LE and suggested additional language for LE standard operating procedures (SOPs) discussing RTFs.
 - Emphasis should be placed on the expectations for LE personnel assigned to RTFs.
 - Emphasis should also be placed on the importance of maintaining an LE focus (ignoring victims) until there is absolute certainty that all perpetrators have been contained.
- Provide training and/or a job aid for public safety dispatchers

EQUIPMENT CONSIDERATIONS:

Tactical equipment, such as bullet-resistant vests with or without rifle plates and ballistic helmets, should be considered to meet local needs with guidance from personnel with experience in tactical equipment and RTF stakeholders. A system for team identification should also be considered for safety purposes.

Medical equipment should focus on life-saving interventions and triage. Types of equipment considered should include victim movement equipment, rapid triage category patient markers, tourniquets, vented chest seals, dressing materials, and chest decompression needles.

Large, heavy, or unwieldy equipment (e.g., oxygen tanks, cardiac monitors) should not be carried by an RTF.

PROCEDURES:

Notification and Response:

PSAPs and Dispatch Centers:

Each public safety dispatch center should have a protocol for activation of the RTF.

It is recommended that dispatch centers be authorized to request mutual aid, including the RTF, as soon as possible. Dispatchers should be trained to do so without prompting from the field.

Command can also request the RTF at any time, including for other types of incidents. Because of equipment and training, the RTF may be considered for response to incidents including IED or other WMD incidents, civil disturbances, and downed officer tactical responses (e.g., the TSA officer at the Los Angeles International Airport).

Jurisdictions can request that an RTF be pre-staged to stand by at large or high risk events. Such events should include communications with LE and other EMS, so that the event also functions as an RTF exercise.

Response:

- Arriving RTF personnel and caches should report to Command, through a staging area if established.
- First arriving RTF should meet with Command:
 - Make Command aware of the presence of the RTF and its capabilities.
 - Form RTFs as EMS and LE personnel and RTF equipment become available. Ideally, the RTF composition should include an Advanced Emergency Medical Technician (AEMT) or Paramedic.
 - Establish a communications plan for the RTF.
 - Considerations should include:
 - Radio equipment
 - Radio channels or talkgroups
 - Identify positions to which RTF members report
 - Emergency procedures
 - Other factors: see onsite communications section, below.
 - Recognize that people may reach a point of sensory saturation when they simply stop hearing the messages. It is important to repeat messages, ask for read-back, and consider deploying runners for critical information.
 - Determine the evacuation signal within the authority having jurisdiction (AHJ) and convey this information to all RTF personnel.
 - Discuss the location for staging area for RTF location and personnel.
 - Maintain accountability for all RTF personnel on scene.
 - Non-RTF EMS personnel should not generally enter warm or hot zones.

On-site Communications:

- Communications are a crucial component of emergency response and must be considered in RTF planning and training.
- RTF team communications may function on different radio channels with RTF LE officers (LEOs) communicating with one Branch, and RTF EMS personnel communicating with another Branch.
- Communications within a single RTF are typically face to face.
- In any case, it is important to relay information to command such as:
 - RTF location within the building
 - Number of casualties and injuries
 - Updates on location of the injured, the activities of LEO contact teams, and possible threats.
 - This allows for accountability and effective use of the teams as well as for planning and management of both the external casualty collection point and additional EMS resources.
- Nearly any incident of this type will require multiple RTFs. Assign each RTF a number as they are formed (e.g., RTF-1, RTF-2, etc.).
- RTF members must be aware that LE may use different nomenclature for building descriptions than Fire/EMS (e.g., “Side 1” vs. “A side”).
- Given the number of different disciplines and agencies responding to such incidents, it is crucial that all communications be in plain language.
- Communications from an RTF to command are typically via the LE personnel.

