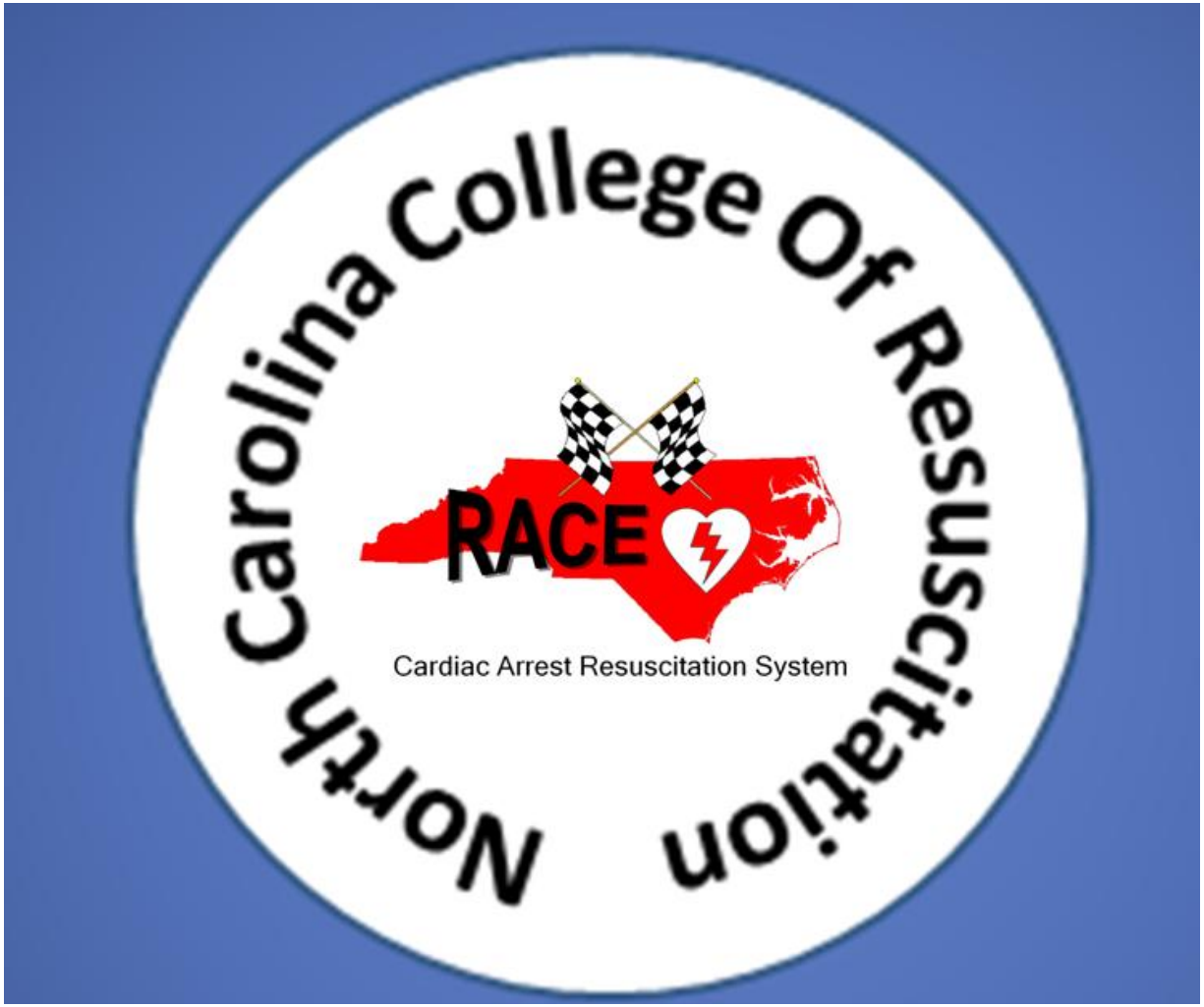
MODULE 6


North Carolina College Of Resuscitation
RACE
Cardiac Arrest Resuscitation System

Unsuccessful Resuscitation

What happens next?

