

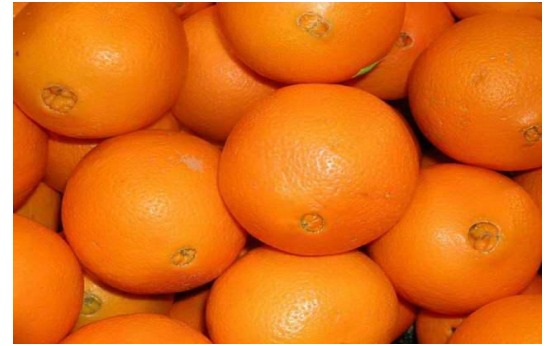


**MEDICAL UNIVERSITY – PLEVEN**  
**FACULTY OF PUBLIC HEALTH**  
**CENTER FOR DISTANCE LEARNING**

# **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.

- this is a sorting activity, developed originally 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.
- the Red Cross, for instance, uses a different system than the Civil Defense and this was different again from that used by the Armed Forces.

# **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.



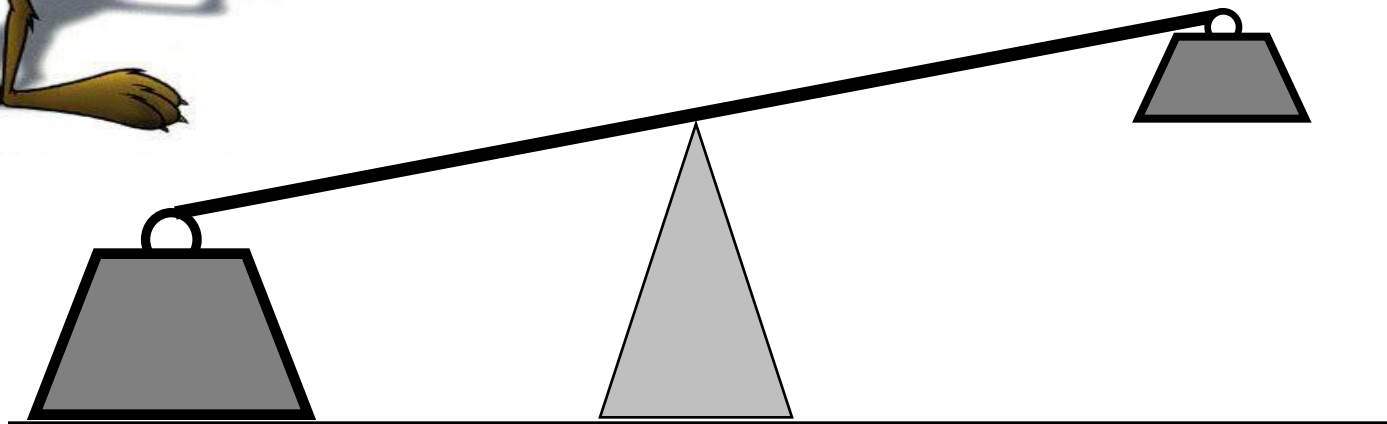
# Considerations During an MCI Response



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



# The Problem



**Casualties**

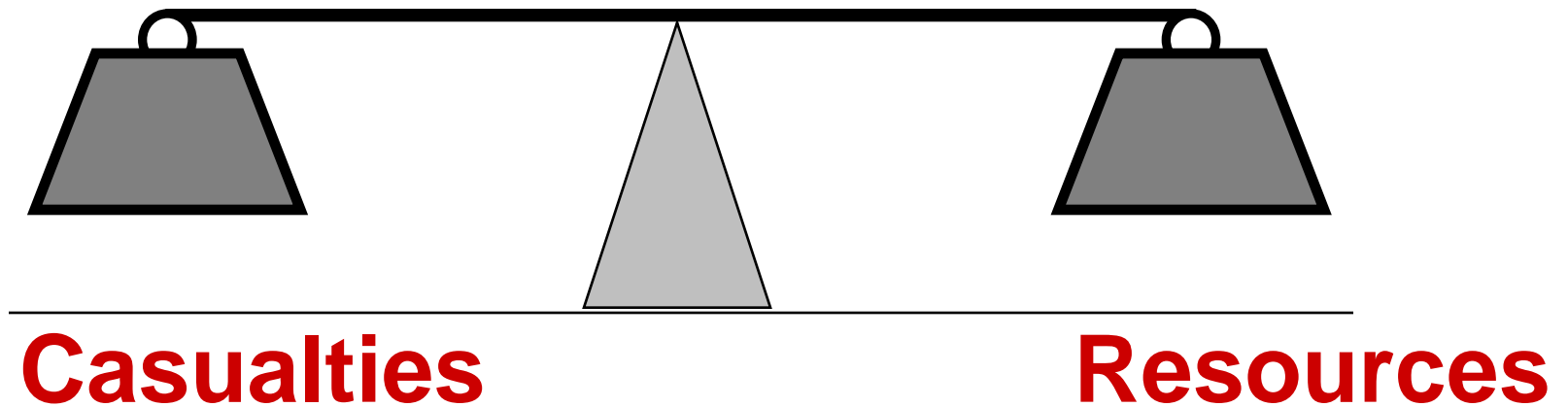
**Resources**

# 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)***, non medical pre-hospital triage; rescuer's triage; On scene prior to movement or at hospital (self transports)

***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

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## □ Primary triage

- 1<sup>st</sup> 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

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- ❑ 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

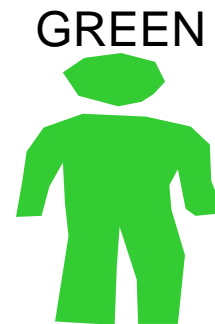
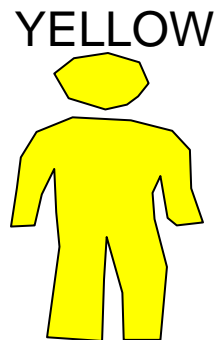
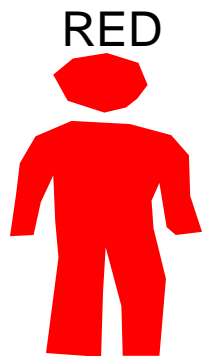
# Triage Categories

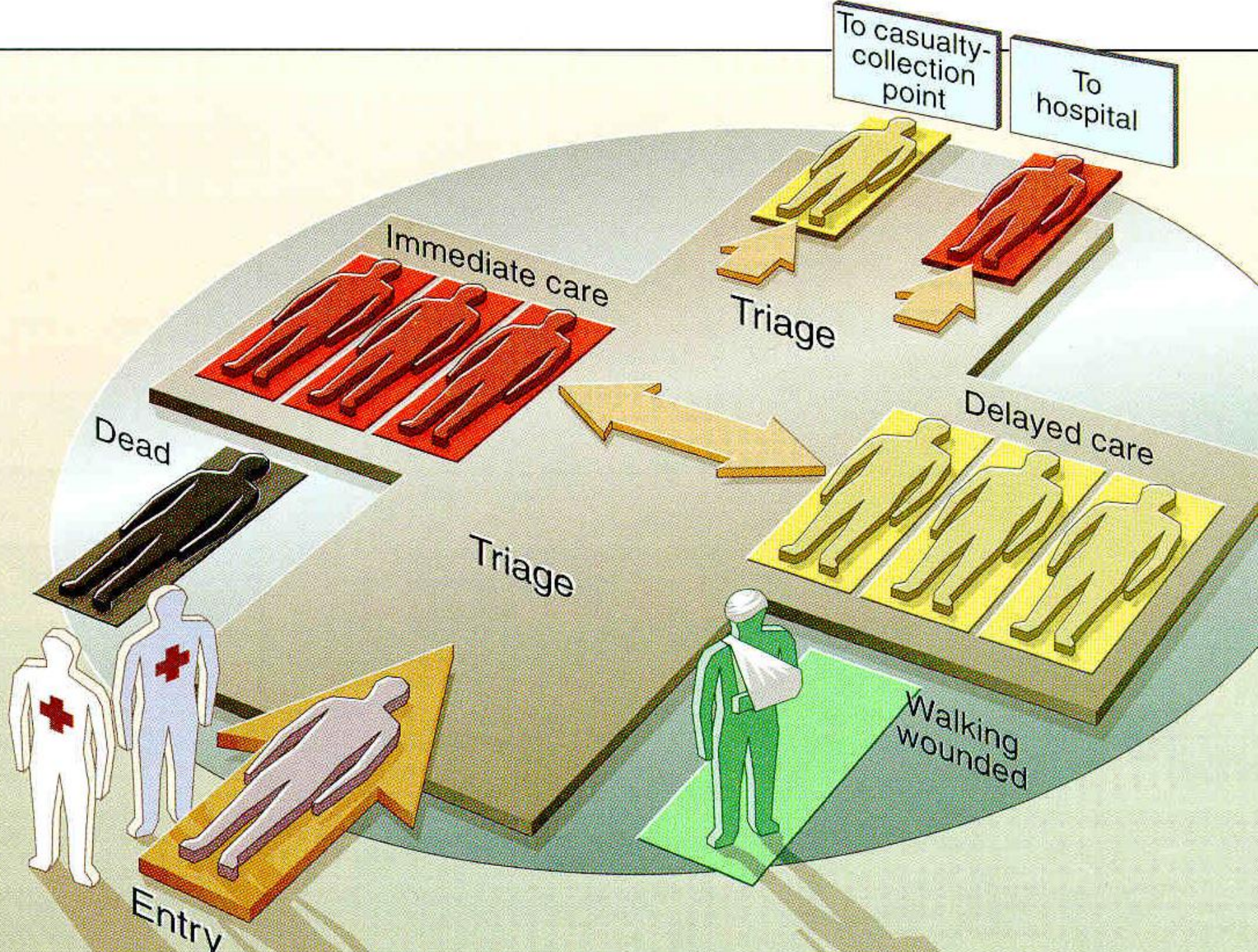
---

- **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

Respirations > 30 BPM  
(breaths/min, RR (respiratory  
rate))

CR (capillary refill time) > 2  
seconds or

no palpable radial pulse

Cannot follow simple  
commands

Pneumothorax  
Hemorrhagic Shock  
Closed Head Injury

## Pediatric

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***

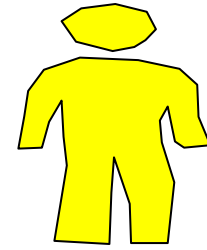
# YELLOW Triage Category (Delayed)

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 must 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)

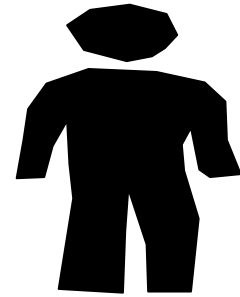
# Blunt trauma arrest (Agonal)

- 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

# SMART TAG



**Illinois Approved  
Triage Tag**



# Triage Coding

**Priority treatment**

**Color**

**Immediate 1**

**RED**

**Urgent 2**

**Yellow**

**Delayed 3**

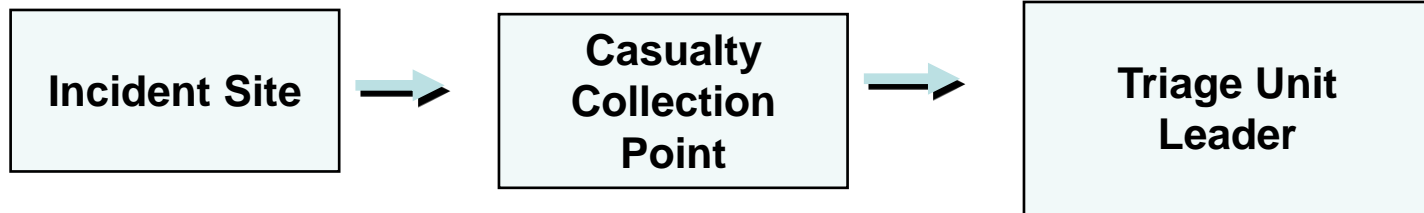
**Green**

**Dead 0**

**Black**



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



**S**imple **T**riage **A**nd **R**apid **T**reatment

***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.
    - **R**espiratory effort
    - **P**ulses/perfusion
    - **M**ental status
-

