

Disaster Triage START/JUMPSTART



Finger Lakes Regional Training Center





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

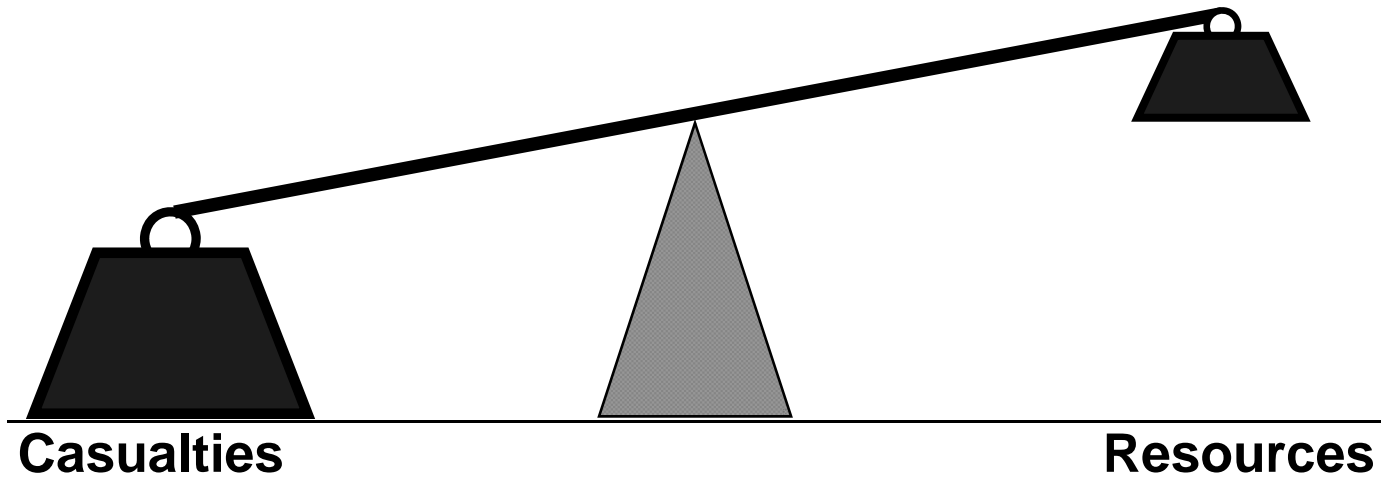
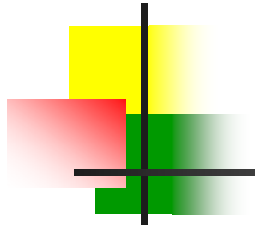


What is the Goal of MCI
Management?

A painting depicting a medical scene. In the center, a man in a light-colored uniform, possibly a doctor or nurse, is shown from the chest up, looking down at a person lying on a stretcher. He has a stethoscope around his neck. To his right, another person in a dark uniform is partially visible, also looking down. The person on the stretcher is wearing a blue shirt and has a white bandage on their head. The background is dark and blurry, with some light sources creating a hazy atmosphere. The overall style is somewhat somber and focused on the medical action.

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

The Problem

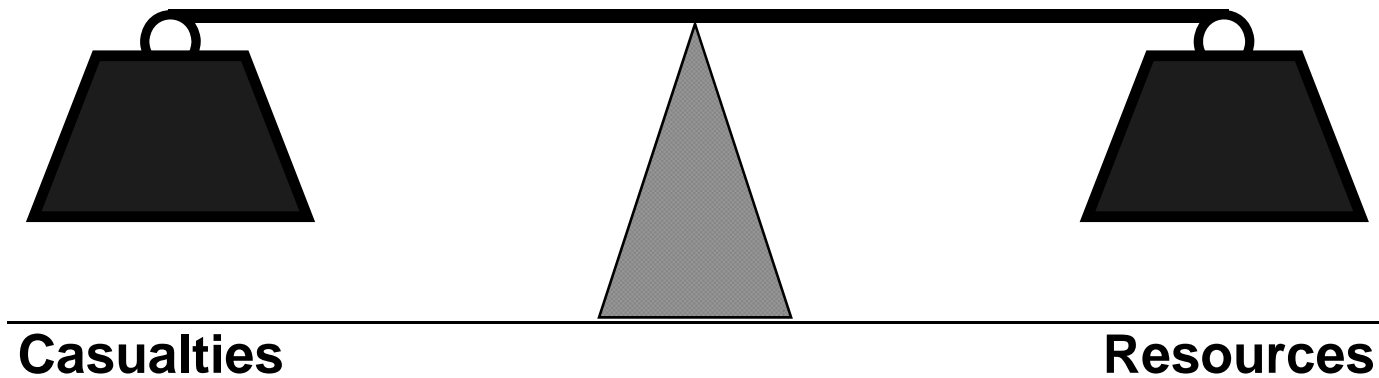




Considerations During an MCI Response

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

The Objective



What Could Be an MCI For You?

- Transportation Accident
- Fire
- Hospital Overloading
- Hospital Evacuation



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

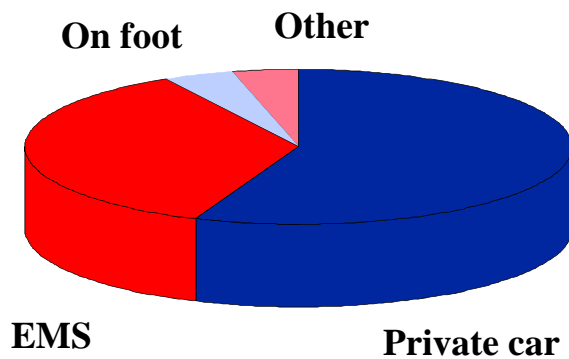


Hospital Considerations

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

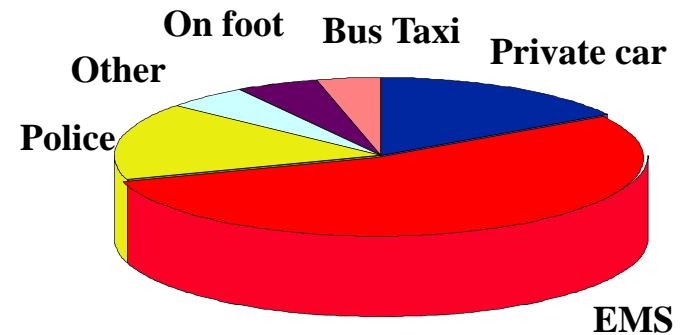
Transportation Distribution

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**

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”.



