Dead is Dead

Considering NOT Resuscitating
In Traumatic Arrest

Disclaimers

Conflict of Interest

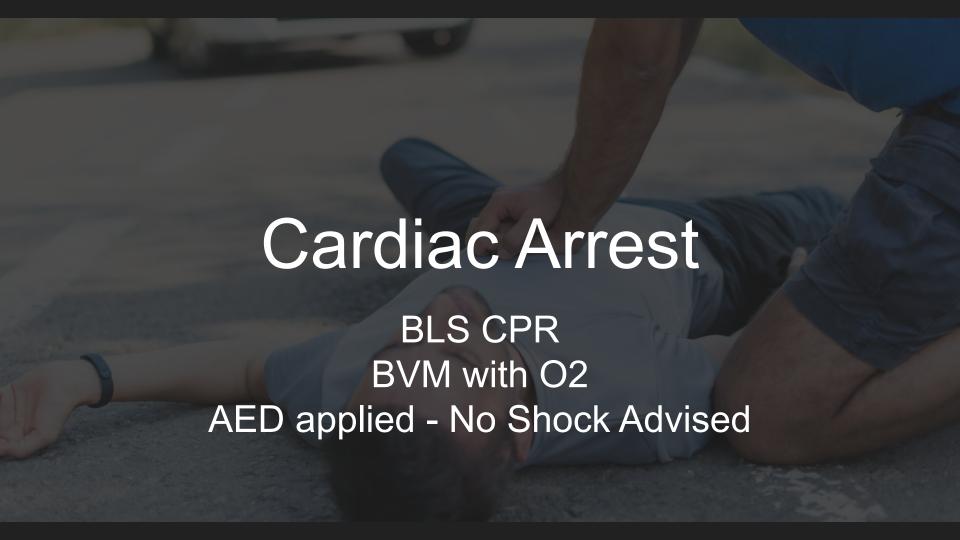
This is not the viewpoint of my full time employer, the State of Connecticut. Consult your attorney and medical director for additional information. Nothing here establishes legal or clinical protocol, policy or precedent. I am not paid for this talk and lets be honest I would probably waste any income on hiring an assistant to make better PowerPoint presentations. I am not responsible for your poor decision making. Past performance is not a guarantee of future performance. Read and use at your own risk. Provided as-is and without warranty. May cause side effects including happiness, sadness, anxiety, boredom, meetings on the 4th Thursday of the month, discharge, bad attitude.

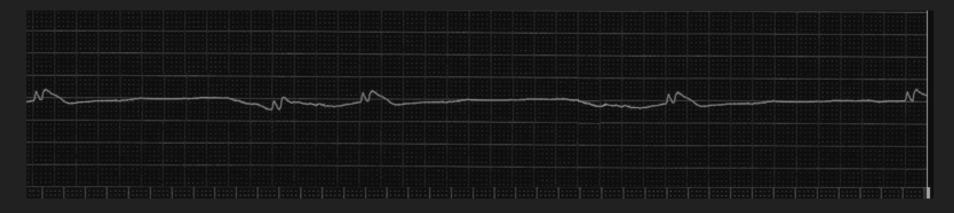
DISPATCH

- Rural area
- Volunteer BLS
- 14 minute ETA ALS
- Hospitals
 - Community 25 minutes West
 - Level 1 Trauma 35 minutes West
 - Level 2 Trauma 20 minutes South