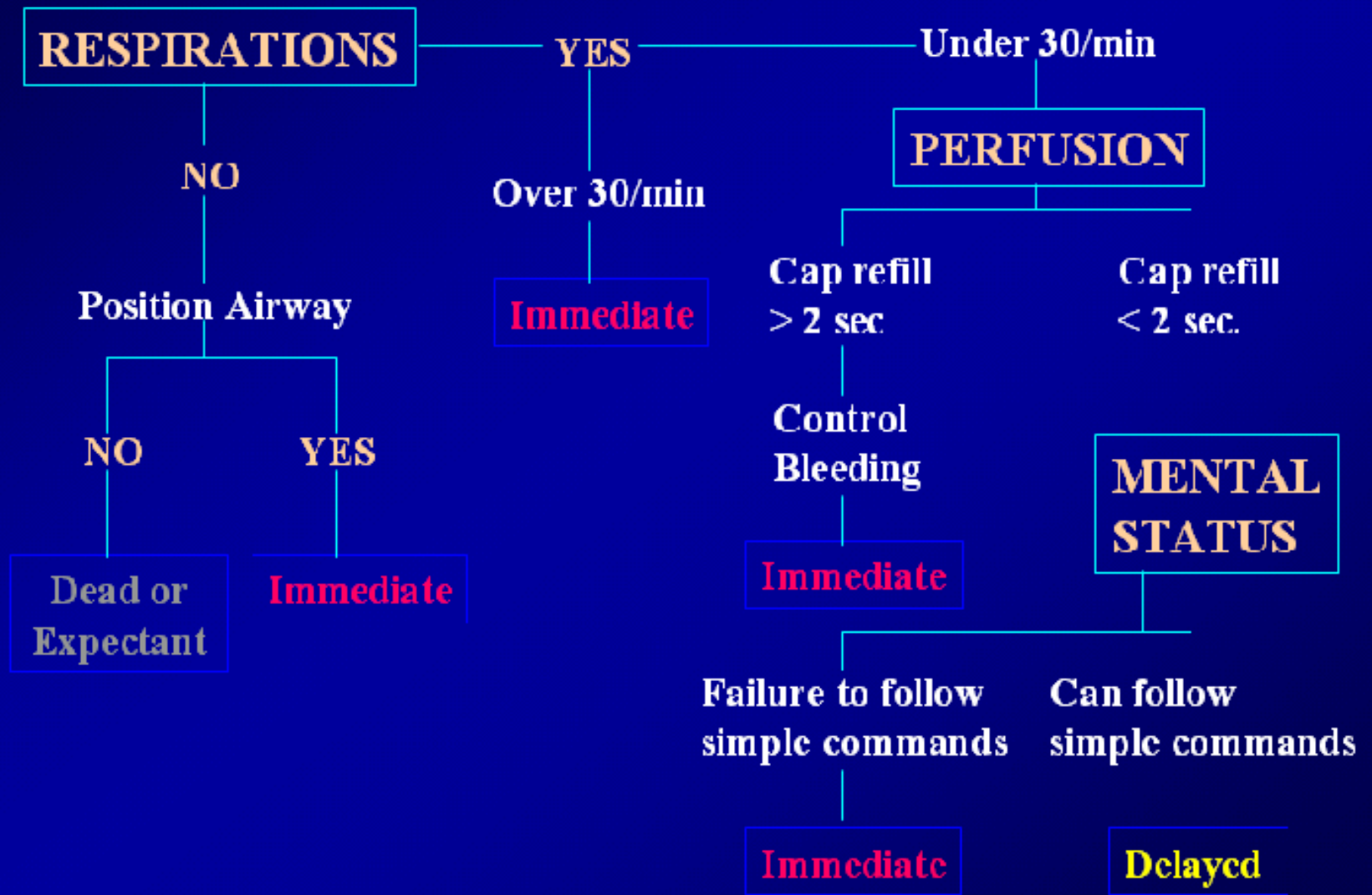
# **START – 4 things to think about...**

---

- Ability to **follow directions and walk**
- **R**espiratory effort
- **P**ulses/perfusion
- **M**ental status

**“RPM’S”**

# START Triage



# Mnemonic

R

P

M

30

2

Can do

All Walking Wounded

# RESPIRATIONS

NO

YES

**MINOR**

Position Airway

NO respirations

Respirations

**DECEASED**

**IMMEDIATE**

Under 30/min.

Over 30/min.

**IMMEDIATE**

PERFUSION

Radial Pulse Absent

OR

Capillary Refill

Over 2 seconds ←      → Under 2 seconds

Control Bleeding

**IMMEDIATE**

Radial Pulse Present

MENTAL STATUS

CAN'T Follow  
Simple Commands

CAN Follow  
Simple Commands

**IMMEDIATE**

**DELAYED**

# **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 COLORED  
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**
  
  - Breathing normal 10-30 = **go to next 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?

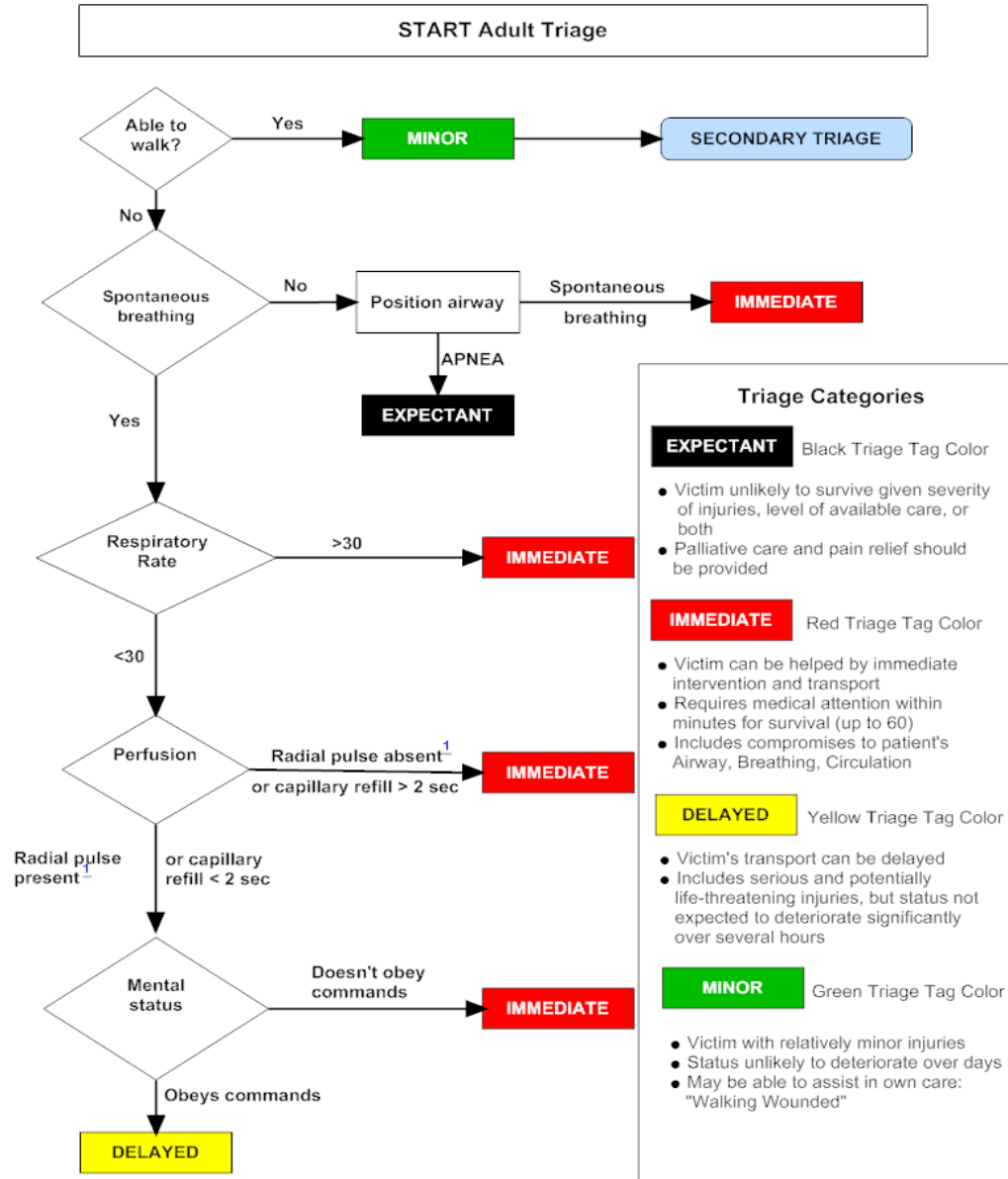
**No**

Reposition the airway...

Respirations begin = **IMMEDIATE/RED**

If patient is **APNEIC**

- Adult – deceased = BLACK
- Pediatric: Pulse Present – give 5 rescue breaths
  - respirations begin = **IMMEDIATE/RED**
  - 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/JumpSTART—RPM

## PULSE/PERFUSION

Is the RADIAL pulse present?

