

# Disaster Triage in NYS START Triage and SMART Tags



Finger Lakes Regional Training Center



Christopher Tarantino MEP, CMCP, CHEC-III  
FLRTC Instructor

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## Introductions



### • Christopher Tarantino, MEP CMCP CHEC-III

- CEO/Instructor – Epicenter Media & Training
- Past Firefighter/EMT & Hazmat Tech/Rescue Specialist (Monroe County)
- Certified Hospital Emergency Coordinator (Level III) – Instructor
- +10yrs experience in emergency response & management
- Experience with major disaster response, training/exercises, etc. at local, county, state and federal levels & trained in many types of triage systems (SALT, MASS, START, SMART, ESI, etc.)
- Has taught healthcare, first responders and other public safety professionals in more than 30 different states in the U.S.

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## AGENDA



- Objectives
- Presentation
- Scenarios
- Additional Resources
- Evaluation/Certificate

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**Objectives:**

- Define a Mass Casualty Incident and the unique challenges of an MCI
- Understand the differences between day-to-day triage and triage during an MCI
- Increase the region's healthcare providers' awareness of disaster triage

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**What is the Goal of MCI Management?**

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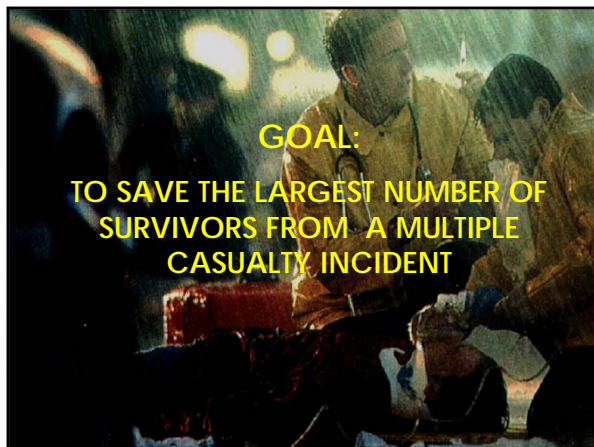
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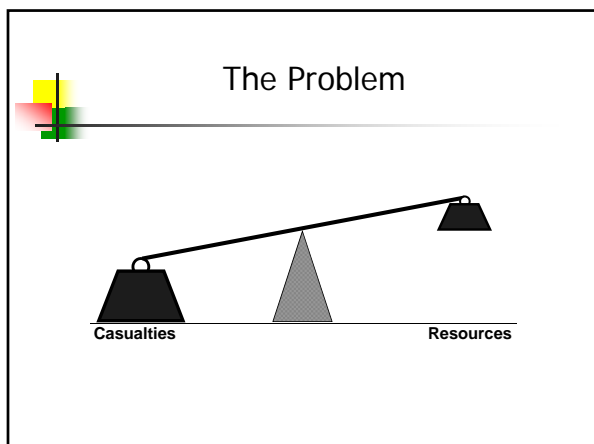
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- ### Considerations During an MCI Response
- Supply vs. Demand
  - Resource Allocation
  - Coordination
  - Medical Management
  - Ethics

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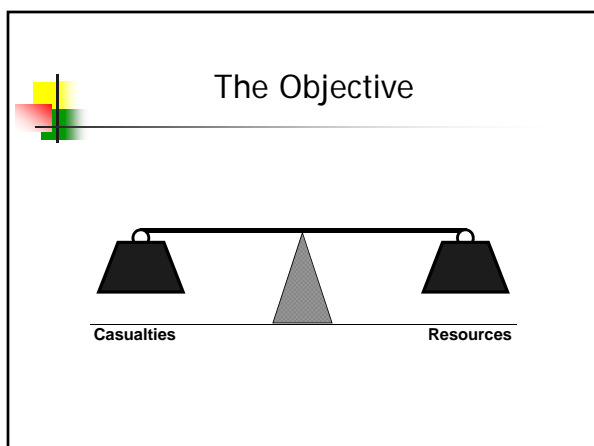
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## What Could Be an MCI For You?

- Transportation Accident
  - Highway Accident, Air Crash, Train Derailment
- Fire, Explosion
- Hospital Overloading
- Hospital Evacuation
- Building Collapse
- Terrorist Attack



February 2008: 390 Pile Up



January 2005: 390 Bus Accident

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## What Could Be an MCI For You?