Darrell Nelson, MD, FACEP
Forsyth Medical Center
Emergency Department
Stokes Co Medical Director

Objectives:

- Review key AHA 2010 Resuscitation Updates
- Discuss on-scene approach to cardiac arrest
- Discuss unsuccessful resuscitation
- Discuss grief response of survivors
- Discuss a framework for acute grief treatment
- Review techniques in dealing with survivor grief
- Discuss provider stress, reaction and response

AHA 2010 Update:

- What is the Main ingredient for a successful resuscitation?
  - High-quality, continuous, uninterrupted chest compressions

- Can we effect high quality compressions with multiple patient moves?
  - Every move interrupts compressions

- Can we effect high quality compressions during transport?
  - Very difficult to perform high quality compressions in motion
  - Dangerous to crew
  - Dangerous to public utilizing roadways

- Why do we transport during CPR?
  - That is the way we have always done it!

AHA 2010 Update:

- Main question to ask of yourself / your agency
  - Does my local emergency department or regional medical center have anything available that I don't, to perform resuscitation from a primary cardiac event?

- In the vast majority of North Carolina the answer is…

NO

So Why Transport CPR?

- Dogma: What we have always done
- Pressure to limit scene times
- Pressure to transport all patients
- Perception: ER has more treatment options
- Public expectation to transport
- Effective way to limit yourself from exposure to the survivors

Is There A Better Way?

- Many EMS agencies adopting scene resuscitation with termination on scene if unsuccessful
  - High quality compressions / AED / Defibrillation
  - Only move patient if unsafe environment
  - Team Focused goal directed resuscitation
- What happens when we stop?
  - We have a new patient(s)….the survivor(s)

Termination of Resuscitation:

- EMS historically reluctant to stop CPR on scene
  - Protocol driven
  - Guilt
  - Expectations

- EMS uncomfortable in moving from role of lifesaver to grief counselor

New Patient's Chief Complaint:

- ACUTE GRIEF
- What is the treatment?
- A*cute*
- G*rief*
- L*ife*
- S*upport*

Dealing With Acute Grief:

- EMS uncomfortable with this role
  - Understandable
  - Feel inadequate
  - May feel doctors and nurses are better trained

- You are not alone
  - Vast majority of nurses and doctors report little to no training in dealing with acute grief

Why Is This Important?

- Survivors report improved closure and improved grieving related to the interaction of the healthcare provider
- Survivors will weigh the words spoken to them, in some cases for a lifetime
- What studies exist demonstrate the caring attitude of the provider as most important, not their station (MD, RN, EMT-P)

Case Study

Typical Scenario Faced Daily by

EMS Agencies Across NC

Resuscitation Scenario:

- Scenario assumes patient does not respond to resuscitation efforts
- Scenario assumes patient found in a dwelling and scene is safe
- Scenario assumes non-traumatic, natural circumstances surrounding the arrest
- Scenario provides a framework from which to work but circumstances will dictate flexibility

Typical Scenario Faced Daily:

- 55 year old male with high blood pressure and diabetes took the day off from work
- Having lunch with his wife at home
- Suddenly says he doesn't feel well…collapses
- Wife calls 911
- EMD gives pre-arrival instructions and wife begins hands-only CPR

Typical Scenario Faced Daily:

- First responders arrive with AED
- Compressions continued, AED applied, shockable rhythm, defibrillated to non-shockable rhythm
- ALS arrives, assesses patient, continues compressions, IV, Epinephrine, Airway
- When does treatment of the wife's acute grief begin?

Treatment of Grief Response:

- Does it begin with Return of Spontaneous Circulation?
- Does it begin with continued CPR and transport if crew elects?
- Does it begin with termination of resuscitation?

Treatment of Grief Response:

- Few situations provoke more anxiety
- Great deal of information exists in police and military realms concerning death notification
- Little information exists in dealing with grief during and after a resuscitation
- Communications skills invaluable but little attention paid to subject in training at all levels

GRIEV_ING
(Dr. Cheri Hobgood, 2005)

- Gather
  - All family
- Resources
  - Support
- Identify
  - Yourself, role, agency
- Educate
  - About the situation
- Verify
  - The patient has DIED
- _(space)
  - Personal space
- Inquire
  - Questions
  - Things you can do
- Nuts /Bolts
  - Medico legal
- Give
  - Contact information
  - Support

Timeline of Grief Treatment:

