Disaster Triage in NYS
START Triage
and SMART Tags

Finger Lakes Regional Training Center

UNIVERSITY of ROCHESTER MEDICAL CENTER

Christopher Tarantino MEP, CMCP, CHEC-III

FLRTC Instructor

HOUSEKEEPING &
WEBINAR GROUND RULES

- The FLRTC (Anne D'Angelo & Eileen Spezio) will be your HOST for the webinar
- Christopher Tarantino will be your PRESENTER
- Webinar Will Be Recorded
- All Phones will be placed on Mute by the Host
- For Questions:
  - Use CHAT function – send to PRESENTER
  - Use HAND ICON – host will unmute you

HOUSEKEEPING &
WEBINAR GROUND RULES

- Ensure your First/Last Name listed as PARTICIPANT – if not, please send CHAT to the HOST
- OR - if hosting large group please email or fax sign-in sheet to FLRTC by end of the day
  - eileen_spezio@urmc.rochester.edu fax:(585)756-5098
- Presentation available on website: wrhepc.urmc.edu
- Scenarios:Polling Feature – all answers are anonymous.
- Course Certificates will be available to those registered on LMS (post course evaluation)
- Please check CHAT for reminders and resources from HOST

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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.

AGENDA

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

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
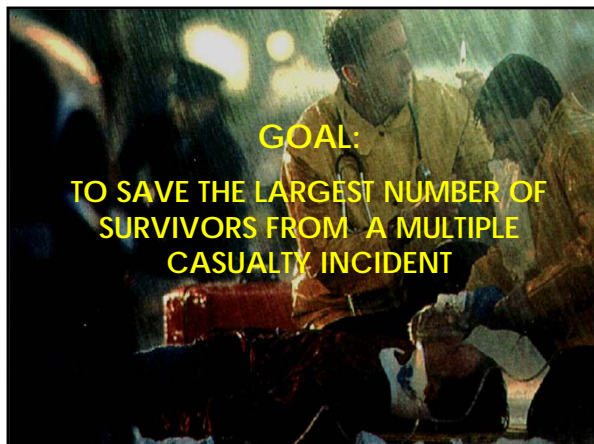
What is the Goal of MCI Management?

GOAL:

TO SAVE THE LARGEST NUMBER OF SURVIVORS FROM A MULTIPLE CASUALTY INCIDENT

The Problem

Casualties   **Resources**
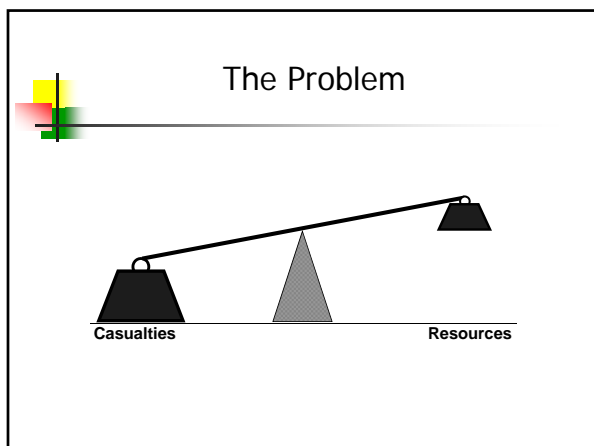
Considerations During an MCI Response

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

The Objective

Casualties   **Resources**
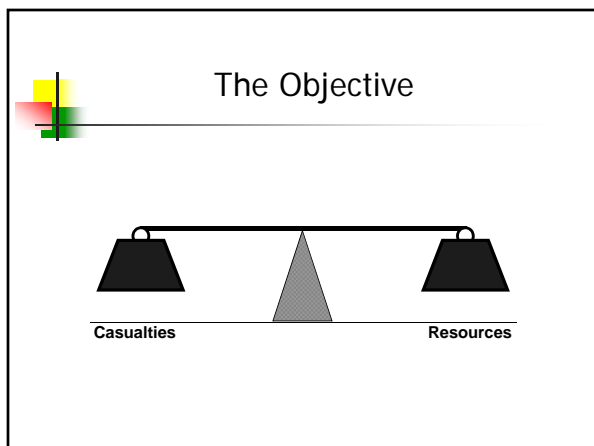
What Could Be an MCI For You?

- 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

What Could Be an MCI For You?

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

Watkins Glen Speedway

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

Hospital Considerations

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

Transportation Distribution

Patient transport - Oklahoma Bombing

On foot · Other · EMS · Private car
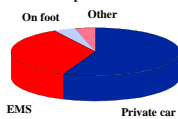
Injury prevention database, OK Dept of Health

Patient Transport - 29 US Disasters

On foot · Bus Taxi · Private car · Other · Police · EMS
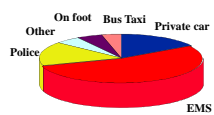
Quarantelli, Delivery of Emergency Services in Disasters, Assumptions and Realities

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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".

