### TRIAGE

Лектор: доц. д-р В. Данчева, дм

## **Triage**



- "To Sort"
- Look at medical needs and urgency of each individual patient
- Triage in Daily Emergencies
  - Do the best for each individual
- Disaster Triage
  - Do the greatest good for the greatest number
  - Make an impossible task manageable



# The triage is a very important but difficult, long and dynamic process.

- to classify the victims of war and disaster, according to the urgency of their medical needs and their likelihood of survival, if treated.
- ➤ the word triage comes from French word for "sort out".
- various systems of triage have been developed, some of which have been in use for several decades.

# Triage should be understood as a complex process which includes:

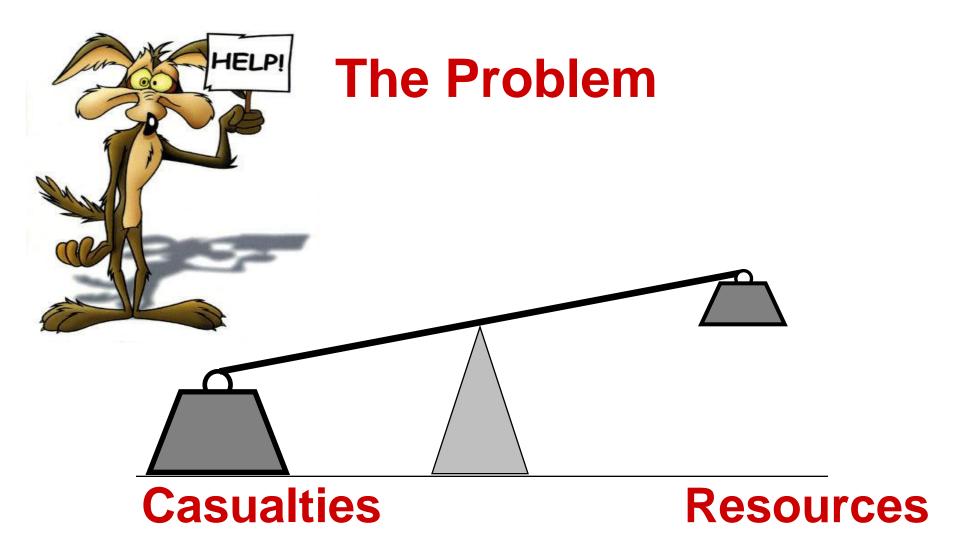
- A sorting, classification/categorization, selection
- **B** initiating life-saving measures
- C re-evaluation
- **D** adaptive process (medical care/criteria) according to the evolution of:
  - needs
  - condition of the victim
  - treatment capacity at field level, during evacuation and at hospital

The triage is based on the clinical impression of the existing and expected condition of the injured person.



#### **Considerations During an MCI Response**

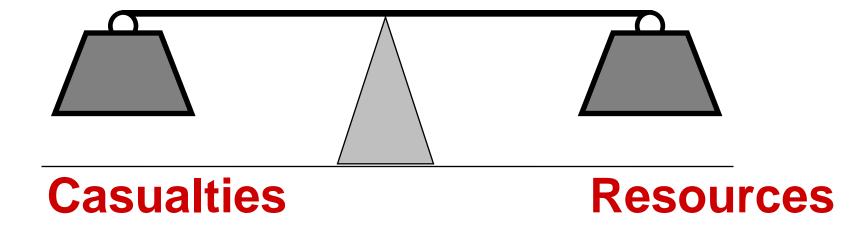
- Supply vs. Demand
- Resource Allocation
- Coordination
- Medical Management
- Ethics



#### The triage process aims to:

- Ensure care to casualties according to:
  - 1. severity of injury
  - 2. need for treatment
  - 3. possibility of good quality survival
  - 4. availability of medical care
- Determine priority for evacuation.
- Organize the dispatching and evacuation of patients to hospital.
- Decide priority for surgical and other specific treatment.

## The Objective



### There are two major types of triage:

- **Primary** (first), pre-hospital triage; rescuer's triage; On scene prior to movement or at hospital.
- Secondary (second), incident dependent, probably prior to or during transport or upon arrival to hospital; medical triage made by specially trained physicians at an Advanced Medical Post (CCP) or at the receiving Hospital.

#### Primary and Secondary Triage

- Primary triage
  - 1st contact
  - Assign triage category
- Secondary triage
  - ongoing process that takes place after the patient has been moved to a treatment/holding area awaiting transport.

#### In The Treatment Area



Patients should be separated as tagged \_\_\_\_\_\_



# Why Triage and Tag?

- Sorting of patients to provide for the survival of the most patients
- Assignment of resources in the most efficient method
- Most severe survivable injuries receive rapid treatment
- Accountability of patients
- Family reunification

#### **Triage Categories**

- □ Red (1)= immediate critical patient
- Yellow (2)= delayed serious patient that could wait until all reds have been transported
- Green(3) = ambulatory / hold minor injuries
- Black = deceased (expectant)

## **Triage Categories**

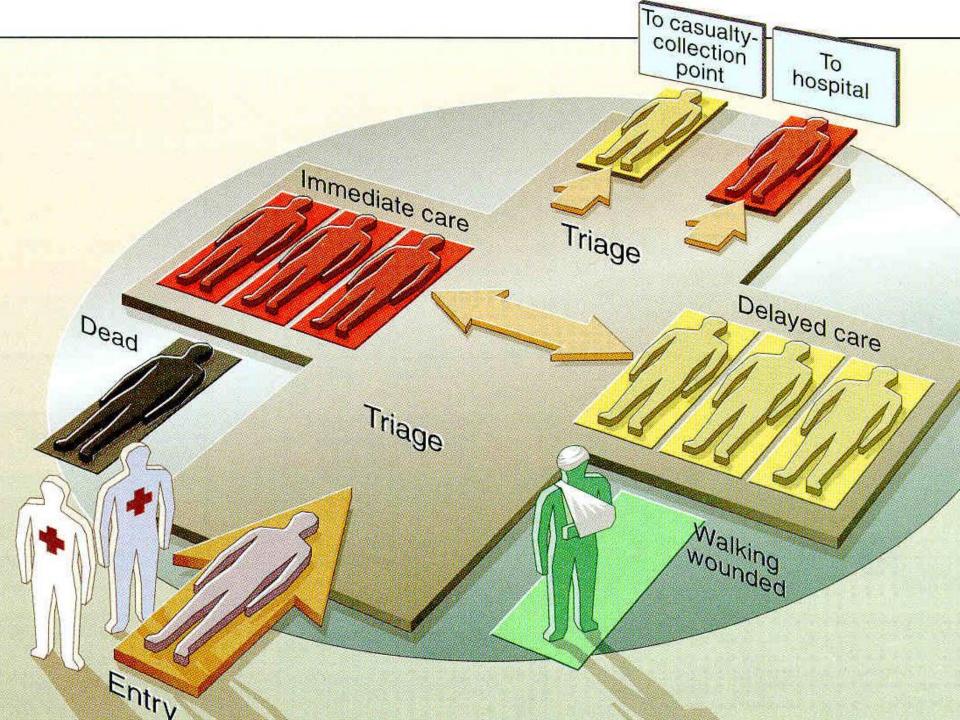
- RED Immediate/emergent
- YELLOW Urgent
- GREEN Nonurgent
- BLACK- Dead/little to no hope of survival











#### **RED** Triage Category (Immediate)

#### **Adult**

#### **Pediatric**

Respirations > 30 BPM (breaths/min, RR (respiratory rate)
CR (capillary refill time) > 2
seconds or
no palpable radial pulse
Cannot follow simple

Pneumothorax Hemorrhagic Shock Closed Head Injury

commands

Respirations < 15 or > 45
CR > 2 seconds or no palpable radial or brachial pulse Inappropriate "Pain"
(e.g., posturing) or "Unresponsive"



### **RED - Immediate**



- Severely injured but treatable injuries and able to be saved with relatively quick treatment and transport
- Examples
  - Severe bleeding
  - Shock
  - Open chest or abdominal wounds



#### Capillary nail refill test

The capillary nail refill test is a quick test done on the nail beds. It is used to monitor dehydration and the amount of blood flow to tissue.

Pressure is applied to the nail bed until it turns white. This indicates that the blood has been forced from the tissue. Once the tissue has blanched, pressure is removed. Return of blood is indicated by the nail turning back to a pink color. This test measures how well the vascular system works in hands and feet. If there is good blood flow to the nail bed, a pink color should return in less than 2 seconds after pressure is removed. Blanch times that are greater than 2 seconds may indicate: Dehydration, SHOCK, Peripheral vascular disease (PVD), Hypothermia

# YELLOW Triage Category (Delayed)

Adult: respirations, capillary refill, and mentation are

normal

Isolated burns

- Extremity fractures
- Stable other trauma
- Most patients with medical complaints



# Yellow - Delayed



Injured and unable to walk on their own. Potentially serious injuries but stable enough to wait a short while for medical treatment

- Examples
  - Burns with no respiratory distress
  - Spinal injuries
  - Moderate blood loss
  - Conscious with head injuries



## **GREEN Triage Category (Minor)**

- "Walking wounded"
- Psychological casualties
- Always look for children being carried and assess them



# Green – Non-Urgent



- Minor injuries that can wait for a longer period of time for treatment.
- May or may not be able to ambulate
- Examples
  - Minor fractures
  - Minor bleeding
  - Minor lacerations

## **GREY Triage Category (Expectant)**

 This category is not currently in use and <u>must</u> not be utilized until approved by MIEMSS

 It is included on the paper tags in anticipation of national recognition and acceptance in the future

 GREY is for the patient that is not likely to survive even with emergent interventions

### **BLACK Triage Category (Deceased)**

- Obvious mortality or death (pulseless and apneic)
  - Decapitation
  - Blunt trauma arrest
  - Injuries incompatible with life (future GREY)
  - Brain matter visible (future GREY)

## **Blunt trauma arrest (Agonal)**

 Severely injured patients (Class IV Shock) who are non-responders to fluid resuscitation.