- Time 0: Initial contact with family
  - After team leader ensures adequate treatments
- +5 - 10 minutes: Family Resuscitation Update
  - Update with response to treatment
- +10 - 15 minutes: Family Resuscitation Update
  - Update with response to treatment
- +20 - 30 minutes: Family Resuscitation Update
  - Update and ending of resuscitation effort

Time 0: Initial Family Contact

- Team Leader (Team Focused / Pit Crew)
  - Establish before arrival
  - Care of patient is priority
  - Gather all available information
  - Ensure appropriate BLS and ALS
  - Process the information
  - Do a quick self-assessment
    - Internal check
  - Remove gloves, wipe away sweat, adjust uniform
  - If possible have another rescuer present

Time 0: Initial Family Contact

- Identify next-of-kin and introduce yourself
  - Introduction, hand-shake and / or touch is paramount
  - Introduction includes your name, your certification level and your agency
- Assemble family (members) in adjacent room
  - As quiet as possible, away from resuscitation

Time 0: Initial Family Contact

- Invite family to sit down and ask if you may sit
  - If needed, re-introduce yourself to everyone
  - Confirm patient's name and USE IT
  - Shake hands and / or touch with all present
  - Position yourself between family and an exit

- Sit or kneel at eye level with family
  - Maintain good eye contact
  - Maintain an open posture

Time 0: Initial Family Contact

- Inquire about the events leading to the arrest
  - You may have great deal of information or none
  - Allow family to speak and listen intently

- Ask about pertinent medical history, medications, allergies and the primary care physician
  - This information is vital at the initial contact

Time 0: Initial Family Contact

- Summarize actions / situation: Use information gained from family to begin
  - Use simple terms and phrasing
  - Avoid medical jargon
  - While the gravity of the situation is obvious to you, the family likely does not understand their family member is DEAD

Time 0: Initial Family Contact

- Fire the WARNING SHOT
  - "I have (some) bad news…."
  - Give a slight pause
- Explain the resuscitation effort / actions
  - Again, simple terms
  - No medical jargon, no professional jargon
  - Explain as you would like explained to YOU

Time 0: Initial Family Contact

"…While we are not sure exactly what happened, Mr. Smith's heart is not beating and he is not breathing. We are compressing his chest to pump his heart and we have placed a breathing tube into his lungs…. We are using drugs and a defibrillator in an effort to restart his heart.

Unfortunately when someone's heart stops beating and they stop breathing the chance they will survive is less than 5 % so I want you to understand the chance of Mr. Smith surviving is very low…. I want to make sure you understand his heart is not beating and he is not breathing which means he has ***DIED*** *suddenly.*

We are doing everything for Mr. Smith that can be done in the hospital, right here, in your home. The doctors do not want us to move him because each time we move him we have to stop our treatments and that decreases the chance he will survive even more…"

Time 0: Initial Family Contact

- Ensure family understands the information
- Answer all questions honestly
  - If you do not know the answer say so
- Inquire about DNR / MOST Forms
- Ensure family you will provide an update in 5 to 10 minutes
  - Be vigilant in your update
  - Don’t promise and not keep
- Excuse yourself and return to the resuscitation

Time 0: Initial Family Contact

- Invite the family to return to the resuscitation
  - Invite, do not force, to witness the resuscitation
    - Assign a responder to remain with the family
      - More experienced responder the better
      - Remains with family during entire process
    - Improved satisfaction reported by survivors
      - Better closure
      - Less guilt
      - Satisfied everything done for their loved one
  - Big deal now in the literature / hospital
  - EMS has done this for over 30 + years

Time 5 – 10 Minutes: Family Update

- Reassemble family into adjacent room
  - Family may wish to remain with patient
  - If so, gather together away from resuscitation
- Invite everyone to sit
  - If you must stand, continue good eye contact

Time 5 – 10 Minutes: Family Update

- Provide update on resuscitation in simple terms
  - "…*Despite our efforts Mr. Smith is not responding to the treatments. We are continuing the heart compressions, giving oxygen and drugs and shocking (if you have) but his heart is not beating and he is not breathing*…"
  - Update on the time that has elapsed and emphasize that "…*with each passing minute his chance of survival becomes even less*…"

Time 5 – 10 Minutes: Family Update

- Provide update on resuscitation in simple terms
  - Fire the next WARNING SHOT
  - "…*We are continuing our efforts but once we have reached 30 minutes if Mr. Smith has not responded the chance of him surviving is essentially zero…*"