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

Yes

Check mental status

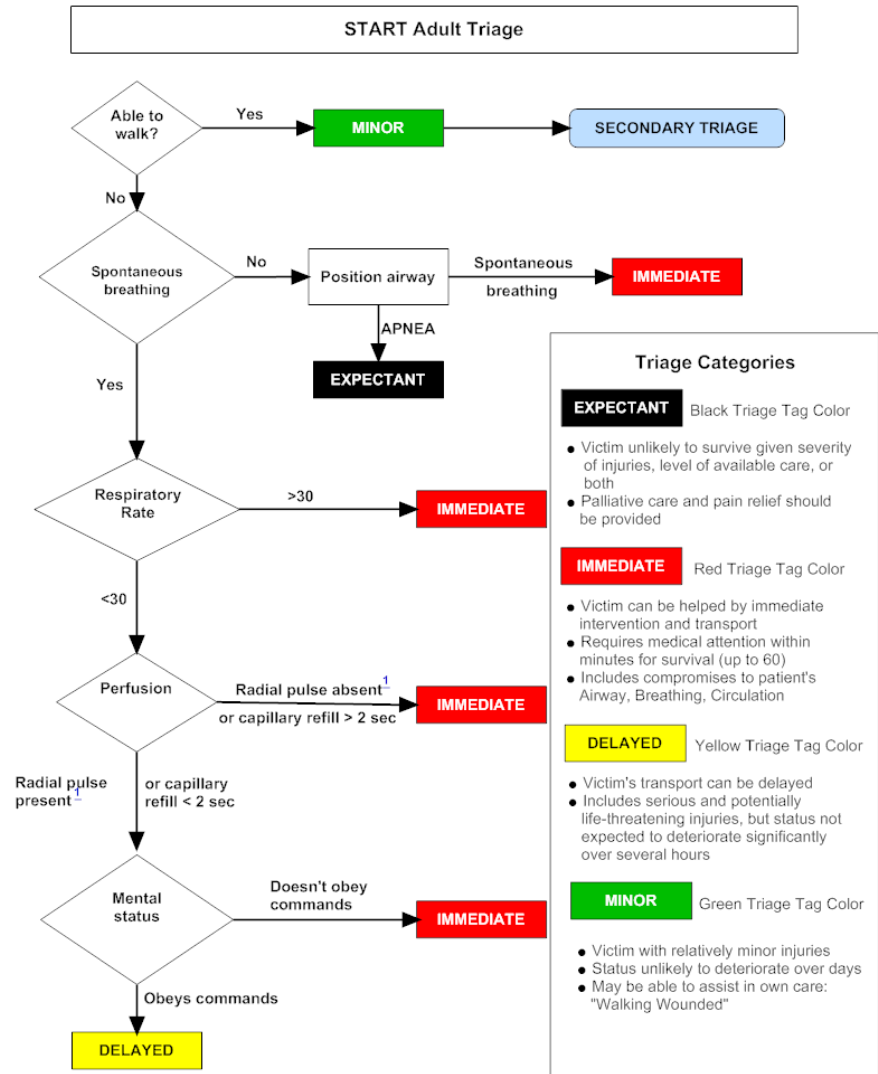
No

Adult: Pulse absent or CR > 2 seconds patient

= IMMEDIATE/RED

Pediatric: No palpable pulse patient =

IMMEDIATE/RED



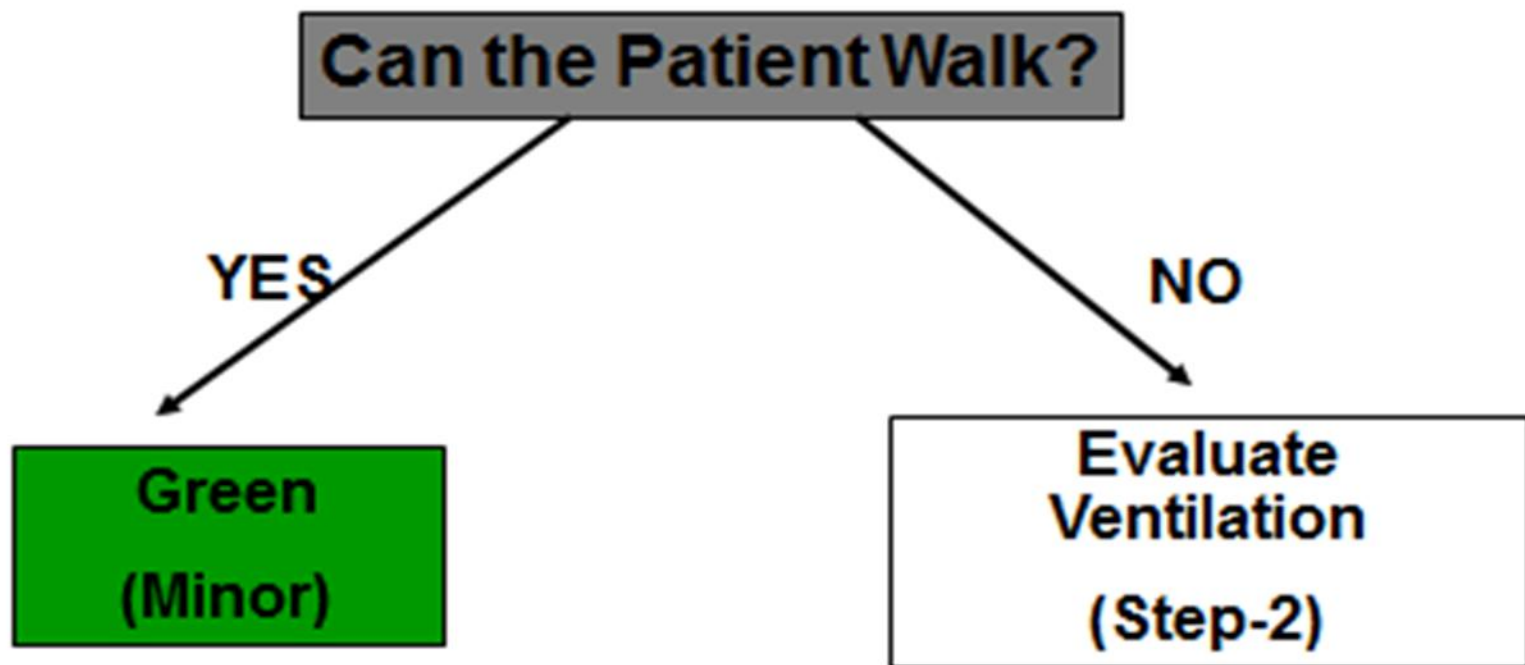
# START – Step 3

## Mental Status

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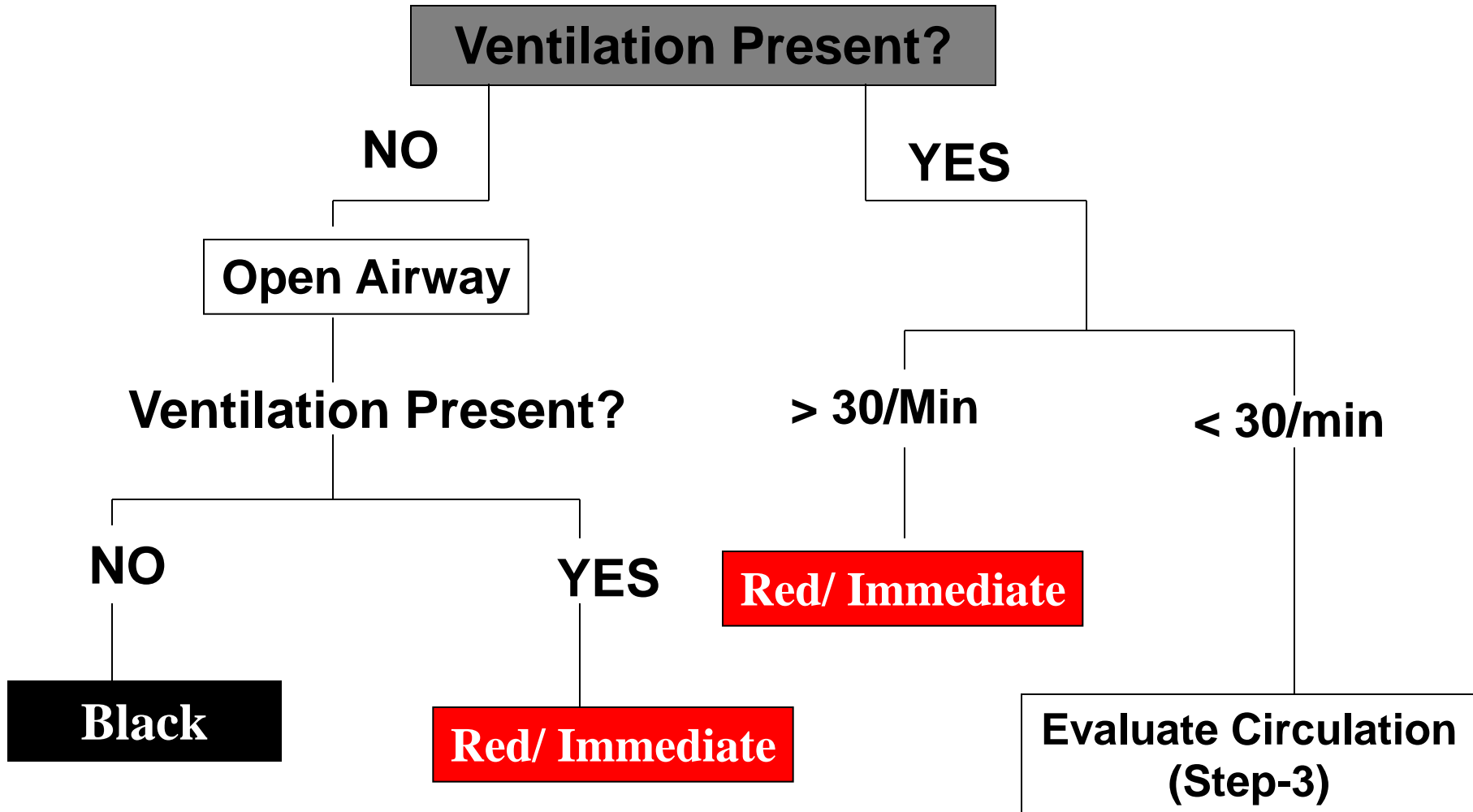
- ❑ You are assessing whether or not the person can follow a simple command.
    - “Squeeze my hand”
  
  - ❑ Can follow a simple command = tag  
YELLOW
  
  - ❑ Cannot follow a simple command = tag  
RED
-

# START First Step





# START Step-2



# START Step-3

**Circulation**

```
graph TD; C[Circulation] --> ARA[Absent Radial Pulse]; C --> PRP[Present Radial Pulse]; ARA --> CH[Control Hemorrhage]; CH --> RI[Red/Immediate]; PRP --> ELC[Evaluate Level of Consciousness];
```