Markers

- Heart rate less than 60
- Systolic blood pressure less than 80
- Any ventricular fibrillation, ventricular tachycardia, or pulseless
- Loss of signs of life absent respirations, absent pupil response, GCS 3 - 4

### Black - Deceased



- Dead or obviously dying. May have signs of life but injuries are incompatible with survival.
- Handle based on local protocols
- Examples
  - Cardiac arrest
  - Respiratory arrest with a pulse
  - Massive head injury
- Can be psychologically difficult to tag a child as black



## **Triage Coding**

**Priority treatment** 

Color

**Immediate** 1

RED

Urgent 2

Yellow

Delayed 3

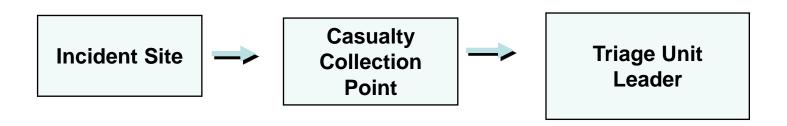
Green

Dead 0

**Black** 



# Triage: A rapid approach to prioritizing a large number of patients





# JumpSTART

### **Triage**

- Triage should be performed RAPIDLY
- Utilize START/
   JumpSTART Triage to
   determine priority
- 30–60 seconds per patient



 Affix tag on left upper arm or leg

#### The "START" System of Triage

- using START Triage, evaluate victims and assign them to one of the following four categories:
  - Walking wounded/minor (green)
  - Delayed (yellow)
  - Immediate (red)
  - Deceased/expectant (black)

#### **Triage: Sorting of Patients**

- You can't commit to "one-on-one" care
- ☐ You have to be fast 30 sec or less per patient
- Very limited treatment is provided
  - Manually open airways
  - Clear airway with finger sweep
  - Control major bleeding

# "START" Focus on tagging the patients

□ BEGIN...

Clear out all **ambulatory patients** – tag Green

- Rest of the patients require MORE triage 3 steps: They will be either red, yellow or black.
  - Respiratory effort
  - Pulses/perfusion
  - Mental status

#### START – 4 things to think about...

- Ability to follow directions and walk
- Respiratory effort
- Pulses/perfusion
- Mental status



# START/JumpSTART

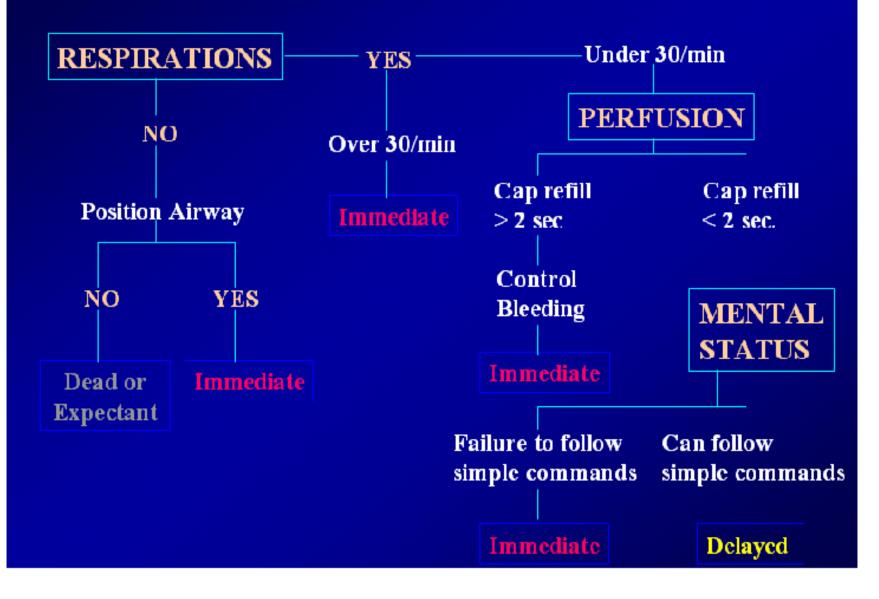
Categorize the patients by assessing each patient's *RPMs...* 

**✓** Respirations

**✓**Pulse/perfusion

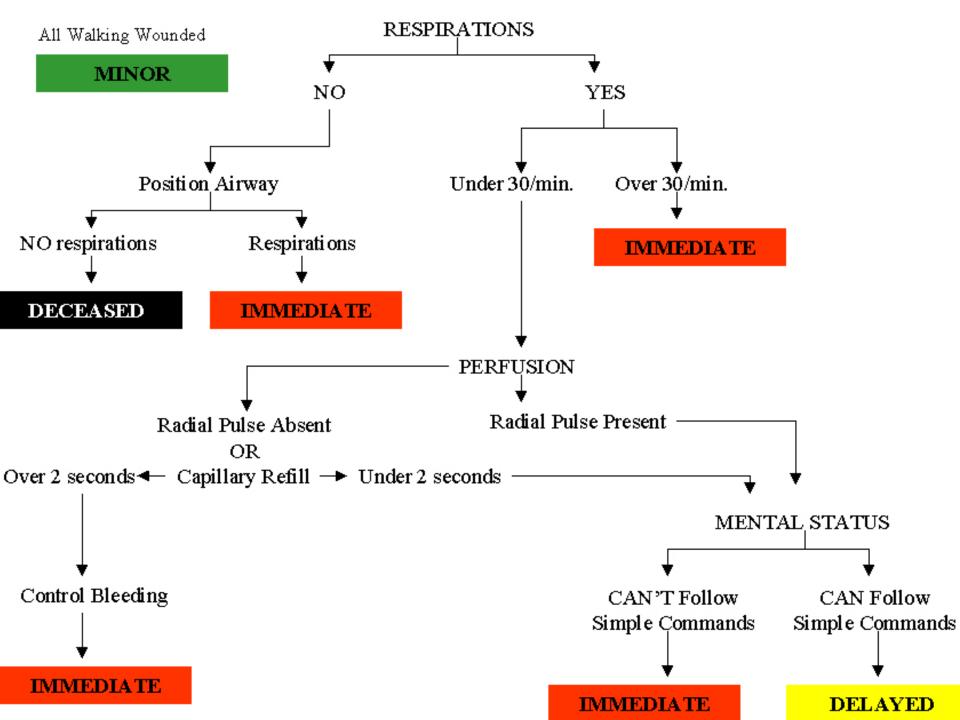
✓ Mental Status

### **START Triage**



### **Mnemonic**

30 Can do



### START - JumpSTART Triage

 Clear the "walking wounded" with verbal instruction:

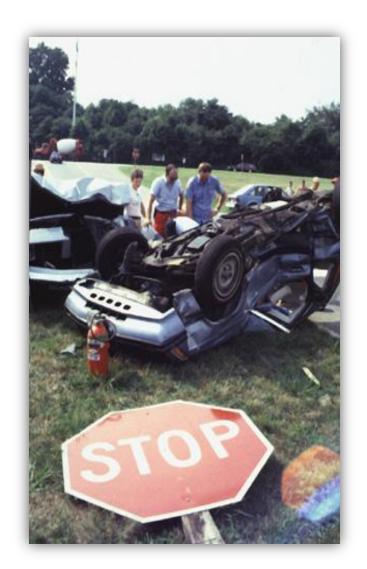
If you can hear me and you can move, walk to...

- Direct patients to the casualty collection point (CCP) or treatment area for detailed assessment and medical care
- Assign a Green Minor Manager to the area to control patients and manage area
- Tag will be issued at the CCP
- These patients may be classified as MINOR

### START/JumpSTART

Now use START/JumpSTART to assess and categorize the remaining patients...

USE <u>COLORED</u> RIBBONS ONLY

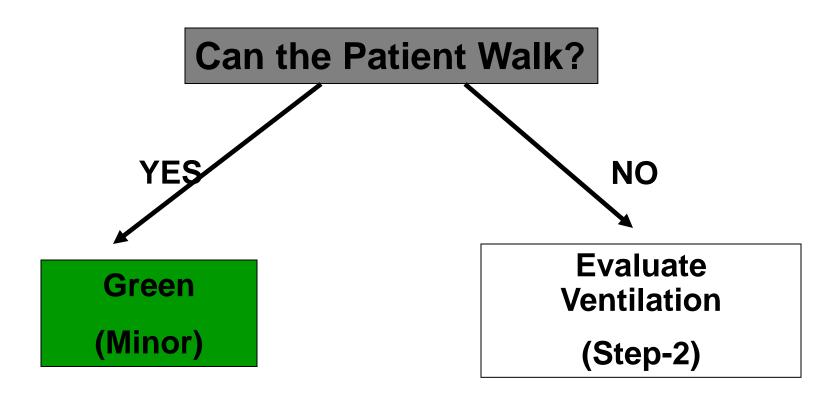




# START - Step 1 Respiratory Effort

- Not breathing manually open their airway
  - If they start breathing tag RED
  - If they don't start breathing tag BLACK
- Breathing >30 or <10 = tag RED</p>
- □ Breathing normal 10-30 = go to next step

### START First Step



# START/JumpSTART—RPM RESPIRATIONS

Is the patient breathing?

