PLEASE REVIEW INSTRUCTIONS BEFORE WE BEGIN
THE DISASTER TRIAGE WEBINAR

Joining Instructions

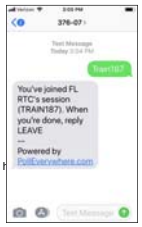
- Attendee phones have been placed on mute
- **Open Participants and Chat Panel** located at top of your computer screen
- Right Click on panels to move for better viewing of presentation
- Webinar will be recorded for future viewing

Attendance

- If you do not see your **full name** listed under "Attendees" , provide your name to the Host using the Chat Function
- If you are hosting a group of participants in a room, fax/email sign-in sheet to Eileen_Spezio@urmc.Rochester.edu or (585) 756-5098 by COB today

Communication

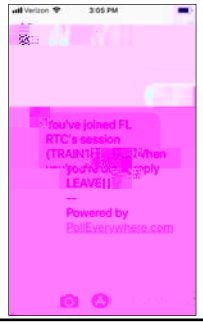
- Check the ş a ж l я ж l È l ă sages ж l я ş ǯ ŋ s and instructions from the Host.
- Communicate with the host, panel and/or presenter using the Hand or Chat
  - Hand – request to be unmuted for a verbal question or commF mut % h



- Will be available to participants that registered for the course on the NYS Learning Management System www.nylearnsph.com

PollEverywhere

Text TRAIN187 To 37607



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‡$OEDQ\ 0HGLFDO &HQWHU ± &'5 57&
‡8SVWDWH 0HGLFDO 8QLYHUVLW\ ± &1< 57&
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GOAL:

UTILITARIAN APPROACH OF

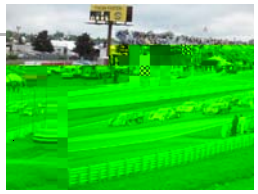
GREATEST GOOD FOR THE GREATEST NUMBER

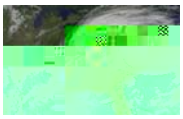
Important Considerations during an MCI Response

- Supply vs. Demand
- Resource Allocation
- Coordination
- Medical Management
- Ethics

What Could Be an MCI For You?

- Mass Gathering Event
- Hazmat Incident
- Biological Incident
- Loss of Power
- Severe Weather
  - Blizzard
  - Tornado
  - Hurricane
  - Flood

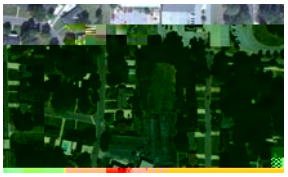




CASE STUDIES FROM ACUTAL EVENTS

Super Tornado Outbreak
Asiana Airline Crash
Boston Marathon Bombing
Orlando Shooting
Las Vegas Shooting
Thousand Oaks Shooting
Schoharie Limousine Crash

Chattanooga, TN



Courtesy of the NOAA Photo Library

https://www.ncei.noaa.gov/news/2011-tornado-super-outbreak

The Scene

On April 27, 2011, an EF4 (enhanced Fujita scale) tornado struck a 48-mile path across northwest Georgia and southeast Tennessee. Traumatic injuries sustained during this tornado and others in one of the largest tornado outbreaks in history presented to the regional Level I trauma center, Erlanger Health System, in Chattanooga, TN.

Where Did They Go?

169 adults and children
treated in Erlanger Health Syst em's 5 area Emergency Departments
94 treated at Level 1 Trauma Center
20 at Erlanger Bledsoe
6 at Erlanger North

Boston Marathon Bombing
May 15, 2013

The Scene

Rescue workers and medical personnel were on hand to assist runners and bystanders rushed to help the wounded in the immediate aftermath

:KHUH 'LG 7KH\ *R"

Between 625 and 800 casualties were treated at nearly every hospital and treatment facility in the Washoe Valley of Nevada and beyond

- Desert Springs Hospital (community hospital closest to the venue) received 55 casualties. Hospital staff had little or no experience with GSWs
- University Medical Center (trauma hospital, six miles from venue) received 60 casualties initially, then approx. 25 by transfer later
- Sunrise Hospital (Level 2 trauma center 4.8 miles from venue) received 184 casualties (many more unregistered)
- Most victims self-transported or arrived by private vehicle, cab, Uber, etc. Less than 25% arrived by EMS