- Sporting Event
- Hazmat Incident
- Loss of Power
- Severe Weather



Watkins Glen Speedway

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## Managing Mass Casualty Incidents

- Would any of those situations lead to shortage of personnel & equipment resources?
  
- Would decisions and changes need to be made in how you do business?
  - Altered Standards of Care
  - Priorities

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## Hospital Considerations

- Transition from the EMS patient to hospital patient
- Dealing with self presenting patients

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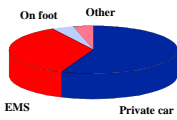
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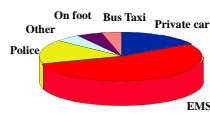
## Transportation Distribution

Patient transport - Oklahoma Bombing



Injury prevention database, OK Dept of Health

Patient Transport - 29 US Disasters



Quarantelli, Delivery of Emergency Services in Disasters, Assumptions and Realities

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## BALI NIGHT CLUB BOMBING

*"As bad as the scene was 20 minutes after the blast, it only got worse. Patients who could self-evacuate generally had relatively minor injuries. They arrived on foot, by taxi and by motorcycle, and they were treated as they came in".*



October 12, 2002

*"But then the ambulances started to arrive with the most serious patients—the burn victims".*

*"By then, though, the operating rooms were completely full. They had to wait".*

Dr. Tjakra Wibawa  
Sanglah Trauma Center

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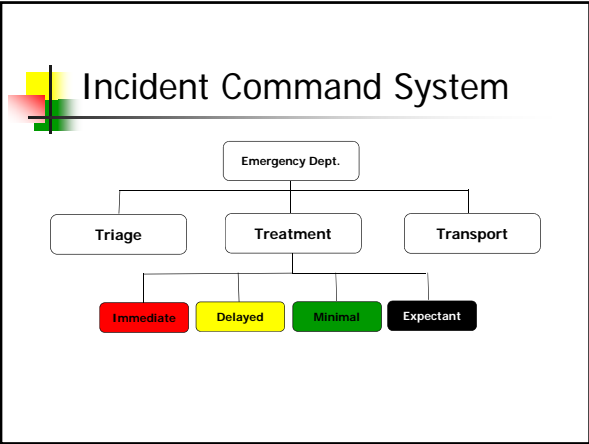
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## Disaster Triage Systems

MASS – “Move, Assess, Sort, Send”  
 ESI – “Emergency Severity Index”  
 SALT – “Sort, Assess, Lifesaving Interventions, Treatment/Transport”  
 START/JumpSTART

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## Disaster Triage Systems

MASS  
 ESI  
 SALT  
**START/JumpSTART**  
 “Simple Triage and Rapid Treatment”

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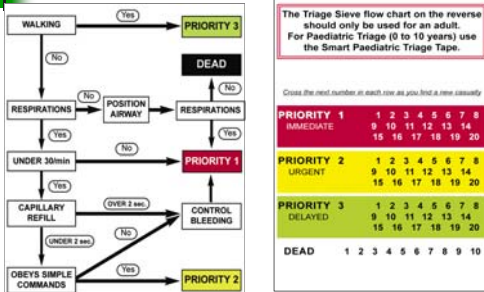
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## Triage Protocol (START)




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## Triage Coding

Priority	Color	Category
1	RED	Immediate/Critical
2	Yellow	Urgent/Serious
3	Green	Delayed/Minor
0	Black	Dead/Expectant




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## Types of Triage

- **Primary**
  - On scene prior to movement or at hospital (self transports)
- **Secondary**
  - Incident dependent, probably prior to or during transport or upon arrival to hospital

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## Primary Triage



The Scene

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## Primary Triage



The first attempt at balancing resources and casualties/injured

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## PRIORITY 3

- Not injured or "Walking wounded"
- Have motor, respiratory, mental function

**DELAYED**

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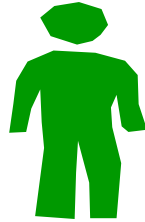
## Example

Patient walks over to you and has an obvious broken arm

Respirations are 22

Pulse is 124 (Radial)

He is awake, alert, and crying



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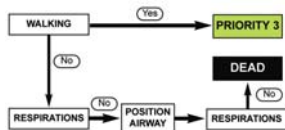
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## Primary Triage



Determining whether there is an airway and breathing

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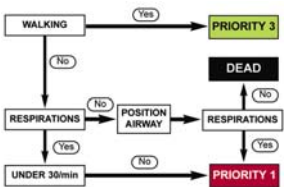
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## Primary Triage



If breathing, at what rate & is it good enough?