Time 5 – 10 Minutes: Family Update

- Ensure family understands the information
- Answer all questions honestly
  - If you do not know the answer say so
- Excuse yourself and return to the resuscitation
- Ensure family you will provide an update in 5 to 10 minutes
  - Be vigilant in your update
  - Don’t promise and not keep

Time 10 – 15 Minutes: Family Update

- Reassemble family into adjacent room
  - Family may wish to remain with patient
  - If so, gather together away from resuscitation
- Invite everyone to sit

Time 10 – 15 Minutes: Family Update

- Provide update on resuscitation in simple terms
  - Fire the next WARNING SHOT
  - "…*Unfortunately Mr. Smith is not responding. His heart is not beating and he is not breathing. We have continued chest compressions to pump his heart, we have placed an airway and provided oxygen, we have given numerous drugs and shocked his heart (if you did.) Despite these efforts he is not responding…*"
  - *"…At this point his chance of surviving this is very low…*"

Time 10 – 15 Minutes: Family Update

- Engage family in decision making
  - Obviously family is involved from beginning
  - However at this point you should directly engage
  - "…*Have you and Mr. Smith ever talked about what HE would want done in this situation. Has he ever spoken about things he would not want done in this situation?..*"
- Allow family to process the information

Time 10 – 15 Minutes: Family Update

- Ensure family understands the information
- Answer all questions honestly
  - If you do not know the answer say so
- Ensure family you will provide an update in 5 to 10 minutes
  - Be vigilant in your update
  - Don’t promise and not keep
- Excuse yourself and return to the resuscitation

Time 20 – 30 Minutes: Family Update

- Reassemble family into adjacent room
  - Family may wish to remain with patient
  - If so, gather together away from resuscitation
- Invite everyone to sit
  - If you must stand, continue good eye contact
  - Encourage family to sit down in adjacent room

Time 20 – 30 Minutes: Family Update

- Provide update on resuscitation in simple terms
  - "…*Despite all our efforts Mr. Smith is not responding. His heart is not beating and he is not breathing which means he has DIED. Our team agrees we have done everything possible to save him and we have also talked to the doctors who also agree (if you have.) We all agree it is time to stop the resuscitation*…"

Time 20 – 30 Minutes: Family Update

- Two basic responses from family
  - 1. May plead with you to continue.
    - Team has option to continue for a defined period
    - Example: "…*We will continue an additional 5 minutes but if he does not respond we must stop*…"
  - 2. Accept the situation and agree it is time to stop.
    - Family may agree earlier it is time to stop or even ask you to stop
    - Honor the request if appropriate

Difficult But IMPORTANT Task

- These conversations are uncomfortable
- Initial family-provider contact has long-lasting effect on how they respond to grief
- Bad news given inappropriately and / or in an uncaring manner has negative psychological effects on the survivors indefinitely
- Very difficult in moving from lifesaver / technical skills to grief response

Resuscitation Stopped

Now What?

Grief:

- What is grief?
  - Reaction to a loss
  - Variable but includes thoughts, feelings, physical, behavioral and spiritual responses

- Reactions are variable but typically follow a pattern over time

Dr. Elizabeth Kubler-Ross:

- Five stages of dealing with death
  - Denial
  - Anger
  - Bargaining
  - Depression
  - Acceptance

- Based on case studies with terminal patients

  - (Kubler-Ross, 1969)

Dr. Margaret Epperson:

- 6 Stages of Acute Grief Reaction
  - High Anxiety
    - Nausea, syncope, high-pitched voice, agitation
  - Denial
  - Anger
  - Bargaining
  - Depression
  - Reconciliation
    - Assembles all that has taken place during the event
  - (Margaret Epperson, 1977)

Common Grief Responses You May Encounter:

- Holistic Grief Response
  - Family gathers, open expression of grief
  - Allow others to join the response

- Action-Oriented Grief Response
  - Rapid movement toward organization and activity

- Inordinately Calm Grief Response
  - May appear as though family did not receive the information
  - Denial is a component

  - (R. Maroni Leash, 1994)

Common Grief Responses You May Encounter:

- Emotional Withdrawn Grief Response
  - May close down communication and interaction
  - Circumvent elements of the discussion

- Extreme Guilt Grief Response
  - Strong sense of guilt, feeling responsible for the death

- Situation Blaming Grief Response
  - Common response
  - Blame attached to circumstances leading to death

  - (R. Maroni Leash, 1994)

Common Grief Responses You May Encounter:

- Once you have seen one grief reaction to sudden death…..