#### Yes

Adult – respirations > 30 = Red/Immediate

Pediatric – respirations < 15 or > 45 = **Red/Immediate** 

Adult – respirations < 30 = check perfusion

Pediatric – respirations > 15 and < 45 = check perfusion

### START/JumpSTART—RPM

#### RESPIRATIONS

Is the patient breathing?

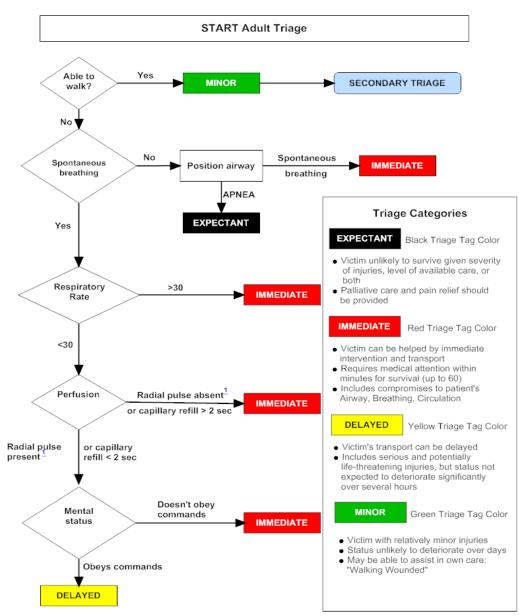
#### No

Reposition the airway...

Respirations begin = <a href="IMMEDIATE/RED">IMMEDIATE/RED</a>

If patient is **APNEIC** 

- Adult deceased = BLACK
- Pediatric: Pulse Present give 5 rescue breaths
  - respirations begin =
    <u>IMMEDIATE/RED</u>
  - absent respirations deceased = BLACK

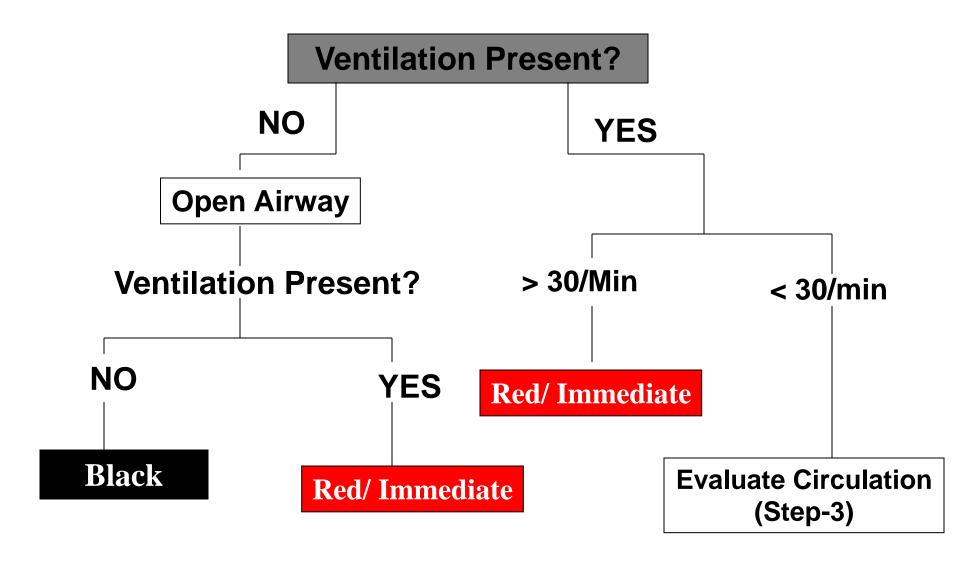


# START – Step 2 Pulses/Perfusion



- Check for Radial pulse.
  - Radial pulse absent = tag RED
  - Radial pulse present = go to next step

### **START Step-2**



### START/JumpSTART—RPM

#### PULSE/PERFUSION

Is the RADIAL pulse present?

<u>Is capillary refill (CR) LESS than < 2</u> seconds?

#### <u>Yes</u>

Check mental status

#### <u>No</u>

Adult: Pulse absent or

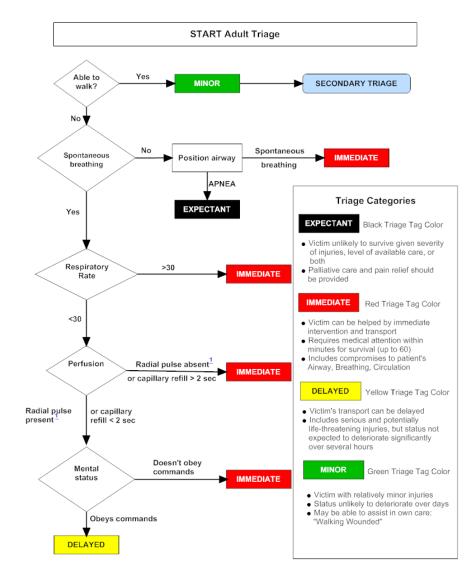
CR > 2 seconds patient

= IMMEDIATE/RED

Pediatric: No palpable

pulse patient =

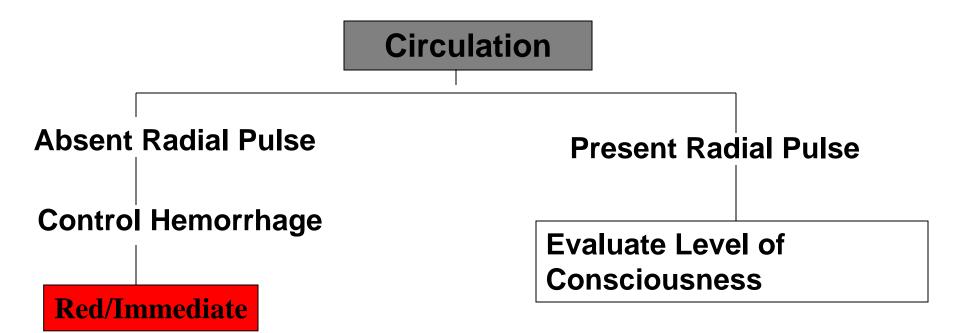
**IMMEDIATE/RED** 



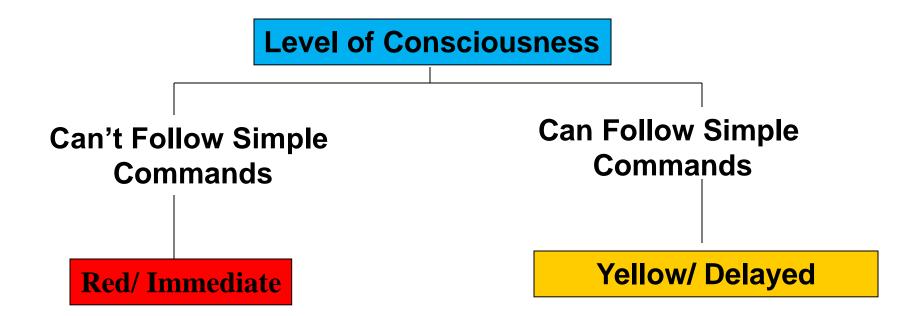
### START - Step 3 Mental Status

- You are assessing whether or not the person can follow a simple command.
  - "Squeeze my hand"
- Can follow a simple command = tag YELLOW
- Cannot follow a simple command = tagRED

### START Step-3



### START Step-4



### START/JumpSTART—RPM

#### **MENTAL STATUS...**

Can the patient follow simple commands?

Adult = <u>DELAYED / YELLOW</u>

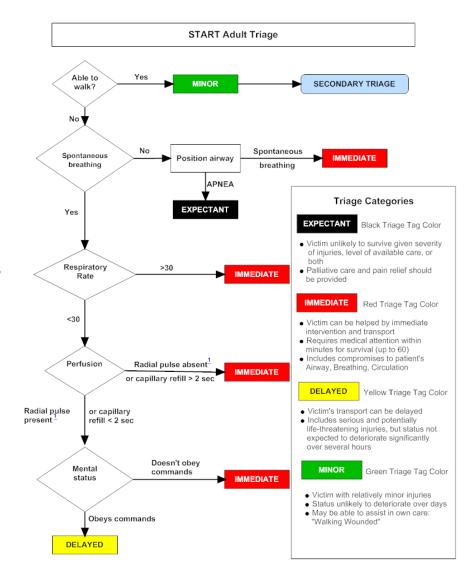
Pediatric: alert, verbal, or pain response is appropriate

= DELAYED / YELLOW

#### <u>No</u>

Adult = **IMMEDIATE / RED** 

Pediatric – "P" pain causes inappropriate posturing or "U" unresponsive to noxious stimuli = <u>IMMEDIATE/ RED</u>



### START/JumpSTART

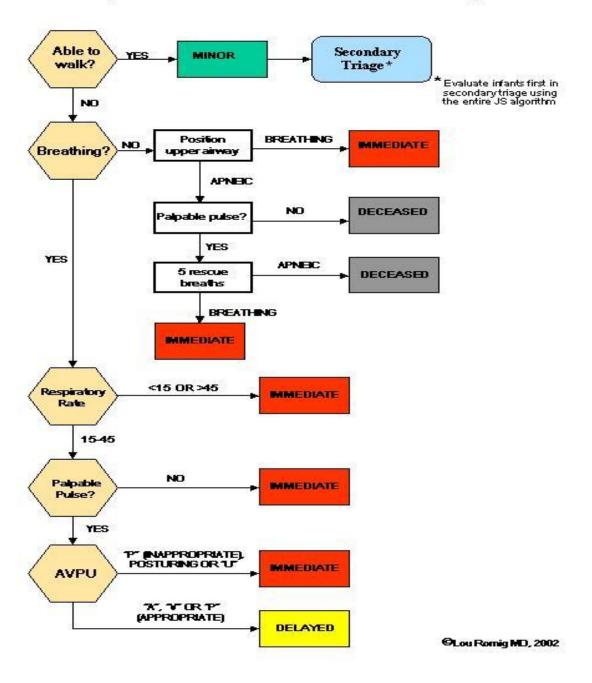
If the patient is <a href="MMEDIATE/RED">IMMEDIATE/RED</a> upon initial assessment...then, before moving the patient to the treatment area, attempt only life-saving interventions:

## Airway, Needle Decompression, Tourniquet, Antidote

<u>DO NOT ATTEMPT ANY OTHER</u>

<u>TREATMENT AT THIS TIME</u>

#### JumpSTART Pediatric MCI Triage®



- In children, circulatory failure usually follows respiratory failure.
- Apnea may occur relatively rapidly, rather than after a prolonged period of hypoxia.
- There may be a brief period when the child is apneic but not yet pulseless since the heart has not yet experienced prolonged hypoxia. It is felt that providing a brief trial of ventilations may help "jumpstart" their respirations.

