

# EMS Response to Active Shooter/Critical Incidents

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# My Affiliations

- CT DPH OEMS Medical Director – NASEMSO
- UCONN EM Doc/EMS Program Director
- ACEP TEM Section Chair/FROST Participant
- C-TECC Guidelines Committee Member
- Active Medical Support for LEO
- No financial disclosure to make

# Objectives

- Examine spectrum of critical incidents
  - Specifically active shooter incidents
- Discuss response priorities – and how different from typical response
- Look at recent initiatives
- Look at Tactical Emergency Casualty Care (TECC) as structure of critical incident response
- Discuss integration of EMS resources in law enforcement operation

# Can Be Some Heavy Stuff...

- Three options
  - Fairytale land
  - Bury head in sand
  - Take objective/critical look and plan

# The Evolution of Famous Dogs



Things are changing  
You can either get on the bus  
or get thrown under it...

# Critical Incidents

- Terminology varies
  - Active Shooter
  - Felonious MCIs
  - Intentional MCIs
  - Active Violence Incidents
  - Critical Incidents
- Language is important – more on that later
- Important operational/response differences
- Commonalities important as well

# Critical Incidents

- Variable
  - Car crash, assault on officer, active shooter, terrorism...
  - Spectrum of many different components
- Characteristics
  - Many over quickly
  - Time frame often prevents SWAT/specially trained resources from being key players in initial response
  - Often unable to anticipate



# Critical Incidents

- Is there utility to a more generalized approach?
- Consider and train for critical incidents that range in scale so that response can be immediate/effective regardless of the size of the event.
- Can we expand on day to day operations?

# Priorities During Events

- Prevent further injury (neutralize threat)
  - Response may involve moving past injured
- Tend to injured
  - Once threat is neutralized or isolated
  - How care is provided will depend on planning, training...

# Traditional Civilian EMS Priorities

SCENE SAFETY

BSI

Airway

Breathing

Circulation

# WHY CHANGE IS NEEDED

The critical incident may not be “safe” for EMS

Despite ongoing threat of violence – care needed at point of wounding within shortest time possible



# Priorities During Events

- Prevent further injury (neutralize threat)
  - Response may involve moving past injured
- Tend to injured
  - Once threat is neutralized or isolated
- How will planning/training occur?
- How operationalized?

# Active Shooter

- **Definition: one or more subjects who participate in a random or systematic killing spree**
- **Intent to continuously harm others with overriding objective of mass murder**
  - NTOA definition
- **An individual actively engaged in killing or attempting to kill people in a confined and populated area**
  - Most Recent FBI definition

# Mentality of Active Shooter

- Kill and injure without concern for his/her own safety
- Often has intended victims and will search them out
- Accepts targets of opportunity while searching for, or after finding, intended victims
- Will continue to move throughout building/area until stopped

# Sequence of Process

- Grievance
- Ideation
- Research and planning
- Preparation
- Breach – critical incident/trigger that sets plan into action
- Attack



- Active Shooter Statistics

# NYPD STUDY OF 202 ACTIVE SHOOTER CASES

- 98% single shooter
- Only 4% female
- Age of assailant varies widely by attack location
  - School vs. Workplace
- Broad range of planning/tactical sophistication
  - Little to no planning vs. extensive planning w/ pre-planned defenses to trap victims and first responders

# FBI - 160 INCIDENTS

- Average of 11.4 incidents occurred annually
- Average of 6.4 incidents occurred in the first 7 years studied, and an average of 16.4 occurred in the last 7 years
- 70.0% of the incidents occurred in either a commerce/business or educational environment
- Shootings occurred in 40 of 50 states and the District of Columbia
- 60.0% of the incidents ended before police arrived

Source: Federal Bureau of Investigation, 2014

# CASUALTIES

- 1,043 Casualties (victims killed and wounded)
- 486 individuals were killed.
- 557 individuals were wounded.
- In 64 incidents (40.0%) “three or more” killed

# SHOOTERS

- All but 2 incidents - single shooter.
- In at least 9 incidents, the shooter first shot and killed a family member(s) in a residence before moving to a more public location to continue shooting.
- Only 6 incidents - shooters were female.
- In 64 incidents (40.0%) shooters committed suicide
  - 54 did so at the scene of the crime.