EKG

IO Access

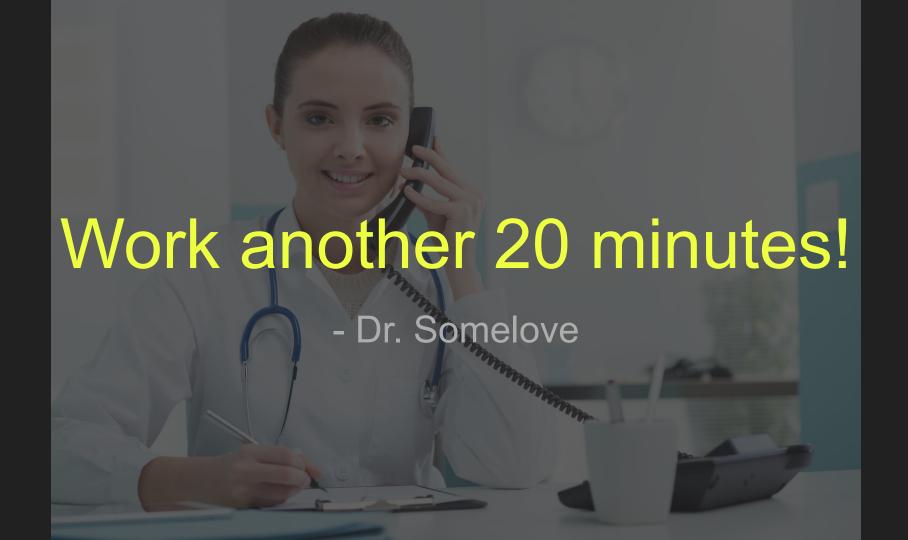
1,000 ml NS 1 mg Epinephrine 1 mg/ml











Transport to Trauma Center



Compare



Pulseless Apneic Asystolic

Pulseless Apneic Asystolic

Dead

Trauma

Pulseless

Apneic

Asystole

60 minutes ALS care
Trauma team activation
2 EMS units committed

Trauma

Pulseless

Apneic

Asystole

Back to Netflix

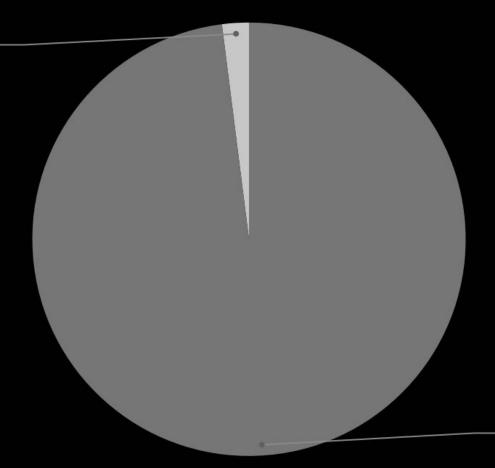
The Research - Traumatic Arrest Cases

	Traumatic Arrest	Alive
Shimazu, et al	267	7
Rosemurgy, et al	124	0
Stratton, et al	879	9
Battistella, et al	602	16

Traumatic Arrest

Alive

2.0%



Dead

98.0%

The Consensus

National Association of EMS Physicians
American College of Surgeons



Blunt Trauma

Cardiac Arrest

- No Pulse
- No Breathing
- No Organized EKG

Withhold Resuscitation

Penetrating Trauma

Cardiac Arrest

- No Pulse
- No Breathing
- No Organized EKG
- No Movement
- No Pupil Response

Withhold Resuscitation

All Trauma

With **Any** Of These Findings

- Decapitation
- Transection
- Rigor mortis
- Dependant lividity
- Decomposition

Withhold Resuscitation

Prolonged CPR

In Traumatic Arrest

- 15+ minutes CPR or
- 15+ minute transport

Consider Terminating
Resuscitation

Critical Exceptions

To Field Termination
Of Resuscitation

- Lightning strikes
- Hypothermia
- Drowning
- Commotio cordis

What Can Work in Trauma

Bleeding control

Pressure bandages

Wound packing

Hemostatics

Tourniquets

Pelvic binding

Needle chest decompression

Airway management

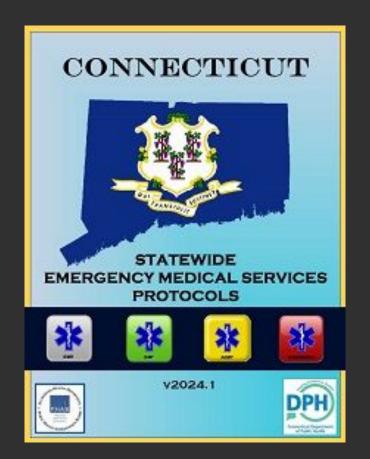
A little fluid

TXA - Tranexamic acid

Blood transfusion

Protocol

In Connecticut



Local Protocol

All levels of provider

Consider not initiating resuscitation or early termination of efforts if there are obvious signs of death, injuries incompatible with life

Paramedics

Consider termination of resuscitation and presumption if:

 Anticipated transport time to an ED/trauma center is 15 minutes or greater

AND

 There is no ROSC despite effective airway management, needle decompression (if indicated), pelvic binding (if indicated) and IV fluid therapy

Notes

- If blood product has been administered, DMO consult is required if termination of resuscitation is being considered
- If resuscitation is initiated and anticipated transport time to an ED/trauma center is <15 minutes, minimize time spent on-scene (goal <10 minutes)

Dead on Scene

All Providers

Signs of Death

(All five signs of death must be present)

- Unresponsiveness.
- Apnea.
- Absence of palpable pulses at carotid, radial, and femoral sites.
- Unresponsive pupils.
- Absence of heart sounds

Dead on Scene

All Providers

Factors of Death

(At least one factor of death must be present)

- Damage or destruction of the body incompatible with life, such as:
 - Decapitation.
 - Decomposition.
 - Deforming brain injury.
 - o Incineration or extensive full thickness burns.
- Lividity and Rigor mortis of any degree. (Both must be present)