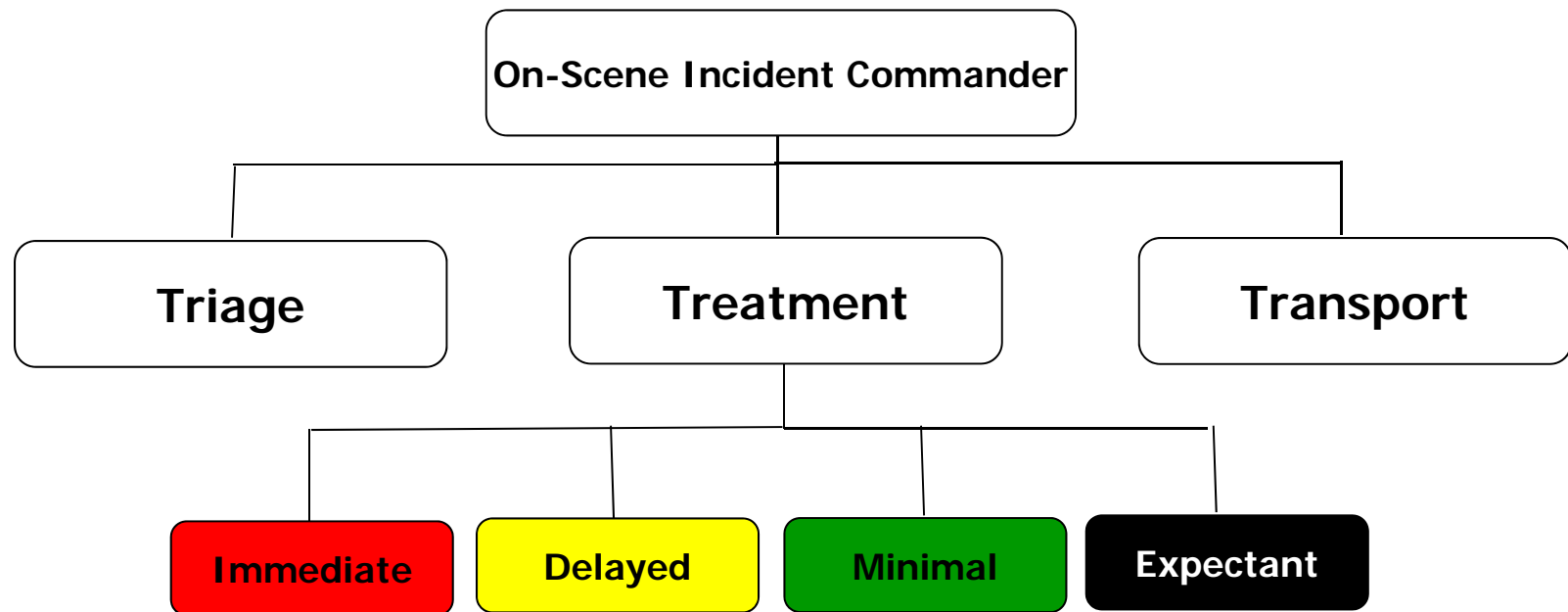
October 12, 2002

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

Dr. Tjakra Wibawa
Sanglah Trauma Center



Incident Command System





Disaster Triage

START/JUMPSTART



Types of Triage

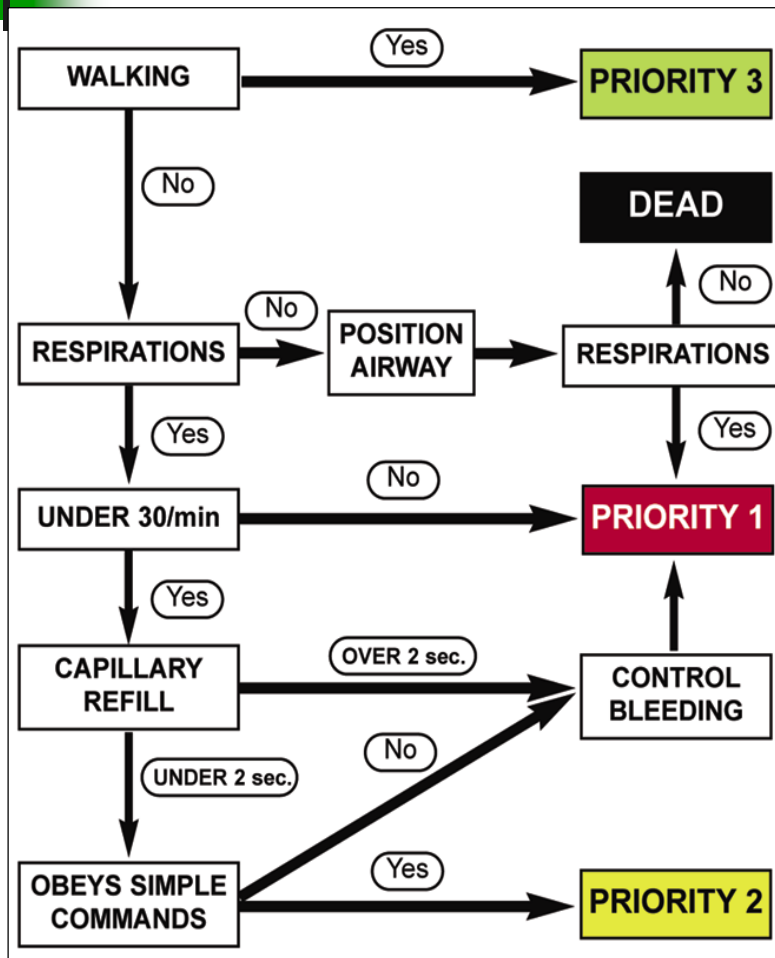
- ***Primary***

- On scene prior to movement or at hospital (self transports)

- ***Secondary***

- Incident dependent, probably prior to or during transport or upon arrival to hospital

Triage Protocol (START)



The Triage Sieve flow chart on the reverse should only be used for an adult.
For Paediatric Triage (0 to 10 years) use the Smart Paediatric Triage Tape.

Cross the next number in each row as you find a new casualty

PRIORITY 1	1	2	3	4	5	6	7	8
IMMEDIATE	9	10	11	12	13	14		
	15	16	17	18	19	20		

PRIORITY 2	1	2	3	4	5	6	7	8
URGENT	9	10	11	12	13	14		
	15	16	17	18	19	20		

PRIORITY 3	1	2	3	4	5	6	7	8
DELAYED	9	10	11	12	13	14		
	15	16	17	18	19	20		

DEAD	1	2	3	4	5	6	7	8	9	10
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Triage Coding

Priority Treatment

Immediate 1

Urgent 2

Delayed 3

Dead 0

Color

RED

Yellow

Green

Black



Primary Triage

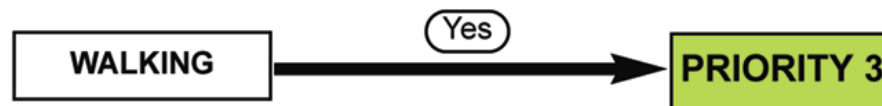


**The
Scene**





Primary Triage



The first attempt at balancing resources and casualties/injured



PRIORITY 3

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

DELAYED



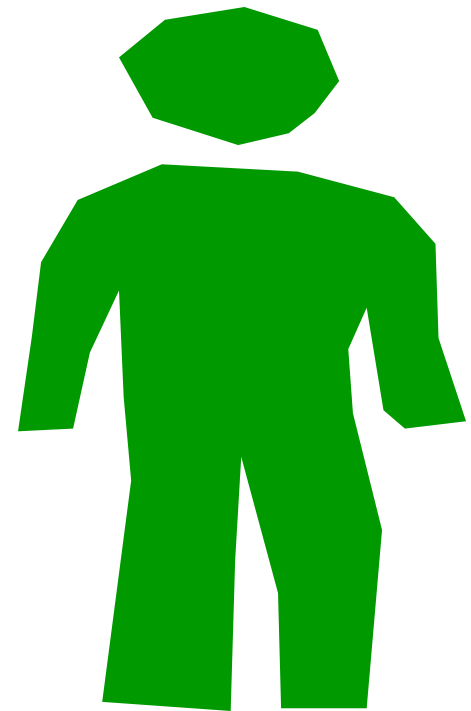
Example

Patient walks over to you and
has an obvious broken arm

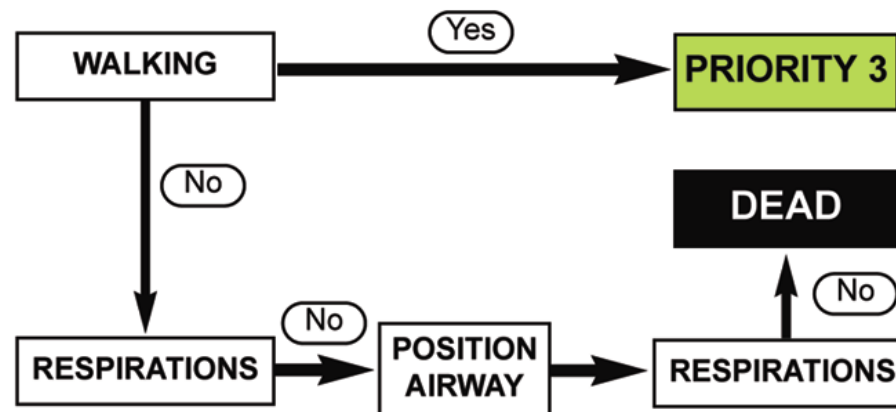
Respirations are 22

Pulse is 124 (Radial)