# Damage in a matter of minutes

- In 64 incidents where the duration of the incident could be ascertained
  - 44 (69.0%) of 64 incidents ended in 5 minutes or less
  - 23 ending in 2 minutes or less.
- Even when law enforcement was present or able to respond within minutes, civilians often had to make life and death decisions, and, therefore, should be engaged in training and discussions on decisions they may face.

# Indicators of Potential Violence

- Increased use of alcohol and/or illegal drugs
- Unexplained increase in absenteeism; vague physical complaints
- Noticeable decrease in attention to appearance and hygiene
- Depression / withdrawal
- Resistance and overreaction to changes in policy and procedures
- Repeated violations of company policies
- Increased severe mood swings
- Noticeably unstable, emotional responses
- Explosive outbursts of anger or rage without provocation
- Suicidal; comments about “putting things in order”
- Behavior which is suspect of paranoia, “everybody is against me”
- Increasingly talks of problems at home
- Escalation of domestic problems into the workplace
- Talk of severe financial problems
- Talk of previous incidents of violence.
- Empathy with individuals committing violence.
- Increase in unsolicited comments about weapons and violent crimes

# Active Shooter - The Worst Case?

- Doesn't value life, including own
- Intent is to kill
- Targets the most vulnerable
- Act will often involve preparation & knowledge, giving him significant advantages:
- Chooses the time, place, and method of attack
- Can rehearse his actions
- Can exploit responder vulnerabilities
- Advantages of Speed, Surprise, Violence of Action
- Time is against responders
- ***Retains the initiative until LE takes it away from him***
- ***Very little chance of a peaceful resolution***



- If concern arises contact local PD and FBI Behavioral Analysis Unit (BAU)

# Prepare

- No longer able to anticipate where will occur
- Have a plan (personal/organization) and be prepared to execute that plan
  - Recognize the sound of gunshots
  - React quickly when gunshots heard
  - Know how to evacuate or secure yourself/others
  - If your organization does not have an emergency action plan for an active shooter incident –

**CREATE ONE and Train It!**

# Trained vs. Untrained Response

- First response is the same for both groups
- Further reactions differ markedly

Trained	Untrained
Startle and Fear	Startle and Fear
Feel Anxious	Panic
Recall what they have learned	Fall into disbelief
Prepare to act as rehearsed	Lost in denial
Commit to action	Descend into helplessness

# Active Shooter Response

- Immediate action is critical
- Determine response & act
- Prioritize what needs to be done
- A calm mind in a chaotic environment will save lives
- A calm mind can be contagious
- Be prepared for a fluid & dynamic environment
- Be prepared for an extended stay
- Nobody is expected to be a hero

# Individual Response Options

**RUN**

**HIDE (lockdown/harden)**

**FIGHT**

# Individual Response Options

## **RUN**

If there is an accessible escape path – USE IT

Be sure to:

- Have an escape route & plan in mind
- Evacuate regardless of whether others agree to follow
- Leave your belongings behind
- Help others escape, if possible
- Prevent individuals from entering an area where the active shooter may be
- Follow the instructions of any police officers
- Careful when attempting to move wounded people
- Call 911 when you are safe.

# Individual Response Options

## Hide

- If evacuation is not possible, find a place to hide where the shooter is less likely to find you.
- Your hiding place should:
  - Be out of the active shooter's view
  - Provide protection if shots are fired in your direction
    - Cover vs. Concealment
  - Not restrict your options for movement
- Lock/Block the door to prevent the assailant from entering

# Individual Response Options

## When an active shooter is in your vicinity

- Silence your phone/device
- Turn off other sources of noise (i.e., radios, televisions)
- Remain quiet/calm
- Dial 911, if possible, to alert to the assailant's location
- If you cannot speak, leave the line open & allow the dispatcher to listen.