**Absent Radial Pulse**

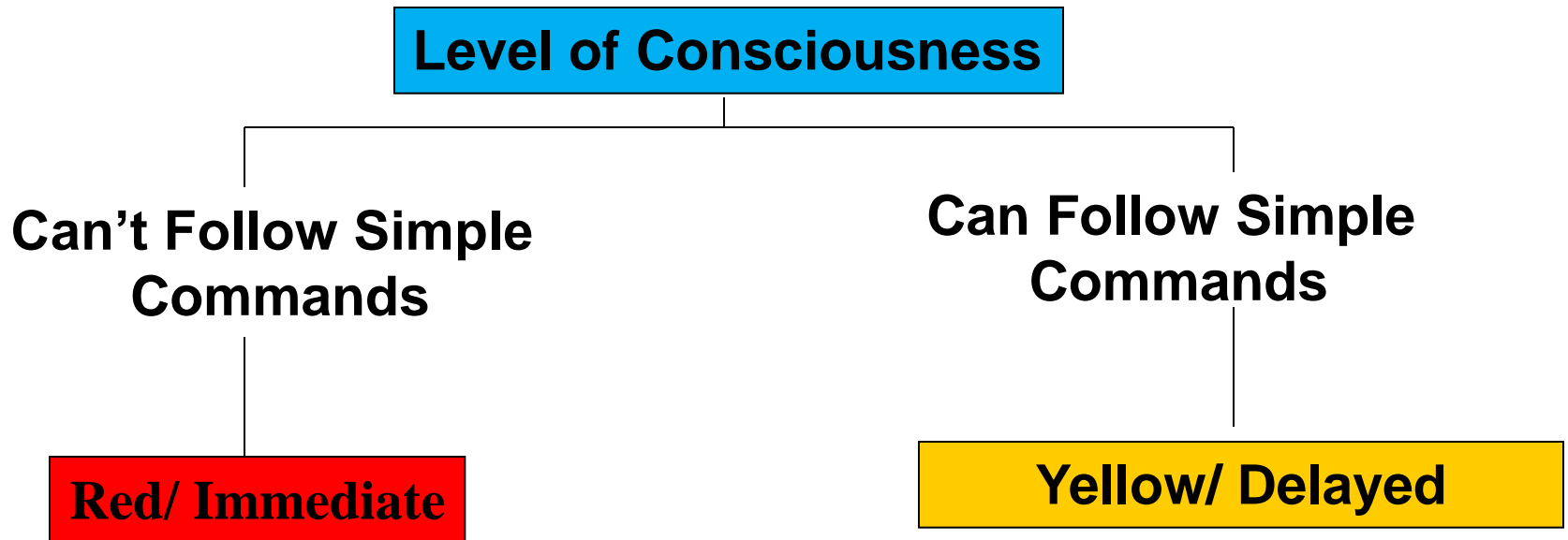
**Control Hemorrhage**

**Red/Immediate**

**Present Radial Pulse**

**Evaluate Level of  
Consciousness**

# START Step-4



# START/JumpSTART—RPM

## MENTAL STATUS...

Can the patient follow simple commands?  
Yes

Adult = DELAYED / YELLOW

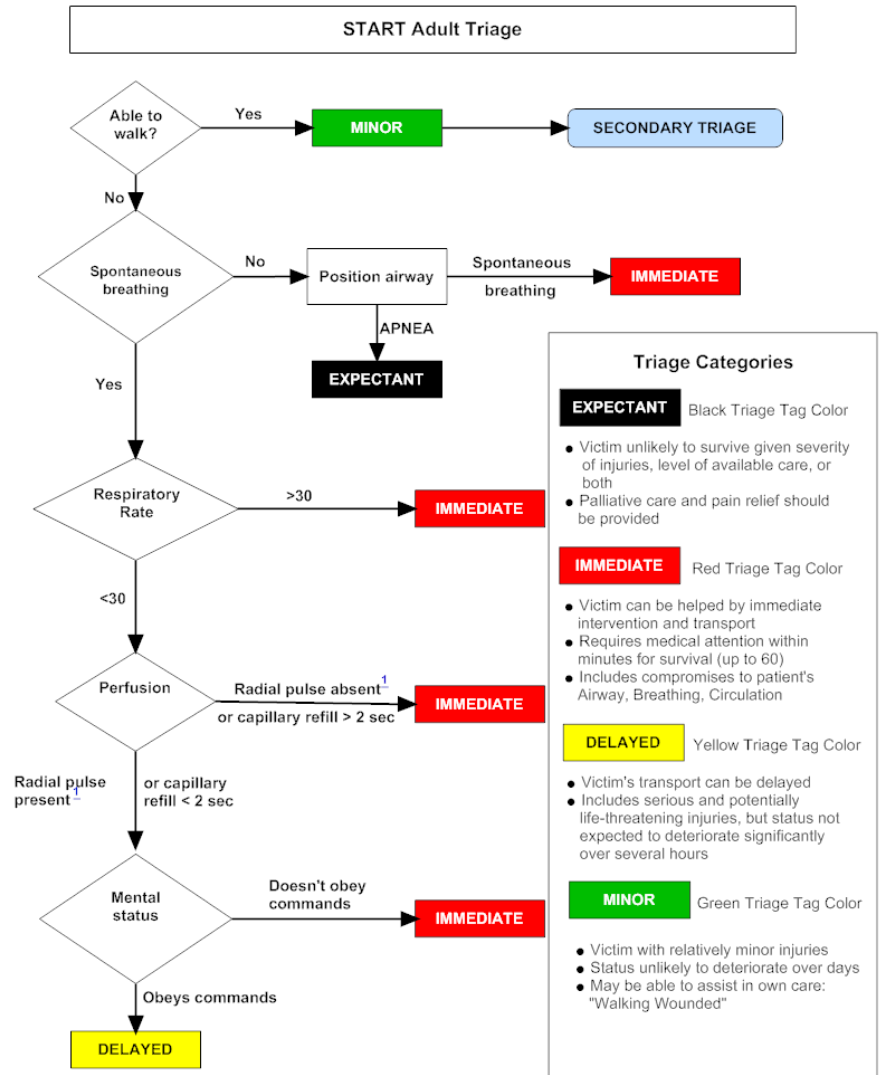
Pediatric: alert, verbal, or pain response is appropriate

= DELAYED / YELLOW

No

Adult = IMMEDIATE / RED

Pediatric – “P” pain causes inappropriate posturing or “U” unresponsive to noxious stimuli = IMMEDIATE / RED



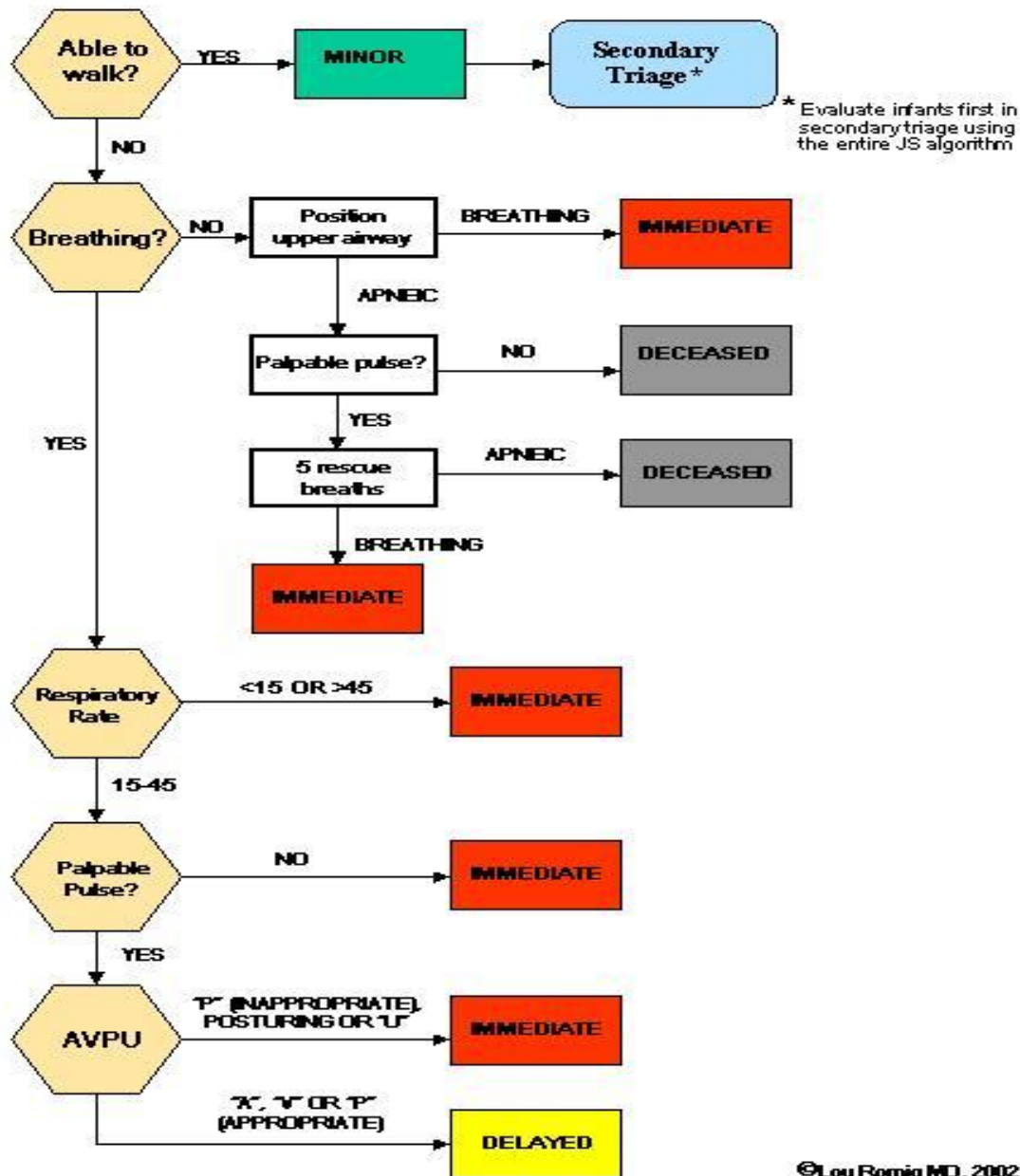
# ***START/JumpSTART***

If the patient is **IMMEDIATE/RED** upon initial assessment...then, before moving the patient to the treatment area, attempt only life-saving interventions:

**Airway, Needle Decompression, Tourniquet,  
Antidote**

**DO NOT ATTEMPT ANY OTHER  
TREATMENT AT THIS TIME**

# 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.

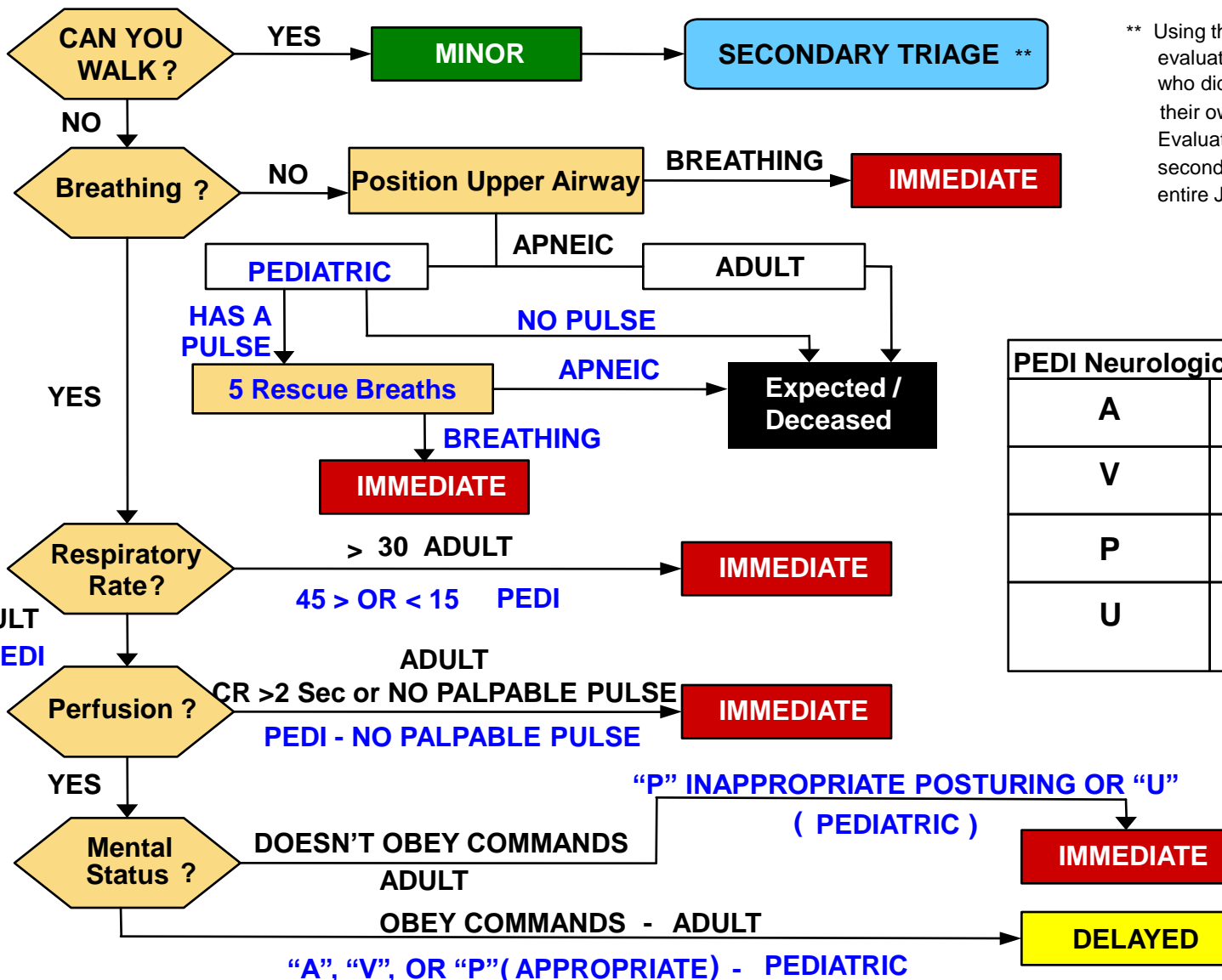
# JumpSTART: Age

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



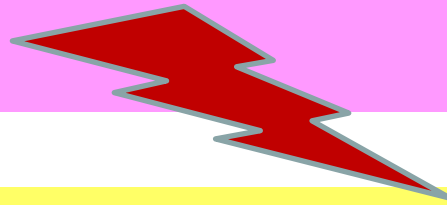
\*\* Using the JS algorithm evaluate all children first who did not walk under their own power. Evaluate infants first in secondary triage using entire JS algorithm !

