Lesson three

TRIAGE

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Triage : Origin

- From the French verb, *t r i e r* , “to sort”
- Napoleon’s time, world war-1, to assign treatment priorities with limited resources
- Attention given first to most salvageable with most urgent conditions

Intoduction

Triage is the grouping of patients based on the severity of their injuries and the likelihood of their survival.

The word **triage** comes from the French word trier meaning to sort. ...

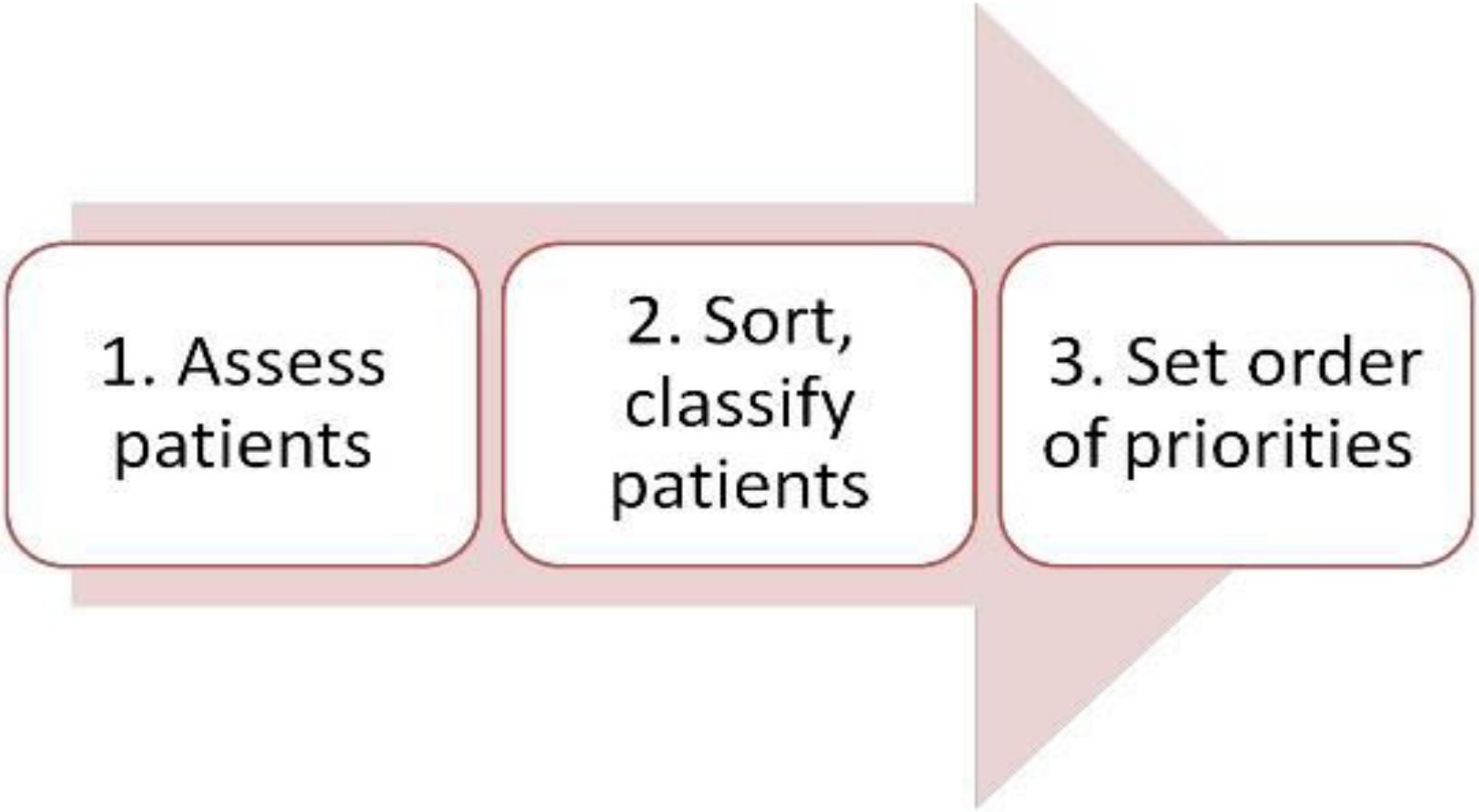
Although the medical sense is now the most common, it wasn't used that way until World War One