Law Enforcement Response to Active Shooter Incidents

- This plan is predicated on LE responding aggressively, with the initial responding officer(s) immediately making entry (which may be in contact teams or may be single or paired officers).
- There may be multiple contact teams used, especially in large, complex settings.
- Contact team officers move quickly through unsecured areas, bypassing the dead, wounded, and panicked citizens with the single goal of engaging and eliminating the active threat by "moving toward the sound of shooting."
- Work with other responders on scene, activate command, and develop unified objectives.
- Call for additional resources: LE, EMS, and the RTF.
- Entry officers relay reconnaissance information, including data about victims, to command. This will help RTF quickly and easily locate casualties.
- Assign armed and equipped LEOs to accompany each RTF. In general, that requires at least two LEOs.
- LE personnel should not become engaged, in any degree, in care or movement of victims, until it is confirmed by UC that all perpetrators have been contained.

Supervision:

- ASIs necessitate close coordination of LE and EMS personnel in a high hazard environment.
- It is incumbent upon supervisors to bring LE, EMS, and other appropriate disciplines together, sharing a single command post.
- Command will support RTF entry by assigning personnel and communications.
- RTF supervision will function primarily within command, and provide liaison and communication for RTF entry teams.
- Any scenario that warrants RTF activation should have a single command post with LE, EMS, and other disciplines as needed, as quickly as feasible.
- Any scenario that warrants RTF activation demands notification of the region's hospitals, whether you expect them to receive patients or not. Keep hospitals apprised of the situation.
- Request activation of the local Emergency Operations Center (EOC) through Command for long-term multiagency response, recovery, investigative, and support efforts.
- Recommend that command establish a joint information center (JIC) involving all key agencies and players to manage media efforts.
- Recommend that command consider family assistance centers (FACs) near the site and in other locations.
- Any use of aeromedical assets should be limited to the cold zone as is true for all personnel and apparatus other than LE and RTF.

RTF Procedures

- RTFs deploy after LE initiates entry with a contact team or teams. Risk is decreased, even though the scene is not completely secure.
- Authorization for entry must be obtained from LE (preferably through the shared command post).
- Entry into active shooter scenes should not occur until RTF personnel have appropriate protective equipment and LE escort.
- Subsequent RTFs, with the goal of evacuation and (possibly) initial treatment, will be established as additional personnel arrive.
- Each RTF should be comprised of two RTF-trained EMS personnel equipped with PPE and medical gear, and LEOs.
- LEOs provide security while EMS personnel attend to casualties. The goal is to get medical resources to patients within minutes of being wounded while continuing to mitigate RTF risk.
- There may be physicians who are SWAT or RTF-trained and have ballistic PPE. Roles for those physicians at ASIs may include entry with an RTF, or outside medical direction. Within an RTF, EMS personnel are not to defer to the physician. The same TECC procedures apply to all RTF personnel.

Procedures for LE Officers Assigned to an RTF

- The roles of a LEO assigned as a member of an RTF are security and coordination of team movement only.
- LEOs assigned to RTFs will not assist in lifting, carrying, or treatment of any patient until it is confirmed by command that all perpetrators have been contained.
- Safety of the RTF is the primary concern for those officers, including searching for other secondary threats (e.g., IEDs, tripwires).
- One LEO will have 180-degree front security and one will have 180-degree rear security.
- The front LEO will communicate with police in command. All movement in the building should be directed by Police Command. This allows for accountability of each RTF team, and precludes accidental entry into hot zones.
- At no time will the RTF LEOs 'freelance' or move outside of their directed destination/area of operation.
- At no time will LEOs assigned to an RTF leave the EMS personnel further than close direct line of sight.
- LEOs must be able to provide effective defensive fire cover for the RTF at all times.
- The RTF will move as a team with the LEOs controlling the speed of movement.

Entry

- An RTF may approach the scene in a vehicle such as an ambulance or tactical vehicle, on foot, or by other means as directed by command.
- RTF ingress and egress corridors will be designated by command. RTFs will move in and out of the building only through entrances and corridors primarily cleared by LE contact teams.
- The first one or two RTFs that enter the building or site move deep inside to stabilize as many casualties as possible before any victim is evacuated.
- As victims are reached, the RTF LEOs provide security while the medics treat the casualties. RTFs stabilize only immediately life-threatening wounds on each casualty they encounter, but leave casualties where they are found and move on.
- Emphasis is on treatable immediate life threats. Casualties are treated in place, and the RTF moves on.
- Walking wounded and uninjured individuals are directed to exit away from the direction of shooting, if it is reasonably safe to do so. Communications with command concerning this process are essential.
- Additional RTFs are formed as personnel and equipment caches arrive on the scene and enter the building as directed by command.
- A supply depot will be set up near a secured entry point to allow for quick re-supply and turnaround for RTFs. This area may also serve as the Extraction Casualty Collection Point (CCP).
- RTF personnel must be aware of surroundings, potential threats such as IEDs, and open routes of rapid egress.

