### ITLS HIGH THREAT COURSE

#### ITLS - TCCC/TECC



(Courtesy of Leo Garcia)

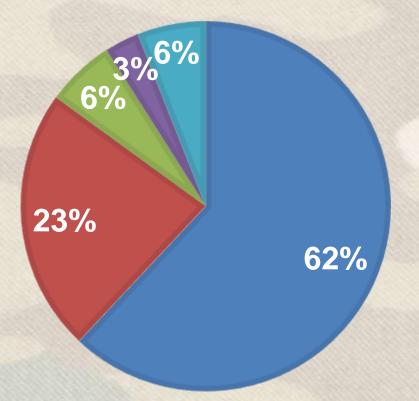


The overall objective of the program is to teach HCP's how to effectively treat high threat/combat casualties while preventing additional casualties.

# Mechanism of Combat Wounding 7,989 patients from 1967 to 1969 in Vietnam

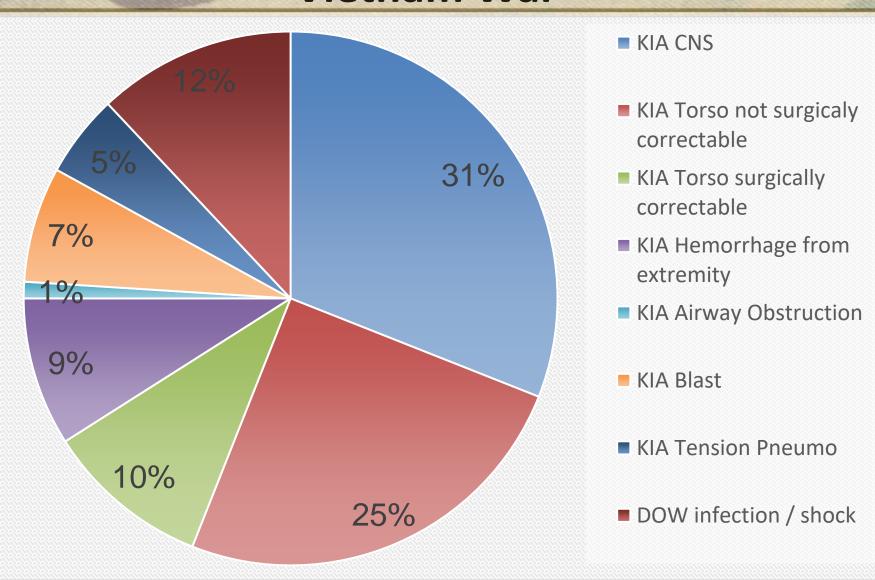
#### **COMBAT WOUNDING**

■ Fragment ■ Bullet ■ Burn ■ Blast ■ Other





# Mechanism of death in ground combat, Vietnam War



#### **MARCH**

- 1) M=Massive Hemorrhage
- 2) A=Airway
- 3) R=Respirations
- 4) C=Circulation
- 5) H=Hypothermia Prevention

This M.A.R.C.H. Approach used in TCCC Addresses the PREVENTABLE causes of combat deaths

#### **Combat Casualty Care Statistics**



# Eliminating Preventable Death on the Battlefield

The US Army directed casualty response system, including TCCC resulted in:

The US Army's 75<sup>th</sup> regiment's rates of 10.7% killed in action and 1.7% who died of wounds were lower than the Department of Defense rates of 16.4% and 5.8%.

Of 32 fatalities incurred by the regiment, none died of wounds from infection, none were potentially survivable through additional prehospital medical intervention, and 1 was potentially survivable in the hospital setting. Substantial prehospital care was provided by nonmedical personnel.



## **Key Points**

- Almost 90% of all combat/high threat deaths occur before the casualty reaches a hospital
- 24% of pre-hospital deaths were deemed potentially survivable
- Initial care, generally needs to be provided by a first responder
- Hemorrhage remains the #1 cause of potentially preventable deaths. Followed by upper airway obstruction

#### TCCC

TCCC has been shown to be very effective in saving lives on the battlefield. For this reason in 2005, the United States Special Operations Command required TCCC training for all deploying combatants and not just medical personnel. The conflicts in Iraq and Afghanistan have enabled the US Military to make numerous advances in battlefield care.

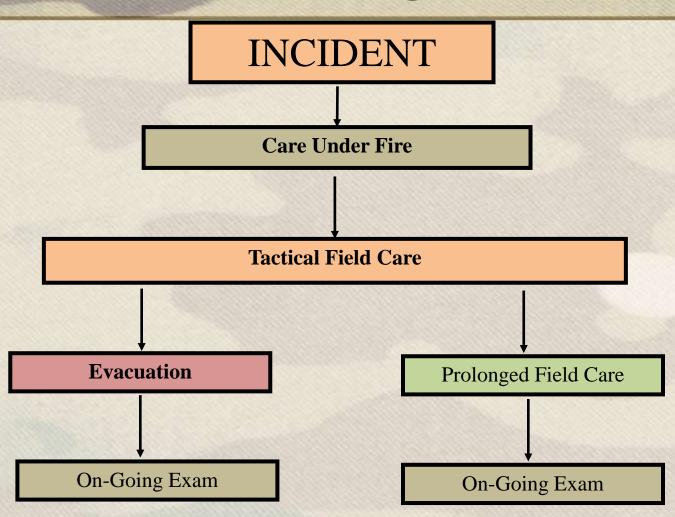
# Key elements of TCCC

- Aggressive use of tourniquets
- Hemostatic dressings
- Aggressive needle thoracostomy
- Airway positioning
- Surgical airways for maxillofacial trauma
- Tactically appropriate fluid resuscitation
- IVs only when needed/IO access if required
- Improved battlefield triple-option analgesia
- Battlefield antibiotics
- Hypothermia prevention
- Combine good tactics and good medicine
- Scenario-based training
- Combat medic input to guidelines