Aims

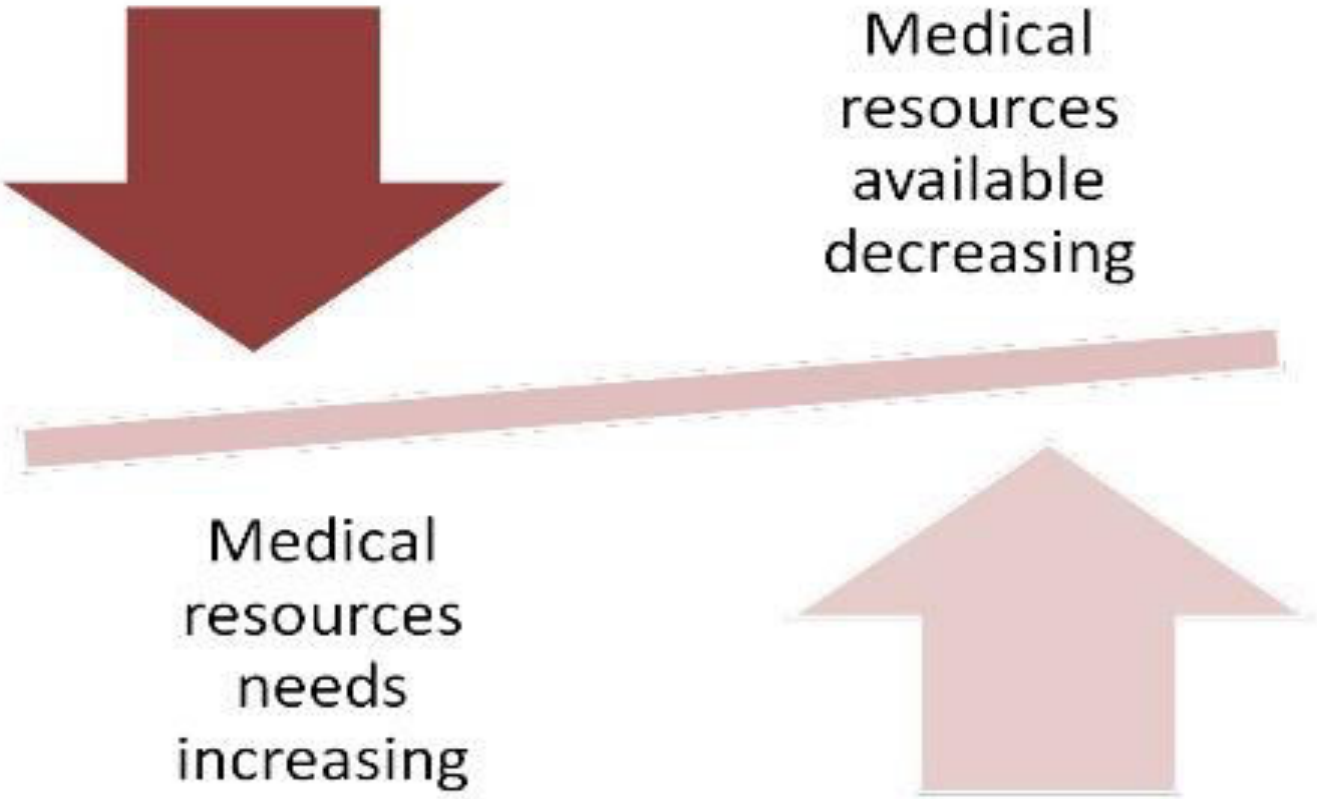
- To ensure that patients are treated in the order of their clinical urgency
- To ensure that treatment is appropriately and timely.
- To allocate the patient to the most appropriate assessment and treatment area (AVOID CONGESTION)

- To provide ongoing assessment of patients
- To provide information to patients and families regarding services expected care and waiting times.
- To contribute information that helps to define departmental acuity.