SCAB-E MEDICAL TREATMENT PROTOCOL

- SCAB-E is a care acronym for care developed by the Arlington County Fire Department that stands for Situational awareness, Circulation, Airway, Breathing, and Evaluate/Evacuate.
- RTFs when functioning in the warm zone only provide stabilizing treatment, primarily following TECC and life-saving interventions.
- Airway control is not first priority. Exsanguinating extremity wounds are more common in active shooter situations, and a person can bleed to death from a large arterial wound in just two to three minutes. Life-threatening bleeding is addressed first, followed by airway control. Open chest wounds and tension pneumothorax are addressed third, following the Circulation-Airway-Breathing sequence (CAB).
- Tourniquets are emphasized and prioritized as a quick and effective method to control extremity hemorrhage. This is one example of RTFs using standard EMS skills in slightly modified and more aggressive fashion. RTFs are providing care in relatively austere conditions. As such, RTFs are providing initial temporizing care, then moving on to care for other victims.
- For non-exsanguinating hemorrhage, mechanical pressure dressings with wound packing are used. Some wounds, including those in the femoral triangle or in the neck, are not amenable to tourniquets.
- All patients within a reasonable geographic area, not more than earshot of a quiet voice and direct line of sight from the RTF, will be rapidly triaged and marked with a triage marking system that can be rapidly applied (e.g., triage ribbons, markers, snap-on bracelets or slap bands). Triage tags are not appropriate for use in a warm zone because the time to complete them tends to delay care. It is especially important to identify deceased victims to prevent teams from wasting time re-triaging them.

Patient Evacuation

- Additional RTFs can either be tasked with the primary mission of evacuating stabilized casualties or with moving further into the building in a “stabilizing, but non-evacuating” mode to take over for the initial RTFs that have run out of supplies and begun evacuation.
- Standard triage, treatment, and transport areas must be established far enough away from the scene to afford protection to casualties and medical personnel.
- RTFs may consider establishing an internal Warm Zone (Tactical) CCP in a secured area approved by LE Command.
- RTFs may also consider establishing an Extraction CCP to serve as a temporary way station at the location of the external RTF supply depot.
- Victims will be evacuated as quickly as feasible and safe to the Treatment or Transport Areas operated by non-RTF EMS personnel and located in the cold zone.

Emergency Evacuation Procedures

- If the zone in which the RTF is operating changes from warm to hot due to a direct and immediate threat, immediate evacuation of the RTF will occur according to direction from the LE members of the RTF or UC.
 - This may include partial or complete evacuation of the RTF from the building.
- If any member of the RTF is injured during operations, immediate evacuation of the RTF will occur.

Secure Scene

- Once it is determined by UC that the scene is secure (i.e., all perpetrators are under control and there is no risk of secondary threats), RTF procedures will cease. The scene will revert to standard MCI procedures using all available EMS personnel for treating and transporting patients regardless of location.
 - Remember that RTF personnel have likely learned more about issues with ASIs than most personnel on the scene, and their advice and assistance will be invaluable even after the threat has been eliminated.

DISCUSSION:

This response must be clearly differentiated from typical violence calls. The intent of this plan is not to replace Tactical EMS (TEMS) or SWAT Medics. These procedures are specifically designed for dynamic scenarios where violence and the risk of casualties are ongoing or for other high-risk situations where care would otherwise be substantially delayed.

During the development of an RTF, medical direction, training, continuing education, protocols, and quality improvement programs are essential elements. In addition, there are administrative issues that must be addressed. These include worker's compensation, injury policies, insurance, and related issues that may be the responsibility of the local agency.