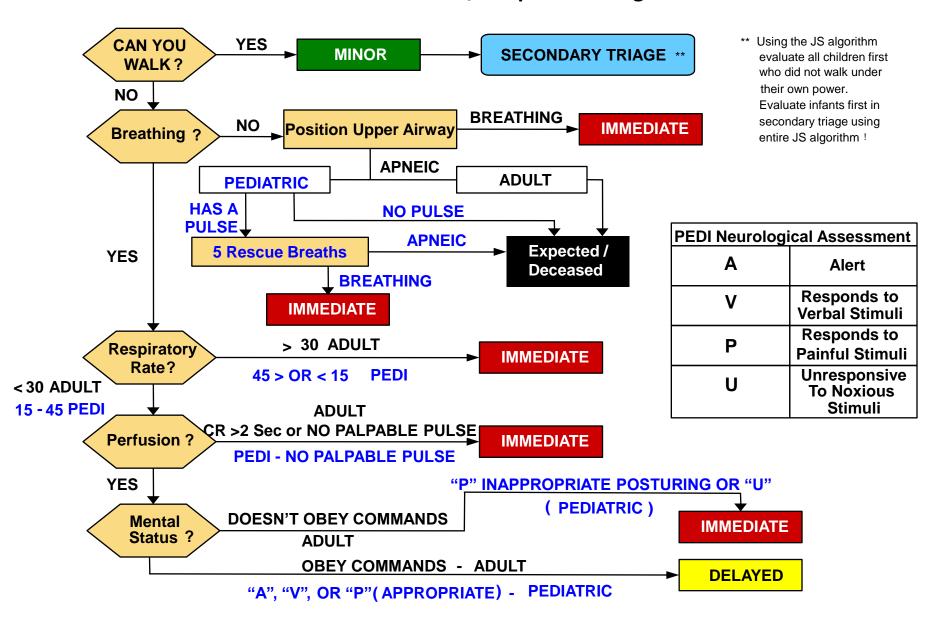
### JumpSTART: Age

The ages of "tweens and teens" can be hard to determine so the current recommendation is:

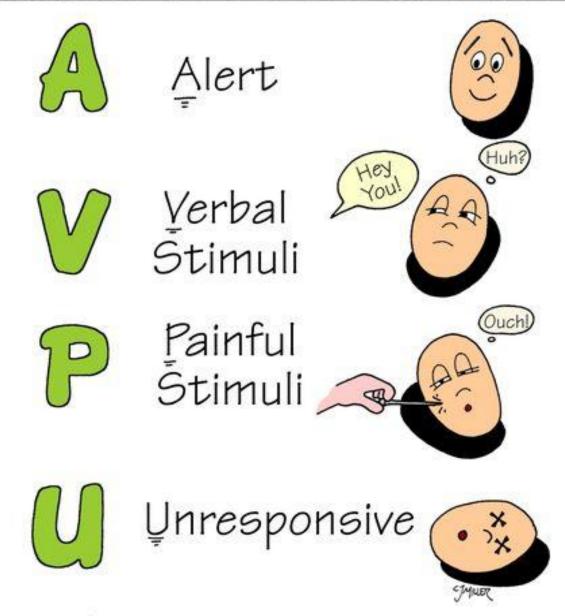
If a victim appears to be a **child**, use JumpSTART.

If a victim appears to be a **young adult**, use START

#### **Combined START/JumpSTART Triage**

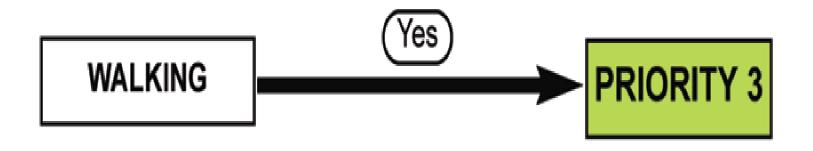


### LEVELS OF CONSCIOUSNESS

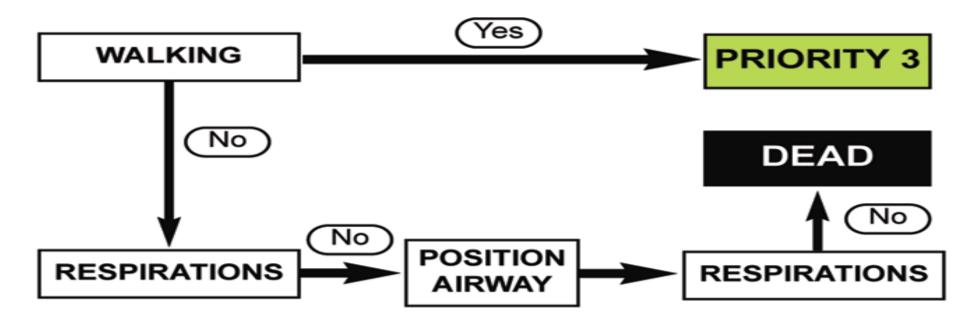


# AVPU

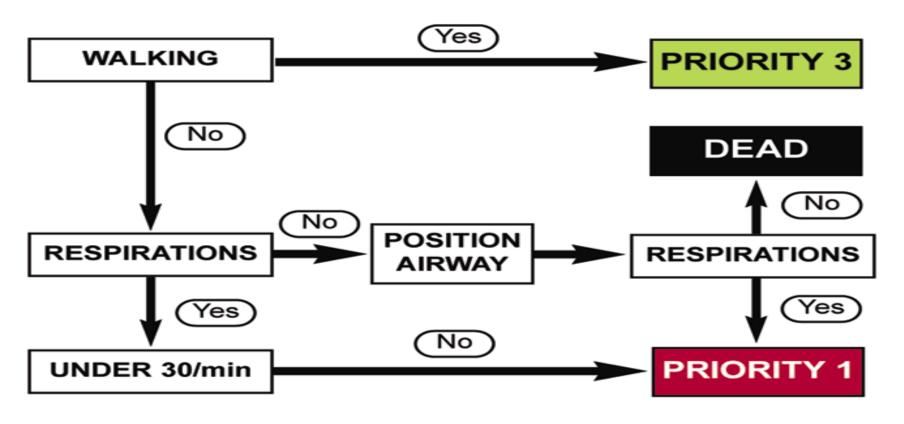
- Alert/awake not necessarily oriented
- Verbal responds to verbal stimuli before tactile/touch stimuli
  - You shout for the patients to open their eyes and their eyelids flicker or they open their eyes
  - In non-verbal children, evaluate the cry
- Painful responds to tactile stimuli; does <u>not</u> have to be painful stimuli but can be to touch
  - A flicker of the eyelids is a positive response
- Unresponsive there is absolutely no response large or small



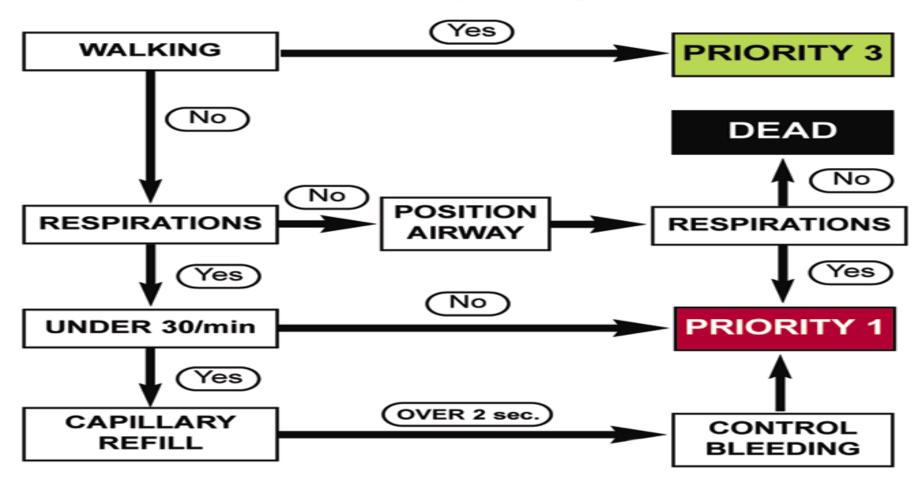
The first attempt at balancing resources and casualties/injured



Determining whether there is an airway and breathing



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



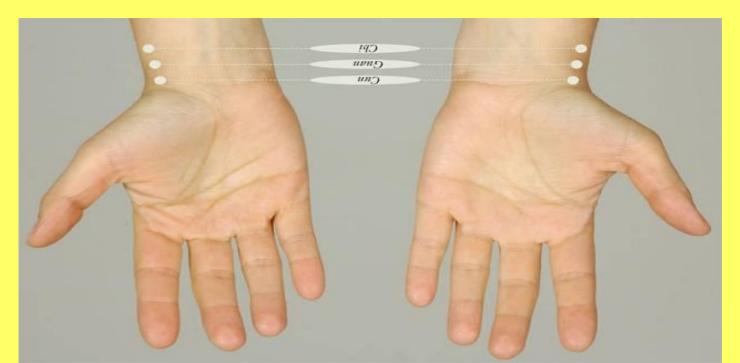
They have an airway, are breathing.