# Individual Response Options

## **Fight - Take action against the shooter**

- **Only as a last resort!**
- **Only when life is in imminent danger**
- Disrupt/incapacitate the active shooter by:
  - Acting as aggressively as possible against him/her
  - Throwing items and improvising weapons
  - Yelling
  - **Commit** to your actions – like your life depends on it

# When Law Enforcement Arrives

- Remain calm & follow instructions
- Put down any items in your hands (i.e., bags, jackets)
- Raise hands & spread fingers
- Keep hands visible at all times
- Avoid making quick movements toward officers
- Avoid pointing, screaming &/or yelling
- Do not stop to ask officers for help or direction when evacuating, just proceed in the direction from which officers are entering

# When Law Enforcement Arrives

- Once to a safe location you will likely be held by law enforcement
  - Witness identification and & questioning
- Do not leave until instructed to do so
- The incident location will be considered a crime scene
  - protocols & rules of evidence apply

- Response Paradigms

# Hartford Consensus

- *Hartford, CT April 2, 2013*
- Improving Survival from Active Shooter Events:  
The Hartford Consensus
- *Joint Committee to Create a National Policy to  
Enhance Survivability From Mass Casualty  
Shooting Events*

# HC

- Dr. Lenworth Jacobs, HH, Board of Regents, ACS
- Dr. Norman McSwain, Prehospital Trauma Life Support  
Dr. Michael Rotondo, Chair, ACS COT
- Dr. David Wade, Chief Medical Officer, FBI
- Dr. William Fabbri, Medical Director, FBI  
Dr. Alex Eastman, Major Cities Chiefs Association
- Dr. Frank Butler, Chairman, C-TCCC
- John Sinclair, International Director and Immediate  
Past Chair International Association of Fire Chiefs- EMS  
Section

# HC

- ACS and the FBI jointly collaborated to bring together senior leaders...
- A day-long conference on April 2, 2013
- Held up as representation from medical, law enforcement, fire/rescue, EMS
- Policies must provide a synchronized multi-agency approach that is immediately available...

# HC

- Purpose of this document is to promote local, state, and national policies to improve survival in these uncommon, but horrific events.
- Early Hemorrhage Control to Improve Survival



# T.H.R.E.A.T.

- Threat suppression
- Hemorrhage control
- Rapid Extrication to safety
- Assessment by medical providers
- Transport to definitive care

# Integrated Response

- Care of the victims is a shared responsibility b/t LE, fire/rescue, EMS.
- Optimal outcomes depend on coordination between public safety responders.
- The response to an active shooter event is a continuum - coordination includes:
  - Shared definitions of terms
  - Jointly developed local protocols for response
  - Inclusion of active shooter events in table-top and field exercises to improve familiarity with jointly developed protocols.

# July 11, 2013

- HARTFORD CONSENSUS II
- JOINT COMMITTEE TO CREATE A NATIONAL POLICY TO ENHANCE SURVIVABILITY FROM MASS CASUALTY SHOOTING EVENTS
- Lenworth Jacobs, Michael Rotondo, Norman McSwain, David Wade, William Fabbri, Alexander Eastman, Frank Butler, John Sinclair,
- Karyl Burns, RN, PhD, Research Scientist, Hartford Hospital
- Kathryn Brinsfield, MD, Executive Office of the President.
- Richard Carmona, MD, 17th Surgeon General, United States
- Richard Serino, Deputy Administrator, Federal Emergency Mgt Agency
- Alasdair Conn, MD, Chief of Emergency Services, Massachusetts General Hospital
- Richard Kamin, MD, ACEP, TECC

# HC II

- Calls for:
  - Education
  - Scientific Evaluation of Interventions
  - Establish coalition of stakeholders

# What do you think?



# What I think...

- Multiple examples already in place:
  - RTF from Virginia
  - Hillsborough Oregon
  - **Swift Assisted Victim Extraction** – SAVE – Kentucky
- Limited scope described - KISS
- HC has gained impressive traction
- Hope to be able to continue moving forward

# FART or FROST?

- DHS Grant – ACEP
- First Arriving Responder Training
- First Responder On Scene Training