❖…..You have seen one grief reaction to sudden death…

Common Grief Responses You May Encounter:

- Each person's grief response is individual
  - You may witness every stage of grief in only a few moments or only one
- Anger and aggression are not uncommon and should be anticipated
- Knowledge of responses helps you avoid misunderstanding reactions of family

Grief Response

WHAT DO I DO AND SAY

What you say not likely remembered…how you say it may be remembered forever

- Appropriate things
  - Okay to say I'm sorry
  - Okay to cry
  - Demonstrate empathy / sympathy
  - Silence does not have to be filled
  - Listen
  - Nonverbal communication
- Appropriate things
  - Highlight positives
    - Bystander CPR
    - Calling 911
  - Acknowledge guilt
  - Allow family to lead you during the process

What you say not likely remembered…how you say it may be remembered forever

- Things to avoid
  - Your feelings or past experiences with death
  - Religious discussions
  - Haste or quick body movements

- Things to avoid
  - Euphemisms
    - Passed away or on
    - We lost him
    - Gone to be with the lord
    - Expired
    - It was for the best
    - God must have a plan
    - He is in a better place
    - He had a good life
    - He is not suffering now
    - Nobody lives forever

Completing the Process
(Dictated by your local protocol):

- View of body
  - Non medical examiner
  - Clean up area
  - Remove airway
  - Cover body
  - Move body to sofa or bed
  - Slightly elevate head
- View of body
  - Describe expected changes to family
  - Allow time for viewing
  - Do not force viewing

Completing the Process
(Dictated by your local protocol):

- Law Enforcement
  - Explain why necessary
  - Explain process
- Replace home items moved
- Clear scene of responders no longer needed
- Assist with initial funeral arrangements
- Offer to call family and / or clergy / support
- Remain with family until body removed

Call Ended

Now What?

Provider Stress:

- A routine CPR response can evoke stress
  - Agencies adopting Termination of Resuscitation on Scene
  - Circumstances causing provider to recall personal experiences
  - Emotionally charged family
  - Emotionally charged scene
  - Provider guilt

Provider Stress:

- Critical Incident Stress Management
  - Suicide / Death of a fellow responder
  - Serious injury to a fellow responder
  - Responding to relative / close friend
  - Disaster
  - Incident with heavy media coverage
  - Death caused by responder (e.g. MVC)
  - Death / abuse of a child
  - Multi-casualty event

Critical Incident Stress Management:

- Introduce in the 1980's by Dr. Jeffrey Mitchell
  - Comprehensive, integrated, systematic crisis intervention after traumatic events