Triage in Emergency and Disaster



Why is there a need to sort patients?



TYPES of TRIAGE

types	objectives / methodology
PRIMARY TRIAGE (FIELD TRIAGE)	EARLY TRANSPORTATION "START" & "SAVE" DISASTER SCENARIO
SECONDARY TRIAGE (ED TRIAGE)	TIMELY & APPROPRIATE INTERVENTION COLOUR CODING
TERTIARY TRIAGE	Specialist Care

Triage Practices

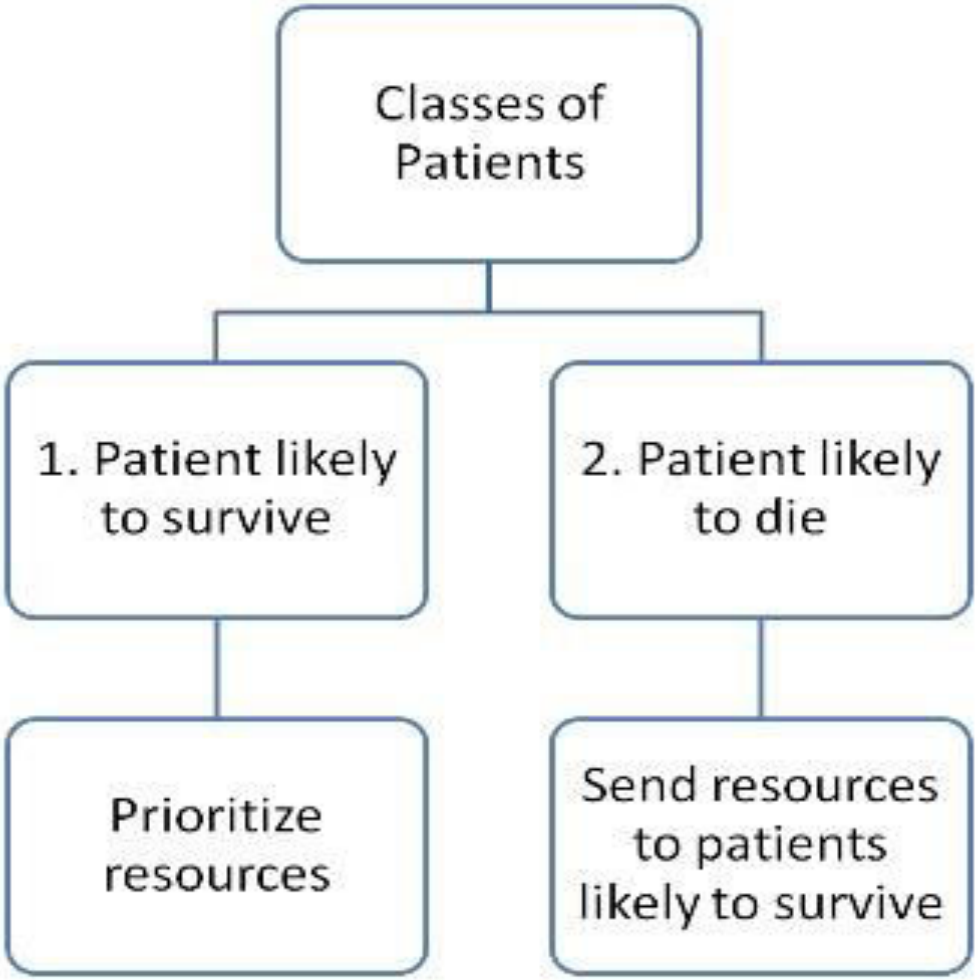
- **ED Triage**
  - Static, single point in time
  - Triage tags frequently used
  - Few patients
  - Used for mass Casualty scenes
- **Disaster**
  - Dynamic, multiple points in time
  - Documentation needs may exceed triage tag capacity
  - Large patient numbers
  - Used for wide-spread disaster scenes