# 3 phases of TCCC/C7TECC

- Care Under Fire (CUF) outlines strategies using limited medical equipment to render care at the point of injury while the first responder and the casualty are still under hostile fire.
- 2. Tactical Field Care (TFC) provides casualty care guidelines once the first responder and the injured combatant are no longer under hostile fire.
- 3. The Tactical Evacuation Care (TACEVAC) phase begins once the casualty has been transferred to a transport aircraft or vehicle. During this phase additional medical personnel and equipment may be available to provide augmented casualty care.

# TCCC Algorithm



#### **Care Under Fire**

- 1. Return fire and take cover
- 2. Direct Casualty to remain engaged
- 3. Direct Casualty to move to safety and self aid
- 4. Try to keep casualty from sustaining additional wounds
- 5. If burning, stop the burning process
- 6. Stop Life-threatening external hemorrhage if tactically feasible
- 7. Airway management is generally deferred to TFC

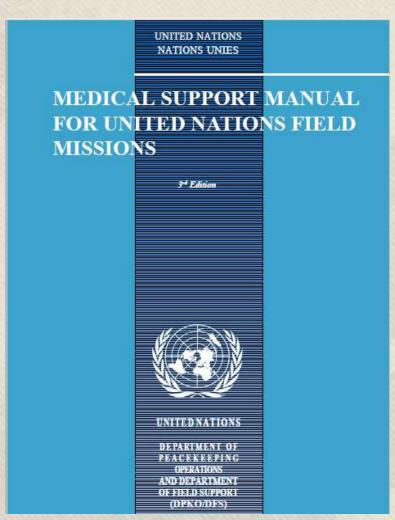
#### **Tactical Field Care**

- Establish perimeter
- Triage
- **Massive Hemorrhage**
- **Airway**
- 5) Respirations and Roll
- 6) Circulation
- **Hypothermia Prevention 17) CPR**
- Penetrating Eye Trauma
- Monitoring
- 10) Analgesia

- 11) Antibiotics
- 12) Inspect Wounds
- 13) Check for Additional Wounds
- 14) Burns
- 15) Splints
- 16) Communications
- 18) Documentation of Care
- 19) Prepare for Evacuation



# United Nations: Medical Support Manual Material is covered by this course



Chapter 16 Annex A
First Aid training for
peacekeepers, Medical staff:

- 1) CPR
- 2) Control of hemorrhage
- 3) Wound Dressing
- 4) Fracture Immobilization
- 5) Casualty Transport
- 6) Health policy
- 7) Burns
- 8) Heat Stoke
- 9) Bites and Stings
- 10) Influence of Alcohol
- 11) Nuclear, biological
- 12) Communications

#### Evacuation

- 1) Transition of Care
- 2) Massive Hemorrhage
- 3) Airway Management
- 4) Respiration / Breathing
- 5) Circulation
- 6) Head (TBI)
- 7) Hypothermia Prevention
- 8) Penetrating Eye Trauma
- 9) Monitoring
- 10) Analgesia

- 11) Antibiotics
- 12) Inspect Wounds
- 13) Check for Additional

Wounds

- 14) Burns
- 15) Re-assess Fractures
- 16) Communicating
- 17) CPR in Evacuation
- 18) Documentation of Care

# **Revised Chapter Layout**

#### MANDATORY

- Intro to TCCC/TECC
- CUF Hemorrhage Control
- TFC Hemorrhage Control
- TFC Airway
- TFC Respiration/Chest
- TFC Circulation
- TFC Hypothermia and other environmental
- TFC Pain
- TFC Antibiotics



## **Revised Chapter Layout**

- Head Injury and ocular
- Vascular Access and Fluid Resus
- Burns
- Blasts
- Cardiac Arrest in the Tactical Setting
- Spinal Trauma in the tactical Setting
- CBRNe and Less Lethal Munitions
- Active Shooter and complex coordinated attacks
- K9 Care
- Unique Populations
- Ongoing Assessment and Prolonged Fd Care
- Triage and CCP
- Communication and Documentation



#### Course Structure

Remains at a minimum of 16 hours

Can be Increased to 3 days (day 3 all scenarios/combined with use of force/tactics)

#### **Program**

- Less powerpoint
- Overall review
- Case based learning/discussion learning groups
- Skill station based learning



#### **Evaluations**

#### **Defined Skill stations**

- Assessment sheet by skill
- Skill/task breakdown

#### Scenarios are tactical/high threat

- grading sheet based on phases of care

#### Written Exam

- available but not mandatory



- The course will meet and surpass all TCCC/C-TECC recommendations
- Science based
- Living document

# Our goal is to bring calm and critical thinking to the high threat environment