PEDI Neurological Assessment	
A	Alert
V	Responds to Verbal Stimuli
P	Responds to Painful Stimuli
U	Unresponsive To Noxious Stimuli

< 30 ADULT  
15 - 45 PEDI



# AVPU



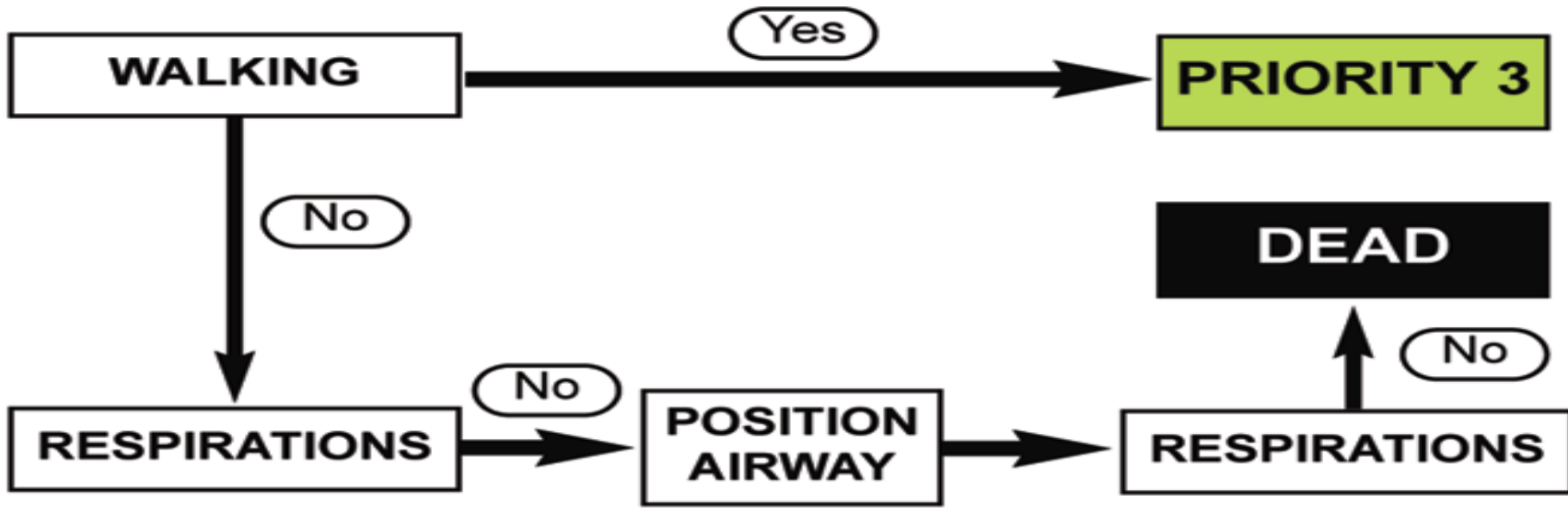
- Alert/awake – not necessarily oriented
- Verbal – responds to verbal stimuli before tactile/touch stimuli
  - You shout for the patient to open their eyes and their eyelids flicker or they open their eyes
  - In non-verbal children, evaluate the cry
- Painful – responds to tactile stimuli; does not 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

# Primary Triage



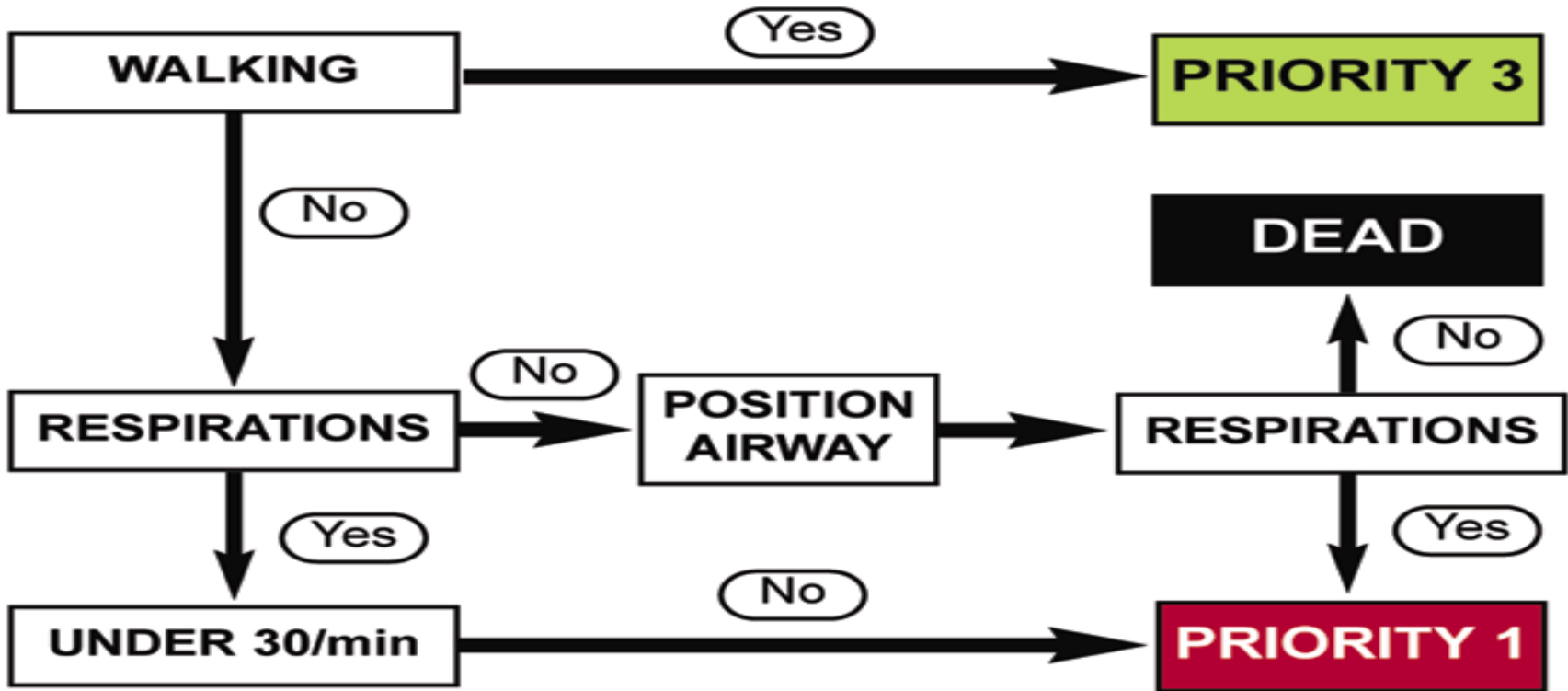
The first attempt at balancing resources and casualties/injured

# Primary Triage



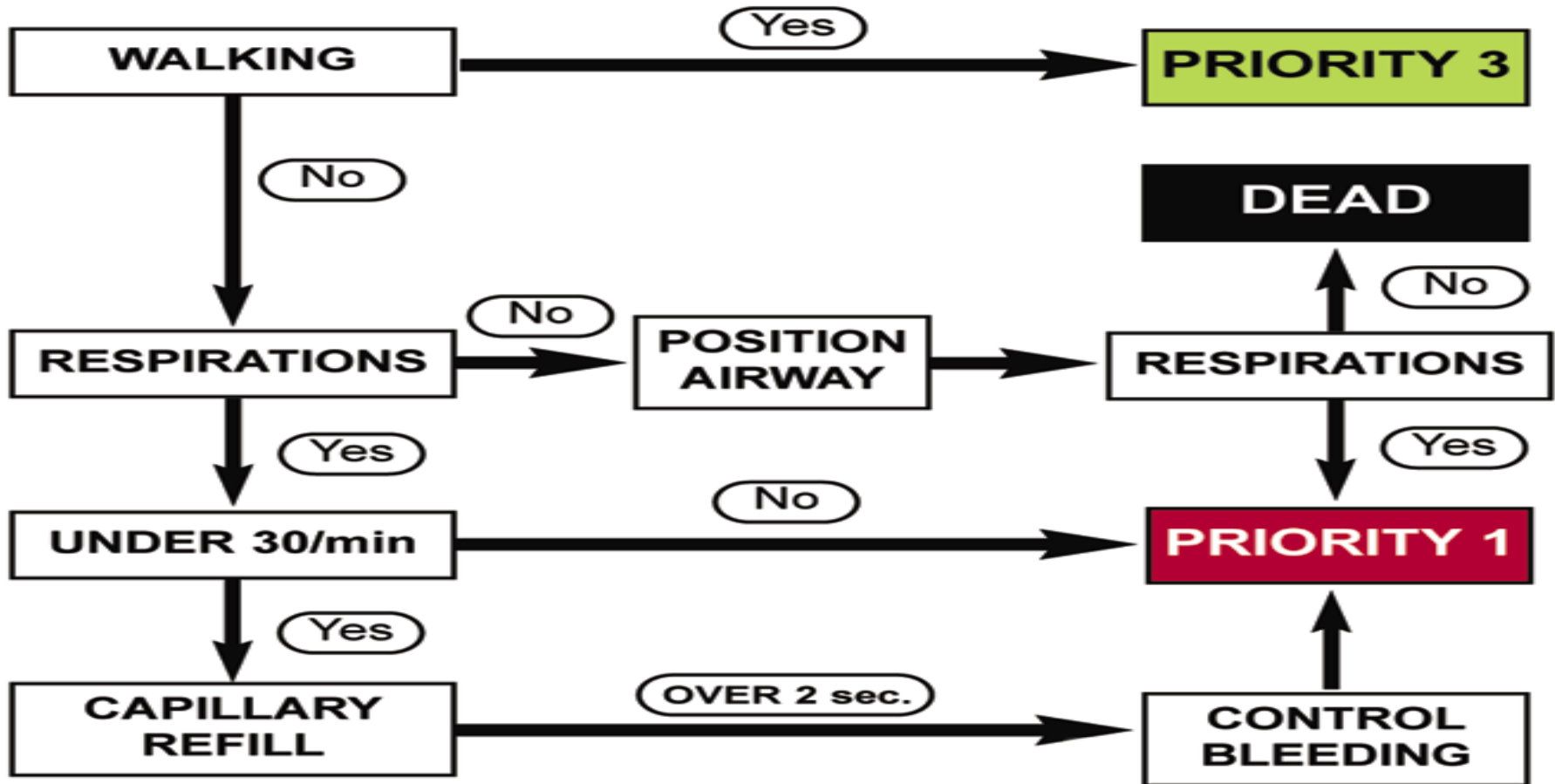
Determining whether there is an  
airway and breathing

# Primary Triage



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

# Primary Triage



They have an airway, are breathing.

Are they circulating blood sufficiently?