Ohio Department of Public Safety, Division of EMS (OEMS) and the Emergency Medical, Fire, and Transportation Services (EMFTS) Board encourage agencies to consider the consequences and ramifications of active shooter incidents. This document presents one concept for such scenarios that has been widely adopted nationally; however, it is not the only approach. It is incumbent on EMS agencies to look at such strategies that have the potential to save lives. OEMS and the EMFTS Board also encourage agencies to develop plans collaboratively by involving multiple jurisdictions and disciplines.

EMS providers functioning on an RTF may not exceed the Ohio EMS Scope of Practice for their certification level.

GLOSSARY

Active Shooter(s): An armed person or persons who continue(s) to use deadly force while having unrestricted access to additional victims.

Casualty Collection Points (CCPs): Depending on circumstances, and at the option of Unified Command (UC), there may be up to three echelons of CCPs:

- **Warm Zone or Tactical CCP:** If there are large numbers of patients/victims that cannot be evacuated immediately, RTF members may establish a CCP inside where the RTF is operating.
- **Extraction CCP:** A CCP may be established near an entry/exit point. Since this will most likely also be in the warm zone, it will be operated by one or two RTFs, and may be collocated with a supply depot to allow for quick re-supply and turnaround for RTFs.
- **Cold Zone CCP:** Also known as the Treatment Area, this is the standard MCI Treatment Area. It must be located in a safe area (according to available information) and should be relatively close to the Transport Area.

Cold zone: An area where Incident Command does not reasonably anticipate a significant danger or threat to the providers or patients. The Treatment Area, command assets, and staged non-tactical Fire/EMS personnel and apparatus will be located in the cold zone.

Contact Teams: Teams of up to four or five law enforcement officers (LEOs) who form on arrival at an active shooter scene. The initial Contact Team will immediately deploy into the building or site, moving rapidly with the goal of containing or eliminating the active shooter to prevent further injury or loss of life.

Depending on the size of the area to be searched, the number of perpetrators, and other factors, LE may use multiple Contact Teams prior to assigning personnel for one or more Rescue Task Forces (RTFs).

Hot zone: Any area in which there is a direct and immediate threat to persons or providers. RTF plans and training are not intended for response into a hot zone where active aggression is likely.

Rescue Task Force (RTF): Two RTF-trained EMS personnel in tactical PPE with two law enforcement personnel, who may operate in the warm zone at ASIs.

- As with LE Contact Teams, there may need to be multiple RTFs.

Tactical EMS (TEMS): EMS providers who have received standardized, specialized medical training to provide support for law enforcement teams, including within hot zones.

SWAT team: Special Weapons and Tactics team. Officers specially selected and trained to perform high-risk operations that fall outside the capabilities of regular patrol officers.

Warm zone: An area where the potential for hostile threats exist, but the threat is not direct and immediate. This is the main zone of operations and staging for RTF personnel.

Appendix A
SCAB-E Acronym
(adapted from the Arlington County Fire Department in Virginia)

S – Situational Awareness:

- Be aware of surroundings, potential threats such as IEDs, and always maintain open routes for rapid egress.
- Be constantly mindful of the possibility of multiple attackers or the potential for an attacker to circle around and turn your warm zone into a hot zone.
- Ambulatory patients should be directed to evacuate according to guidance from command.
- Non-ambulatory patients should be medically stabilized and either evacuated or placed in proper position while awaiting evacuation.
- Understand the difference between cover (obstructions likely to stop fired rounds) and concealment (hiding behind objects that may reduce the likelihood of being fired upon, but that would not necessarily stop rounds from penetrating), and consider appropriate tactical positioning in case the team should come under fire.
- Consider the possibility of a chemical threat, improvised explosive devices (IEDs), or decoys at the scene including non-primary sites (e.g., the perpetrator's home).