Patient Categories

1. **Those who will die no matter what**
2. **Those who will do well no matter what we do**
3. **Those who will derive long-term benefit from acute intervention**

- **Early identification of #3 important**
  - **Others benefit from comfort care**

What are the classes of patients in emergency?



Disaster triage: START, then SAVE

Goal of Disaster Triage

- **Do the greatest good for the greatest number of PATIENTS**

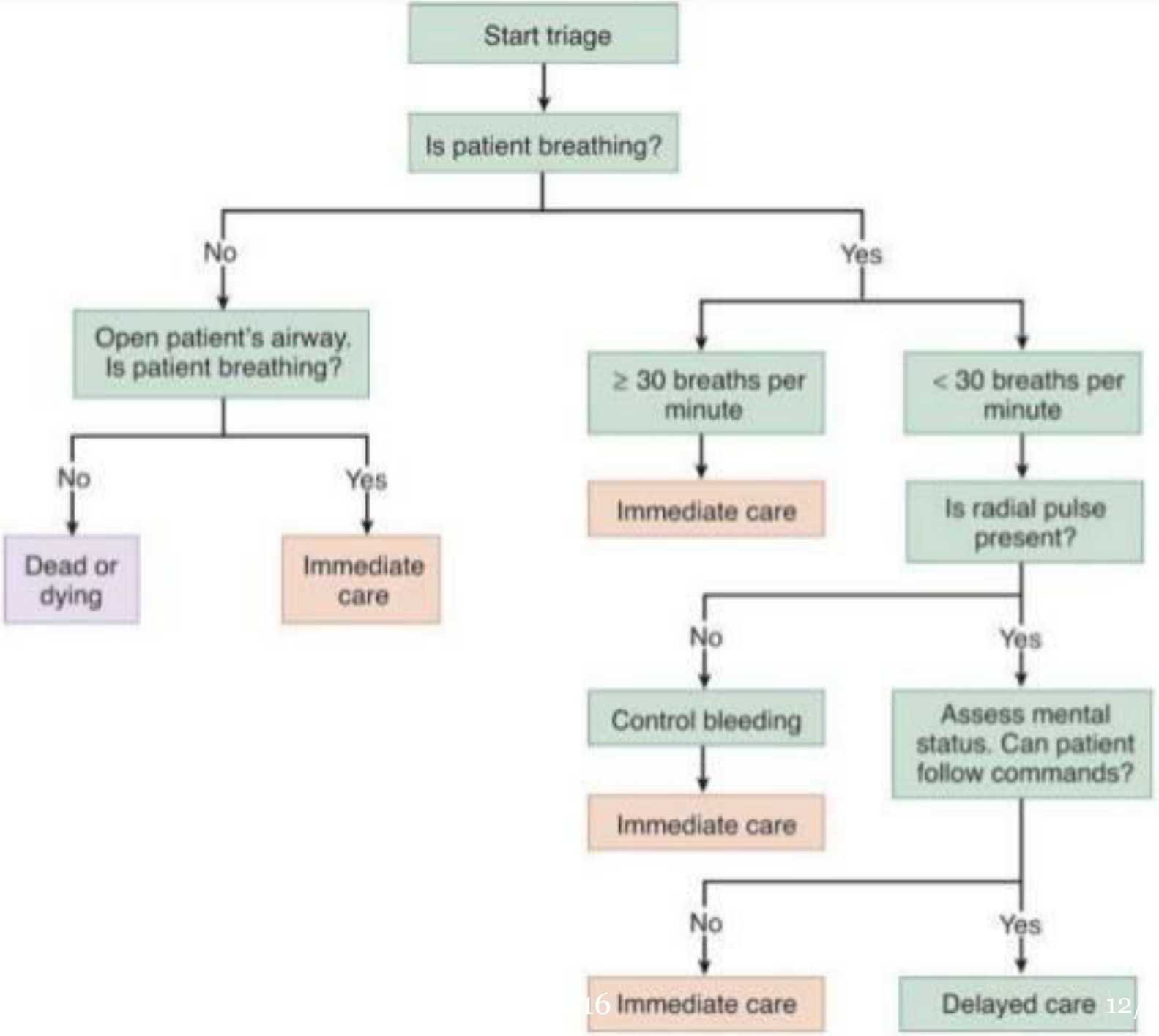
START TRIAGE

- **DONE In the field**
- **By the rescue personnel**
- **simple triage and rapid treatment (START) technique**
- **a quick assessment of**