He is awake, alert, and crying

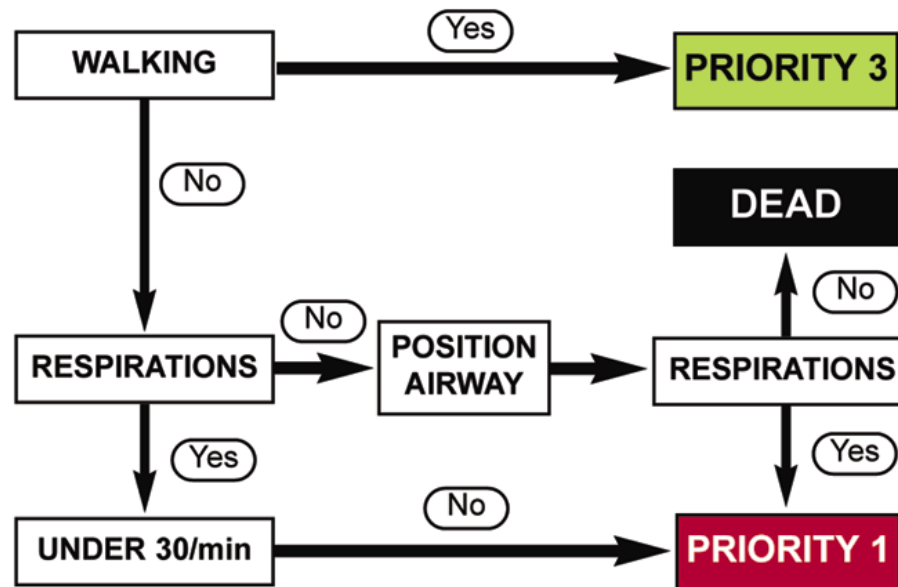


Primary Triage



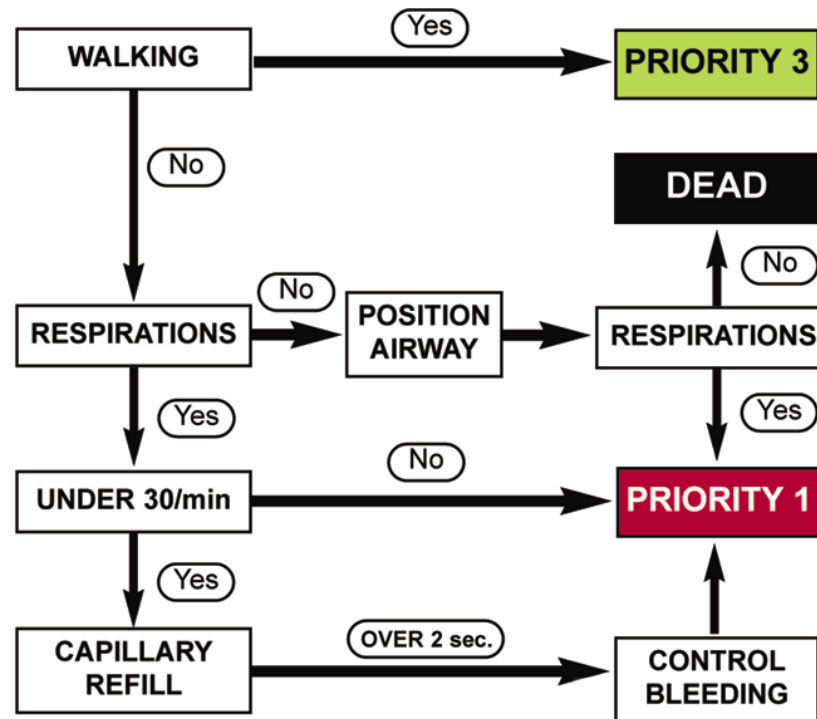
Determining whether there is an
airway and breathing

Primary Triage



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**.