Paramedic

EMT-AEMT

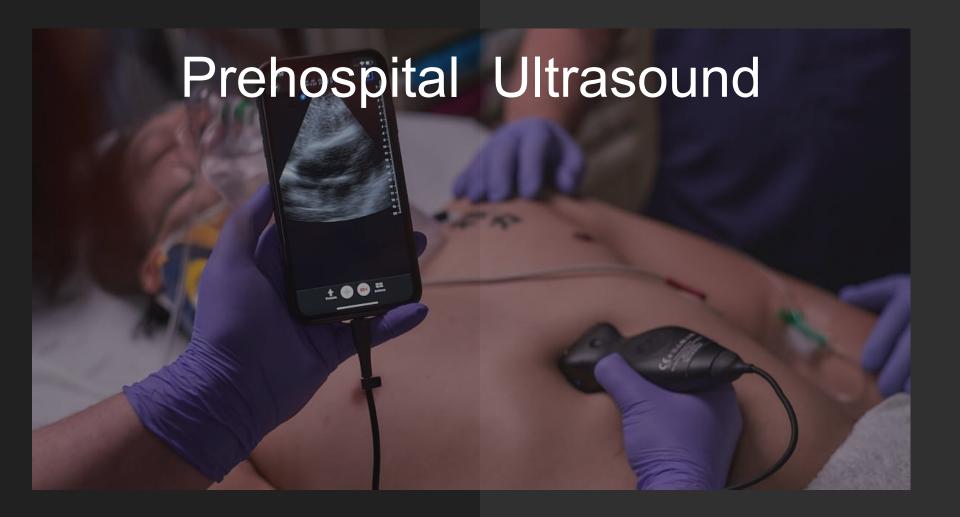
Paramedic must apply ECG to confirm absence of organized cardiac electrical activity in at least two leads

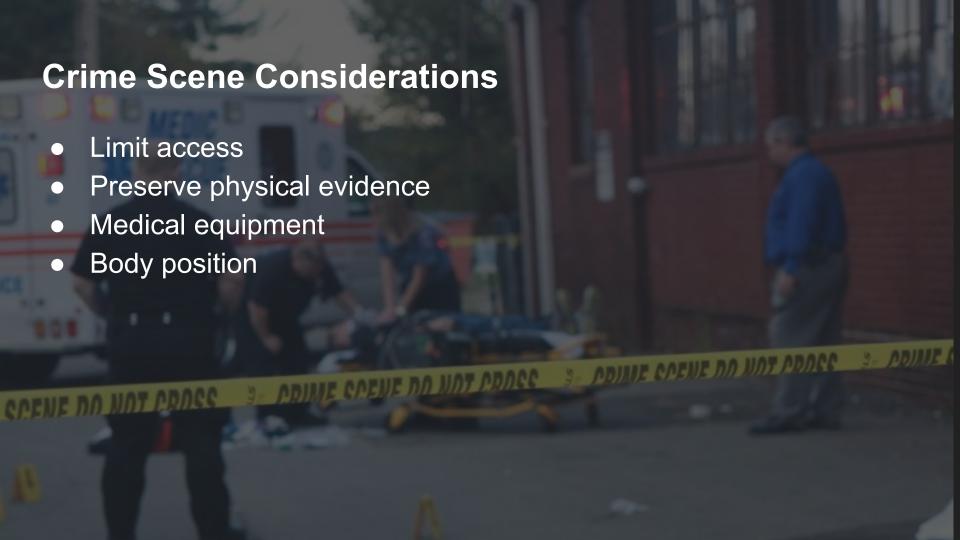
EMT/AEMT must consult online DMO for orders to presume death.

NASEMSO National Model EMS Guidelines

- Age 18+
- Blunt trauma
- Apneic & Pulseless
- Asystole EKG
- Terminate resuscitation

- Age 18+
- Penetrating trauma
- Apneic & Pulseless
- Consider:
 - Pupillary reflex
 - Spontaneous movement
 - Organized EKG
- Call DMO for termination





Family Notification of Death

- Use patient name
- Use "dead", "died"
- Explain efforts
- Be brief
- Answer questions

- Avoid euphemisms
 - Passed, moved on, no longer with us
- Avoid religious terms
 - Gone to God, blessings
- Avoid comparing feelings

Take Home Points

- Trauma arrest may be worked
- Unlikely cases may be terminated
- Consider the big interventions
 - Tourniquets
 - Intubation
 - Decompression
 - Blood

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References

Withholding and termination of resuscitation of adult cardiopulmonary arrest secondary to trauma: Resource document to the joint NAEMSP-ACSCOT position statements J Trauma Acute Care Surg. 2013;75: 459Y467

https://www.facs.org/media/khohew0e/5a termination of resuscitation adult 2013.pdf

Guidelines for Withholding or Termination of Resuscitation in Prehospital Traumatic Cardiopulmonary Arrest: Joint Position Statement of the National Association of EMS Physicians and the American College of Surgeons Committee on Trauma

https://journals.lww.com/journalacs/citation/2003/01000/guidelines_for_withholding_or_termination_of.18.aspx

Connecticut EMS Protoocls

https://portal.ct.gov/-/media/departments-and-agencies/dph/dph/ems/pdf/statewide_protocols/2024/v20241_ctemsstatewideprotocolsfinalmarch2024.pdf

Caroline, Nancy L. Nancy Caroline's Emergency Care in the Streets. Jones & Bartlett Publishers,. 2023.