✓ **respirations,**

✓ **perfusion, and**

✓ **mental status**

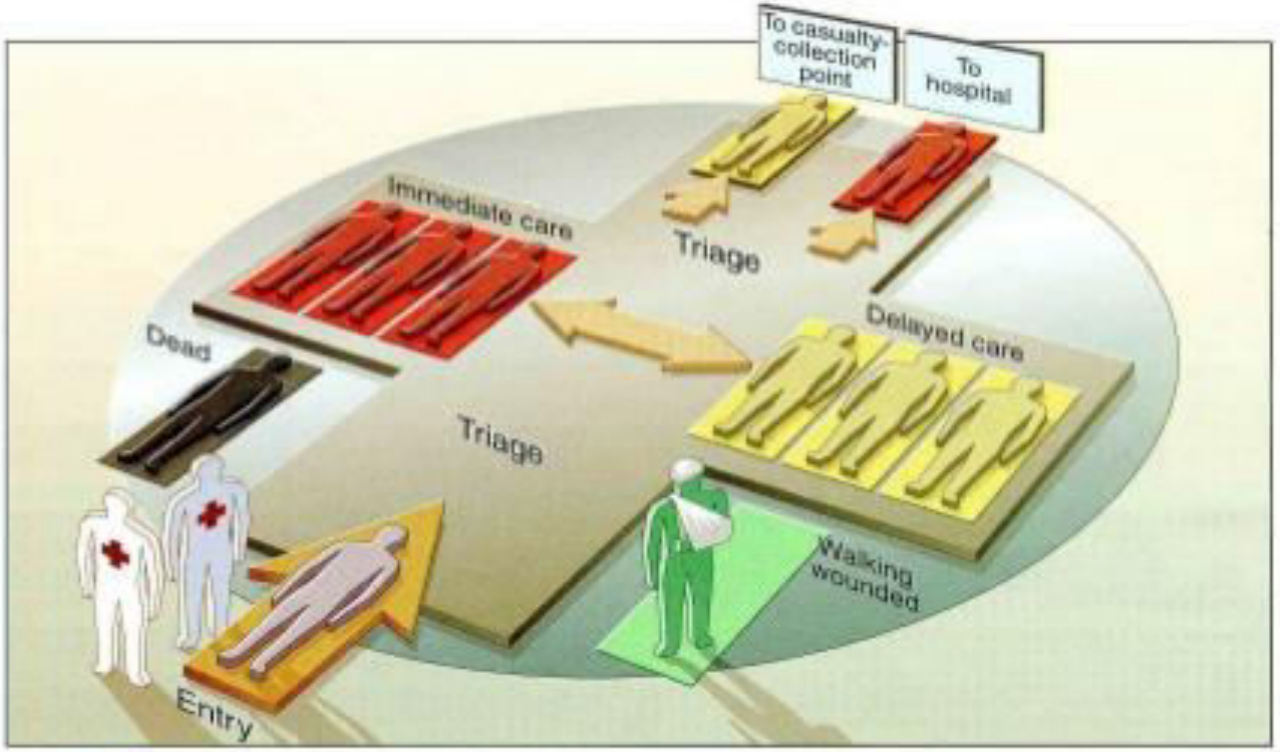

Start triage
Is patient breathing?
No
Yes
Open patient's airway. Is patient breathing?
≥ 30 breaths per minute
< 30 breaths per minute
No
Yes
Immediate care
Is radial pulse present?
Dead or dying
Immediate care
No
Yes
Control bleeding
Assess mental status. Can patient follow commands?
Immediate care
No
Yes
Immediate care
Delayed care

SAVE Triage

- SAVE (Secondary Assessment of Victim Endpoint)
- When patients are likely to have significantly delayed transport from a scene (e.g., number of casualties exceed transportation capacity or damage to hospital infrastructure),
- helpful to identify patients who are most likely to benefit from the care available under austere field conditions.

SAVE Triage
Areas of Assessment

- **Vital Signs**
- **Airway**
- **Chest**
- **Abdomen**
- **Pelvis**
- **Spine**
- **Extremities**
- **Skin**
- **Neurologic Status**
- **Mental Status**


To casualty-collection point
To hospital
Immediate care
Triage
Delayed care
Dead
Triage
Walking wounded
Entry

SAVE Triage Categories

Category	Definition	CARE PROVIDED
1	Patients who will die regardless of how much care they receive	COMFORT CARE
2	Patients who will survive whether or not they receive care	DELAYED CARE
3	Patients who will benefit significantly from austere field interventions	IMMEDIATE CARE

Periodic assessment of all categories is important

TERTIARY TRIAGE

- Done AFTER INITIAL RESUSCITATION & STABILISATION following ED Triage
- By the Specialists(NOT by the Emergency Physicians)
- To Assess & allocate

➢ Which patient Requires emergency Surgery

➢ Requires Admission into Intensive Care Unit/ Specific Ward

➢ Can be Discharged from their side

TRIAGE IN THE EMERGENCY DEPARTMENT

EMERGENCY DEPARTMENT TRIAGE

- Triage establishes priorities for care and determines the clinical area of treatment
- **Even if triage has been done at the scene, triage is needed at the ED entrance.**
- To accomplish the most good for the most number of patients, the triage team should evaluate all patients arriving at the ED and classify their conditions with regard to severity of injury and need for treatment

Key points