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

October 12, 2002

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

**Dr. Tjakra Wibawa
Sanglah Trauma Center**

6

Incident Command System

```
                 Emergency Dept.
        ┌──────────────┼──────────────┐
      Triage       Treatment       Transport
              ┌────────┼────────┬────────┐
         Immediate  Delayed  Minimal  Expectant
```
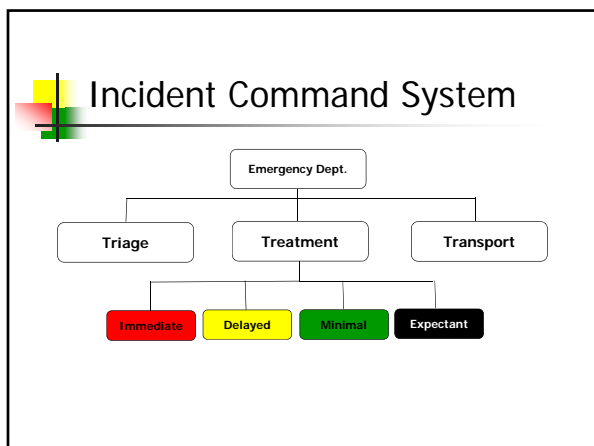
Disaster Triage Systems

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

Disaster Triage Systems

MASS
ESI
SALT
START/JumpSTART
"Simple Triage and Rapid Treatment"

Triage Protocol (START)
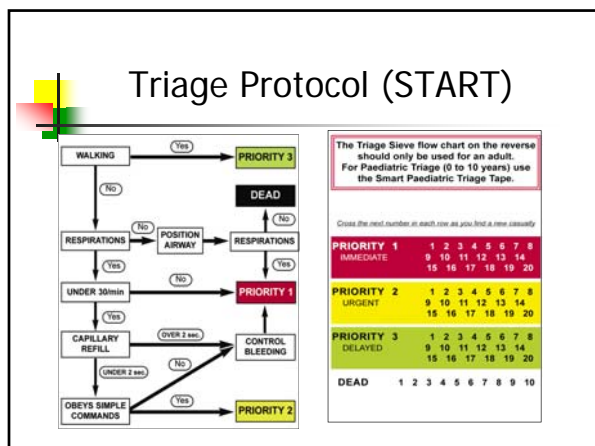
Triage Coding

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

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

Primary Triage

The Scene

Primary Triage

WALKING — Yes → PRIORITY 3

The first attempt at balancing resources and
casualties/injured

PRIORITY 3

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

DELAYED

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

Primary Triage

WALKING — Yes → PRIORITY 3

WALKING — No → RESPIRATIONS — No → POSITION AIRWAY → RESPIRATIONS — No → DEAD
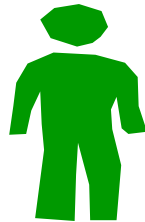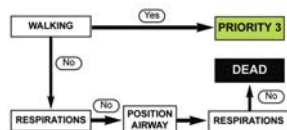
Determining whether there is an
airway and breathing

Primary Triage

WALKING — Yes → PRIORITY 3

WALKING — No → RESPIRATIONS — No → POSITION AIRWAY → RESPIRATIONS — No → DEAD

RESPIRATIONS — Yes → UNDER 30/min — No → PRIORITY 1

RESPIRATIONS — Yes (from position airway)
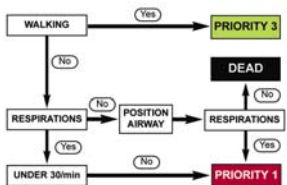
If breathing, at what rate & is it good enough?

Primary Triage
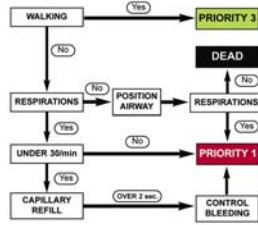
They have an airway, are breathing.

Are they circulating blood sufficiently?

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.

Primary Triage

A

B

C

Mental
Status
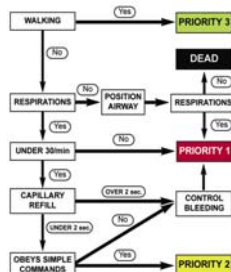
PRIORITY 1

- 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
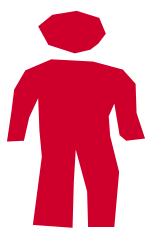
Example

Patient has an open head
Wound, bleeding controlled

Respirations are 16

Pulse is 88 (Radial)

He is unconscious

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
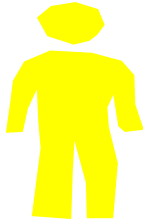
Example

Patient states he can't move or feel his legs

Respirations are 26

Pulse is 110 (Radial)

He is awake and oriented

EXPECTANT/DEAD

- Still require resources

- Focus of care is comfort

- Psychologically most challenging for healthcare providers
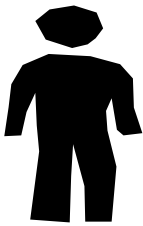
Example

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

Weak Carotid Pulse

She is unresponsive

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

Secondary Triage

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

The SMART Tape ™

https://youtu.be/nKBh2v12uwA

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50 - 80 cm or 3 - 10 Kg — 50 cm