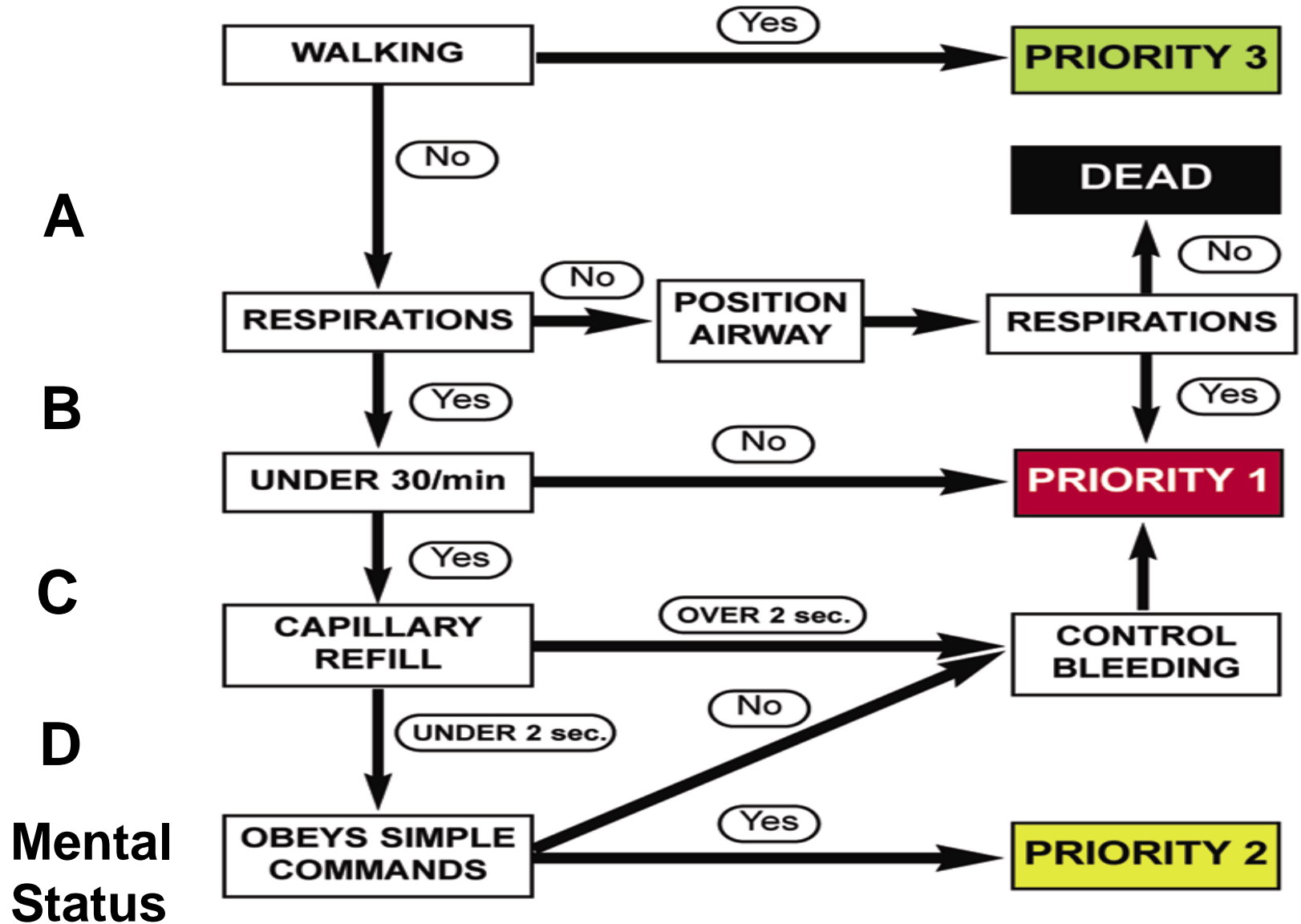
# Circulatory Check

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



# **PRIORITY 3**

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

**DELAYED**



# 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**

# 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**

# EXPECTANT/DEAD

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

# 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

**MIEMSS TRIAGE TAG DO NOT REMOVE**

DATE: \_\_\_\_\_

**PATIENT INFORMATION**

UNDETERMINED    AGE    WGT    HGT / LBS    PATIENT NUMBER  
 MALE    FEMALE    DOB

NAME: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ ST: \_\_\_\_\_ ZIP: \_\_\_\_\_ PHONE: \_\_\_\_\_

**TRIASE STATUS**

EVALUATION	TIME	RED	YELLOW	GREEN	GREY	BLACK
INITIAL						
SECONDARY						
HOSPITAL						

**CHIEF COMPLAINT**

Head Injury     C-Spine  
 Blunt Trauma     Penetrating Trauma  
 Burn     Fracture  
 Laceration     Amputation  
 Medical     Respiratory  
 Cardiac     OB/GYN  
 Diabetic      
 Psychiatric  
 Haz-Mat Exposure

COMMENTS: \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT    DESTINATION    TIME ARRIVED

TREATMENT # 8804207714    HOSPITAL # 8804207714  
 01481 # 8804207714    01481 # 8804207714  
 01481 # 8804207714    01481 # 8804207714  
 01481 # 8804207714    01481 # 8804207714

LAST NAME, FIRST NAME: \_\_\_\_\_

**TRANSPORT RECORD**

UNDETERMINED    AGE    PATIENT NUMBER  
 MALE    FEMALE    DOB

NAME: \_\_\_\_\_

CHIEF COMPLAINT: \_\_\_\_\_

DESTINATION: \_\_\_\_\_    HOSP NOTIFIED: \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT    TRANSPORT TIME

TRIASE STATUS: **RED** **YELLOW** **GREEN** **GREY** **BLACK**

← FRONT  
 BACK →

**MIEMSS TRIAGE TAG DO NOT REMOVE**

**VITAL SIGNS**

TIME	RESP	PULSE	MENTAL STATUS	BP	SpO2
			AVPU		
			AVPU		
			AVPU		

**MEDICAL HISTORY**

ALLERGIES: \_\_\_\_\_

MEDICATIONS: \_\_\_\_\_

PAST MEDICAL HISTORY: \_\_\_\_\_

**TREATMENT RECORD**

TIME	TREATMENT RECORD	INITIALS
	<input type="checkbox"/> BVM	
	<input type="checkbox"/> ET _____ (Depth)	
	<input type="checkbox"/> Oxygen by _____ of _____ LPM	
	<input type="checkbox"/> Bleeding Control	
	<input type="checkbox"/> TOURNIQUET @ _____	
	<input type="checkbox"/> Spinal Immobilization	
	<input type="checkbox"/> Extremity Splint	
	<input type="checkbox"/> IV Started: Site _____ Gauge _____	
	<input type="checkbox"/> IO _____ (Site)	
	<input type="checkbox"/> Gross Decon	
	<input type="checkbox"/> Final Decon	

FAMILY MEMBER INVOLVED?    NAME OF FAMILY MEMBER INVOLVED  
 YES    NO

EMERGENCY CONTACT: \_\_\_\_\_    PHONE: \_\_\_\_\_

**MIEMSS TRIAGE TAG**

Maryland Emergency Medical Services

**MIEMSS TRIAGE TAG DO NOT REMOVE**

DATE: \_\_\_\_\_

**PATIENT INFORMATION**

UNDETERMINED    AGE    WGT    KG / LBS    **PATIENT NUMBER**  
 MALE    FEMALE    DOB

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ ST \_\_\_\_\_ ZIP \_\_\_\_\_ PHONE \_\_\_\_\_

EVALUATION	TIME	RED	YELLOW	GREEN	GREY	BLACK
INITIAL						
SECONDARY						
HOSPITAL						

**CHIEF COMPLAINT**

Head Injury     C-Spine  
 Blunt Trauma     Penetrating Trauma  
 Burn     Fracture  
 Laceration     Amputation

Medical     Respiratory  
 Cardiac     OB/GYN  
 Diabetic  
 Psychiatric  
 Haz-Mat Exposure

COMMENTS \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT    DESTINATION    TIME ARRIVED

TREATMENT	HOSPITAL
01401	01401
01401	01401
01401	01401

**TRANSPORT RECORD**

UNDETERMINED    AGE    **PATIENT NUMBER**  
 MALE    FEMALE    DOB

NAME \_\_\_\_\_

CHIEF COMPLAINT \_\_\_\_\_

DESTINATION \_\_\_\_\_ HOSP NOTIFIED \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT    TRANSPORT TIME

TRIAJE STATUS

RED	YELLOW	GREEN
GREY	BLACK	

DOB: \_\_\_\_\_  
\*0007041  
LAST NAME, FIRST NAME \_\_\_\_\_

**PATIENT INFORMATION**

UNDETERMINED    AGE    WGT    KG / LBS    **PATIENT NUMBER**  
 MALE    FEMALE    DOB

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ ST \_\_\_\_\_ ZIP \_\_\_\_\_ PHONE \_\_\_\_\_

\* M D 4 2 0 7 7 J \*

- **PATIENT INFORMATION**
- Triage status
- Chief complaint
- Transporting unit
- Peel-off bar codes
- Transport record
- Vital signs
- Medical history
- Treatment
- Family contact
- Wrist band

**MIEMSS TRIAGE TAG DO NOT REMOVE**

DATE: \_\_\_\_\_

UNDETERMINED    AGE    WGT    HGT    I.D.#    PATIENT NUMBER  
 MALE    FEMALE    DOB

NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
CITY: \_\_\_\_\_ ST: \_\_\_\_\_ ZIP: \_\_\_\_\_ PHONE: \_\_\_\_\_

EVALUATION	TIME	RED	YELLOW	GREEN	GREY	BLACK
INITIAL						
SECONDARY						
HOSPITAL						

**CHIEF COMPLAINT**

Head Injury     C-Spine  
 Blunt Trauma     Penetrating Trauma  
 Burn     Fracture  
 Laceration     Amputation

Medical     Respiratory  
 Diabetic     OB/GYN  
 Psychiatric  
 Haz-Mat Exposure

COMMENTS: \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT    DESTINATION    TIME ARRIVED

TREATMENT    HOSPITAL

01401    01402    01403    01404

TRANSPORT RECORD

UNDETERMINED    AGE    PATIENT NUMBER  
 MALE    FEMALE    DOB

NAME: \_\_\_\_\_

CHIEF COMPLAINT: \_\_\_\_\_

DESTINATION: \_\_\_\_\_    HOSP NOTIFIED: \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT    TRANSPORT TIME

TRIAGE STATUS: **RED** **YELLOW** **GREEN** **GREY** **BLACK**

DOB: \_\_\_\_\_

LAST NAME, FIRST NAME: \_\_\_\_\_

	EVALUATION	TIME	RED	YELLOW	GREEN	GREY	BLACK
TRIAGE STATUS	INITIAL						
SECONDARY							
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

**MIEMSS TRIAGE TAG DO NOT REMOVE**

DATE: \_\_\_\_\_

**PATIENT INFORMATION**

UNDETERMINED    AGE    WGT    HGT    LBS    PATIENT NUMBER  
 MALE    FEMALE    DOB

NAME: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ ST: \_\_\_\_\_ ZIP: \_\_\_\_\_ PHONE: \_\_\_\_\_

**TRiage STATUS**

EVALUATION	TIME	RED	YELLOW	GREEN	GREY	BLACK
INITIAL		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SECONDARY		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HOSPITAL		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**CHIEF COMPLAINT**

Head Injury     C-Spine  
 Blunt Trauma     Penetrating Trauma  
 Burn     Fracture  
 Laceration     Amputation

Medical  
 Cardiac     Respiratory  
 Diabetic     OB/GYN  
 Psychiatric  
 Haz-Mat Exposure

COMMENTS: \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT    DESTINATION    TIME ARRIVED

TREATMENT: \_\_\_\_\_ HOSPITAL: \_\_\_\_\_

01401: \_\_\_\_\_ 01402: \_\_\_\_\_  
 01403: \_\_\_\_\_ 01404: \_\_\_\_\_  
 01405: \_\_\_\_\_ 01406: \_\_\_\_\_  
 01407: \_\_\_\_\_ 01408: \_\_\_\_\_