,QMXULHV 7UHDWPHQW

- 7UXOQRD QRWHYFHQW
- 9DVW PDMRULW\ RLLQMXULHV Z"6:HUQHYRVOLQJ DOO D WKH ERG\
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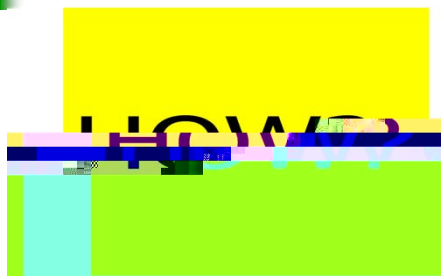
MCI MANAGEMENT



Triage

French verb *trier*, meaning to separate, sift or select

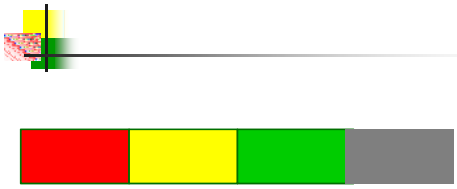
French Battlefield Term
dating back to WWI
Wounded were divided into three categories

Disaster Triage

1st contact (at scene or hospital)
Assign triage category

ongoing process that takes place after the patient has been moved to a **treatment/holding area** awaiting transport.

Primary Triage



Which system is utilized in NYS?

Depends on the local medical director

NYS DOH BEMS does endorse or recommend a particular system

- In 2005 was provide grant monies to purchase and distribute SMART Tag Triage System to ambulance services across NYS

START is currently the most commonly used methodology in NYS

Disaster Triage Systems

MASS
ESI
SALT

67$57 7ULDJH $OJRULWKP

$

%

&

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7KH ILUVW DWWHPSW DW EDODQFLQJ UHVRXUFHV DQG FDVXDOWLHV

The "Greens"

- Once they walk toward you – designate a place for them to go
- Someone needs to tag them green
- Someone needs to stay with them & keep them informed

“START” – PRIMARY TRIAGE

RPM

Non-Ambulatory Casualties Require Additional Assessment

espiratory effort
ulses/perfusion
ental status

Primary Triage

START – Perfusion / Pulse

Circulatory Check...

Capillary Refill > 2 seconds = tag **RED**

If unable to obtain a capillary refill, check the radial pulse.
If radial pulse is absent, and tag **RED**

BLEEDING CONTROL

STOP THE BLEED

tourniquet or
wound packing

https://www.stopthebleed.org/

Adequate Circulation
Capillary Refill < 2 Seconds
Radial pulse present

Primary Triage

START – Mental Status

A

B

C

Mental Status

START – Mental Status

JumpSTART
Pediatric Modifications
RPMs - Respiratory effort

No Respirations – **OPEN AIRWAY**

- If the patient starts breathing tag **RED**
- If apneic and no pulse tag **BLACK**
- If apneic with pulse try **5 rescue breaths**
- If still apneic tag **BLACK**
- If starts breathing tag **RED**

Respirations < 15 or > 45 tag **RED**

Adequate Respirations 15-45 **go to next step**

⬇

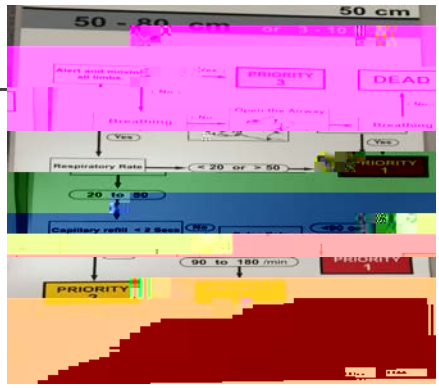
JumpSTART
Pediatric Modifications
RPMs - Pulse

No distal pulse – **tag RED**

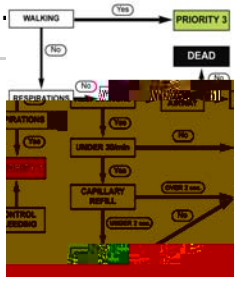
Pulse present **go to next step**

⬇

Mental Status



QUICK REVIEW....