1. The Assessment/triage area must be immediately accessible and clearly sign-posted. Its design should allow for:

- patient examination
- means of communication between entrance and assessment area
- privacy

- 2. Strategies to protect staff will exist
- 3. The same standards for triage categorisation should apply to all Emergency Departments (ED) settings..
- 4. Victims of trauma should be allocated a triage category according to their objective clinical urgency.).
- 5. Patients presenting with mental health or behavioural problems should be triaged according to their clinical and situational urgency, as with other ED patients. Where physical and behavioural problems co-exist, the highest appropriate triage category should be applied based on the combined presentation.


ACCIDENT & EMERGENCY

Equipment Requirements

- Emergency equipment
- Facilities for using standard precautions (hand-washing facilities, gloves)
- Adequate communications devices (telephone and/or intercom etc)
- Facilities for recording triage information

Triage Team

- an emergency physician, an ED nurse, and medical records or admitting clerks should receive every patient
- The physician performing hospital triage should be acknowledged as being in command of the triage area, should be clearly identified by a specially colored vest or other garment, and must understand all triage options

- One member of the triage team (admitting or medical records clerk) should be assigned the job of recording the victim's name on the disaster tag along with the triaged destination within the hospital.
- If identification of the patient is not available, ethnicity, gender, and approximate age should be noted on the tag.
- An initial diagnostic impression should also be registered on the tag.
- This information is entered into a department log and is also placed in a triage logbook
- Security personnel, media centre, official person's involvement is equally important to successfully triage all the patients

Triage category

- **four color-coded categories (red, yellow, green, or black), depending on injury severity and prognosis**
- Triage category is identified by use of a colored band or trauma/disaster tag that is placed on the patient to document that triage has been done.