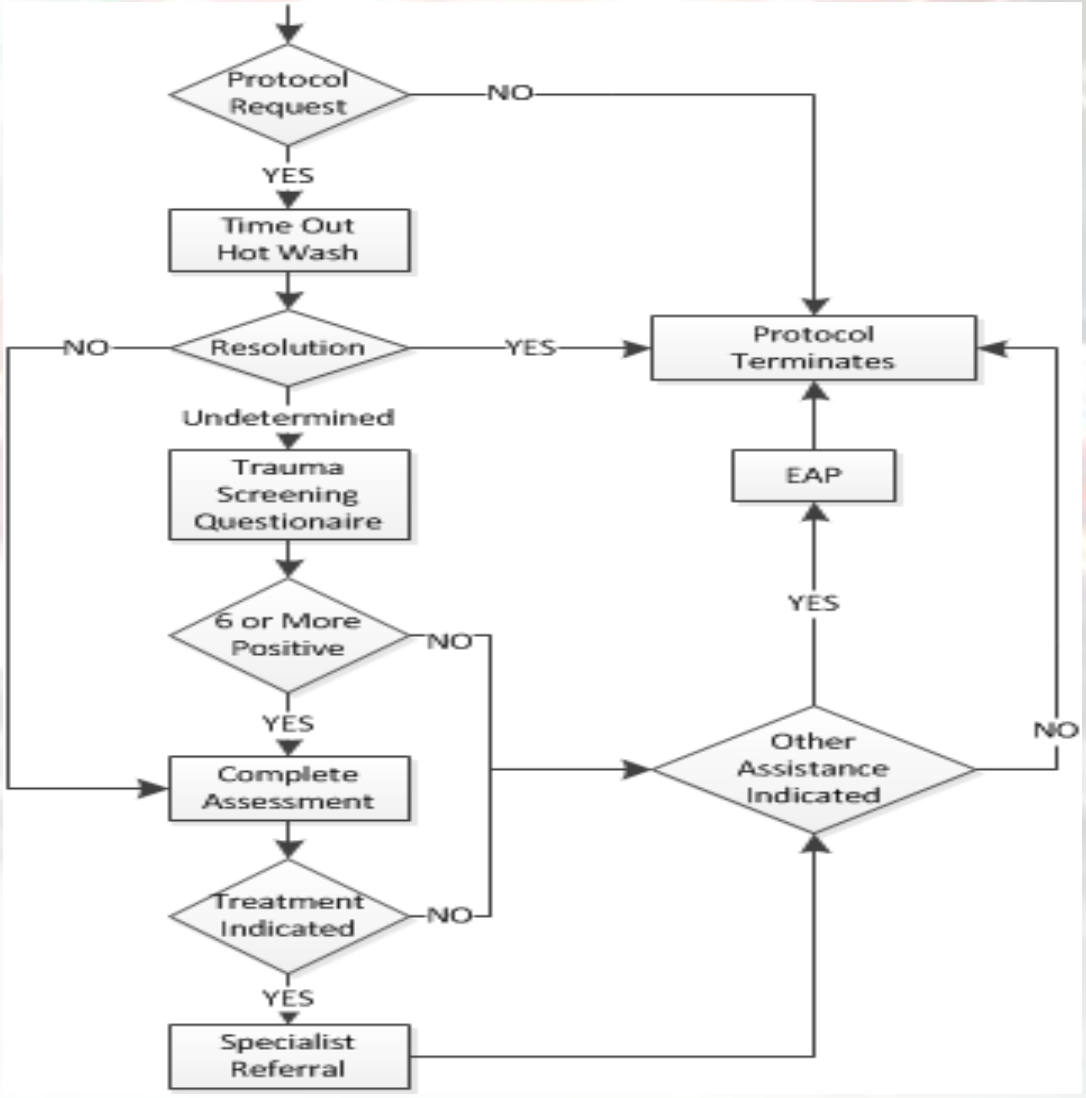
- Critical Incident Stress Debriefing: 2004
  - Structured, short-duration technique
  - Expression, ventilation and anticipate reactions

- Multitude of problems and critics
  - Cochrane Collaboration Meta-analysis

Critical Incident Stress Management:

- Dr. George Everly in 2000
  - Mobilize after significant event
  - Implement most appropriate intervention (need)
  - Not all signs and symptoms indicate a unhealthy reaction
  - Tailor intervention to needs of individual
  - Time intervention based on readiness

NAEMSP Potential Traumatic Event Protocol



NAEMSP PTE Protocol:

Time Out / Hot Wash

Performed by Supervisor

- What happened?
- What was successful?
- What could have gone better?
- What can we improve?
- Who should we tell what we learned?