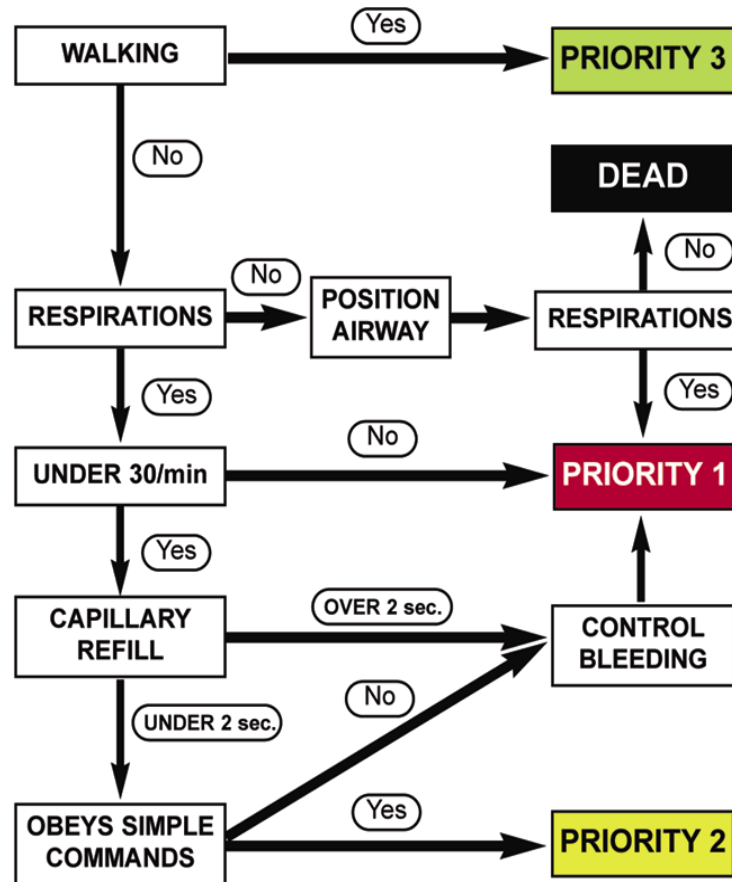
Primary Triage

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



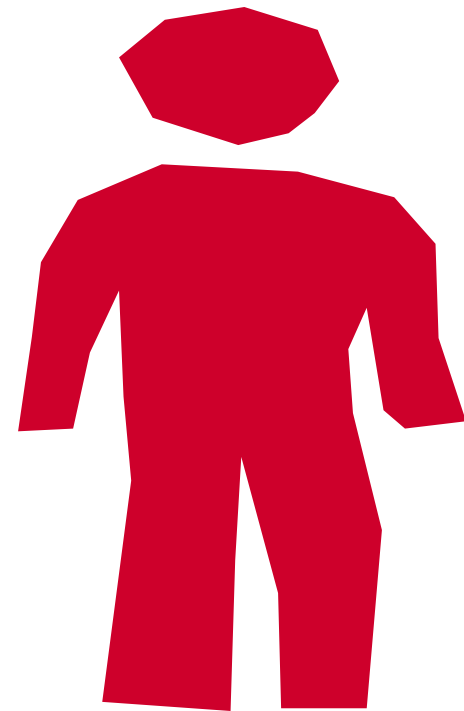
Example

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



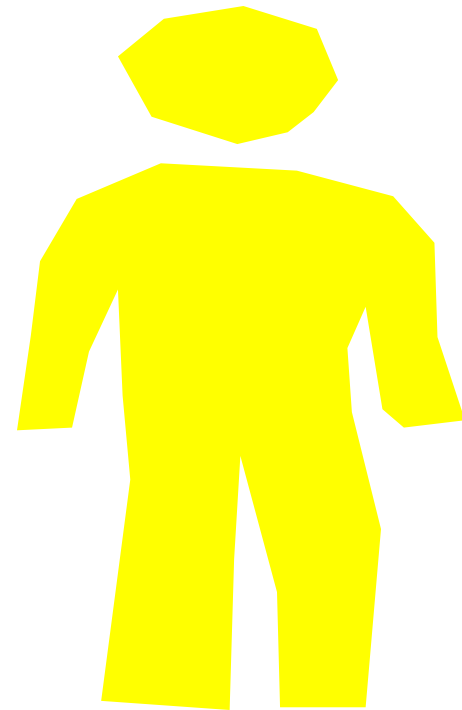
Example

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

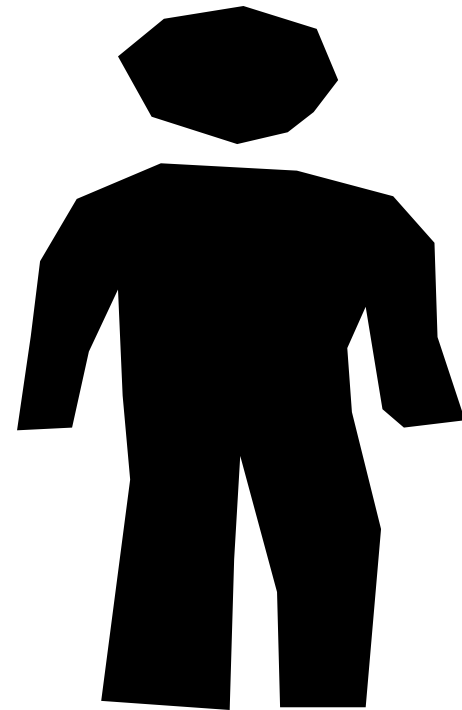


Examples

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

GLASGOW COMA SCORE

EYE OPENING :

SPONTANEOUS	4	<input type="text"/>
TO VOICE	3	
TO PAIN	2	
NONE	1	

VERBAL RESPONSE :

ORIENTATED	5	<input type="text"/>
CONFUSED	4	
INAPPROPRIATE WORDS	3	
INCOMPREHENSIBLE WORDS	2	
NO RESPONSE	1	

MOTOR RESPONSE :

OBEYS COMMANDS	6	<input type="text"/>
LOCALISES	5	
PAIN WITHDRAWS	4	
PAIN FLEXION	3	
PAIN EXTENSION	2	<input type="text"/>
NO RESPONSE	1	

GLASGOW COMA SCALE TOTAL :

TOTAL GLASGOW COMA SCALE	13 - 15	4	<input type="text"/>
	9 - 12	3	
	6 - 8	2	
	4 - 5	1	
	3	0	
RESPIRATORY RATE	10 - 29	4	<input type="text"/>
	30 or more	3	
	6 - 9	2	
	1 - 5	1	
	0	0	
SYSTOLIC BP	90 or more	4	<input type="text"/>
	76 - 89	3	
	50 - 75	2	
	1 - 49	1	
	0	0	

12 = PRIORITY 3
11 = PRIORITY 2
10 or less PRIORITY 1

TOTAL :

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



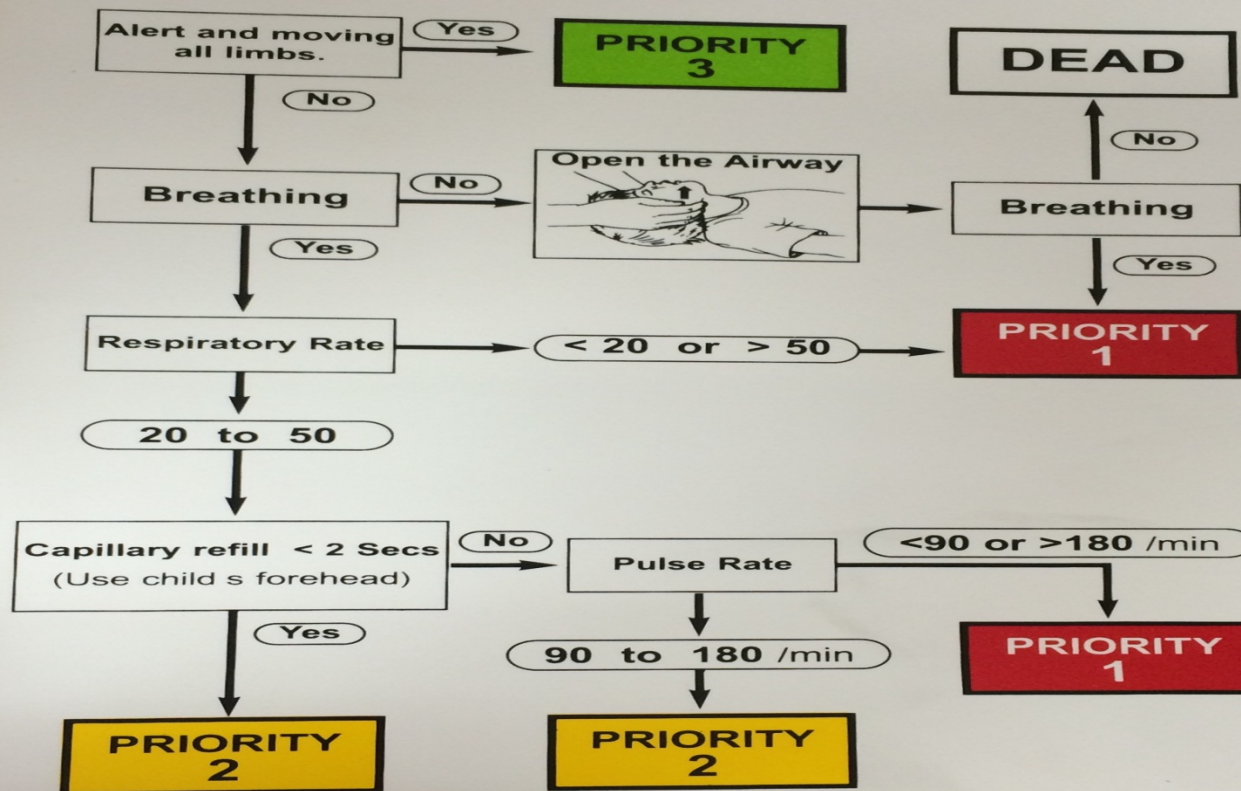
The SMART Tape TM



50 - 80 cm

or 3 - 10 Kg

50 cm



80 cm



SMART Tag Triage System



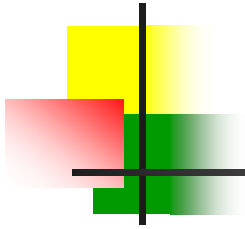


SMART Triage Pack Contents

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



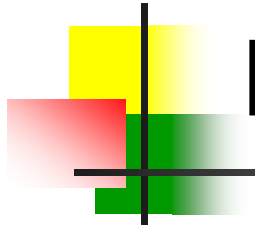
Scenarios



Scenario #1

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.