Tags

A triage tag is a prefabricated label placed on each patient that serves to accomplish several objectives:

- identify the patient.
- bear record of assessment findings.
- identify the priority of the patient's need for medical treatment and transport from the emergency scene.
- track the patients' progress through the triage process.
- identify additional hazards such as contamination.

Red	First priority	Most urgent	Life-threatening shock or hypoxia is present or imminent, but the patient can likely be stabilized and, if given immediate care, will probably survive
Yellow	Second priority	Urgent	The injuries have systemic implications or effects, but patients are not yet in life-threatening shock or hypoxia; although systemic decline may ensue, given appropriate care, can likely withstand a 45- to 60-min wait without immediate risk
Green	Third priority	Non-urgent	Injuries are localized without immediate systemic implications; with a minimum of care, these patients generally are unlikely to deteriorate for several hours, if at all
Black		Dead	No distinction can be made between clinical and biologic death in a mass casualty incident, and any unresponsive patient who has no spontaneous ventilation or circulation is classified as dead. Some place catastrophically injured patients who have a slim chance for survival regardless of care in this triage category

Triage category	Priority	Color	Conditions
Immediate	1	RED	**Chest wounds, shock, open fractures, 2-3 burns**
Delayed	2	YELLOW	**Stable abdominal wound, eye and CNS injuries**
Minimal	3	**GREEN**	**Minor burns, minor fractures, minor bleeding**
Expectant	4	BLACK	**Unresponsive, high spinal cord injury**

Number	Name	Colour	Max time
1	Immediate resuscitation	Red	0 minutes
2	Very urgent	Orange	10 minutes
3	Urgent	Yellow	60 minutes
4	Standard	Green	120 minutes
5	Non-urgent	Blue	240 minutes

CATEGORY	MEANING	OUTCOME
1. Immediate	Acute danger for life.	Life threatening injuries. Requires immediate medical attention and will not survive if not seen soon.

Examples

1. Tension pneumothorax

2. Massive Hemorrhage (Shock)
3. Cardiac tamponade
4. Major traumatic amputation

CATEGORY	MEANING	OUTCOME
2. Delayed	Severe injury.	life-threatening, but can wait until the Immediate casualties are stabilized and evacuated. Constant observation

Examples

- Pulmonary contusion
- Flail chest with hypoxia
- Minor amputations
- Flesh wounds
- Fractures and dislocations

CATEGORY	MEANING	OUTCOME
3. Minimal	Minor injury or no injury. "Walking wounded".	Treatment when practical, **transport** and/or **discharge** Requires medical attention when all higher priority patients have been evacuated.

Examples

- Minor lacerations
- Sprains
- Abrasions
- Non-displaced, minimally angulated closed fractures of the digit

CATEGORY	MEANING	OUTCOME
4. Expectant	No or small chance of survival; **no** spontaneous **breathing** after clearing of airway; or dead	Expected not to reach higher medical support alive. If **dead**, collection and guarding of bodies, **identification** when possible.

