

# DISASTER PLAN AT THE FIELD LEVEL

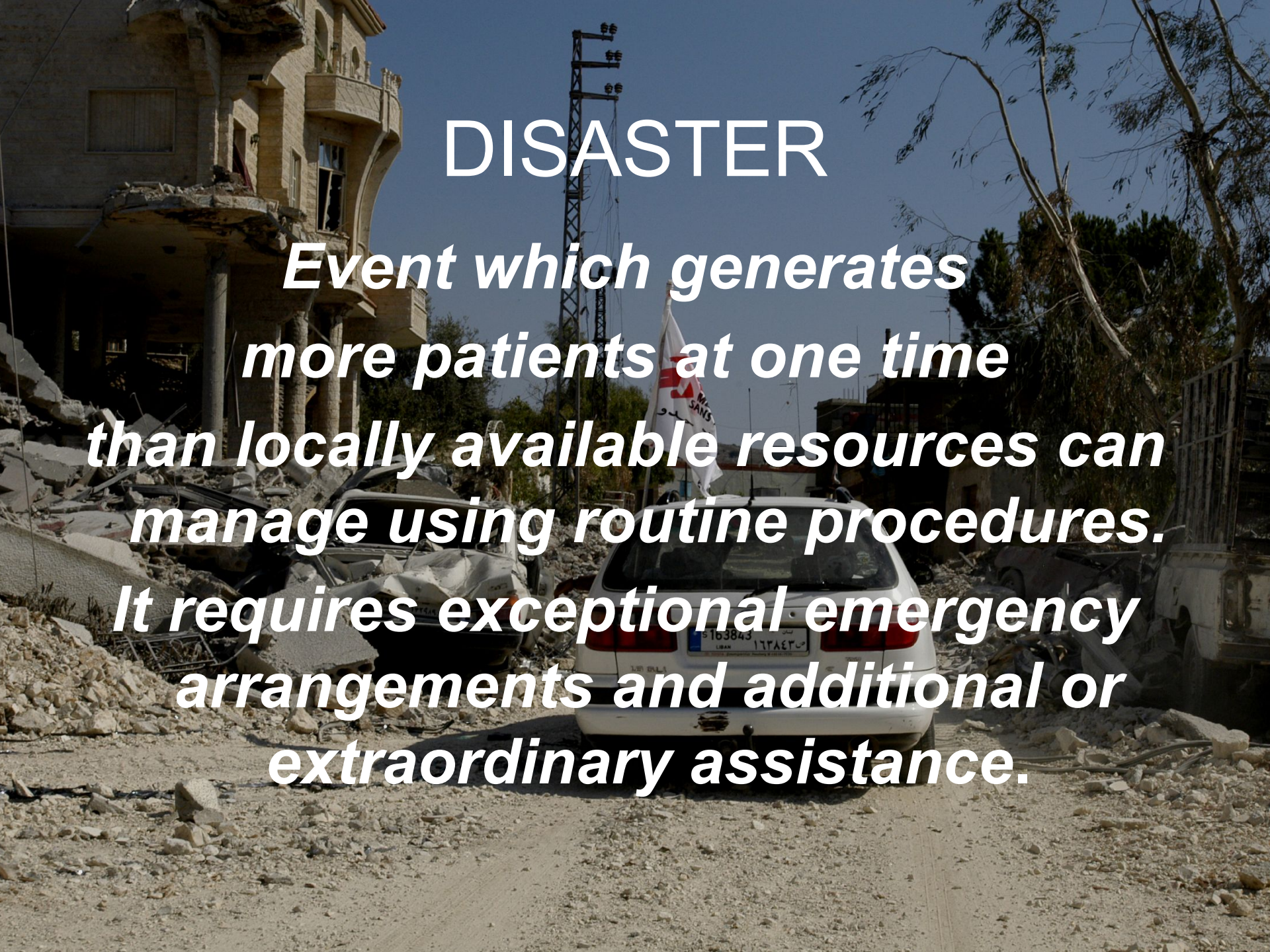
Martial Ledecq





# DISASTER

*Event which generates more patients at one time than locally available resources can manage using routine procedures. It requires exceptional emergency arrangements and additional or extraordinary assistance.*