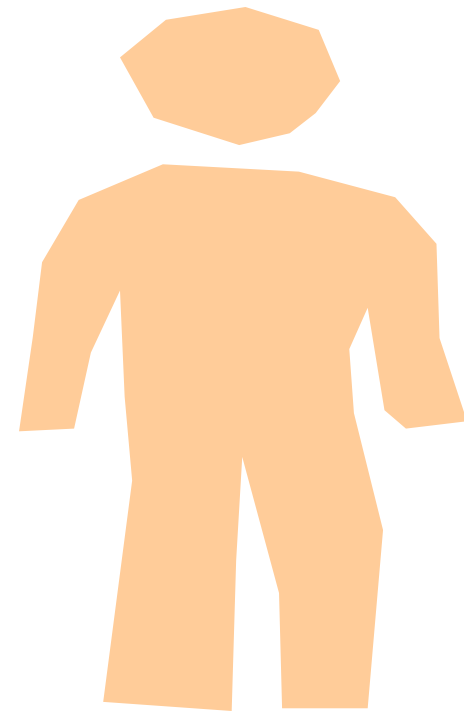


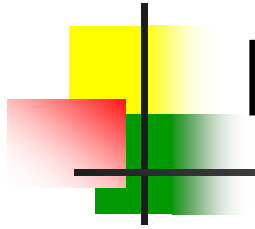
Patient #1

Apneic

Pulse-less

Missing LUE





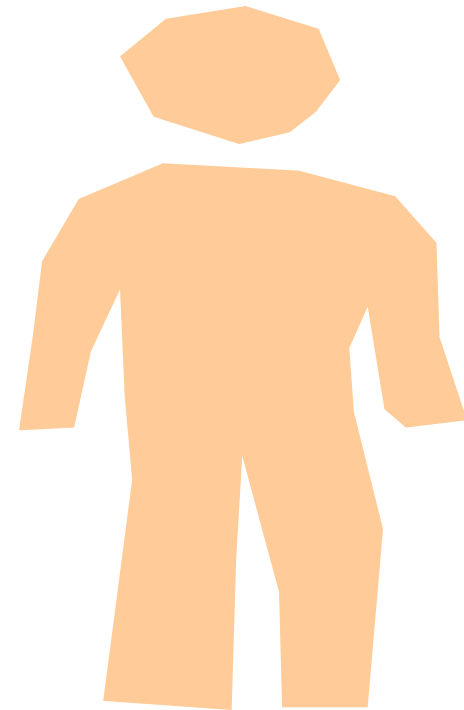
Patient #2

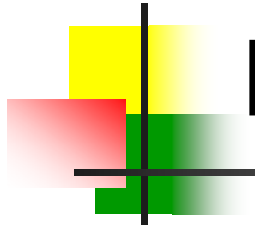
RR 4

Absent Radial pulse

Brain matter exposed

Unresponsive to tactile
stimuli





Patient #3

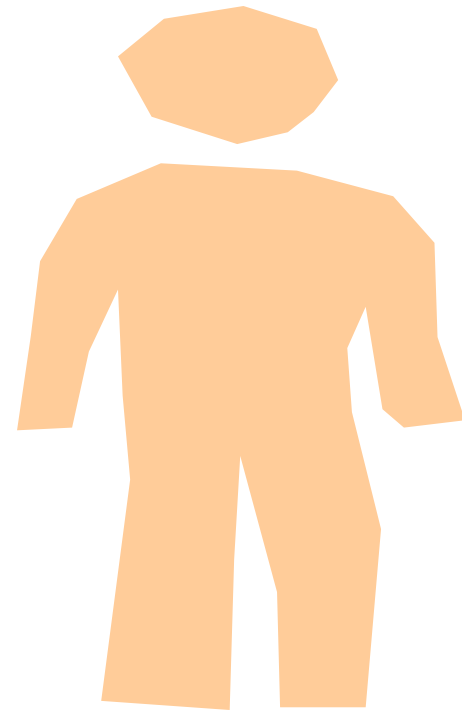
Abd. Tenderness and
minor penetrating
trauma

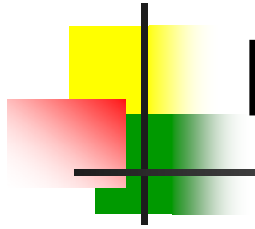
Ambulating

A & O x 3

RR 24

Strong radial pulse





Patient #4

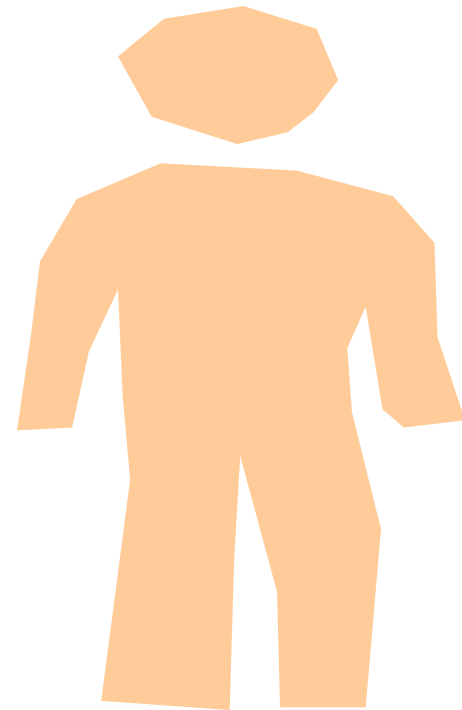
Multiple penetrating injuries, blood in ears