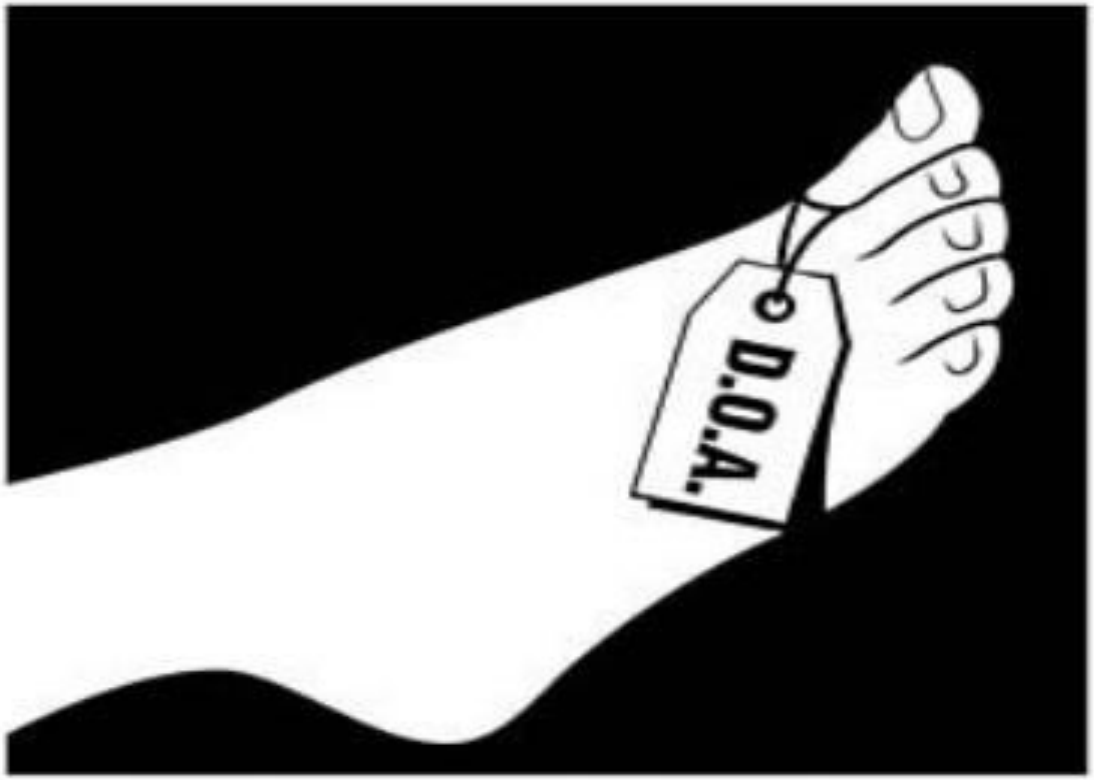
Examples

- Severe injuries, uncompensated **blood loss**,
- **Negative neurological** assessment
- **No** spontaneous **breathing** after clearing of airway

Examples

- **Unresponsive** patient with open head wound and exposed brain
- **Burns**: 2° and 3°, more than **50%** TBSA
- Exposure to radiation: more than 500rads with immediate signs of radiation sickness

Expectant



TRIAGE TAGS

Recognition of the Critically Ill Child

Useful signs

- Alertness drowsiness hypotonic on examination
- Breathing moderate/severe recession cyanosis wheeze
- Circulation: pallor signs of dehydration
- Temperature > 38.5C
- Signs of dehydration
- Tender abdomen

Specific signs

- Resp grunt, crepitations, stridor, apnoea tachypnoea >80
- Abdo mass, hernia, distension
- CNS weak cry, abnormal posture
- Skin cold periphery, mottling, bruise, rash
- Pulse > 200
- Urine output < 4 wet nappies

Documentation

- Date and time of assessment
- Name of the DOCTOR / triage nurse
- Chief presenting problem(s)
- Limited, relevant history
- Relevant assessment findings
- Initial triage category allocated
- Any diagnostic, first aid or treatment measures initiated

Take Home Messages

- Each & every EMERGENCY DEPARTMENT should have their well-organised triage plan to tackle mass-casualty/ disaster scenario in the hospital
- Pre-designated triage team, along with training of all the staffs (doctor, nurse, & other health-care providers) to be pursued in every hospital

Video links

- https://youtu.be/H-mojAPMVwE

THANK YOU