# Examples

Plane crash

Traffic accident

Flooding

Forest fire

Armed conflict

Civil war

Bomb attack

Earthquake



# THE CHAIN OF CASUALTY CARE

The path followed by a casualty  
from the point of injury  
all the way  
to specialized care  
as his condition dictates:

# THE CHAIN OF CASUALTY CARE

1. on the scene
2. collecting point
3. surgical hospital
4. specialized centre (including rehabilitation)
5. a transport system (e.g. ambulances) for evacuation from one level to another.
6. A coordination centre



# Chain of casualty care at the field level

CHAIN OF CASUALTY CARE	On the scene	Collecting point
Who?	Friends & relatives The community First Aiders	First Aiders Health professionals Stretcher-bearers
Where?	At the front lines At the epicentre	Spontaneously chosen: A school A factory The shade of a tree
What?	Life-saving measures Extraction of the wounded	Collection of casualties Triage Complementary health care Stabilization Evacuation planning Ambulatory care



On the spot



Transportation



The collecting point





The collecting point



?



Transportation



The hospital



# FIRST STEP

- Get an overview of the scene:
  - Security conditions
  - Potential number of patients
  - Severity of the injuries
- Initial report:
  - Location, type of incident, approx number of victims
  - Type of assistance required

# 2<sup>ND</sup> STEP: TRIAGE

- Definition

A process of **prioritizing patients** based on the severity of their condition to treat as many as possible when **resources are insufficient** for all to be treated immediately



# CLASSIFICATION

## Severe

Life-threatening condition, treatable and that can be stabilized by means of immediate and simple measures

## Moderate

Major but non immediately life-threatening conditions where some delay is acceptable

## Minor

Minor injuries requiring minimal care

## Supportive

No hope of recovery

# **RED 10%**

**Priority 1 □ Good chance of survival if immediate surgical intervention**

- \* Thoracic trauma and respiratory distress**
- \* Abdominal trauma and shock**
- \* Open fracture with active bleeding**
- \* Incomplete amputation, vascular damage with ischemia**
- \* Burns 2<sup>nd</sup> - 3 degree 15 to 50% TBS**



RED 10%





# **YELLOW 30%**

**Priority 2 □ Surgical intervention required  
but non urgent**

- \* Stable abdominal trauma (open or blunt)**
- \* War wound requiring debridement**
- \* Maxillo-facial wound without respiratory trouble**
- \* Open fracture without ischemia – without haemorrhage**
- \* Spinal trauma with or without paralysis**



**YELLOW 30%**



# **GREEN 60%**

## **No surgical intervention required**

- \* Superficial or minor wound
- \* Burns < 15% TBS
- \* Sprains,...
- \* Psychological trauma



# GREEN (60%)



# GREEN (60%)





# TRIAGE

1. Initial examination
2. Live-saving technique
3. Classification
4. Regular reassessment

# What's your call

- Triage Assessment Exercise
- A plane has crashed at BEIRUT Airport. There are many casualties. A call has been made for an MCI alert.
- You are asked to assist with triage



# What's your call?

- A 32 y/o man is found lying on the runway 10 m from the plane.
- R- 10/min
- P- Good distal pulse
- M- Groans to painful stimuli

# What's your call?

- A 42 y/o female is bleeding quite a lot from a neck injury..
- R >30
- P- Radial pulse +
- M- Obeys commands



# What's your call?

- A screaming woman is found in the grass at the side of the runway.
- R-28
- P- Good distal pulse
- M- Asks you to help her
- Has a partial amputation of the foot without active bleeding.

# What's your call?

- An adult male lies inside the plane.
- R- none -apneic
- Remains apneic after lifting the chin



# What's your call?

- An older man found sitting outside the plane .
- R: 28
- P: Good distal pulse
- M: Groggy but will slowly follow commands but won't get up and walk.