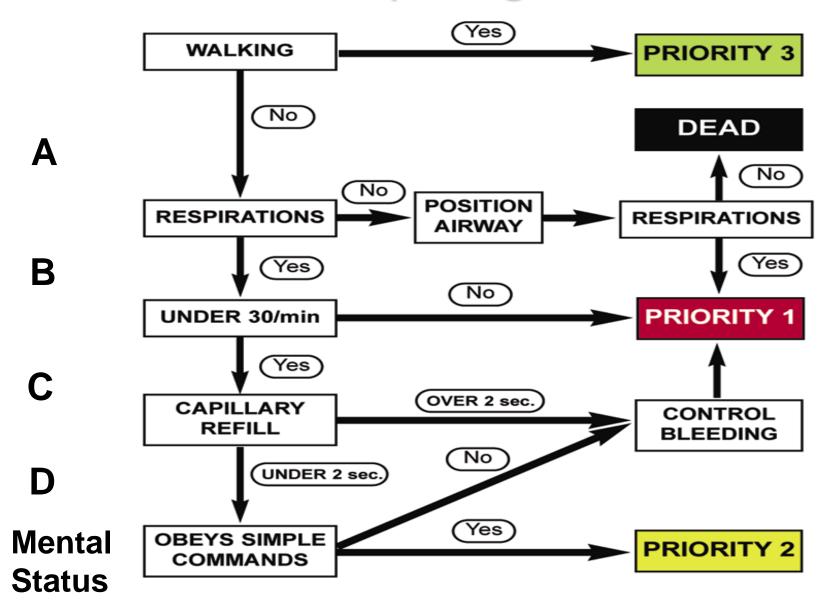
Are they circulating blood sufficiently?

### **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**





### PRIORITY 3

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

### DELAYED

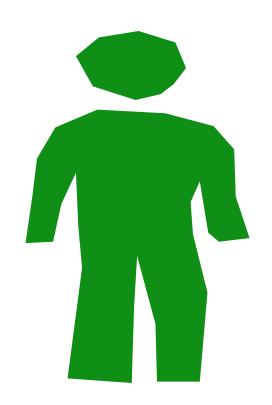
### Example

Patient walks over to you and has an obvious broken arm

Respirations are 22

Pulse is 124 (Radial)

He is awake, alert, and crying



### **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**

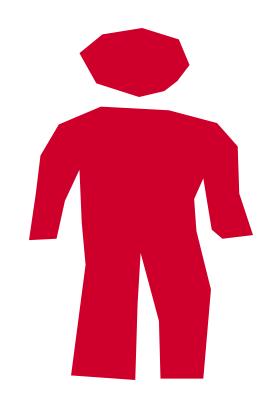
### Example

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

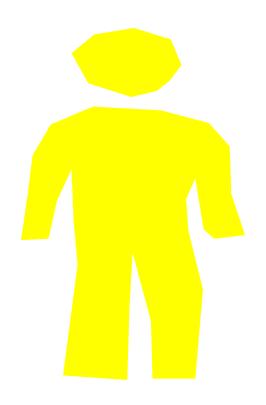
### Example

Patient states he can't move or feel his legs

Respirations are 26

Pulse is 110 (Radial)

He is awake and oriented



### EXPECTANT/DEAD

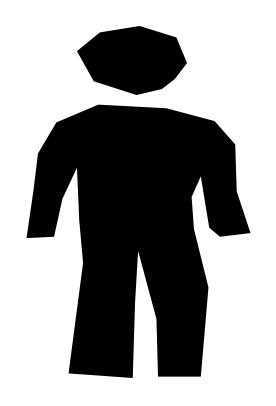
- Still require resources
- Focus of care is comfort
- Psychologically most challenging for healthcare providers

## Examples

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

Weak Carotid Pulse

She is unresponsive



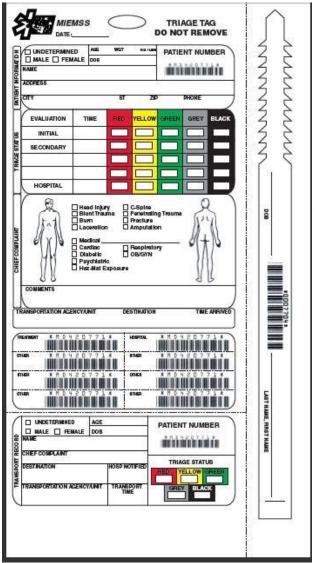
# **Triage Tag Sections**

- Patient information
- Triage status
- Chief complaint
- Transporting unit
- Peel-off bar codes
- Transport record

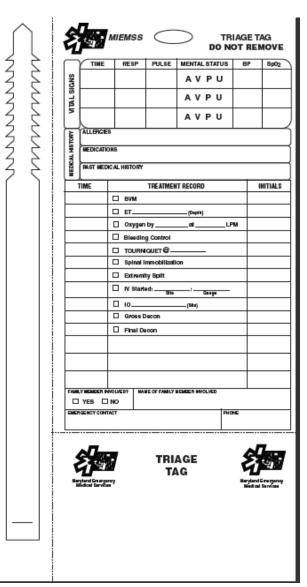
- Vital signs
- Medical history
- Treatment
- Family contact
- Wrist band

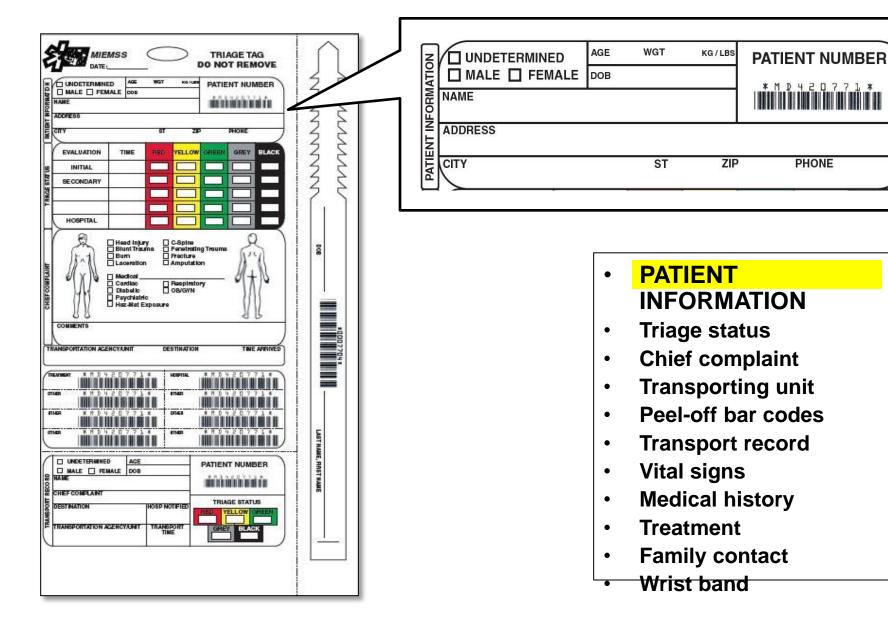
\* Triage tags should be used in all MCI scenarios, even when handheld device is employed

# Revised Paper Triage Tag

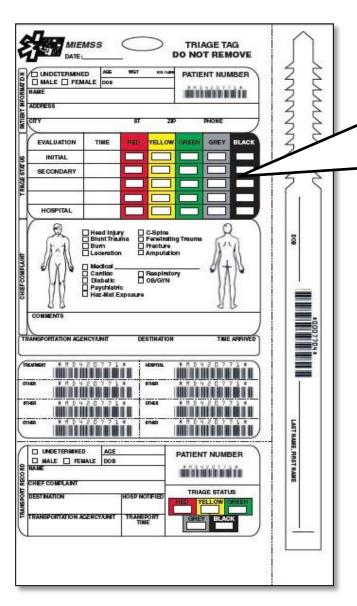








PHONE

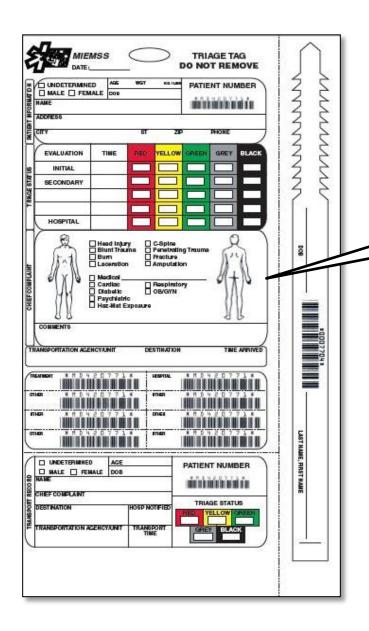


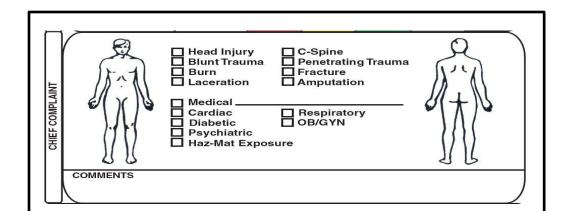
EVALUATION TIME RED YELLOW GREEN GREY BLACK
INITIAL
SECONDARY
HOSPITAL
HOSPITAL

The paper triage tag includes a **GREY** category for *future use* based on *anticipated* national acceptance.