C – Circulation:

- Assess for and treat life-threatening extremity bleeding.
- Direct pressure on the proximal brachial or femoral artery should be immediately applied by kneeling on the artery with body weight. This allows both hands to be free to perform other interventions.
- Tourniquets are to be placed immediately on extremity wounds for which bleeding cannot be adequately controlled with pressure dressings. This includes, but is not limited to, total or near-total amputations, large vessel arterial bleeding, or massive venous bleeding.
- Mechanical pressure dressings may be applied for anatomically amenable extremity wounds.
- Deep wounds should be packed with gauze to transmit pressure deep into the wound to site of bleeding.
- **A – Airway**
 - Any patient with an occluded airway or altered mental status will have a nasopharyngeal airway placed.
 - Place victim in any position that best protects the airway, including a seated position.
- **B – Breathing**
 - Assess for any open or sucking chest wounds, and place an occlusive chest seal to any trunk wound (anterior or posterior) between the level of the umbilicus and the level of the shoulders.
 - Assess for and treat tension pneumothoraces.

- **E – Evaluate and Evacuate**
 - Assess effectiveness of applied interventions and initiate evacuation.
 - Check tourniquets and pressure dressings for effective hemorrhage control.
 - Assess for unrecognized hemorrhage.
 - Reassess for respiratory distress and proactively treat if present.
 - Roll patient and examine posterior for injury.
 - Place conscious patients in position of comfort and unconscious patients in recovery position while awaiting evacuation.
 - If adequate supplies remain and there are untreated patients in the building, RTF should continue into the building toward those patients, remaining in the warm zone.
 - If no supplies remain or all patients are treated, initiate evacuation to a CCP according to triage categories, using appropriate patient movement technique. Evacuate to CCPs and, as feasible, communicate with the CCPs or Triage Officer.
 - Within the same triage category, public safety personnel should receive priority assessment and evacuation since they may not fully comprehend the extent of their injuries.
 - The members of the RTF, including LE members, remain together during egress.

Appendix B
EQUIPMENT EXEMPLARS

Tactical Equipment:

- Level IIIA tactical vest
 - Large amount of overall chest and back coverage
Adjustable in size to fit multiple medics
 - Identification (e.g., Rescue Task Force patch on front and back)
 - Level IV front and back rifle plates
- Level IIIA ballistic helmet
 - Lightweight with high-cut back for greater range of motion
 - Four-point harness to ensure positional security of the helmet during casualty care

Medical Equipment:

- Each task force member should carry a kit with enough supplies to treat multiple casualties, depending on injuries, such as:
 - Flexible lightweight medical litter
 - Triage marking system materials
 - Headlamp and spare batteries
 - Duct tape
 - Permanent marker
 - Grease marker
 - Tourniquets
 - Nitrile gloves
 - Alcohol preps
 - Nasopharyngeal airways (adult and pediatric)
 - Elastic wraps
 - Sterile stretchable gauze bandage rolls
 - Chest seals (vented or unvented)
 - Sterile abdominal gauze pads
 - Decompression needles
 - Bag with shoulder strap
 - Trauma shears
 - Tubular webbing and carabiners

Appendix C
ADDITIONAL RESOURCES

- Advanced Law Enforcement Rapid Response Training (ALERRT) Report on U.S. Active Shooter Incidents
<http://alerrt.org/files/research/ActiveShooterEvents.pdf>
- Committee for Tactical Emergency Casualty Care
<http://c-tecc.org/>
- Dayton, Ohio Metropolitan Medical Response System (MMRS) website
www.DaytonMMRS.org
Includes editable SOPs, PowerPoint presentations, and similar materials
Vetted, members only site, but membership available without charge to all fire, EMS, law enforcement, and hospital personnel
- FBI Study on Active Shooter Incidents in U.S.
<http://www.fbi.gov/news/stories/2014/september/fbi-releases-study-on-active-shooter-incidents/pdfs/a-study-of-active-shooter-incidents-in-the-u.s.-between-2000-and-2013>
- International Association of Fire Chiefs (IAFC) Position Paper
http://www.iafc.org/files/1ASSOC/IAFCPosition_ActiveShooterEvents.pdf
- International Association of Firefighters (IAFF) RTF Position Paper
<http://iaffconvention2014.org/resolution-no-11/>
- New York City Police Department Active Shooter Incident Analysis
<http://www.nyc.gov/html/nypd/downloads/pdf/counterterrorism/ActiveShooter.pdf>