# What's your call?

- An adult male lies on the ground
- R 20
- P Good distal pulse
- M Obeys commands but cries that he can't move his legs



# What's your call?

- A young woman has a large head wound with brain matter showing
  - R absent
  - P absent
  - M unconscious

# What's your call?

- An adult kneels at the side of the road, shaking his head. He says he's too dizzy to walk.
- R 20
- P CRT 2 sec
- M Obeys commands



# What's your call?

- 30 y/o male with shrapnel in chest, short of breath, dusky and can't walk
- R 36
- P radial pulse present
- capillary refill < 2 sec
- M confused

# What's your call?

- 28 y/o with foreign body protruding from thigh
- R 28
- P present
- M follow commands



# Initial examination

- A.B.C.D.E.
  - Long lasting process
  - Supposed a broad experience
  - Inappropriate for multiple victims
- S.T.A.R.T.
  - Takes less than 30 seconds
  - Every rescuer can do it

# S.T.A.R.T.

- Clear the walking wounded
  - Use verbal instructions
  - Direct them to the treatment areas for detailed assessment and treatment
  - Tag These as **MINOR**
- Now check **RPMs**



# S.T.A.R.T.

## ■ Respiration's

- None? Open the Airway

- Still None? —————▶ **DECEASED**

- Restored? —————▶ **IMMEDIATE**

- Present?

- Above 30 (or  $< 10$ ) —————▶ **IMMEDIATE**

- Below 30



■ **CHECK PERFUSION**

# S.T.A.R.T.

## ■ Perfusion

- Radial Pulse Absent
- Capillary Refill time > 2 secs

**IMMEDIATE**



- Radial Pulse Present
- Capillary Refill time < 2 secs

## ■ CHECK MENTAL STATUS



# S.T.A.R.T.

- **Mental Status**

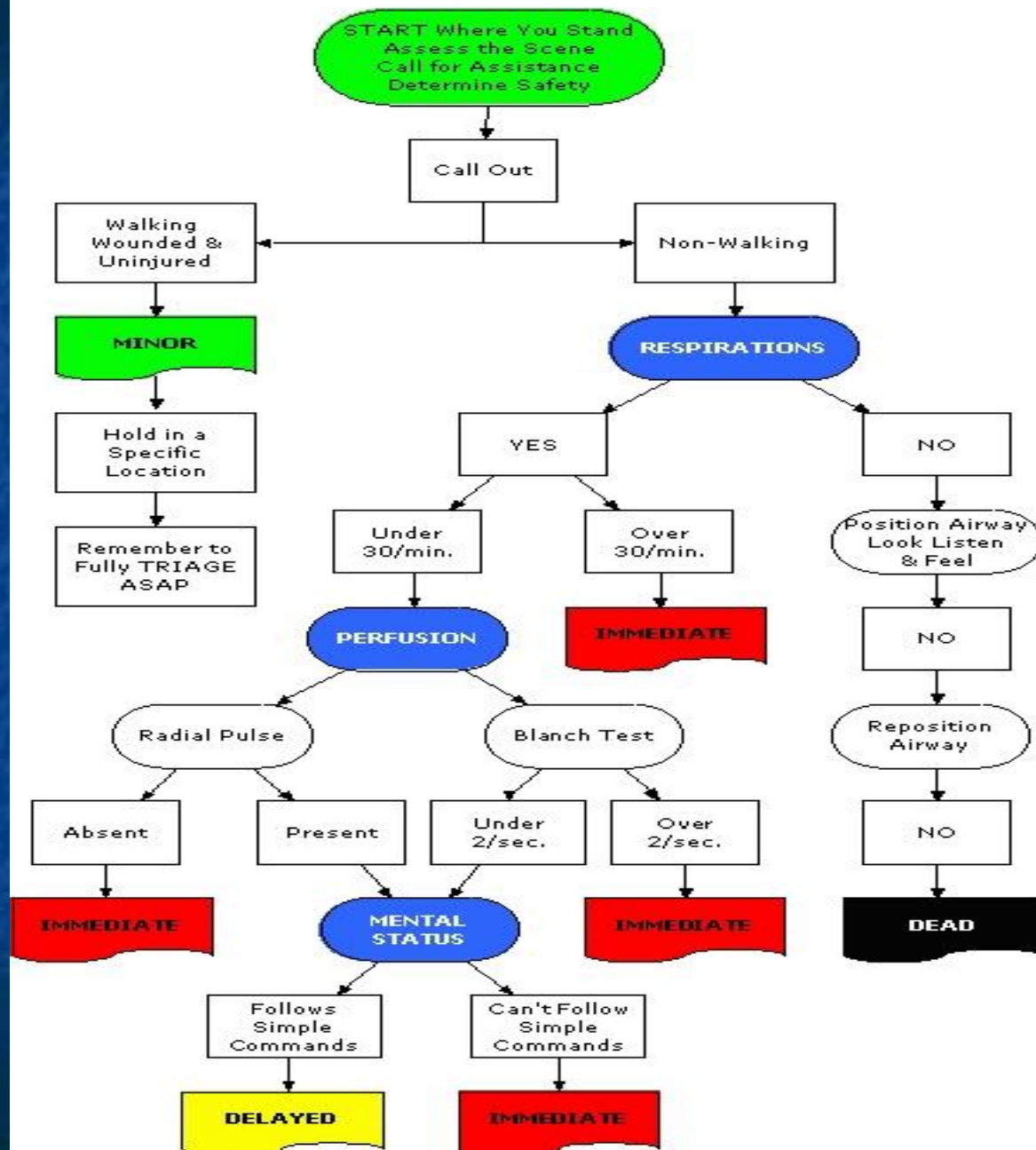
- **Can Not** Follow Simple Commands  
(Unconscious or Altered LOC)