Ambulatory/Walk = GREEN
Non-Ambulatory = NEXT STEP (Airway)

YES breathing = NEXT STEP (Respiratory)
NO Breathing = Open Airway
Starts to breath = RED
No breathing = BLACK

ABNORMAL (>30 or <10) = RED
NORMAL (10-30) = NEXT STEP (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)

YES follows simple command = YELLOW
NO can't follow simple command = RED

Disaster Triage Systems

MASS – "Move, Assess, Sort, Send"
ESI – "Emergency Severity Index"
SALT –
START/JumpSTART

Development of SALT

- Part of CDC sponsored project
- Develop national standard for mass casualty triage
- Sort – Assess – Life Saving Interventions – Treatment/Transport
- Based upon best evidence
- Concept endorsed by: ACEP, ACS-COT, ATS, NAEMSP, NDLSEC, STIPDA

Federal Recommendations Released July 2013

Model Uniform Core Criteria

BACKGROUND

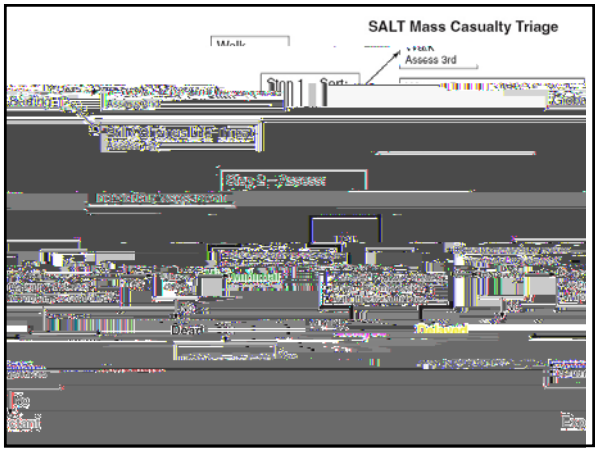
- Workgroup established to review science and develop list of recommended criteria for Disaster Triage Systems

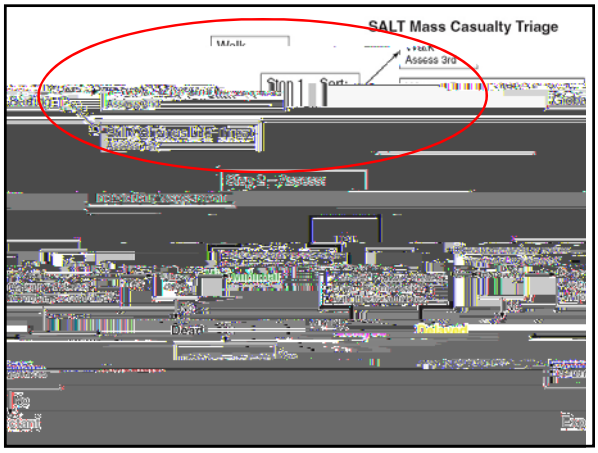
RESULT

- Identifies 24 criteria – essential elements – for an MCI triage system
- Provides a standard for triage systems to increase interoperability
- Provides guidelines for revision of existing MCI triage systems

2018

NHTSA released an addendum
https://www.ems.gov/pdf/education/National-EMS-Education-Standards-and-Instructional-Guidelines/MUCC_Addendum_EMT.pdf





SALT - Action 1

- AEveryone who can hear me please move to [designated area] and we will help youAÿ
  - Use loud speaker if available
- Group ambulatory patients using voice commands
- Those who follow this command - last priority for individual assessment

SALT - Action 2

- AIf you need help, wave your arm or move your leg and we will be there to help you in a few minutesAÿ
- Identify non-ambulatory patients who can follow commands or make purposeful movements
- Those who follow this command - second priority for individual assessment

SALT - Result

Casualties prioritized for individual assessment

Priority 1: Still, and those with obvious life threat
Priority 2: Waving/purposeful movements
Priority 3: Walking

Step 2: Individual Assessment
Lifesaving Interventions

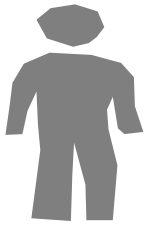
DEAD

- Casualties with complete absence of life
  - Not breathing after basic airway-opening maneuvers, including two rescue breaths if a child
  - Attempt basic life-sustaining efforts only if sufficient personnel available
  - It is important to *NOT* move dead casualties, unless the remains are blocking access to live casualties

Example

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

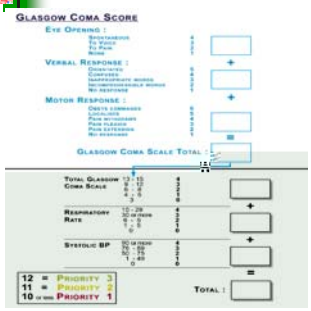
Unresponsive



DEAD – PRIORITY 5

Non-ambulatory casualty wip !