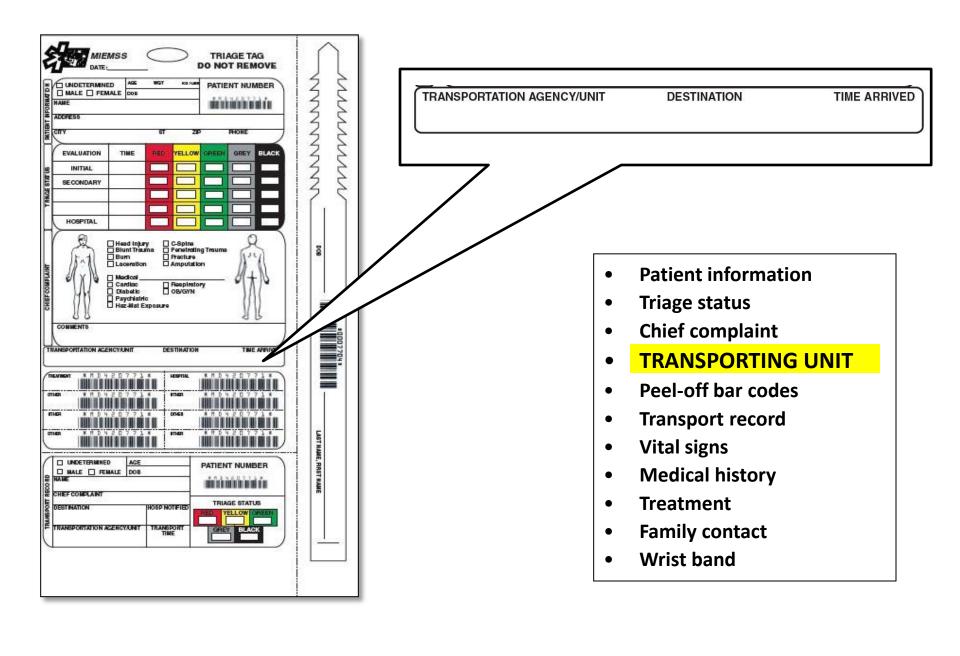
IT WILL NOT BE USED IN THE TRIAGE OF PATIENTS UNTIL APPROVED BY MIEMSS.

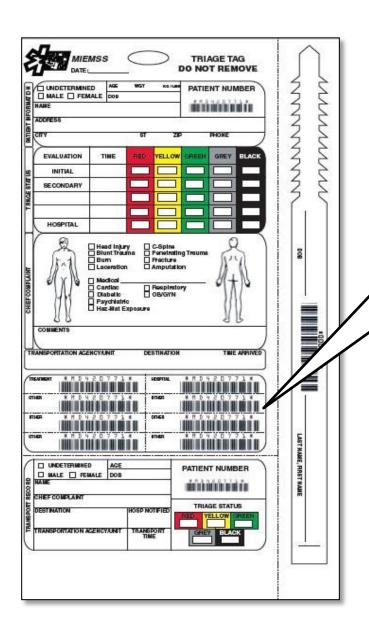
- Patient information
- TRIAGE STATUS
- Chief complaint
- Transporting unit
- Peel-off bar codes
- Transport record
- Vital signs
- Medical history
- Treatment
- Family contact
- Wrist band

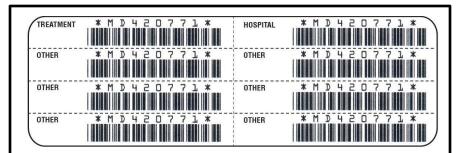




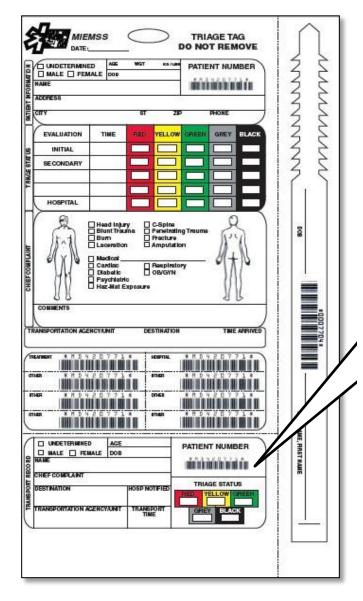
- Patient information
- Triage status
- CHIEF COMPLAINT
- Transporting unit
- Peel-off bar codes
- Transport record
- Vital signs
- Medical history
- Treatment
- Family contact
- Wrist band







- Patient information
- Triage status
- Chief complaint
- Transporting unit
- PEEL-OFF BAR CODES
- Transport record
- Vital signs
- Medical history
- Treatment
- Family contact
- Wrist band



| RECORD    | UNDETERMINED  MALE FEMALE NAME  CHIEF COMPLAINT | AGE<br>DOB |                   | PATIENT NUMBER                  |
|-----------|---|------------|-------------------|---------------------------------|
| TRANSPORT | DESTINATION                                     |            | HOSP NOTIFIED     | TRIAGE STATUS  RED YELLOW GREEN |
| TT.       | TRANSPORTATION AGENCY                           | /UNIT      | TRANSPORT<br>TIME | GREY BLACK                      |

- Detachable as a tear-off and as a peel-off sticky label
- Used to document patient movement
- Must be affixed to Transport Tactical Worksheet with the unit, priority, and destination marked and initialed.

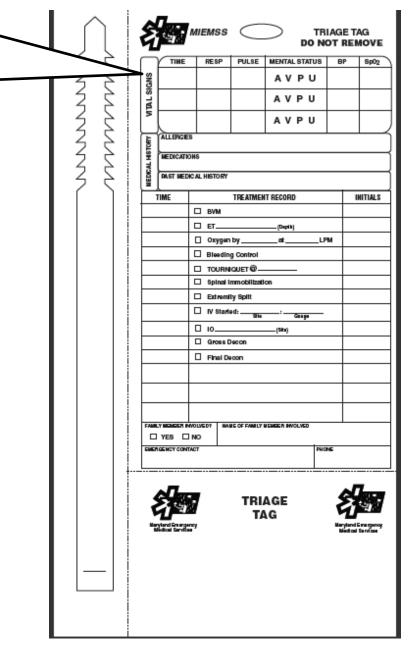
Commonly called the "Ticket"

- Patient information
- Triage status
- Chief complaint
- Transporting unit
- Peel-off bar codes
- TRANSPORT RECORD
- Vital signs
- Medical history
- Treatment
- Family contact
- Wrist band

| $\bigcap$ | TIME | RESP | PULSE | MENTAL STATUS | BP | Sp0 <sub>2</sub> |
|-----------|------|------|-------|---------------|----|------------------|
| SIGNS     |      |      |       | AVPU          |    |                  |
| VITAL SI  |      |      |       | AVPU          |    |                  |
| .IS       |      |      |       | AVPU          |    |                  |

| • | Patie | nt into | rmation |
|---|-------|---------|---------|

- Triage status
- Chief complaint
- Transporting unit
- Peel-off bar codes
- Transport record
- VITAL SIGNS
- Medical history
- Treatment
- Family contact
- Wrist band



ALLERGIES

MEDICATIONS

PAST MEDICAL HISTORY

- Patient information
- Triage status
- Chief complaint
- Transporting unit
- Peel-off bar codes
- Transport record
- Vital signs
- MEDICAL HISTORY
- Treatment
- Family contact
- Wrist band





|           | TIME                                | RESP | PULSE | MENTAL STATUS | BP | 8p02 \ |  |
|-----------|-------------------------------------|------|-------|---------------|----|--------|--|
| GNS       |                                     |      |       | AVPU          |    |        |  |
| MTALSIGNS |                                     |      |       | AVPU          |    |        |  |
| 5         |                                     |      |       | AVPU          |    |        |  |
| HSTORY    | ALLENCES                            |      |       |               |    |        |  |
| 75        | MEDICATIONS                         |      |       |               |    |        |  |
| E         | PAST MEDICAL HISTORY                |      |       |               |    |        |  |
|           | TIME THE STREET DESCRIPTION MUTILIA |      |       |               |    |        |  |

| <b>=</b>        |         |                                 |       |          |
|-----------------|---------|---------------------------------|-------|----------|
| TIME            |         | TREATMENT RECORD                |       | INITIALS |
|                 | □ BWW   | I                               |       |          |
|                 | □ ET_   | (Dept b)                        |       |          |
|                 |         | gen byat                        | _LPM  |          |
|                 | ☐ Blee  | ding Control                    |       |          |
|                 | □ тои   | RNIQUET@                        |       |          |
|                 | ☐ Spir  | al Immobilization               |       |          |
|                 | □ Extr  | emity Split                     |       |          |
|                 | □ rvs   | tarled: Sie : Gaspe             | _     |          |
|                 | □ ю_    | (58x)                           |       |          |
|                 | ☐ Gro   | ss Decon                        |       |          |
|                 | ☐ Films | l Decon                         |       |          |
|                 |         |                                 |       |          |
|                 |         |                                 |       |          |
|                 |         |                                 |       |          |
| FAMILY MONECY I | WOLVED? | MANIE OF FAMILY NEWSER INVOLVED |       |          |
| ☐ YES ☐         |         |                                 |       |          |
| EMERICE NOV CON | TACT    |                                 | PHONE |          |