**IMMEDIATE**

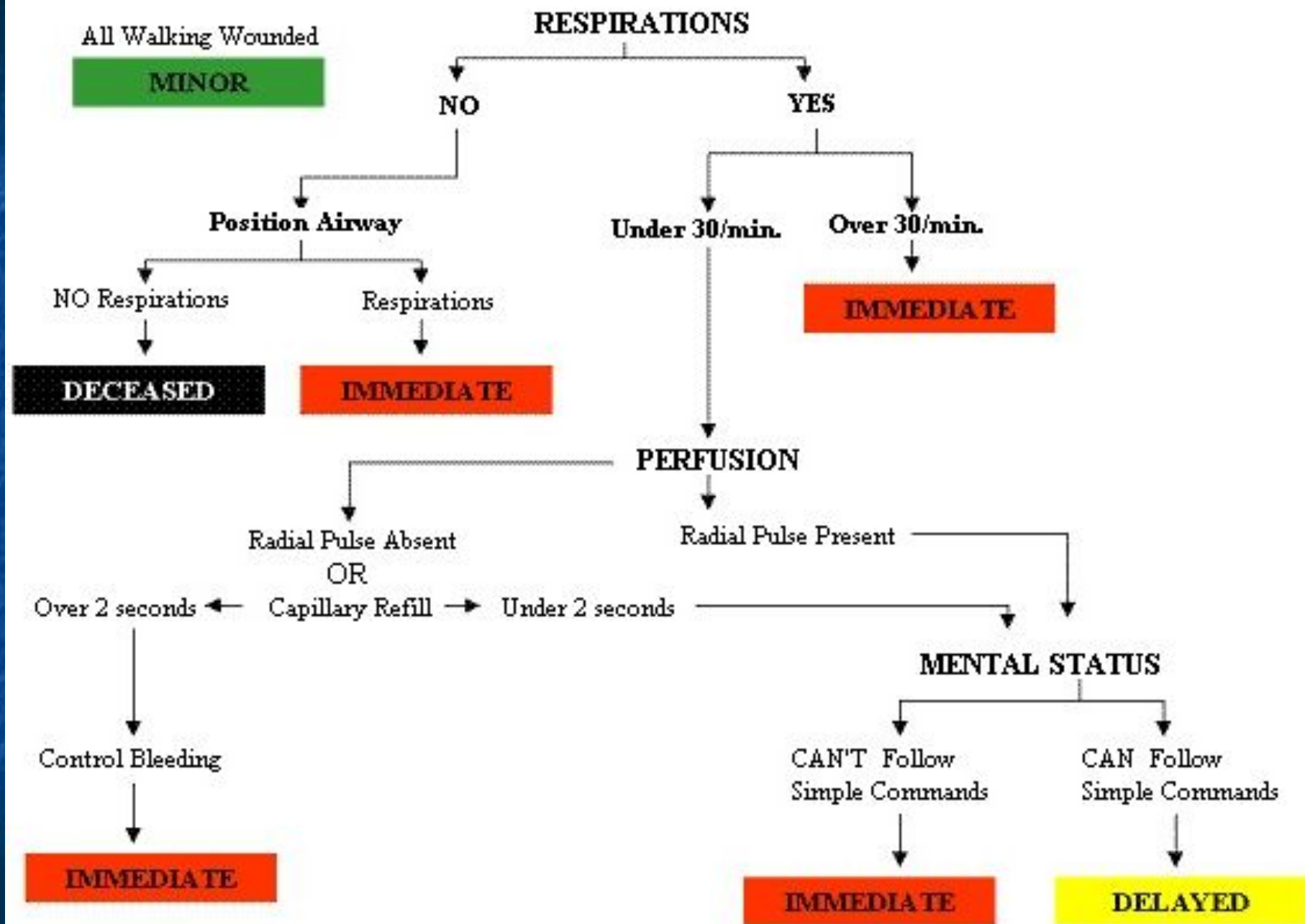
- **Can** Follow Simple Commands

**DELAYED**

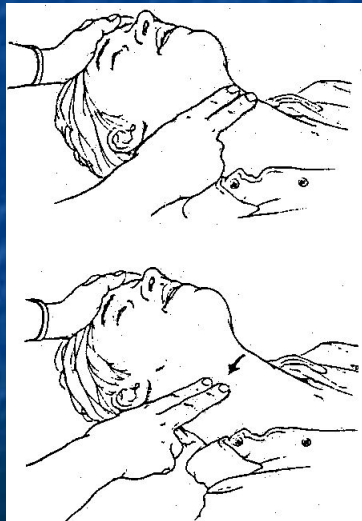
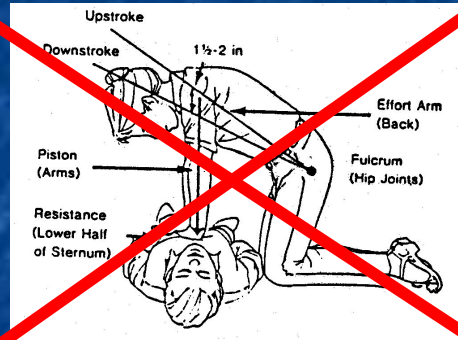
## START - Simple Triage And Rapid Treatment







# LIFE-SAVING TECHNIQUE

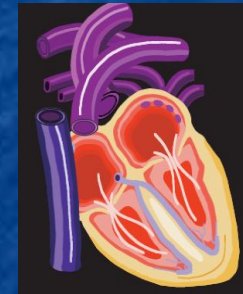
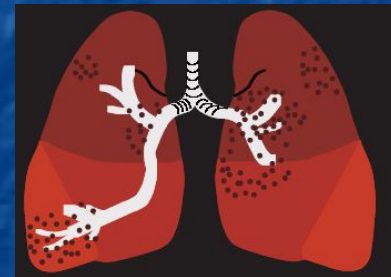