# FROST

- *Medical Readiness/Immediate Emergency Victim Care at Mass Casualty Events*
- Improve mass casualty care capabilities
  - Focus on immediate emergency care to victims of MCIs



# FROST

- Developing training that engages law enforcement, fire, and EMS providers to rapidly deploy into areas that have been cleared, but not secured, in order to initiate treatment
  - Ensure the health/safety of first responders/citizen responders
- Developing training to enhance triage, treatment, and transport to ensure patients are distributed to appropriate levels of definitive emergency care.
  - Triage for both acuity and destination

# FROST

- Establishing protocols on the medical principles of tactical emergency casualty care (TECC) and conduct training for responders.
- Empowering community bystanders (First Care Providers)
  - Community Emergency Response Teams, etc
- Gina Piazza DO FACEP

# TECC: Application and Evolution of TCCC in the Civilian High Threat Environment

Disclaimer Reminder – I am a Guidelines  
Committee Member

# Tactical Combat Casualty Care



- Prioritization and application of medical care to address the preventable causes of death while accounting for specific limitations and conditions surrounding combat:
  - High threat environments and on-going tactical operations
  - Limited medical equipment and resources
  - Limited medical personnel

# Is TCCC an effective care strategy?

## Comparison of Statistics for Battle Casualties, 1941 – 2005

*Holcomb et al J Trauma 2006*

The U.S. casualty survival rate in the GWOT is the best  
in our nation's history

	World War II	Vietnam	OIF/OEF
%Casualty Fatality Rate	19.1%	15.8%	9.4%

# TCCC: A New Civilian Paradigm??

- Reality: Current standard Fire/EMS operational medical response is inadequate for atypical emergencies
- TCCC initial successful application in SWAT
  - Some would argue differently
- However, in order to mirror TCCC success on the battlefield all civilian agencies must be vested (e.g. EMS, Fire, LEO and Hospitals)

# Where TCCC potentially fails...

- Written for the military combatant treating the combat wounded military population in the combat environment
- Fails to account for the differences in civilian settings and resources

# Where TCCC potentially fails...





# Patient Population

- TCCC is largely based off of evidence gleaned from the overall young and healthy military combat population
  - Issues:
    - Patient population to include geriatrics, pediatrics, pregnant, mentally and physically handicapped
    - Chronic medication use in the injured
    - Do we know the most common potentially preventable causes of death in civilian high threat incidents

# Other Differences

- Scope of practice and liability
- Civilian wounding patterns
- Availability of transport assets and transport distance to definitive care
- Differences in barriers to evacuation and care

# Operations

- Standardization across agencies and regions is problematic
  - Sensitivity to SOP
  - Terminology
  - Equipment used
  - Training standards

# Language Matters

- Need a framework that emphasizes **common operating language** across all disciplines
- Should reflect all hazards approach that expands beyond Special Operations Law Enforcement

# Language matters!

- TCCC language has limited application outside of SWAT
- How well can we sell this?
  - “Care Under Fire”
  - “The best medicine on the battlefield is fire superiority”
  - “Return fire and take cover”
  - “Direct or expect the casualty to remain engaged as a combatant if appropriate”

# Language DOES Matter...

- In TECC, “Tactical” means operational, not Special Operations Law Enforcement
  - Tactics answer the question, “how will we achieve our objective”
- Operational response involves multiple “tactical” decisions that will be affected by and have an effect on medical care decisions/mission success

# TECC History

- 2005: Process began with TCCC Transition Initiative
- 2007: PHTLS TEMS Guidelines based on TCCC
- 2008: George Washington University/Arlington County FD examine concept of Tactical EMERGENCY Casualty Care for ALL Civilian Prehospital High Threat Medicine
- 2009: Initial gathering of SME
- 2011: Formation of Committee for Tactical Emergency Casualty Care (C-TECC)
- 2011: TECC Guidelines Published
- 2012: Updates, expanded training efforts, policy level engagements with support from FEMA and DHS personnel
- 2013: Pediatric guidelines drafted, further expansion of com