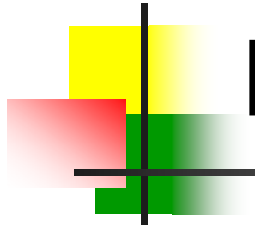
RR 20

Airway clear

Strong Radial pulse

Responds only to pain





Patient #5

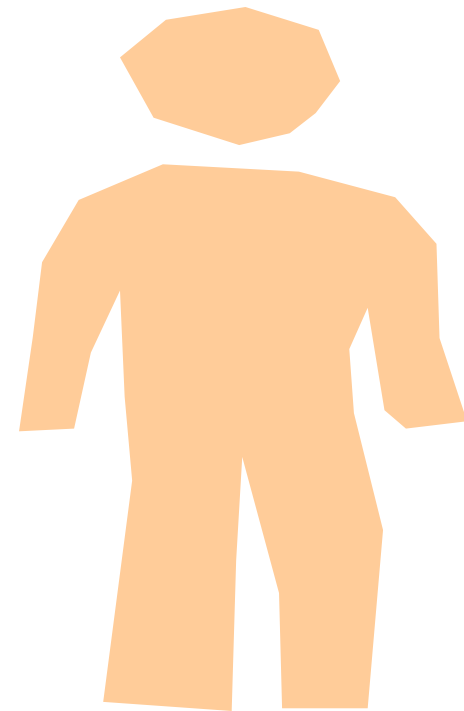
Extremity fractures,
blood in ears

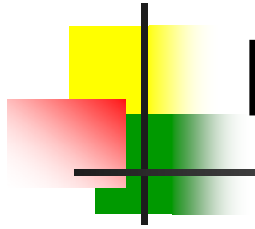
Unable to walk

A & O x 3

RR 26

Strong radial pulse





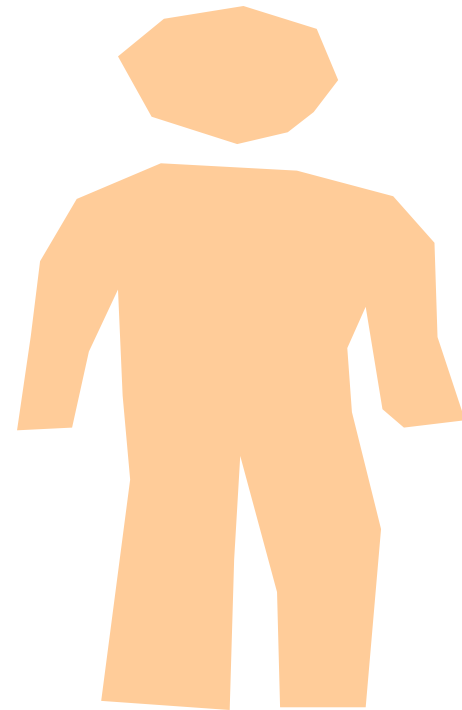
Patient #6

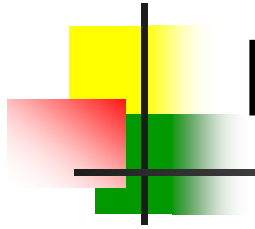
Small child,
screaming

Minor lacs, blood in
ears

RR 30

Moving all
extremities





Patient #7

Amputated fingers

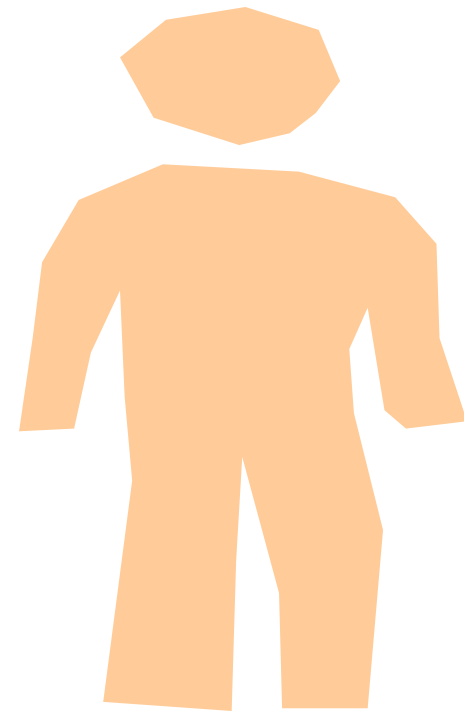
Walking

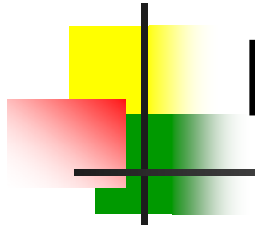
A & O x 3

Dizzy

RR 24

Smells like beer





Patient #8

Sitting

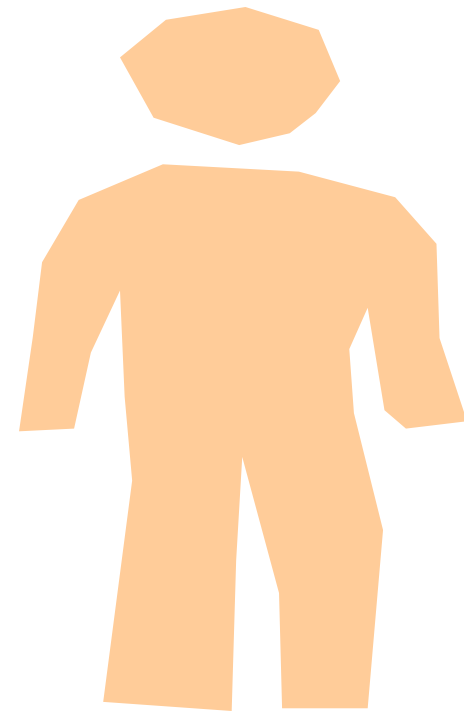
Chest pain, SOB

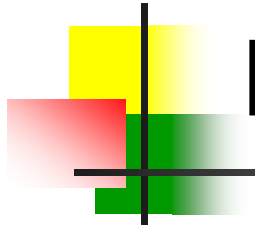
No trauma noted

RR 34

Shallow

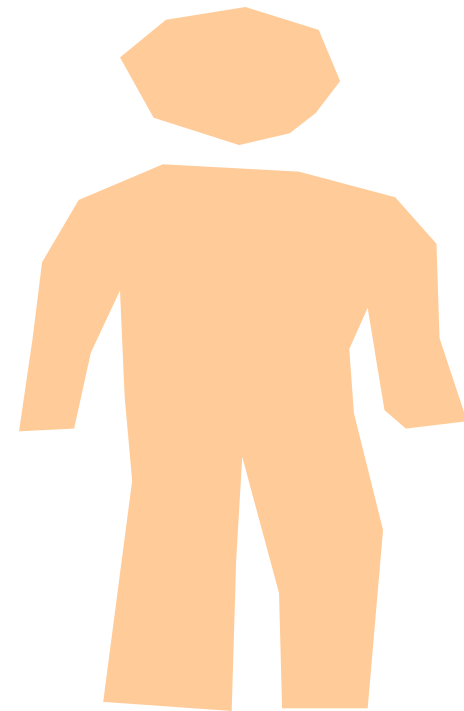
Weak radial pulse

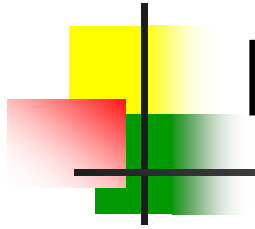




Patient #9

Blood in nose,
mouth and ears
Not breathing

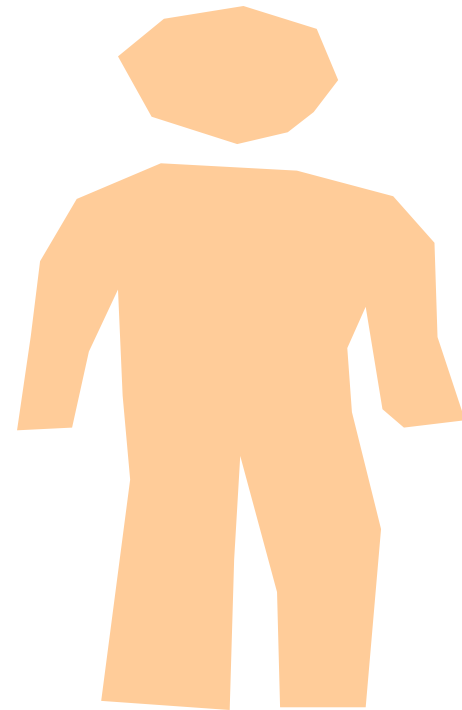


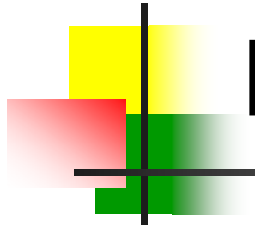


Patient #9

Blood in nose,
mouth and ears
Not breathing

What would you do?