# LIFE-SAVING TECHNIQUE

If patient is immediate upon initial assessment,  
only attempt to correct

- airway blockage
- uncontrolled bleeding

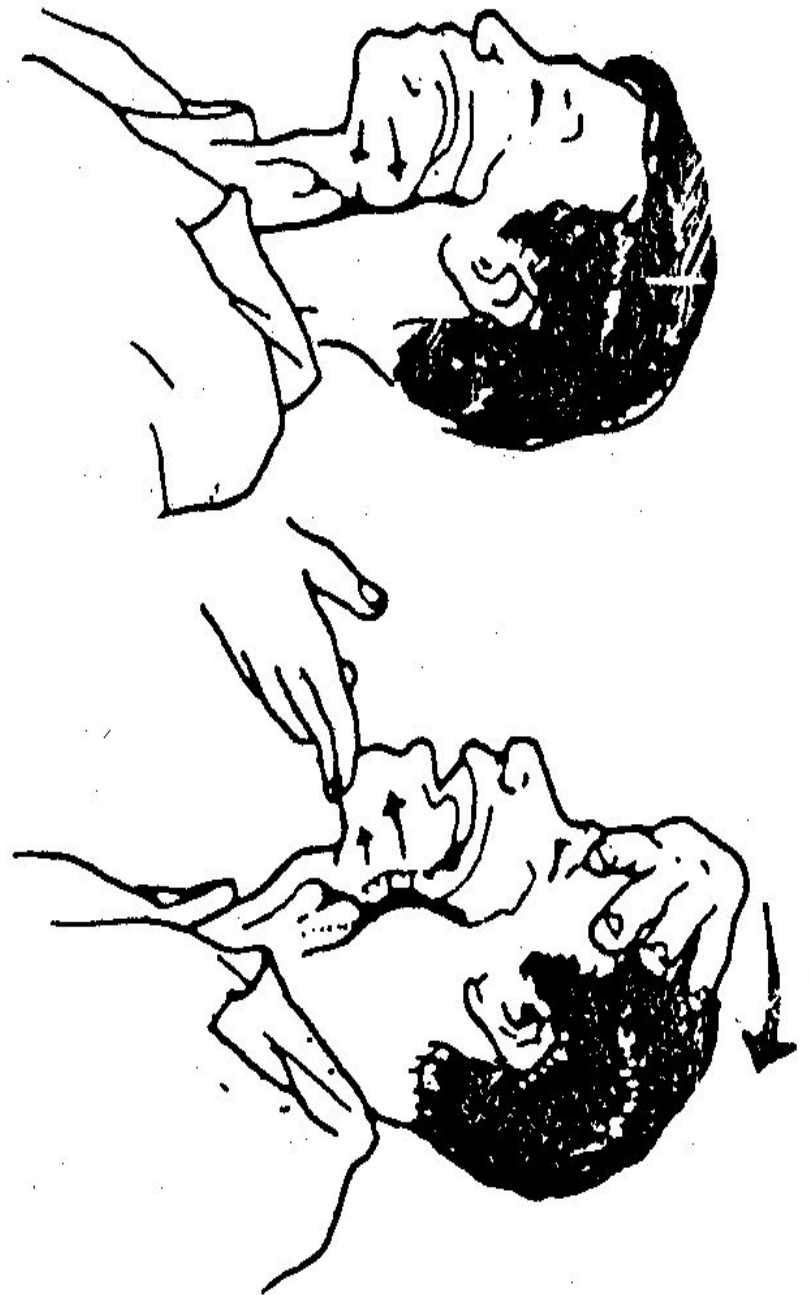


before moving on to next patient.

