Tactical EMS: An overview
Learn about the basics of this rapidly evolving EMS subspecialty

What is a “SWAT medic” and what does it take to become one? Tactical medicine is a specialized and highly discriminating endeavor that requires intensive training, discipline and a unique relationship with law enforcement. Tactical medics have the primary responsibility of providing medical care to the SWAT team, but their duties extend far beyond that task.

This article examines the evolution, and current tactical medical principles and procedures employed by military and law enforcement agencies (LEA), specifically SWAT teams.

History
Tactical medicine concepts have been around since the dawn of medicine... and warfare. Even in early battles the “King’s Doctor” was to be close at hand to deal with injuries, but only to the royal few. Outcomes were not very good as the initial insult might have killed the victim; if that didn’t, then infection usually did.

Historical accounts and personal diaries of military medics through the centuries are fascinating and show a steady progression of tools and techniques and an ever improving understanding of injury management. The Vietnam War showed that rapid transport to a higher echelon of care had a significant impact on survival.

The last 10 years of conflict overseas has shown that controlling extremity hemorrhage and aggressive airway management accounted for a significant reduction in the casualty fatality rate (CFR). The CFR is the percentage of those who are wounded in battle die.

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<th>Casualty Fatality Rate:</th>
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<td>WWII</td>
<td>19.1 %</td>
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<td>Vietnam War</td>
<td>15.8</td>
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<td>Iraq/ Afghanistan conflicts</td>
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Prior to 2004, there were a significant proportion of deaths in American soldiers during the Global War of Terror (GWOT) associated with each of the following injuries:

- Hemorrhage from extremity wounds
- Junctional hemorrhage (where an arm or leg joins the torso, such as in the groin area after a high traumatic amputation)
- Non-compressible hemorrhage (such as a gunshot wound to the abdomen)
- Tension pneumothorax
- Airway problems

It was noted that extremity hemorrhage was the most frequent cause of preventable battlefield deaths. The U.S. military re-introduced and emphasized tourniquet use and hemostatic agents with measurable success.

Tourniquets were proven to save lives on the battlefield including 31 lives saved in 6 months by tourniquets after the retraining. Kragh et al. estimated that 2000 lives were saved with tourniquets during the Iraq conflict. As importantly, there were no arms or legs lost because of tourniquet use.

Causes of preventable battlefield death are not that different from the potential injuries of law enforcement/ SWAT operators during high-risk law enforcement operations.

Today's tactical EMS
Tactical medicine has become a discipline and specialty within law enforcement circles. High profile events such as the Columbine, Virginia Tech, Aurora Movie Theater and countless other “active shooter” incidents have shifted the way law enforcement operates.

There have been two major shifts in doctrine related to SWAT and law enforcement operations over the last 10 years. One change was focused on aggressively going after active shooters with whatever assets happen to be on hand, instead of waiting for a SWAT team.

The second has been to recognize the need for emergency medical contingency planning. This includes training officers/agents in the basics of “self-care” and “buddy care” with the focus on bleeding control.

Another aspect of this doctrine shift is the inclusion of organic assets (the tactical medic), and involving, or at least notifying local EMS, hospitals about law enforcement operations that have a high risk for injuries. SWAT teams have increasingly a dedicated tactical medical component as part of their setup.

Some law enforcement agencies (LEA) have decided to send officers to EMT school, or specific tactical medical classes. That may be a workable solution; however, it is unlikely those individuals have the experience and patient assessment skill needed to be the best medical practitioner they can be.

It may make more sense to train an experienced medic to work in a warm zone environment and keep the scope of that
Tactical EMS models

There are countless workable models for the incorporation of a medical contingency plan for law enforcement operations. Some of the more common models are listed below:

- **Officer-Agent/medic**: A sworn LEO having either dual roles as an "operator" and medic, or strictly as a medic; but has law enforcement powers and can certainly protect themselves from potential threats.

- **Agency contract**: LEA has a contract or memorandum of understanding (MOU) with a local EMS provider to provide "up-close" medical care. Some agencies put the medics through a Reserve Officer school, so that they can be armed as LEOs.

- **Individual contract**: An individual or a team made up of individuals who have either a contract or MOU between them and the LEA providing coverage for SWAT missions and training.

- **ALS Standby**: No Tactical Medics, but ALS unit will stage close by and respond if scene is secured by law enforcement.

Learning about Tactical EMS

There are many in the EMS field that would like to explore the option of getting into the field of tactical medicine. In addition to the medical training one already has such as a physician, nurse, paramedic or EMT, it is highly recommended to procure specific tactical medical education.

Programs such as NAEMT Tactical Combat Casualty Care (TCCC) and other like it are one to two days in length and have been well received by the EMS community. The International School of Tactical Medicine (ISTM) offers a 2 week intensive program aimed at medical practitioners who need basic training on law enforcement operations, and how to work within a law enforcement team as the medic.

The emphasis in this program is to insure that the tactical situation is resolved and EMS providers are not put in harm’s way. There are many skills sessions and tactical medical scenarios to test the knowledge learned under stressful conditions.

**The tactical medic**

The Tactical Medic is the logical liaison to the on-scene EMS assets that support law enforcement operations. Typically the Tactical Medic will have a face-to-face meeting with EMS supporting units if they are available.

It is imperative that EMS providers are not put in harm’s way and are not allowed to enter a scene where there is a shooter, or other threats are still possible. In an active shooter type situation, once the threat is eliminated, the scene is no longer a hot zone. A quick sweep from a SWAT team can confirm this assumption.

If there are significant casualties, the next priority should be to escort the EMS providers into the scene quickly and safely into the newly created "warm zone." They would work closely with the Tactical Medic throughout the event.

**Scenario of a tactical mission**

On a typical hypothetical SWAT operation there are several phases and steps that take place well before the "hit". Most often, the mission is a planned high risk search or arrest warrant. After getting a "warning order", the SWAT team operators and all of the support elements (medical, communications, negotiators, etc.) typically convene at a Forward Staging Area (FSA).

A briefing will occur, where mission goals, subjects, and target location layouts are reviewed. The tactical medic then calls the local EMS transport provider to have an ALS ambulance stage close to the location.

Most times if EMS is notified beforehand, they are welcome into the briefing. The local EMS crews are given instructions and a communications plan. In most cases they follow the vehicle convoy in and are in close proximity to the target location.

Local hospitals and trauma centers are notified that the mission is taking place and to be on alert in the event of casualties.

Personally, I’ve been on close to 200 SWAT missions and thankfully there have been no gun fights with injuries.

On most of SWAT missions, we have a day or two to plan. Most large city police departments have a higher percentage of spontaneous SWAT missions such as a bank robbery "gone bad" or a barricaded subject.

**Summary**

Tactical medicine is an exciting and evolving field of emergency medicine. Consider taking a tactical medicine class and see if you are up to the task.

**References**


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