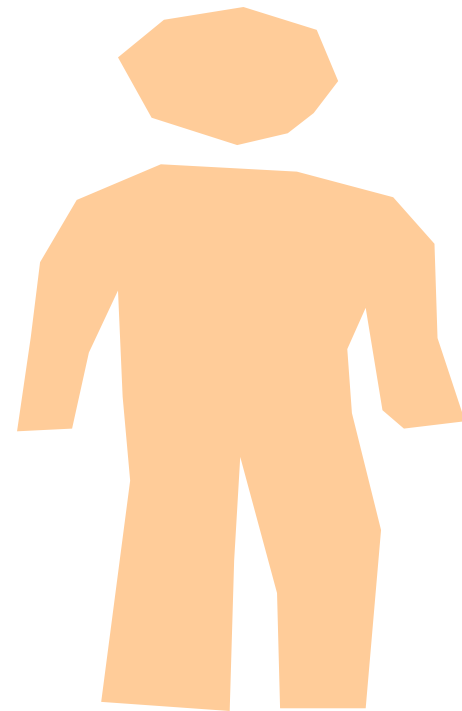
Patient #10

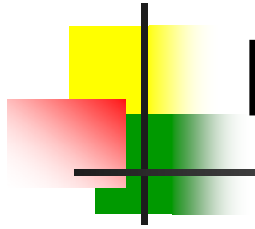
Some penetrating
trauma

Unresponsive

Apneic

No radial pulse





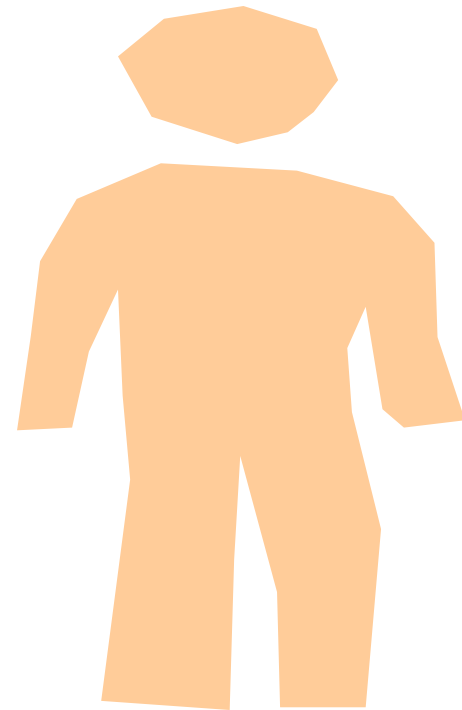
Patient #11

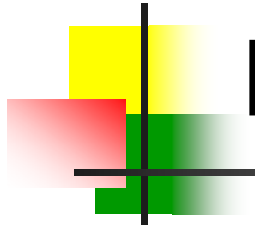
Arterial bleed from
leg

RR 34

No radial pulse

Responsive to pain





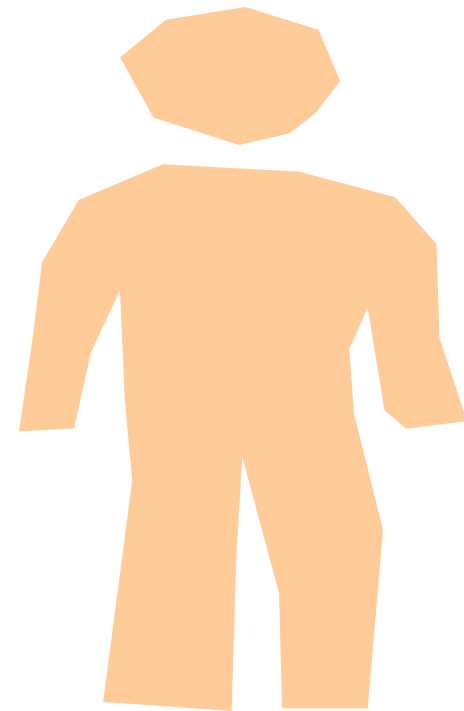
Patient #12

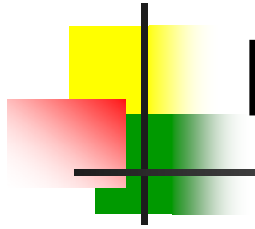
Ambulatory

Minor lacs

Crying

RR 24





Patient #13

Not walking

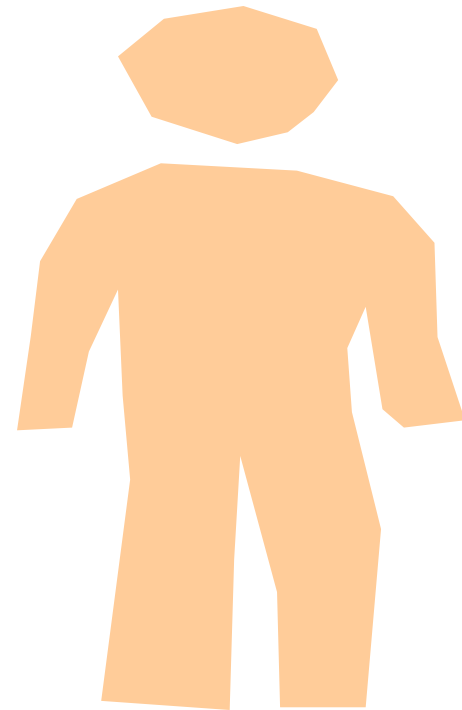
Deviate trachea

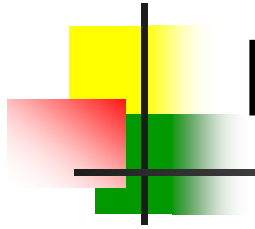
RR 40

Weak radial pulse

+JVD

Cyanosis





Patient #14

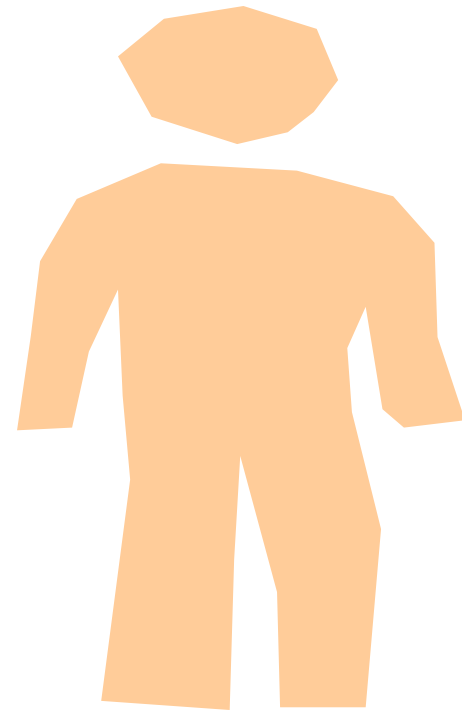
Open fracture of
RUE

Non-ambulatory

RR 26

Strong radial pulse

A & O x 3





Patient #15

Lying on the ground

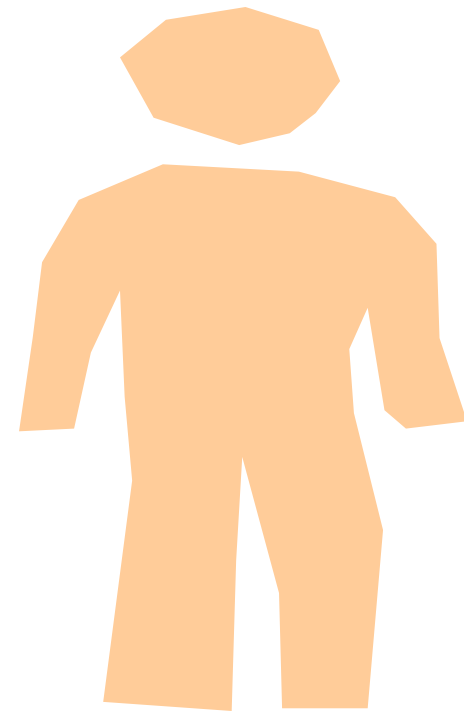
RR 36

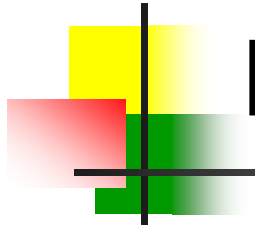
Coughing

Strong radial pulse

A & O x 2

100% TBS burns
(partial and full)