Secondary Triage



- Efforts to identify and track casualties should begin at the scene
- Tracking officer must ensure everyone accounted for
- Systems can range from electronic system, to triage tag, to simply recording information on a piece of tape
- Allow for more information to be added to system as it becomes available

Triage Coding

Triage Tags

Types of triage tags
- Several on the market
- **SMART Tag**
- **METTAG**
- **SALT Method METTAG**

Advantages
- Alerts providers to priorities
- Prevents re-triage
- Tracking system

60$57 7$*

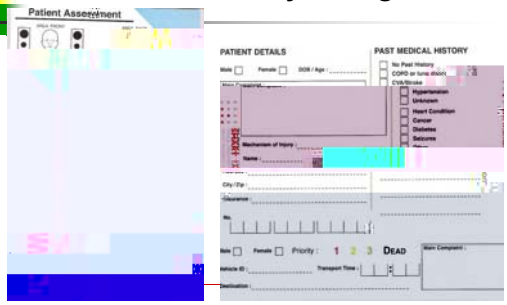
https://youtu.be/YCmCWzed0uA

SMART TRIAGE TAG

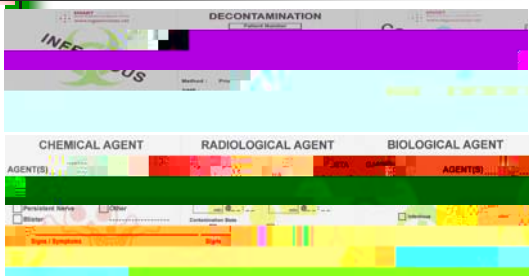
- Innovative folded design allows for simple re-triaging
- Highly visible, with Priority 1 lightstick
- Highly durable, waterproof and tear resistant material
- Space for structured recording of interventions (time allowing)
- Unique barcode for integration with tracking software

It's a **RED**
that is **VERY Critical**

Documentation & Secondary Triage

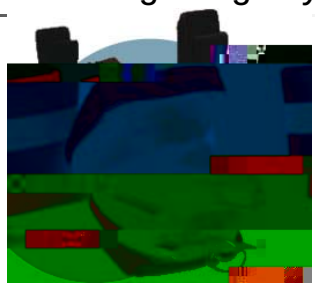


SMART WMD TAG



https://youtu.be/EpK7FSukPOQ

SMART Tag Triage System

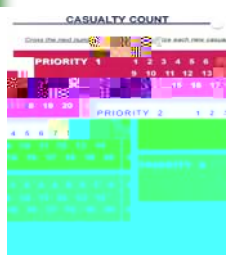


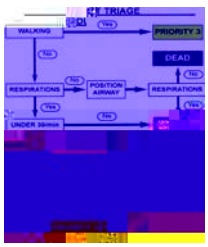
https://youtu.be/Ttl-gsMeDcM

SMART Triage Pack Contents

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

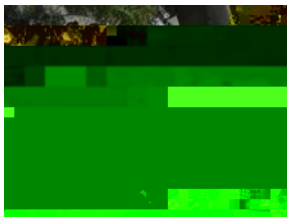
Casualty Count Card/Protocol





The Treatment Area ON SCENE

Casualties should be separated as tagged



Dead/Expectant Special Considerations

Establish an area away from other casualties
It should be a secure area away from on-lookers, media, etc.
Accessible for you and coroner staff

Casualty Transport and Evacuation

Casualties must be prioritized for treatment as well as transport to definitive care.

Regions may have different plans related to notification, destination and transport

Avoid overwhelming the closest hospitals:

1. Transport priority patients to local hospitals
2. Transport stable patients to more distant hospitals or treatment facilities stood-up for the incident
3. Treat minor injuries and release from scene

Casualty Transport How do victims arrive?