# Airway

## Open the airway

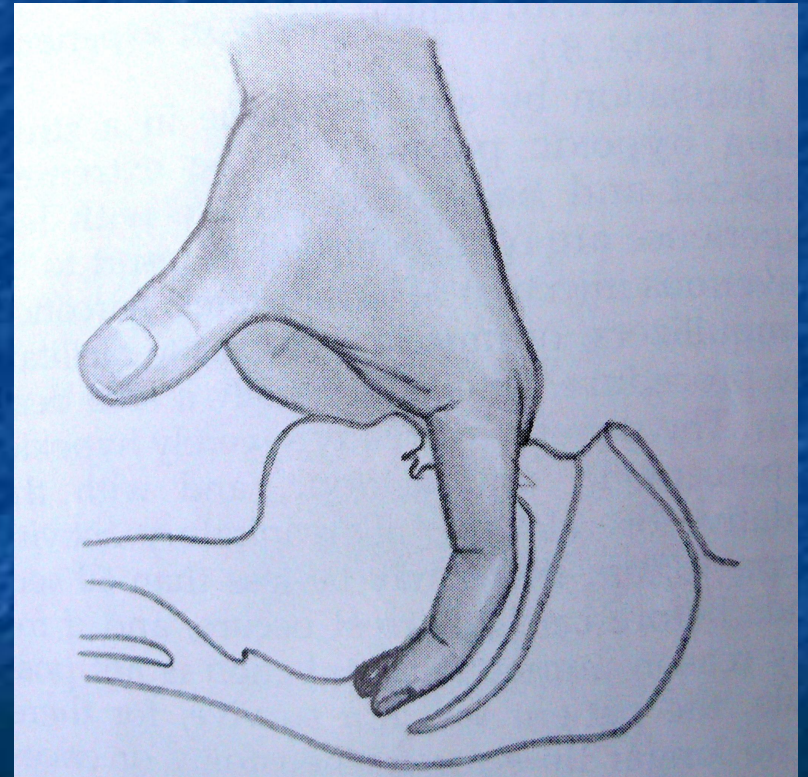
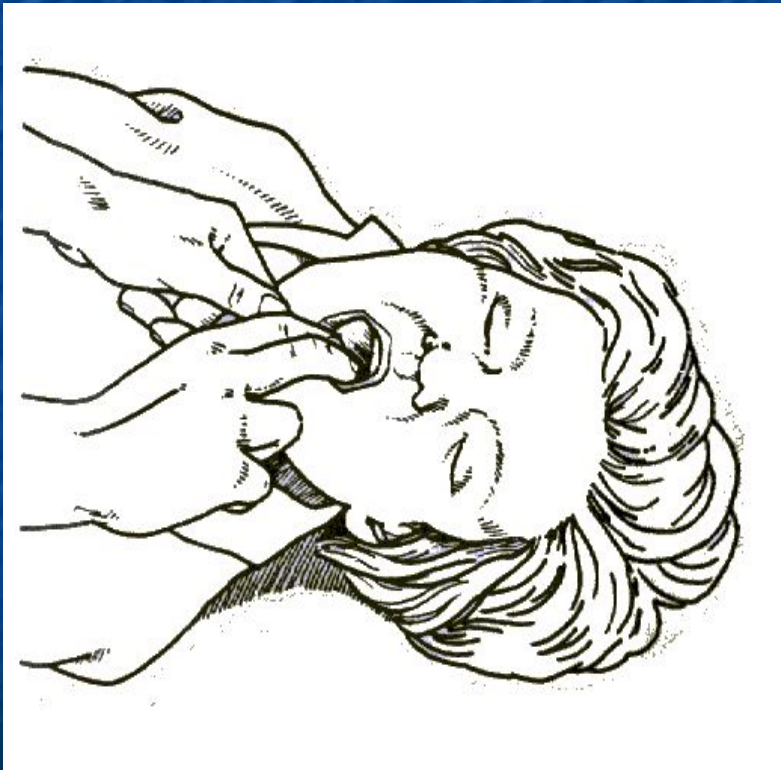
- ☞ *Tilt the forehead back*
- ☞ *Lift the chin forward*
- ☞ *Be careful in case of cervical spine injury*





# Airway

## 2. Remove all objects/obstructions from the mouth





# Breathing

You can  
Hear it  
See it  
Feel it



# *Uncontrolled bleeding*

✓ Control Haemorrhage :

✎ ***Compressive Dressing*** : Large volume of material /gauze placed over or in the wound and held in place securely by a bandage