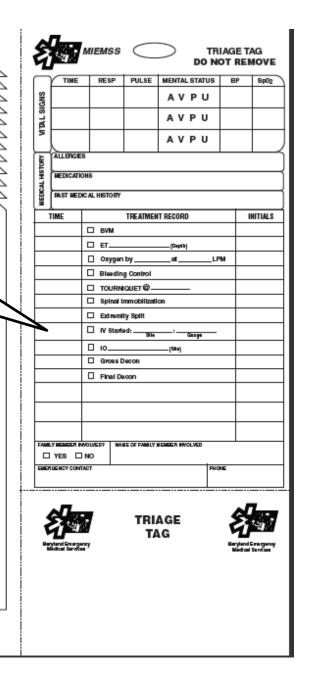


TRIAGE TAG

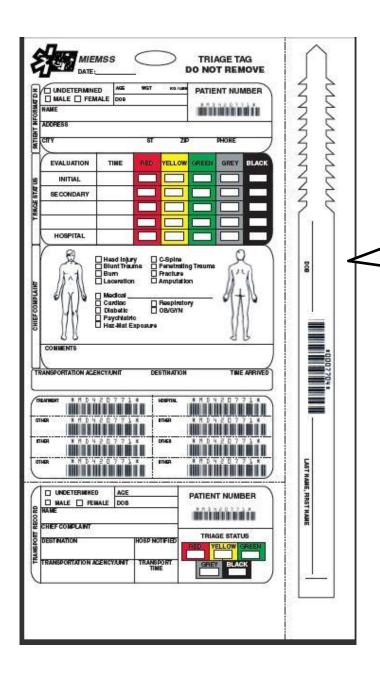


| TIME | TREATMENT RECORD                                  | INITIALS |
|------|---|----------|
|      | □ в∨м   |          |
|      | (Depth)   |          |
|      | ☐ Oxygen byatLPM                                  |          |
|      | ☐ Bleeding Control                                |          |
|      | ☐ TOURNIQUET@                                     |          |
|      | ☐ Spinal Immobilization                           |          |
|      | ☐ Extremity Split                                 |          |
|      | ☐ IV Started:———————————————————————————————————— |          |
|      | □ IO(Site)  |          |
|      | ☐ Gross Decon                                     |          |
|      | ☐ Final Decon                                     |          |
|      |   |          |
|      | 1   |          |
|      |   |          |
|      |   |          |

- Patient information
- Triage status
- Chief complaint
- Transporting unit
- Peel-off bar codes
- Transport record
- Vital signs
- Medical history
- TREATMENT
- Family contact
- Wrist band



|       | MEMBER PWOLVED? NAME OF FAMILY MEMBER INVOLVE | 50    |                    |       | 8          | G <sub>i</sub> | MIEMSS        |              | DO NO          |         | MOVE           |
|-------|---|-------|--------------------|-------|------------|----------------|---------------|--------------|----------------|---------|----------------|
|       |   | 1     |                    | 3 6 1 | 8          | TIME           | RESP          | PULSE        | A V P U        | BP      | Sp02           |
| EMENG | ENCY CONTACT                                  | PHONE |                    | 3 5   | MTAL SIGNS |                | +             |              | AVPU           |         | $\vdash$       |
|       |   |       |                    |       | N I        |                | +             |              | AVPU           |         |                |
|       |   |       |                    | 2 2   |            | ALLENGE        | 8             |              |                |         | $\vdash \prec$ |
|       |   |       |                    | 2 2 1 | AL HISTORY | MEDICATION     | DHS           |              |                |         | $\neg$         |
|       |   |       |                    | 3 5 1 | NEDICAL    | PAST MED       | IC AL HISTORY |              |                |         | $\overline{}$  |
|       |   |       | - 1                |       | 戸          | IME            | ВУМ           | TREATME      | NT RECORD      | -       | MITIALS        |
|       |   |       | - 1                |       |            |                | □ ET          |              | (Depth)        |         |                |
|       |   |       | - 1                |       | $\vdash$   |                | ☐ Oxyger      | •            | atLPI          | 4       |                |
| •     | Patient information                           |       | <b>\</b>           |       |            |                | □ TOURN       | IQUET@_      |                |         |                |
|       |   |       | $\setminus$ $\Box$ |       |            |                | ☐ Spinal      |              | lon            |         |                |
| •     | Triage status                                 |       |                    |       |            |                | ☐ IV Star     | ed: Sie      | - Grape        |         |                |
| •     | Chief complaint                               |       | / /                |       | $\vdash$   |                | ☐ IO          | Decon        | (58x)          | +       |                |
| •     | Transporting unit                             |       |                    |       |            |                | ☐ Final D     | econ         |                |         |                |
| •     | Peel-off bar codes                            |       |                    |       |            |                |               |              |                |         |                |
| •     | Transport record                              |       | - 1                |       |            |                |               |              |                |         |                |
| •     | Vital signs                                   |       | - 1                |       | $\neg$     | YES C          | I NO          | NE OF FAMILY | MEMBER MYOLVED | _       |                |
| •     | Medical history                               |       | - 1                |       |            |                |               |              |                |         |                |
|       | Treatment                                     |       | - 1                |       | 4          | <b>.</b>       | 7             | TRI          | AGE            | Ø       | AUGE           |
|       |   |       | - 1                |       | 5          |                | <b>4</b>      |              | AG             | 91      | 9              |
| •     | FAMILY CONTACT                                |       | - 1                |       | M          | edical Sarvice | <b>"</b>      |              |                | Med rai | Services       |
| •     | Wrist band                                    |       |                    |       |            |                |               |              |                |         |                |
|       |   | I     | - 1                |       |            |                |               |              |                |         |                |
|       |   |       | - 1                |       |            |                |               |              |                |         |                |
|       |   |       | L                  |       |            |                |               |              |                |         |                |



Removable wrist band has been added with an area for DOB and name

- Patient information
- Triage status
- Chief complaint
- Transporting unit
- Peel-off bar codes
- Transport record
- Vital signs
- Medical history
- Treatment
- Family contact
- WRIST BAND

## 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 <u>first</u>

# Secondary Triage

#### GLASGOW COMA SCORE

| COCH COMPT CO  | <u> </u>  |                            |             |  |
|--|---|----------------------------|-------------|--|
| EYE OPENING:   |   |                            |             |  |
| SPONTANE TO VOICE TO PAIN NONE   | ous   | 4<br>3<br>2<br>1           |             |  |
| NO RESPO   | ED<br>)<br>RIATE WORDS<br>HENSIBLE WORDS<br>NSE | 5<br>4<br>3<br>2<br>1      | +           |  |
| MOTOR RESPONSE OBEYS CO LOCALISES PAIN WITH PAIN FLEX PAIN EXTE NO RESPO | MMANDS<br>S<br>DRAWS<br>ION<br>NSION            | 6<br>5<br>4<br>3<br>2<br>1 | -<br>-<br>- |  |
| TOTAL GLASGOW<br>COMA SCALE  | 13 - 15<br>9 - 12<br>6 - 8<br>4 - 5<br>3        | 4<br>3<br>2<br>1<br>0      |             |  |
| RESPIRATORY<br>RATE  | 10 - 29<br>30 or more<br>6 - 9<br>1 - 5<br>0    | 4<br>3<br>2<br>1<br>0      |             |  |
| Systolic BP  | 90 or more<br>76 - 89<br>50 - 75<br>1 - 49<br>0 | 4<br>3<br>2<br>1<br>0      |             |  |
| = PRIORITY 3 = PRIORITY 2 or less PRIORITY 1                             |   | т                          | OTAL :      |  |

## Patient Tracking

- Document minimal information depending on your situation
  - Primary Triage
    - Very little documentation
  - Secondary Triage
    - More information
    - More assessment and treatment will be done
- Smart Tag has a command board to keep track of where the patient went.

#### Important Info

Remember that anyone who <u>can</u> <u>walk</u> at the scene will be tagged <u>GREEN</u>.

☐ The patient <u>could deteriorate</u> or you may determine a different priority when you re-triage at the scene or the ED.

## Morgue – Tagged Black

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



#### In The Treatment Area

- Designate someone to oversee the entire treatment area or each color depending on scale of the event
- Additional treatment can be provided in this area while awaiting transport
- Secondary triage is ongoing patients can and do deteriorate.

## Pediatric Modifications for START = <u>JUMPSTART</u>

- ☐ Kids Are A Little Different
  - Expect children to be part of a disaster
  - JumpStart modified START for kids
  - Designed for children ages 1-8 y/0



## Pediatric Modifications - RPMs

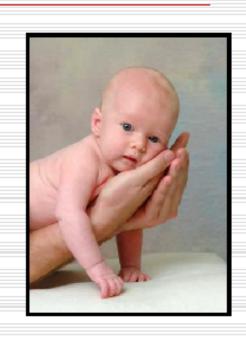
- Respiratory effort not breathing
  - Open the airway
  - If the patient starts breathing tag RED
  - If apneic and no pulse tag BLACK
  - If apneic with pulse try 5 rescue breaths
  - If still apneic tag BLACK
  - If starts breathing tag RED
  - □ Respirations < 15 or > 45 tag RED
  - Respirations 15-45 go to next step (Pulse)

#### Pediatric START - RPMs

- Pulse
  - No distal pulse tag RED
  - Pulse present go to next step (Mental)
- Mental status use AVPU
  - Alert, responds to verbal or responds to pain = tag YELLOW
  - Inappropriate response, posturing or unresponsive tag RED

All Babies <u>Under 1 Year</u>
Get Secondary Triage
(Meaning <u>No Greens!</u>).