Ambulance

Air Transport

Medical Emergency Response Vehicle (MERV)

Non-Emergency Vehicles (Bus)

Self Transport (private vehicles, UBER)

Casualty Transport Hospital Considerations

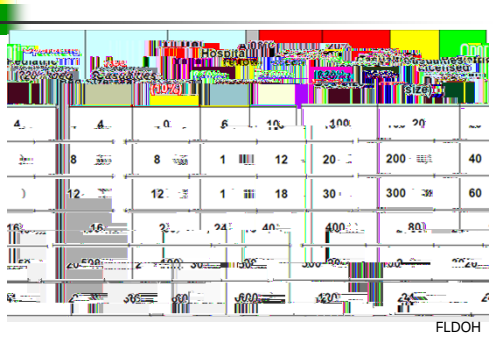
Estimating Total Expected Casualties Calculations

~ 50% of acute casualties may arrive at the closest medical facilities within 60 min

50-80% may arrive within 90 min

Most arrive within 1-4 hours

Total Casualty Numbers Hospital Planning Assumptions



FLDOH

The Treatment Area Hospital

Sample/Suggested Expanded Treatment Area Locat ! e

Triage	Ambulance Bay	
Immediate Treatment (Red Area)	Emergency Dept	
Delayed Treatment (Yellow Area)	Ambulatory Surgery ED Fast Track	
Minor Treatment (Green Area)	Clinics, Outpatient Areas	
DOA or Terminal (Black Area)	Morgue	

Forward Triage Concept

Mass casualty event occurs when number of victims overwhelms resources

Change perspective to greatest good for greatest number

Initial goal of mass casualty triage to sort and assess casualties to identify those with life-threatening injuries and initiate lifesaving treatment and then evacuate all casualties

Triage Process is Continuous and Dynamic

Disaster Triage Practical Application

PollEverywhere

Text TRAIN187 To 37607

Scenario

An improvised explosive device is detonated at a large outdoor sporting event. At least 50 people are confirmed injured.

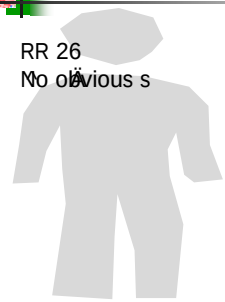
EMS arrives on scene

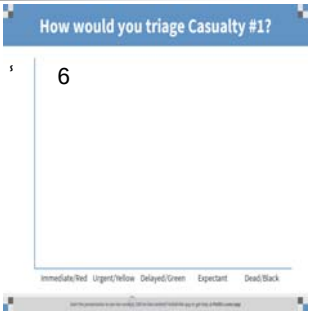
Casualty #1

Casualty #1

RR 26

No obvious s





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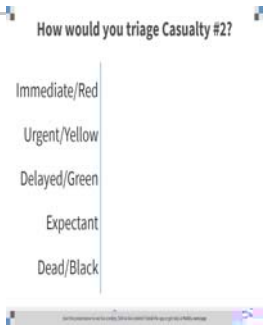
Casualty #2

