Civilian EMS Use of the Tempus Pro

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If there was one word to describe where significant progresses in EMS evolved from, what would it be?

WAR
Historical Perspective

• There are many EMS concepts, treatments and equipment that got their start in the military theater.
The Ambulance

- 1797 – French Military
1865

• First Civilian Hospital Based Ambulance
  Commercial Hospital and Lunatic Asylum in
  Cincinnati OH

• Now University of Cincinnati Medical Center
1916

- WW I - First motorized ambulance
- Equipped with medical supplies

RED CROSS AMBULANCE

The first war to use modern machinery on the battlefield
WW II

• staffing with medically trained personnel (Combat Medic)
1950s’ and 60’s
Helicopter (HEMS)

• 1944 – WW II first use of rotor wing aircraft
Korean Conflict
ca. 1951
Vietnam
ca. 1962
Today
What is the military’s primary medical focus?

STOP BLEEDING!!
Damage Control Resuscitation

- Correct acidosis
- Prevent Hypothermia
- Correct coagulopathy

Tourniquets

• Initial use 4th Century BC – Alexander the Great’s military

• …through the early 1980s
Tourniquets Today
Hemostatic Agents
TXA – Tranexemic Acid

**LIFE-SAVER HOW THE NEW DRUG WORKS**

TXA was developed for use on the battlefields in Afghanistan, and becomes the first drug to be fast-tracked for use in the NHS under the Government’s ‘medicines innovation scheme’

**Blood clotting**

involves a complicated interaction between red cells, platelets and a blood protein called fibrin which binds the clot together. Tranexamic acid (TXA), known by its tradename Cyklokapron, speeds up the process of blood clotting by preventing the breakdown of fibrin. Normally, blood clotting is limited by a substance called plasmin, which dissolves clots, but tranexamic acid blocks the formation of plasmin and so speeds up clotting.
Damage Control Resuscitation

- Correct acidosis
- Prevent Hypothermia
- Correct coagulopathy
Permissive Hypotension

• From bilateral large bore IVs wide open...

• Make sure the patient is mentating.
What else is new from our military brethren?
Tempus Pro: A new type of Monitor

- Blood Pressure
- Masimo Rainbow Pulse Oximetry (PVI, PI, SpO₂, SpHb, SpMet, SpOC, SpCO₂)
- Waveform Capnography (Intubated & non intubated patients)
- 3 & 5 & 12 Lead ECG with real time arrhythmia detection, ST & QT & 12 lead interpretation
- Invasive Blood Pressure (Up to 4 channels)

Guess what else it does?
Videolaryngoscopy (VL)
Field Ultrasound
Video Conferencing
ePCR?
Currently use by:

International Airlines
Head of State Fleets
Energy, Mining & Exploration
Military & Government Agencies
  USSOCOM
  US State Department
  National Guard
  FBI
Various Military
Cincinnati Fire Department

- Benefactor purchased 4 units for a pilot study
- Purchase guided by UC Trauma Surgeon who serves in the Air Force (Dr. Jay Johannigman)
- Deployed 4 units
  - 3 with EMS supervisors
  - One with Medical Director/EMS Fellows
- Goal: to identify the utility of the device in the civilian sector
Continuous Vital Sign Transmission
Potential uses

• Photo of car wrecks
• Video for complicated refusals
• Photo of specific scenes
• Photo documentation of skills (ET)
Questions?