Follow JumpStart to Determine Yellow or **Red**.



#### **SMART TRIAGE TAG**



- A kit versus a group of tags
- Larger, easier to see colors
- Patient condition changes, tag changes
- Larger area for documentation
- Better Patient tracking system
- Decon/Hazmat capabilities

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

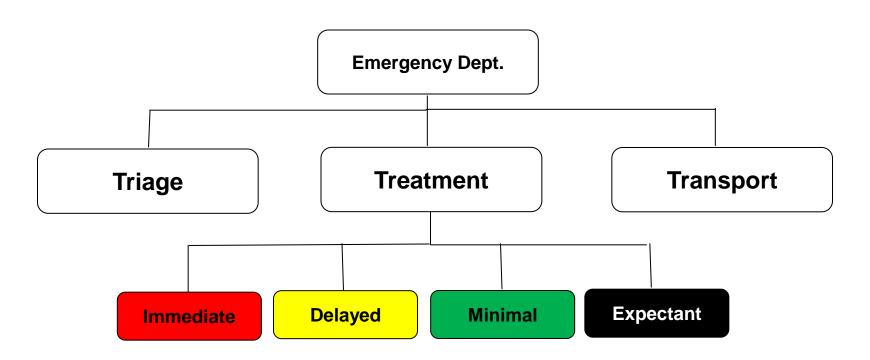


#### What about HAZMAT

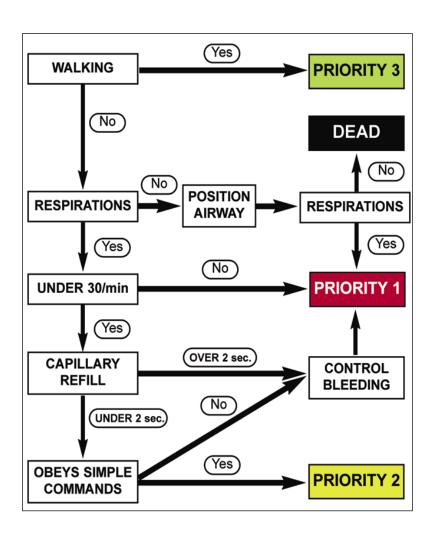
| Www.coping.codure.com | Palent Number  | CONTA        |
|-----------------------|--|--------------|
| INFECTIOUS            | By Whom : Fire EMS Hospital  Where: Un Scene Hospital  Wether: Primary Secondary | CONTAMINATED |
| AGENT(S)              | Equation : Well Day  | AGENTISI     |

| CHEMICAL AGENT  | RADIOLOGICAL AGENT  | BIOLOGICAL AGENT   |
|---|---|--|
| AGENT(S) Characteristics  Non Persistent Nerve Choking Persistent Nerve Choking Blister | Type: ALPHA BETA GAMMA  Dose Estimation Method & Estimated Dose    Clinical   Dosemeter | AGENT(S)  Characteristics  Infectious Non-infectious  If infectious, ensure infectious panel is displayed at all times |
| Signs / Symptoms  | Signs / Symptoms  | Signs / Symptoms   |

# Incident Command System



# 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 **IMMEDIATE** 16 17 18 19 20 PRIORITY 2 **URGENT** 15 16 17 18 19 20 PRIORITY 3 **DELAYED** 16 17 18 19 20 DEAD

Mangled Extremity Severity Score (MESS)

| Type  | Characteristics             | Injury   | Points |
|-------|-----------------------------|--|--------|
| 1     | Low energy                  | stab wound, simple closed fx, small-caliber GSW  | 1      |
| 2     | Medium energy               | Open/multilevel fx, dislocation, moderate crush  | 2      |
| 3     | High energy                 | shotgun, high-velocity GSW   | 3      |
| 4     | Massive crush               | Logging, railroad, oil rig accidents   | 4      |
| Shock | k Group                     |  |        |
| 1     | Normotensive<br>Transiently | BP stable  | 0      |
| 2     | hypotensive<br>Prolonged    | BP unstable in field but responsive to fliud<br>SBP <90mmHg in field and responsive to IV fluids | 1      |
| 3     | hypotension                 | In OR  | 2      |
| Ische | mia Group                   |  |        |
| 1     | None                        | Pulsatile, no signs of ischemia  | 1      |
| 2     | Mild                        | Diminished pulses without signs of ischemia<br>No dopplerable pulse, sluggish cap refill,        | 2      |
| 3     | Moderate                    | paresthesia, diminished motor activity   | 3      |
| 4     | Advanced                    | Pulseless, cool, paralyzed, numb without cap refill  | 4      |
| Age ( | Group                       |  |        |
| 1     | <30y/o                      |  | 0      |
| 2     | >30 <50                     |  | 1      |

MESS score: six or less consistent with a salvageable limb. Seven or greater amputation generally the eventual result.

- Crush Injury to Lower Extremity
  - Patients are assessed using the MESS score
  - Score of 7 or more: amputate
  - Score less than 7: attempt limb salvage

- Head Injury (adults)
  - Use the Glascow Coma Score (GCS)
  - Score 8 or above: treat
    - Better than 50% chance of a normal or good neurologic recovery
  - Score 7 or less: comfort care only

- Burn Injury: less than 50% chance of survival
  - 70% TBSA burn
  - Age > 60 with inhalational injury
  - Age < 2 with 50% TBSA burn
  - Age > 60 with 35% TBSA burn
- Comfort care only

- Abdominal Injury
  - No data to guide evaluation
  - 4 ml/kg hypertonic saline X 2
  - If no response, comfort care only
  - Role of handheld ultrasound?

## Time-2-Treatment

| ATS category | Treatment acuity (maximum waiting time) | Performance indicator (%) |
|--------------|---|---------------------------|
| 1            | Immediate                               | 100                       |
| 2            | 10 minutes                              | 80                        |
| 3            | 30 minutes                              | 75                        |
| 4            | 60 minutes                              | 70                        |
| 5            | 120 minutes                             | 70                        |

# Physiological Predictors

|             | Category I<br>Immediate   | Category 2<br>10 minutes               | Category 3<br>30 minutes           | Category 4<br>60 minutes         | Category 5<br>120 minutes        |
|-------------|---|--|------------------------------------|----------------------------------|----------------------------------|
| Airway      | Obstructed/<br>partially<br>obstructed                                      | Patent                                 | Patent                             | Patent                           | Patent                           |
| Breathing   | Severe<br>respiratory<br>distress/absent<br>respiration/<br>hypoventilation | Moderate<br>respiratory<br>distress    | Mild<br>respiratory<br>distress    | No respiratory distress          | No respiratory distress          |
| Circulation | Severe haemodynamic compromise/ absent circulation Uncontrolled haemorrhage | Moderate<br>haemodynamic<br>compromise | Mild<br>haemodynamic<br>compromise | No<br>haemodynamic<br>compromise | No<br>haemodynamic<br>compromise |
| Disability  | GCS <9  | GCS 9-12                               | GCS >12                            | Normal GCS                       | Normal GCS                       |

Risk factors for serious illness/injury — age, high risk history, high risk mechanism of injury, cardiac risk factors, effects of drugs or alcohol, rash and alterations in body temperature — should be considered in the light of history of events and physiological data. Multiple risk factors = increased risk of serious injury/illness. Presence of one or more risk factors may result in allocation to a triage category of higher acuity.

#### Assessment @ Triage

#### Its all about:

- Airway
- Breathing
- Circulation
- Disability
- Exposure/Environment

#### **Airway**

Always check patency

Consider C-Spine precautions



Occluded or compromised airway

ATS 1

#### Breathing

#### Assessment includes:

- Resp Rate
- Work of Breathing
- Detecting hypoxia is paramount!



#### Circulation

#### Assessment includes:

- Heart rate
- Pulse & pulse characteristics
- Cap refill



Signs of haemodynamic compromise

ATS 1 or 2

#### Disability

Assessment includes:

Use AVPU or GCS

Signs of altered level of consciousness

Ш

Important indicator of serious injury/illness

#### **Environment**

#### Assessment Includes:

Assess Temperature



 Hypo/hyperthermia are important indicators of serious illness!

#### PAIN

| Descriptor        | ATS category |  |  |
|-------------------|--------------|--|--|
| Very severe       | 2            |  |  |
| Moderately severe | 3            |  |  |
| Moderate          | 4            |  |  |
| Minimal           | 5            |  |  |

## The Eyes

| Category I | Category 2  | Category 3  | Category 4   | Category 5  |
|------------|---|---|--|-------------|
| Immediate  | 10 minutes  | 30 minutes  | 60 minutes   | 120 minutes |
|            | <ul> <li>Penetrating eye injury</li> <li>Chemical injury</li> <li>Sudden loss of vision with or without injury</li> <li>Sudden onset severe eye pain</li> </ul> | Sudden abnormal vision with or without injury     Moderate eye pain, e.g.     blunt eye injury     flash burns     foreign body | Normal vision  Mild eye pain, e.g. blunt eye injury flash burns foreign body | No eye pain |

#### High Risk Features

- Chronic Illness
- Cognitive impairment
- Co-morbidities
- Poisonings
- Severe pain



Use caution allocate higher ATS

## **Contaminated Patients**

- Patients with exposure (potential or real) to contaminants should be tagged as BLUE
- This category will continue to stay until patient is adequately decontaminated then follow START as usual
- Some recommend a "double tagging" with blue and the standard START color