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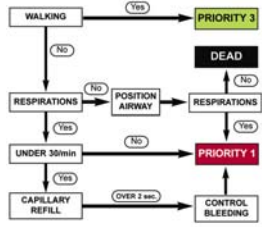
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## Primary Triage



They have an airway, are breathing.  
Are they circulating blood sufficiently?

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## Circulatory Check...

If you are unable to obtain a capillary refill, check the radial pulse. If absent then control any bleeding and prioritize the patient **PRIORITY 1**.

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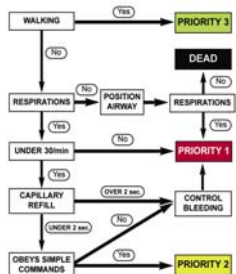
## Primary Triage

A

B

C

Mental Status




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**PRIORITY 1**

- Opening airway, starts to breathe
- Breathing is greater than 30 or less than 10
- Delayed capillary refill time (> 2 seconds)
- Absent radial pulses
- Bleeding that needs to be controlled
- Does not follow instructions

**Immediate**

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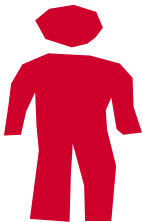
**Example**

Patient has an open head  
Wound, bleeding controlled

Respirations are 16

Pulse is 88 (Radial)

He is unconscious



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**PRIORITY 2**

- Did not move out, when asked
- Airway OK
- Breathing within 11 and 29
- Capillary refill less than 2 seconds or radial pulses present
- Can follow instructions to move unaffected limb

**Urgent**

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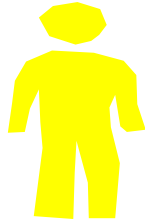
### Example

Patient states he can't move or feel his legs

Respirations are 26

Pulse is 110 (Radial)

He is awake and oriented



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### EXPECTANT/DEAD

- Still require resources
- Focus of care is comfort
- Psychologically most challenging for healthcare providers

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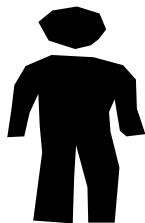


### Example

Patient gurgles but can't maintain an open airway and is not breathing

Weak Carotid Pulse

She is unresponsive



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## Secondary Triage

- Generally used when there is an extended duration event
- After initial color coding triage
- Healthcare professionals who respond to the scene or PH/Hospital response teams may be utilized to further determine who gets transported from scene first




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## Secondary Triage

**GLASGOW COMA SCORE**

**EYE OPENING :**  
 Spontaneous  
 To Pain  
 None

**VERBAL RESPONSE :**  
 Oriented  
 Disoriented/Time/Place/Person  
 No response

**MOTOR RESPONSE :**  
 Obeys commands  
 Localizes pain  
 Flexion/Extension  
 None

**GLASGOW COMA SCALE TOTAL :**

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**Total Glasgow Coma Scale**

**RESPIRATORY RATE :**  
 10-20  
 0-10  
 None

**SYSTOLIC BP :**  
 90-140 mmHg  
 60-89 mmHg  
 None

**12 = PRIORITY 3**  
**11 = PRIORITY 2**  
**10 = PRIORITY 1**

**TOTAL :**

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## Pediatric Triage



- Children are involved in mass casualty incidents
- The over prioritizing of children will take valuable resources away from more seriously injured adults
- Triage systems based on adult physiology will not provide accurate triage

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## The SMART Tape™



<https://youtu.be/nKBh2v12uwA>

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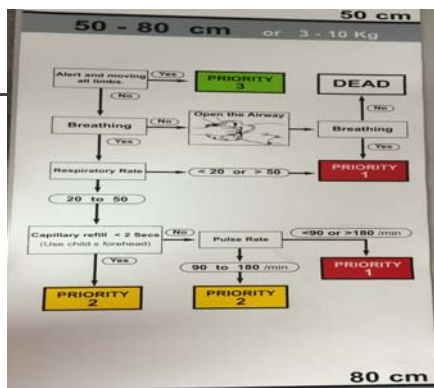
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## The SMART Tag™