**TRANSPORT RECORD**

UNDETERMINED    AGE    PATIENT NUMBER  
 MALE    FEMALE    DOB

NAME: \_\_\_\_\_

CHIEF COMPLAINT: \_\_\_\_\_

DESTINATION: \_\_\_\_\_ HOSP NOTIFIED: \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT    TRANSPORT TIME

TRIAge STATUS:  RED  YELLOW  GREEN  
 GREY  BLACK

DOB: \_\_\_\_\_

00027041

LAST NAME, FIRST NAME

**CHIEF COMPLAINT**

Head Injury     C-Spine  
 Blunt Trauma     Penetrating Trauma  
 Burn     Fracture  
 Laceration     Amputation

Medical  
 Cardiac     Respiratory  
 Diabetic     OB/GYN  
 Psychiatric  
 Haz-Mat Exposure

COMMENTS

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



**MIEMSS** TRIAGE TAG  
DO NOT REMOVE

DATE: \_\_\_\_\_

**PATIENT INFORMATION**

UNDETERMINED    AGE    WGT    HGT    LBS    PATIENT NUMBER  
 MALE    FEMALE    DOB

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ST \_\_\_\_\_ ZIP \_\_\_\_\_ PHONE \_\_\_\_\_

**TRIASGE STATUS**

EVALUATION	TIME	RED	YELLOW	GREEN	GREY	BLACK
INITIAL						
SECONDARY						
HOSPITAL						

**CHIEF COMPLAINT**

Head Injury     C-Spine  
 Blunt Trauma     Penetrating Trauma  
 Burn     Fracture  
 Laceration     Amputation

Medical     Respiratory  
 Cardiac     OB/GYN  
 Diabetic  
 Psychiatric  
 Haz-Mat Exposure

COMMENTS \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT    DESTINATION    TIME ARRIVED

TREATMENT    HOSPITAL

01401    01402    01403    01404

TRANSPORT RECORD

UNDETERMINED    AGE    PATIENT NUMBER  
 MALE    FEMALE    DOB

NAME \_\_\_\_\_

CHIEF COMPLAINT \_\_\_\_\_

DESTINATION \_\_\_\_\_ HOSP NOTIFIED \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT    TRANSPORT TIME

TRIASGE STATUS

RED	YELLOW	GREEN
GREY	BLACK	

DOB \_\_\_\_\_

00077041

LAST NAME, FIRST NAME \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT    DESTINATION    TIME ARRIVED

- Patient information
- Triage status
- Chief complaint
- **TRANSPORTING UNIT**
- Peel-off bar codes
- Transport record
- Vital signs
- Medical history
- Treatment
- Family contact
- Wrist band

**MIEMSS TRIAGE TAG DO NOT REMOVE**

DATE: \_\_\_\_\_

**PATIENT INFORMATION**

UNDETERMINED    AGE    WGT    HGT    LBS    PATIENT NUMBER  
 MALE    FEMALE    DOB

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ ST: \_\_\_\_\_ ZIP: \_\_\_\_\_ PHONE: \_\_\_\_\_

**TRIALGE STATUS**

EVALUATION	TIME	RED	YELLOW	GREEN	GREY	BLACK
INITIAL						
SECONDARY						
HOSPITAL						

**CHIEF COMPLAINT**

Head Injury     C-Spine  
 Blunt Trauma     Penetrating Trauma  
 Burn     Fracture  
 Laceration     Amputation  
 Medical     Respiratory  
 Diabetic     OB/GYN  
 Psychiatric  
 Haz-Mat Exposure

COMMENTS: \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT    DESTINATION    TIME ARRIVED

TREATMENT    HOSPITAL

OTHER    OTHER

OTHER    OTHER

OTHER    OTHER

OTHER    OTHER

**TRANSPORT RECORD**

UNDETERMINED    AGE    PATIENT NUMBER  
 MALE    FEMALE    DOB

NAME: \_\_\_\_\_

CHIEF COMPLAINT: \_\_\_\_\_

DESTINATION: \_\_\_\_\_    HOSP NOTIFIED: \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT    TRANSPORT TIME

TRIALGE STATUS

RED	YELLOW	GREEN
GREY	BLACK	

DOB: \_\_\_\_\_

LAST NAME, FIRST NAME: \_\_\_\_\_

TREATMENT	* M D 4 2 0 7 7 1 *	HOSPITAL	* M D 4 2 0 7 7 1 *
OTHER	* M D 4 2 0 7 7 1 *	OTHER	* M D 4 2 0 7 7 1 *
OTHER	* M D 4 2 0 7 7 1 *	OTHER	* M D 4 2 0 7 7 1 *
OTHER	* M D 4 2 0 7 7 1 *	OTHER	* M D 4 2 0 7 7 1 *

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

**MIEMSS TRIAGE TAG DO NOT REMOVE**

DATE: \_\_\_\_\_

**PATIENT INFORMATION**

UNDETERMINED  MALE  FEMALE AGE: \_\_\_\_\_ WGT: \_\_\_\_\_ HGT: \_\_\_\_\_ DOB: \_\_\_\_\_

NAME: \_\_\_\_\_ PATIENT NUMBER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ ST: \_\_\_\_\_ ZIP: \_\_\_\_\_ PHONE: \_\_\_\_\_

**TRIALGE STATUS**

EVALUATION	TIME	RED	YELLOW	GREEN	GREY	BLACK
INITIAL						
SECONDARY						
HOSPITAL						

**CHIEF COMPLAINT**

Head Injury     C-Spine  
 Blunt Trauma     Penetrating Trauma  
 Burn     Fracture  
 Laceration     Amputation

Medical     Respiratory  
 Cardiac     OB/GYN  
 Diabetic  
 Psychiatric  
 Haz-Mat Exposure

COMMENTS: \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT: \_\_\_\_\_ DESTINATION: \_\_\_\_\_ TIME ARRIVED: \_\_\_\_\_

TREATMENT: \_\_\_\_\_ HOSPITAL: \_\_\_\_\_

01401: \_\_\_\_\_ 01402: \_\_\_\_\_

01403: \_\_\_\_\_ 01404: \_\_\_\_\_

01405: \_\_\_\_\_ 01406: \_\_\_\_\_

01407: \_\_\_\_\_ 01408: \_\_\_\_\_

**TRANSPORT RECORD**

UNDETERMINED  MALE  FEMALE AGE: \_\_\_\_\_ DOB: \_\_\_\_\_

NAME: \_\_\_\_\_ PATIENT NUMBER: \_\_\_\_\_

CHIEF COMPLAINT: \_\_\_\_\_

DESTINATION: \_\_\_\_\_ HOSP NOTIFIED: \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT: \_\_\_\_\_ TRANSPORT TIME: \_\_\_\_\_

TRIALGE STATUS

RED YELLOW GREEN

GREY BLACK

ONE FIRST NAME: \_\_\_\_\_

**TRANSPORT RECORD**

UNDETERMINED  MALE  FEMALE AGE: \_\_\_\_\_ DOB: \_\_\_\_\_

NAME: \_\_\_\_\_ PATIENT NUMBER: \_\_\_\_\_

CHIEF COMPLAINT: \_\_\_\_\_

DESTINATION: \_\_\_\_\_ HOSP NOTIFIED: \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT: \_\_\_\_\_ TRANSPORT TIME: \_\_\_\_\_

TRIALGE STATUS

RED YELLOW GREEN

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





TIME	TREATMENT RECORD	INITIALS
	<input type="checkbox"/> BVM	
	<input type="checkbox"/> ET _____ (Depth)	
	<input type="checkbox"/> Oxygen by _____ at _____ LPM	
	<input type="checkbox"/> Bleeding Control	
	<input type="checkbox"/> TOURNIQUET @ _____	
	<input type="checkbox"/> Spinal Immobilization	
	<input type="checkbox"/> Extremity Split	
	<input type="checkbox"/> IV Started: _____ Site _____ Gauge _____	
	<input type="checkbox"/> IO _____ (Site)	
	<input type="checkbox"/> Gross Decon	
	<input type="checkbox"/> Final Decon	

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


MIEMSS
○
TRIAGE TAG  
DO NOT REMOVE


VITAL SIGNS	TIME	RESP	PULSE	MENTAL STATUS	BP	SpO2
				A V P U		
				A V P U		
				A V P U		

MEDICAL HISTORY	ALLERGIES
	MEDICATIONS
	PAST MEDICAL HISTORY

TIME	TREATMENT RECORD	INITIALS
	<input type="checkbox"/> BVM	
	<input type="checkbox"/> ET _____ (Depth)	
	<input type="checkbox"/> Oxygen by _____ at _____ LPM	
	<input type="checkbox"/> Bleeding Control	
	<input type="checkbox"/> TOURNIQUET @ _____	
	<input type="checkbox"/> Spinal Immobilization	
	<input type="checkbox"/> Extremity Split	
	<input type="checkbox"/> IV Started: _____ Site _____ Gauge _____	
	<input type="checkbox"/> IO _____ (Site)	
	<input type="checkbox"/> Gross Decon	
	<input type="checkbox"/> Final Decon	


FAMILY MEMBER INVOLVED?	NAME OF FAMILY MEMBER INVOLVED
<input type="checkbox"/> YES <input type="checkbox"/> NO	

EMERGENCY CONTACT	PHONE



Maryland Emergency  
Medical Services


TRIAGE  
TAG



Maryland Emergency  
Medical Services

FAMILY MEMBER INVOLVED? <input type="checkbox"/> YES <input type="checkbox"/> NO		NAME OF FAMILY MEMBER INVOLVED	
EMERGENCY CONTACT		PHONE	


- Patient information
- Triage status
- Chief complaint
- Transporting unit
- Peel-off bar codes
- Transport record
- Vital signs
- Medical history
- Treatment
- **FAMILY CONTACT**
- Wrist band


**MIEMSS**
○
**TRIAGE TAG**  
**DO NOT REMOVE**


VITAL SIGNS	TIME	RESP	PULSE	MENTAL STATUS	BP	SpO <sub>2</sub>
				A V P U		
				A V P U		
MEDICAL HISTORY	ALLERGIES					
	MEDICATIONS					
	PAST MEDICAL HISTORY					

TIME	TREATMENT RECORD	INITIALS
	<input type="checkbox"/> BVM	
	<input type="checkbox"/> ET _____ (Depth)	
	<input type="checkbox"/> Oxygen by _____ at _____ LPM	
	<input type="checkbox"/> Bleeding Control	
	<input type="checkbox"/> TOURNIQUET @ _____	
	<input type="checkbox"/> Spinal Immobilization	
	<input type="checkbox"/> Extremity Splint	
	<input type="checkbox"/> IV Started: _____ Site: _____ Gauge: _____	
	<input type="checkbox"/> IO _____ (Site)	
	<input type="checkbox"/> Gross Decon	
	<input type="checkbox"/> Final Decon	

FAMILY MEMBER INVOLVED? <input type="checkbox"/> YES <input type="checkbox"/> NO		NAME OF FAMILY MEMBER INVOLVED	
EMERGENCY CONTACT		PHONE	

  
 Maryland Emergency  
 Medical Services

**TRIAGE  
TAG**

  
 Maryland Emergency  
 Medical Services

**MIEMSS** TRIAGE TAG **DO NOT REMOVE**

DATE: \_\_\_\_\_

UNDETERMINED    AGE    WGT    HGT / LBS    PATIENT NUMBER  
 MALE    FEMALE    DOB

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ ST: \_\_\_\_\_ ZIP: \_\_\_\_\_ PHONE: \_\_\_\_\_

EVALUATION	TIME	RED	YELLOW	GREEN	GREY	BLACK
INITIAL						
SECONDARY						
HOSPITAL						

**CHIEF COMPLAINT**

Head Injury     C-Spine  
 Blunt Trauma     Penetrating Trauma  
 Burn     Fracture  
 Laceration     Amputation

Medical     Respiratory  
 Cardiac     OB/GYN  
 Diabetic     Psychiatric  
 Haz-Mat Exposure

COMMENTS: \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT    DESTINATION    TIME ARRIVED