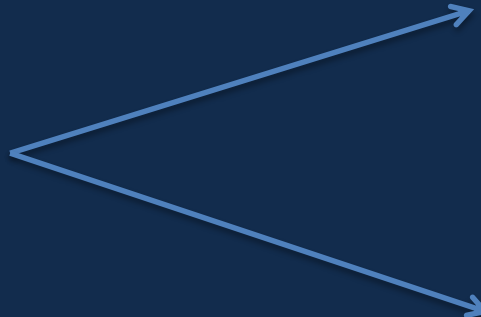
# TECC Guidelines

Civilian Prehospital Care Guidelines for High Threat  
Environments



# Tactical Emergency Casualty Care (TECC)

- Civilian threat-based medical care guidelines
  - New framework based on military lessons learned but adapted to domestic trauma epidemiology and civilian operational constraints



# TECC is situation driven

- Operational medical guidelines applied in three distinct phases defined by the relationship between the provider and the threat
- Phases of Care
  - Direct Threat Care (DT) <-> *aka Hot Zone*
    - Hemorrhage control and rapid evacuation
  - Indirect Threat Care (IDT) <-> *aka Warm Zone*
    - MARCH-E evaluation and care
  - Evacuation Care (Evac) <-> *aka Cold Zone*
    - Similar to standard EMS with emphasis on high mortality injuries

# Lessons Learned

- Gabrielle Giffords Shooting
  - Excellent example of medical aid is applied by first responding LE
- 10:11 a.m.: Pima County Sheriff's Department receives a 911 call
- 10:14 a.m.: Dep. Thomas Audetat takes the gunman into custody.
- 10:16 a.m.: Dep. Gilbert Caudillo – begins triage
- 10:18 a.m.: Other deputies arrive, secure the scene, search for additional suspects, and coordinate incoming resources.
- 10:23 a.m.: Emergency Medical Service personnel arrive
- **NINE MINUTES!**

- Officers treat 10 of the 19 injured
- Control Bleeding
- Use Hemostatic Agents
- A LOT HAPPENS IN NINE MINUTES...

# Lessons Learned

- Aurora
  - Chaotic Environment
  - Quick disposition of victims saved lives
  - ? Resources applied effectively – both EMS and LE
  - Could pre-planning have made difference?
    - Common Priorities
    - Common SOP
    - Integration of agencies (CP, Comms, etc)

# Lessons Learned

- Boston Marathon Bombing
  - Dramatically chaotic event
  - Likely could not have been better prepped for
    - Over-staffed
    - Well trained
    - Well positioned disaster
  - Boston historically is a well prepared municipality
  - Paid off for this event

# Avoid Training Scars – Train The Way You Fight





# Prepare Thoughtfully





# Sandy Hook

- Hard to anticipate event
  - Schools are soft(er) targets
- Shooter kills himself shortly after LE arrival
- Resources available but no patients
- Long investigation

# After the Event...

- By December of 2012 I had been training and working with law enforcement for over 10 years
- Nothing could prepare me (clinically or emotionally) for the scene at Sandy Hook
- I was fortunate
- Good counsel normalized what I was looking at

# Acute Stress Response

- NOT PTSD
- Symptoms
- Typical course
- How to respond
  - Debrief, talk, exercise, sleep/eat, avoid alcohol/drugs, counseling
- What to watch for and when to get more help

# EMDR

- Eye Movement Desensitization Reorganization
- Effective way to help with PTS
- Efficient
- Not psychotherapy in a traditional sense
- Protocol
- Good at any point after the offense
- Likely to help, Not Likely to Hurt, Not expensive → Good intervention

# Please Consider

- Keep in mind the very real affect that crisis events have on responders
  - Empower responders to understand and process what is ultimately ***a normal response to a very abnormal event***
  - Advocate for resources/understanding for those that need support after a crisis event

# I hear the train...

- Planning makes it possible to anticipate needs of event, responders, victims, families, press, etc
- We have the opportunity (**obligation**) to learn from events that have occurred and will most likely continue

# We will be expected to...

- Anticipate
- Prepare
- Respond
- Learn/Measure

Questions?  
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Questions?  
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# Futher Resouces

- C-TECC
- [www.c-tecc.org](http://www.c-tecc.org)