<https://youtu.be/0qcZrzpv7aA>

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# SMART Tag Triage System



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# SMART Triage Pack Contents

- Dynamic Tags (20)
- Dead Tags (10)
- Pencils
- Cylume Sticks
- Patient Count Card/Protocol
- SMART Pediatric Tape



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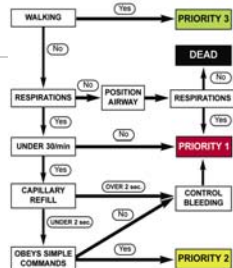
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# REVIEW....

- **SORT**
  - Ambulatory/Walk = **GREEN**
  - Non-Ambulatory = NEXT STEP (Airway)
- **AIRWAY**
  - YES breathing = NEXT STEP (Respiratory)
  - NO Breathing = Open Airway
    - Starts to breath = **RED**
    - No breathing = **BLACK**
- **BREATHING/RESPIRATORY**
  - ABNORMAL (>30 or <10) = **RED**
  - NORMAL (10-30) = NEXT STEP (Circulation)
- **CIRCULATION** - Capillary Refill OR Radial Pulse
  - ABNORMAL/ABSENT (CR > 2 OR No Pulse) = **RED**
    - Control Bleeding
  - Normal (CR < 2 OR Pulse Present = NEXT STEP (Mental Status)
- **MENTAL STATUS**
  - YES follows simple command = **YELLOW**
  - NO can't follow simple command = **RED**



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## Scenario – Practical Application

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## Instructions

Individual patients will be shown on the screen (with signs/symptoms)

1. Follow SMART Triage methodology
2. Identify important info (not all signs/symptoms are pertinent)
3. Submit your answer via webinar polling platform

Answers will be shown after poll closes!

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## Scenario

An improvised explosive device is detonated at a large outdoor sporting event. At least 50 people are confirmed injured. EMS is on scene, but patients begin to arrive at your hospital before EMS.

Triage and “Tag” the following patients.

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## Initial Response

What are your immediate priorities?

Who will conduct triage? Where?

How do you expect these priorities and considerations to evolve as time progresses?

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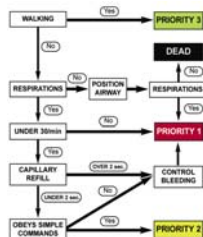
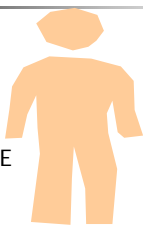


## Patient #1

Apneic

Pulse-less

Missing LUE



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## Patient #2

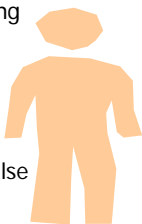
Abd. Tenderness and minor penetrating trauma

Ambulating

A & O x 3

RR 24

Strong radial pulse



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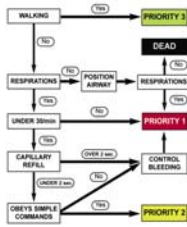
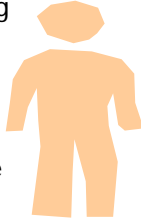
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### Patient #3

Multiple penetrating injuries, blood in ears  
 RR 20  
 Airway clear  
 Strong Radial pulse  
 Responds only to pain




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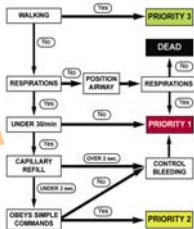
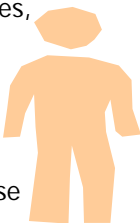
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### Patient #4

Extremity fractures, blood in ears  
 Unable to walk  
 A & O x 3  
 RR 26  
 Strong radial pulse




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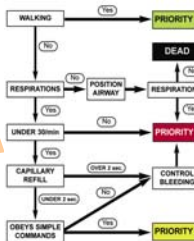
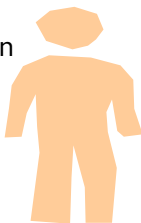
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### Patient #5

Small child, screaming  
 Minor lacs, blood in ears  
 RR 30  
 Moving all extremities