TREATMENT	HOSPITAL
OTHER	OTHER
OTHER	OTHER
OTHER	OTHER

**TRANSPORT RECORD**

UNDETERMINED    AGE    PATIENT NUMBER  
 MALE    FEMALE    DOB

NAME: \_\_\_\_\_

CHIEF COMPLAINT: \_\_\_\_\_

DESTINATION: \_\_\_\_\_    HOSP NOTIFIED: \_\_\_\_\_

TRANSPORTATION AGENCY/UNIT: \_\_\_\_\_    TRANSPORT TIME: \_\_\_\_\_

TRIAS STATUS: **RED** **YELLOW** **GREEN** **GREY** **BLACK**

DOB: \_\_\_\_\_

400077041

LAST NAME, FIRST NAME

**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 first



# Secondary Triage

## GLASGOW COMA SCORE

### EYE OPENING :

SPONTANEOUS	4
TO VOICE	3
TO PAIN	2
NONE	1

### VERBAL RESPONSE :

ORIENTATED	5
CONFUSED	4
INAPPROPRIATE WORDS	3
INCOMPREHENSIBLE WORDS	2
NO RESPONSE	1

### MOTOR RESPONSE :

OBEYS COMMANDS	6
LOCALISES	5
PAIN WITHDRAWS	4
PAIN FLEXION	3
PAIN EXTENSION	2
NO RESPONSE	1

GLASGOW COMA SCALE TOTAL :

TOTAL GLASGOW COMA SCALE	13 - 15	4
	9 - 12	3
	6 - 8	2
	4 - 5	1
	3	0

RESPIRATORY RATE	10 - 29	4
	30 or more	3
	6 - 9	2
	1 - 5	1
	0	0

SYSTOLIC BP	90 or more	4
	76 - 89	3
	50 - 75	2
	1 - 49	1
	0	0

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

TOTAL :

# 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 can walk at the scene will be tagged **GREEN**.
  
  - ❑ The patient could deteriorate 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 = JUMPSTART

---

## □ 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

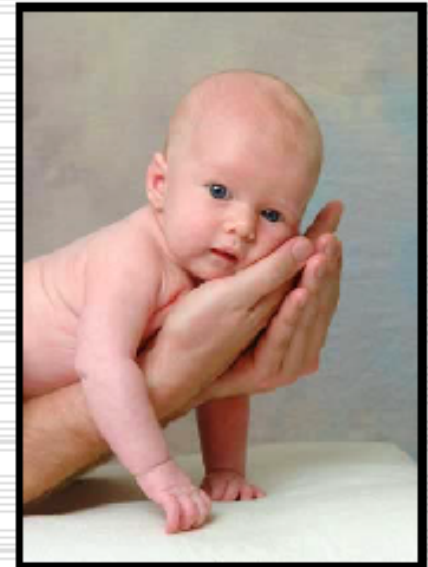
- Alert, responds to verbal or responds to pain = **tag YELLOW**
  - Inappropriate response, posturing or unresponsive **tag RED**
-

---

All Babies **Under 1 Year**  
Get Secondary Triage  
(Meaning **No Greens!**).

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

---



# What about HAZMAT

**SMART** www.tygrad.co.uk

**INFECTIOUS**

AGENT(S) \_\_\_\_\_

Fill in details on Biochemical panel when time allows

**DECONTAMINATION**


By Whom: Fire    EMS    Hospital

Where:    On Scene    Hospital

Method:    Primary    Secondary

TIME:    --:--    --:--    --:--

Solution:    Wet    Dry

TIME:    --:--    --:--    --:--

Open Wounds Covered with Dressing  --:--

**SMART** www.tygrad.co.uk

**CONTAMINATED**

Auto Injector Type Used:  1  2  3  4

AGENT(S) \_\_\_\_\_

Tab No:  Chemical     Biological     Radiological

Fill in details on chemical panel when time allows

**CHEMICAL AGENT**

AGENT(S) \_\_\_\_\_

Characteristics

Non Persistent Nerve     Choking

Persistent Nerve     Other

Blister

---

Signs / Symptoms

\_\_\_\_\_

\_\_\_\_\_

**RADIOLOGICAL AGENT**

Type:    ALPHA    BETA    GAMMA

Dose Estimation Method & Estimated Dose

Clinical     Dosimeter

$\mu\text{Sv}$  @ \_\_\_\_\_      $\text{mSv}$  @ \_\_\_\_\_

Contamination State

Internal     External

---

Signs / Symptoms

\_\_\_\_\_

\_\_\_\_\_

**BIOLOGICAL AGENT**

AGENT(S) \_\_\_\_\_

Characteristics

\_\_\_\_\_

\_\_\_\_\_

Infectious     Non-infectious

If infectious, ensure infectious panel is displayed at all times

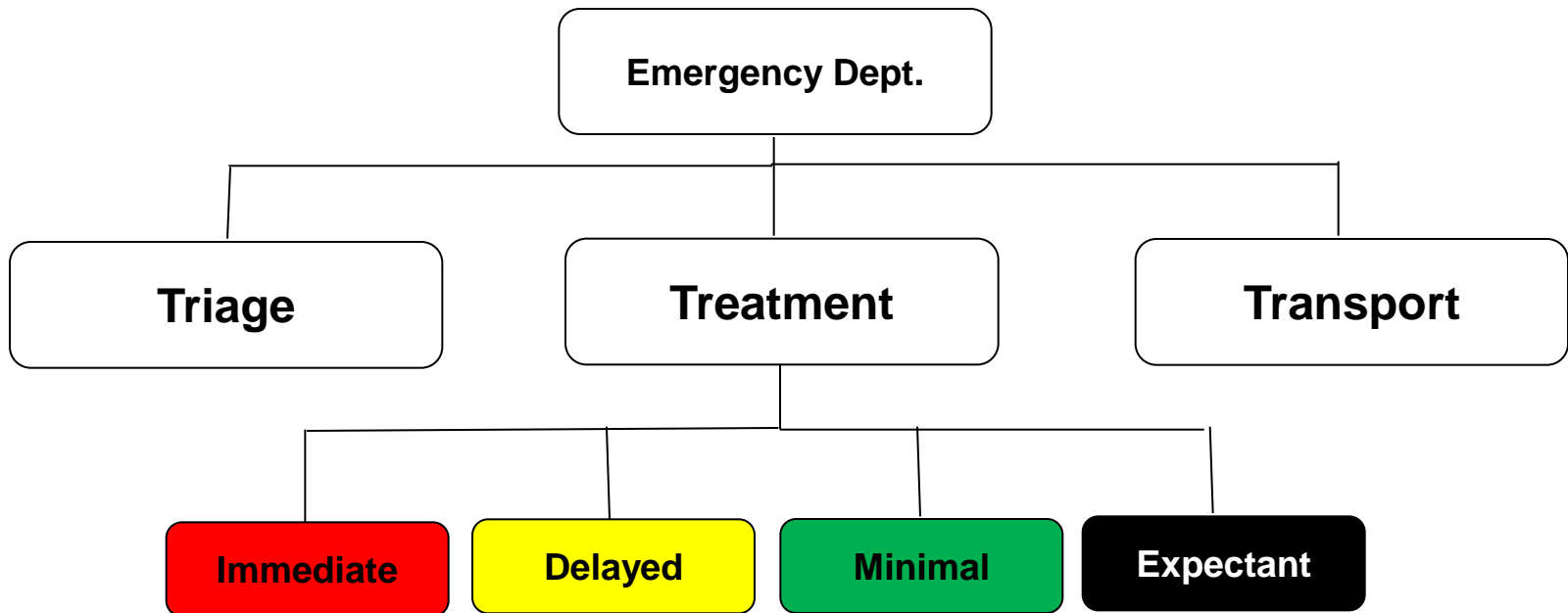
---

Signs / Symptoms

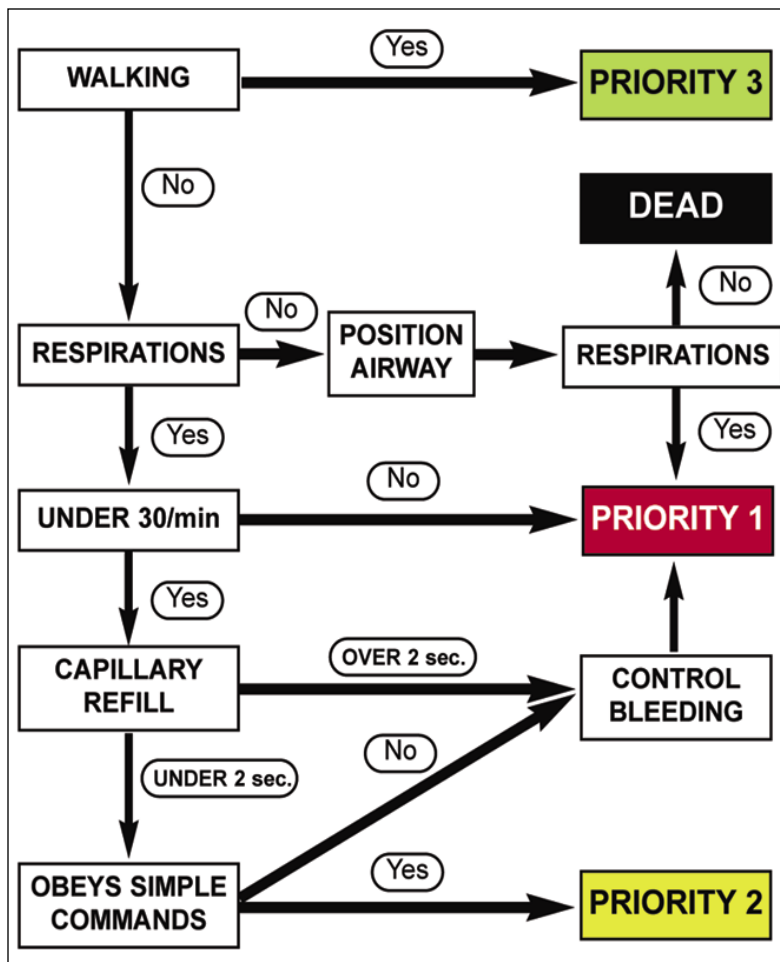
\_\_\_\_\_

\_\_\_\_\_

# 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*

<b>PRIORITY 1</b> IMMEDIATE	1	2	3	4	5	6	7	8		
	9	10	11	12	13	14				
	15	16	17	18	19	20				
<b>PRIORITY 2</b> URGENT	1	2	3	4	5	6	7	8		
	9	10	11	12	13	14				
	15	16	17	18	19	20				
<b>PRIORITY 3</b> DELAYED	1	2	3	4	5	6	7	8		
	9	10	11	12	13	14				
	15	16	17	18	19	20				
<b>DEAD</b>	1	2	3	4	5	6	7	8	9	10

## 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
<b>Shock Group</b>			
1	Normotensive Transiently	BP stable	0
2	hypotensive Prolonged	BP unstable in field but responsive to fluid SBP <90mmHg in field and responsive to IV fluids	1
3	hypotension	in OR	2
<b>Ischemia Group</b>			
1	None	Pulsatile, no signs of ischemia	1
2	Mild	Diminished pulses without signs of ischemia	2
3	Moderate	No dopplerable pulse, sluggish cap refill, paresthesia, diminished motor activity	3
4	Advanced	Pulseless, cool, paralyzed, numb without cap refill	4
<b>Age Group</b>			
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.**

## **SAVE Triage Guidelines**

---

- **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**

## **SAVE Triage Guidelines**

---

- **Head Injury (adults)**
  - **Use the Glasgow 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**



## **SAVE Triage Guidelines**

---

- **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**

## **SAVE Triage Guidelines**

---

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

# 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