Patient #16

Unable to stand

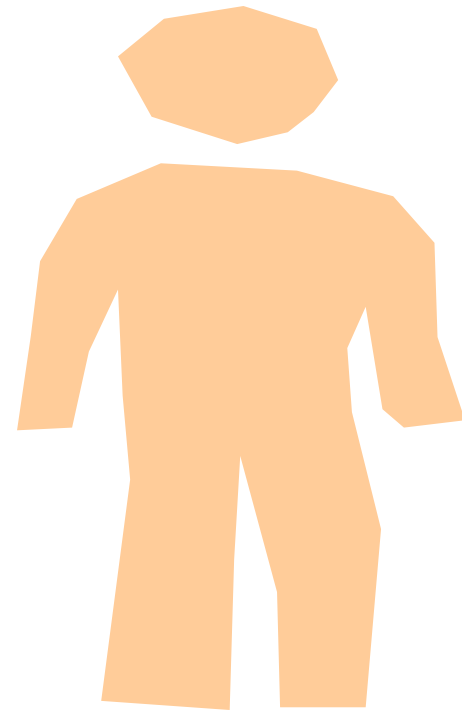
RR 24

Strong radial pulse

A & O x 1

Slurred speech

R sided weakness





Patient #17

Lying on the ground

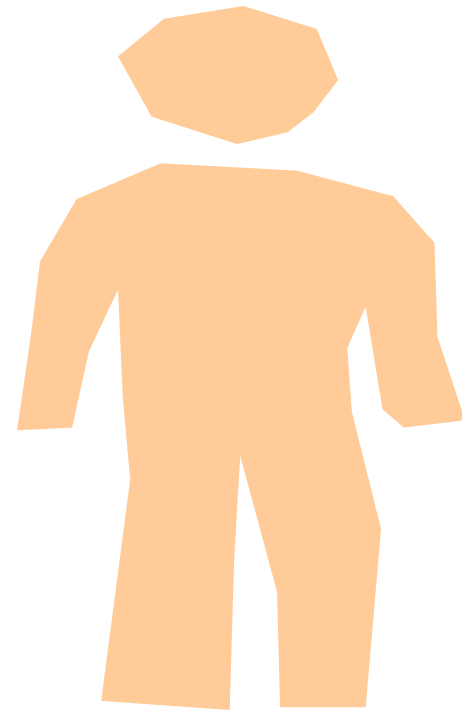
RR 30

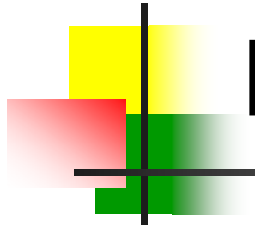
Avulsion RUE

Arterial bleed

A & O x 2

"I'm thirsty"





Patient #18

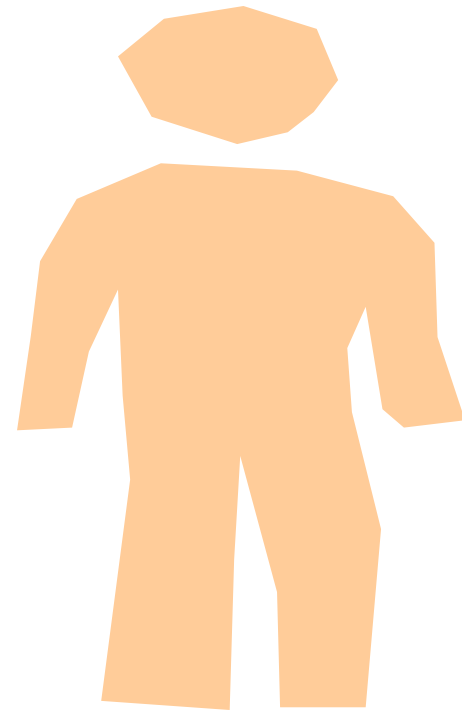
Open fractures BLE

RR 28

Strong radial pulse

A & O x 3

Blood in ears





Patient #19

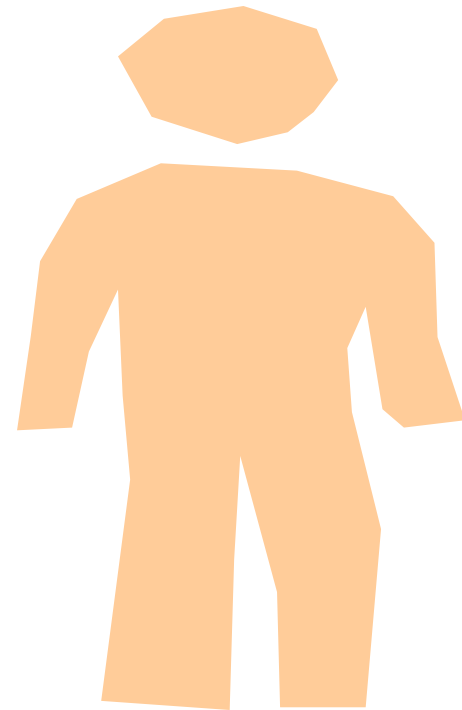
Standing, hysterical
& screaming

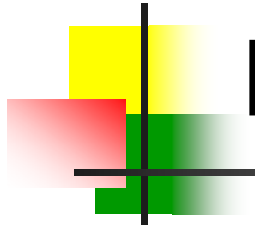
RR 36

Strong radial pulse

A & O x 3

Blood in ears





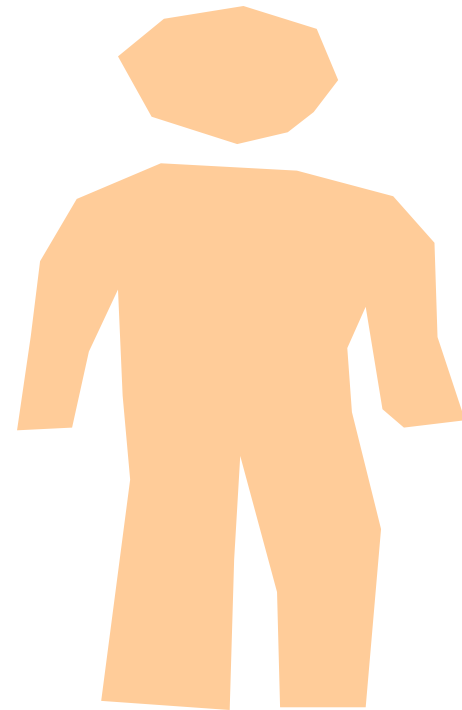
Patient #20

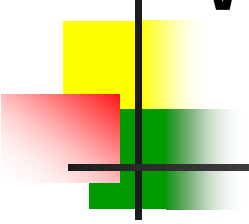
Child

Cyanotic from nipple
line up

Apneic

No brachial pulse





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



Questions???



Thank You!

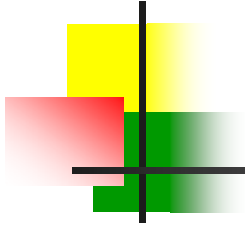
Western New York Regional Training Center

Eileen Spezio

Eileen_spezio@urmc.rochester.edu

585-758-7640





ADDITIONAL RESOURCES

Visit Our Website at:

WRHEPC.URMC.EDU