RR 36 – but no obvious signs of distress

Pulse felt below the injury to the arm

Does not understand simple commands

Significant bleeding from the wound



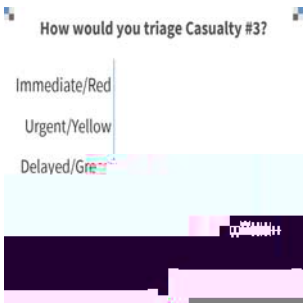
Casualty #3

Casualty #3

RR 26 – no obvious signs of distress

Peripheral pulse present

Following all



Casualty #4

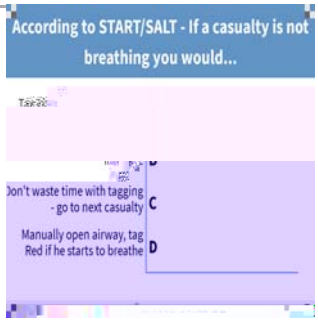
Casualty #4

Does not appear to be breathing

No pulse

Can't follow instructions

No bleeding



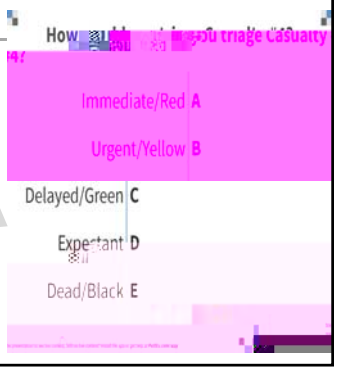
Casualty #4

Remains Apneic

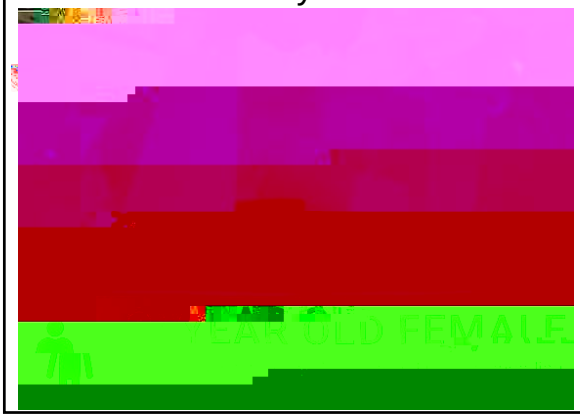
No pulse

Can't follow instructions

No bleeding



Casualty #5

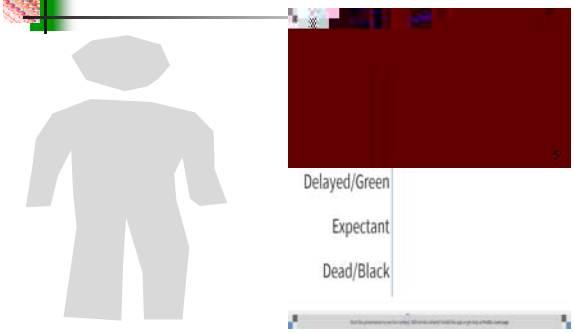


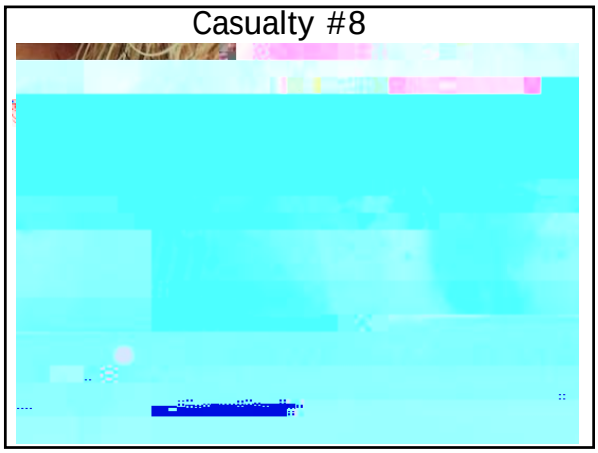
Casualty #5

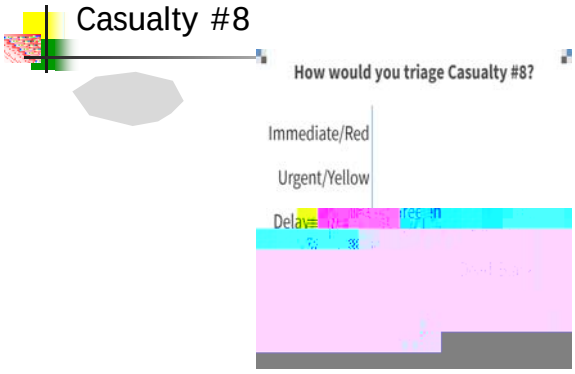
- RR<10 no obvious signs of distress
- Peripheral pulse present
- No purposeful movement
- No visible bleeding

Casualty #6

Casualty #6




Casualty #8


Casualty #8
How would you triage Casualty #8?
Immediate/Red
Urgent/Yellow

Questions???

Remember the goal of training

- Increase familiarity/proficiency of a triage methodolog (START or SALT)
- Increase familiarity with the SMART Tag Triage System
- Train with a standardized methodology and system
- Grow your organization's triage & mass casualty response competency

Regional Training Centers

Finger Lakes Regional Training Center
Anne D'Angelo
Phone: (585) 758-7640
anne_dangelo@urmc.rochester.edu
Website: **wrhepc.urmc.edu**

CNY Regional Training Center
Kelsey Wagner
Phone: (315)464-7597 Ext: 4-7597
WagneKel@upstate.edu
Website: **http://www.upstate.edu/cnyrtc**

CDR Regional Training Center
Jenette White
Phone: (518) 262-1070
whitej4@amc.edu

MARO Regional Training Center
Connie Kraft Phone: (631) 444-9074
Connie.Cincotta-Kraft@stonybrookmedicine.edu
Website: **https://www.stonybrookmedicine.edu/MARORTC**