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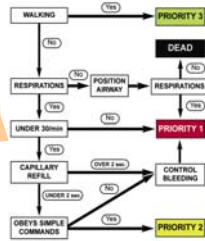
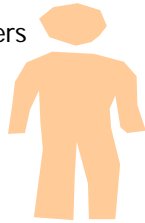
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## Patient #6

Smells like beer  
 Amputated fingers  
 Walking  
 A & O x 3  
 Dizzy  
 RR 24




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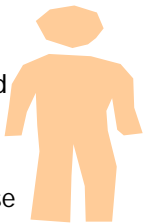
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## Patient #7

Sitting  
 Chest pain, SOB  
 No trauma noted  
 RR 34  
 Shallow  
 Weak radial pulse




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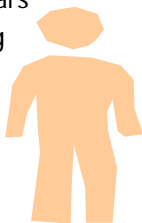
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## Patient #8

Blood in nose,  
 mouth and ears  
 Not breathing




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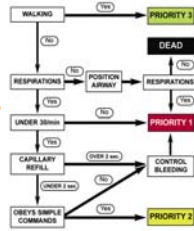
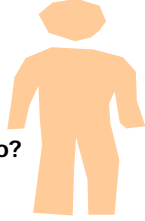
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## Patient #8

Blood in nose,  
mouth and ears  
Not breathing

What would you do?




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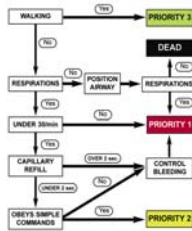
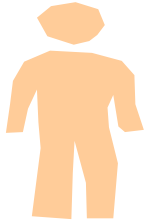
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## Patient #9

Some penetrating  
trauma  
Unresponsive  
Apneic  
No radial pulse




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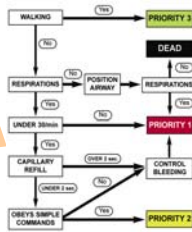
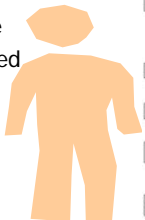
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## Patient #10

RR 4  
Absent Radial pulse  
Brain matter exposed  
Unresponsive to  
tactile stimuli




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## What is the goal of **Disaster Triage** training?

- Increase familiarity/proficiency of the START and Jump START triage methodologies
- Increase familiarity with the SMART Tag Triage System
- Train with a standardized methodology and system

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### Disaster Triage Training Resources

Visit Our Website at:

[WRHEPC.URMC.EDU](http://WRHEPC.URMC.EDU)

#### Disaster Triage Page

- [wrhepc.urmc.edu](http://wrhepc.urmc.edu)
- [Preparedness & Response Tools/Resources](#)
- [Disaster Triage](#)




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### ADDITIONAL EDUCATION OPPORTUNITIES

Visit Our Website at:

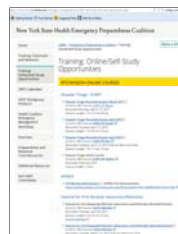
[WRHEPC.URMC.EDU](http://WRHEPC.URMC.EDU)



Upcoming Training Classroom & Webinars



Online & Self-Study




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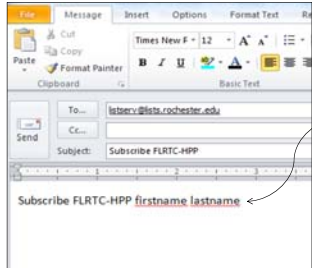
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For email notifications regarding educational opportunities  
subscribe to the [FLRTC-HPP listserv](mailto:listserv@lists.rochester.edu)

**EMAIL: [listserv@lists.rochester.edu](mailto:listserv@lists.rochester.edu)**



NOTE: In the email body,  
substitute first name lastname  
with your first and last name.

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# Questions?? Thank You!

**Epicenter Media & Training**

Instructor: Christopher Tarantino, MEP CMCP CHEC-III  
[ctarantino@epimetra.com](mailto:ctarantino@epimetra.com)

**Finger Lakes Region Training Center**

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Eileen Spezio: [eileen\\_spezio@urmc.rochester.edu](mailto:eileen_spezio@urmc.rochester.edu)  
585-758-7640 | [wrhepc.urmc.edu](http://wrhepc.urmc.edu)



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