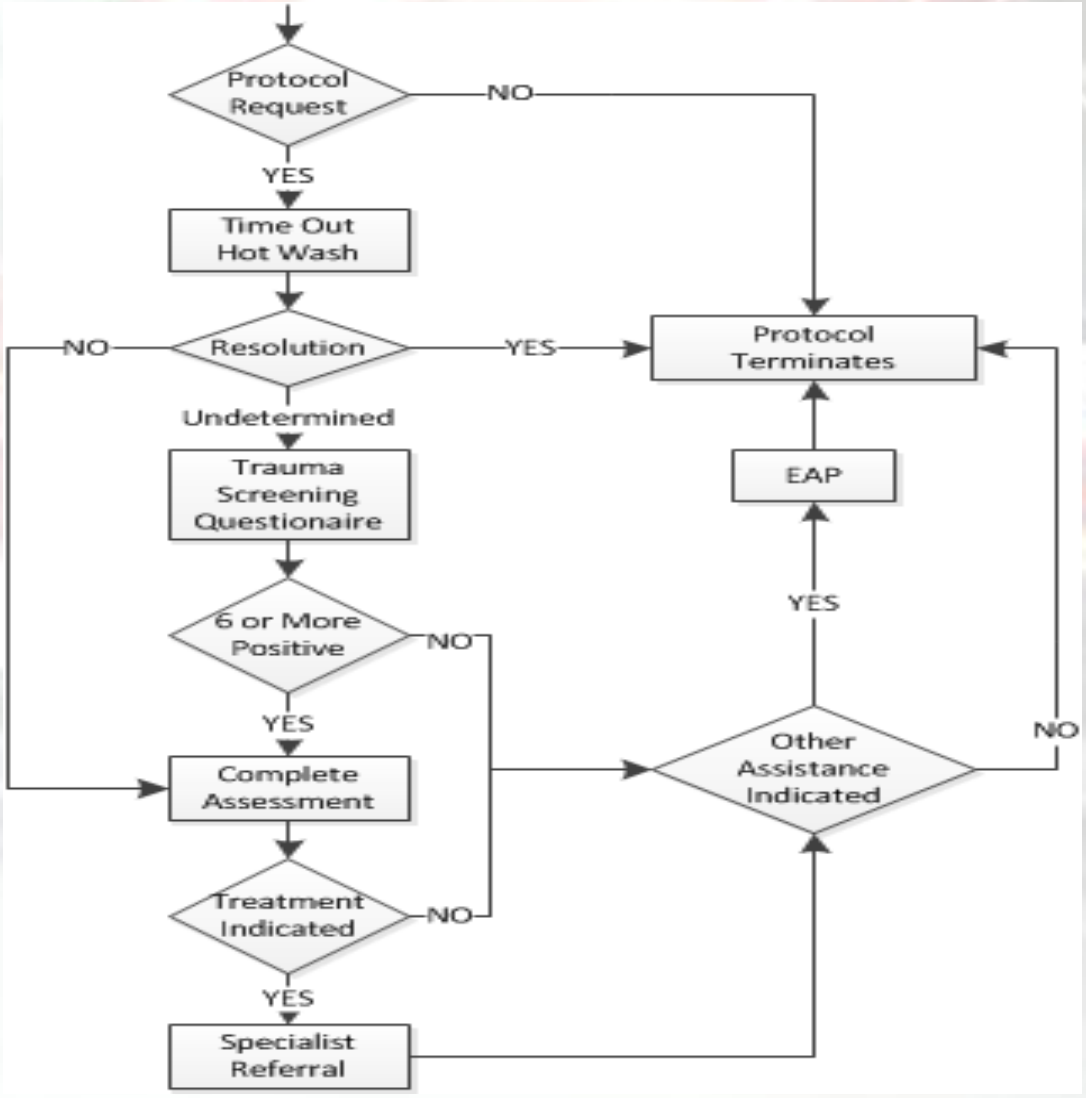
  - (Halpern, et al. 2006)

Psychological First Aid

- Contact an engagement
- Safety and comfort
- Stabilization (if needed)
- Information gathering
- Practical assistance
- Connection with social supports
- Information on coping
- Linkage with collaborative services

  - (Brymer, et al, 2006)

NAEMSP PTE Protocol



NAEMSP PTE Protocol:

- Trauma Screening Questionnaire
  - 1. Upsetting thoughts / memories
  - 2. Upsetting dreams
  - 3. Acting or feeling like event happening again
  - 4. Upset by event reminders
  - 5. Bodily reactions (increased pulse, nausea)
  - 6. Difficulty falling or staying asleep
  - 7. Irritability or outbursts of anger
  - 8. Difficulty Concentrating
  - 9. Heightened awareness of potential dangers
  - 10. Jumpy or startled by unexpected things

What Providers Want:

- Brief time out
  - Alone or with peers
- Support from Supervision / Management
  - Simple interest shown
- More detailed discussions
  - Days to weeks in the future under providers own terms
  - More formal if needed
    - (Halpern, et al. 2006)

Wrap Up:

- "…You control incident stress by controlling stressful incidents…"
  - EMS called on to do more with less
    - Team Focused or Pit Crew
    - Responding to family / survivors in grief
  - EMS aware of problems but unaware of rewards
  - EMS able to adapt and respond