✎ ***Elevated position***

✎ ***Tourniquet***

Mamadou

O  
K

> 30/min

> > 2/sec



X

O  
K

14h30

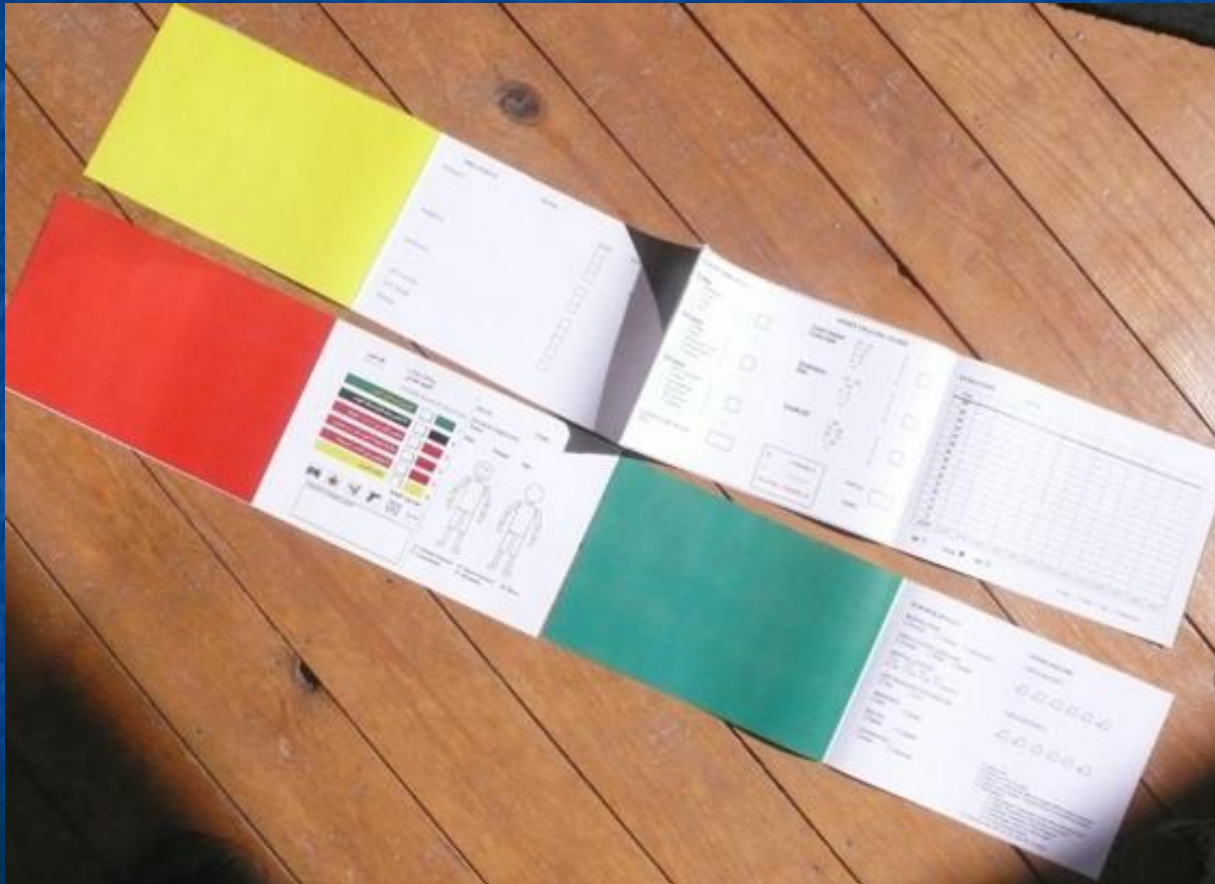
Blunt abdominal trauma

Retroperitoneal haematoma?

Shock



# The triage card

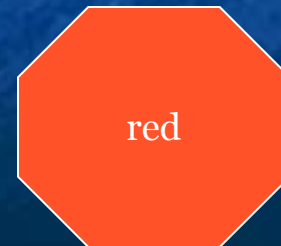


Respiration restored?  
Haemorrhage controlled?  
Patient is tagged?

Dispatch immediately to the  
appropriate zone

# What's your call?

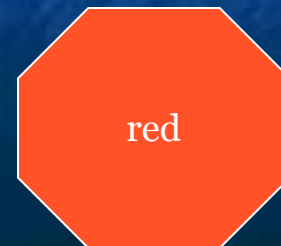
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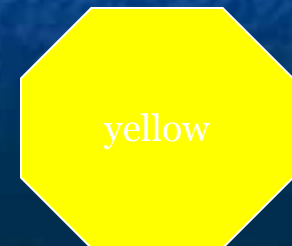
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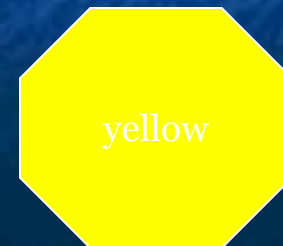


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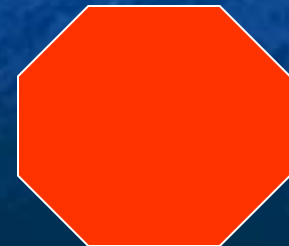
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# Questions

## True or False

- 1. A large majority of injuries are minor
- 2. Minor injuries will often arrive at the hospital first
- 3. The goal of mass casualty triage is to the best for the most
- 4. The most commonly used form of triage allows only 2 interventions- reposition airway and pressure to external hemorrhage
- 5. Triage is a dynamic process and is usually done more than once.

# Answers

- Check your answers regarding “ What’s your call?” You should be able to triage a patient within 15 seconds.
- If you answered TRUE to the previous questions, you are correct
- Congratulations !