Alert and moving all limbs — Yes → PRIORITY 3 | DEAD

Breathing — No → Open the Airway → Breathing — No

Respiratory Rate → < 20 or > 50 → PRIORITY 1

20 to 50

Capillary refill < 2 Secs (Use child's forehead) — No → Pulse Rate → <90 or >180 /min → PRIORITY 1

90 to 180 /min

PRIORITY 2 | PRIORITY 2

80 cm

The SMART Tag ™

https://youtu.be/0qcZrzpv7aA

SMART Tag Triage System
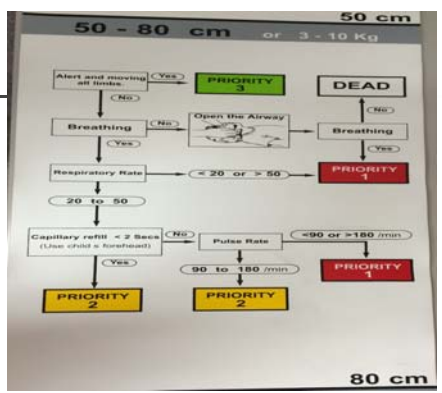
SMART Triage Pack Contents

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

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**

Scenario – Practical Application

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!

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.

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?

Patient #1

Apneic

Pulse-less

Missing LUE
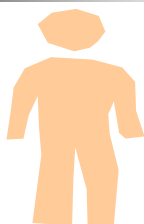
Patient #2

Abd. Tenderness and minor penetrating trauma
Ambulating
A & O x 3
RR 24
Strong radial pulse
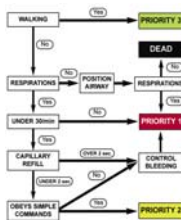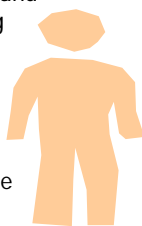
Patient #3

Multiple penetrating injuries, blood in ears

RR 20

Airway clear

Strong Radial pulse

Responds only to pain
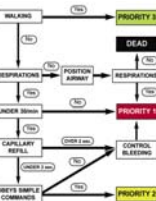
Patient #4

Extremity fractures, blood in ears

Unable to walk

A & O x 3

RR 26

Strong radial pulse
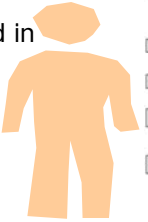
Patient #5

Small child, screaming

Minor lacs, blood in ears

RR 30

Moving all extremities
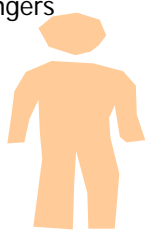
Patient #6

Smells like beer
Amputated fingers
Walking
A & O x 3
Dizzy
RR 24
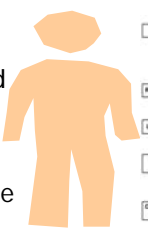
Patient #7

Sitting
Chest pain, SOB
No trauma noted
RR 34
Shallow
Weak radial pulse
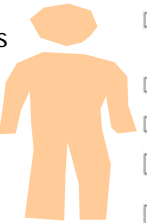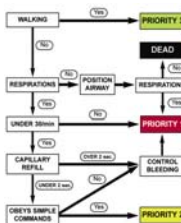
Patient #8

Blood in nose,
mouth and ears
Not breathing
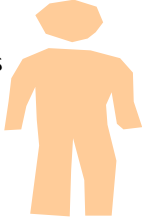
Patient #8

Blood in nose,
mouth and ears
Not breathing

What would you do?
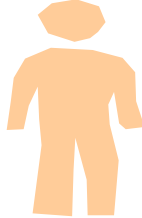
Patient #9

Some penetrating
trauma
Unresponsive
Apneic
No radial pulse
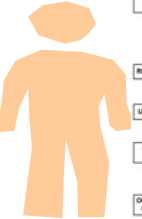
Patient #10

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

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
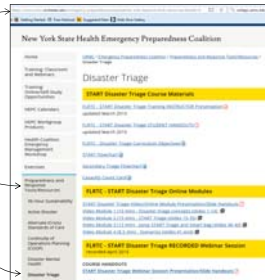- Train with a standardized methodology and system

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Disaster Triage Training Resources
Visit Our Website at:
WRHEPC.URMC.EDU

Disaster Triage Page
- wrhepc.urmc.edu
  - Preparedness & Response Tools/Resources
    - Disaster Triage

ADDITIONAL EDUCATION OPPORTUNITIES
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Upcoming Training Classroom & Webinars

Online & Self-Study
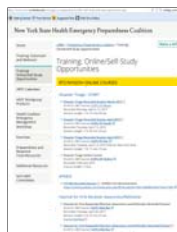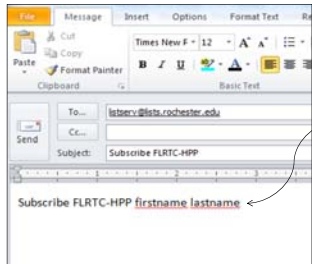
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Questions??
Thank You!

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