



# PRINCIPALS OF DISASTER MEDICINE

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Destroyed houses at Bantul, Indonesia caused by 6.2 magnitude earthquake on Java island

# WHY WE DO NEED IT?



# The Concepts

*"The key principle of disaster medical care is to do the greatest good for the greatest number of patients, while the objective of conventional medical care is to do the greatest good for the individual patient."*



# OVERVIEW

*A disaster represents an untoward event, natural or human made, which overwhelm existing resources.*

*Due to the unpredictable nature of disasters, hospitals, & communities must be ready for all hazards.*

*Hospital responsibilities are not limited to the treatment of the immediate injured, but expand out to the community in general.*

# HISTORY OF DISASTER MEDICINE

During the French Revolution, surgeon Dominique Jean Larrey applied the idea of ambulances, for rapid transport of wounded soldiers to a central place where medical care was more accessible and effective.

The term “disaster medicine” first appeared during 1917-1918 Influenza Pandemic.

In 1980s, the term “disaster medicine” would continue to appear in the American’s National Disaster Medical System.

**Dominique Jean Larrey**



Dominique Jean Larrey,  
portrait by [Anne-Louis Girodet de Roussy-Trioson](#),  
[Musée du Louvre](#), Paris.

**Born** 8 July 1766  
[Beaudéan \(Hautes-Pyrénées\)](#)

**Died** 25 July 1842  
[Lyon](#)

**Fields** [surgeon](#)

# DISASTER MEDICINE

A discipline resulting from the 'marriage' of emergency medicine & disaster management.

**Emergency medicine** is a field of practice based on the knowledge and skills required for the prevention, diagnosis and management of acute and urgent aspects of illness and injury affecting patients of all age groups with a full spectrum of undifferentiated physical and behavioral disorders

**Disaster management** is the discipline of dealing with and avoiding risks. It is a discipline that involves preparing for disaster before it occurs, disaster response (e.g., emergency evacuation, quarantine, mass decontamination, etc.), and supporting, and rebuilding society after natural or human-made disasters have occurred.

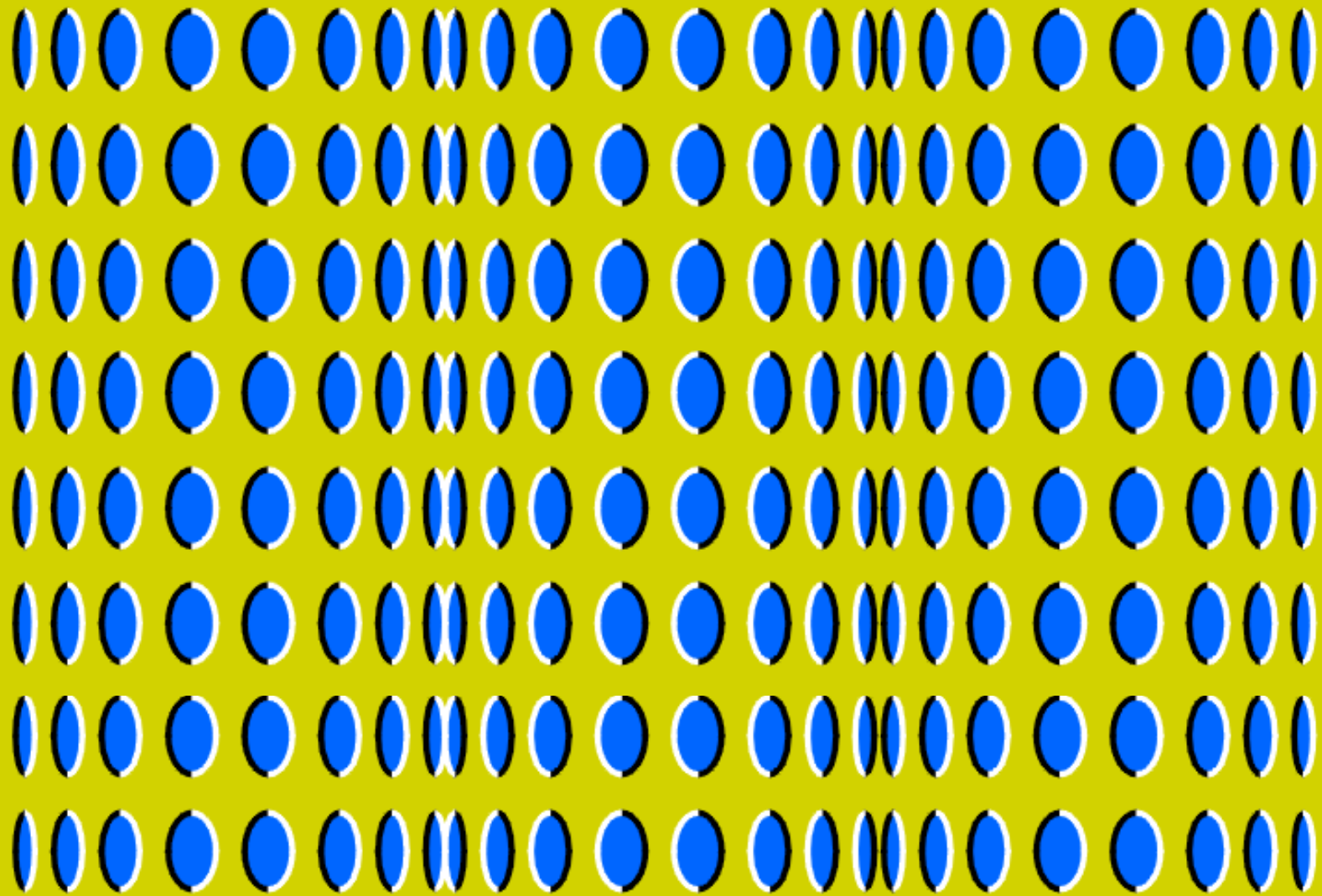
# Disaster Medicine

- Disaster Medicine is unique among the medical specialties in that unlike all other areas of specialization, the Disaster Medicine specialist does not have a clinic.
- However, like the specialists in public health, environmental medicine and occupational medicine; Disaster Medicine experts engage in the development and modification of public and private policy, legislation, disaster planning and disaster recovery.

Is it possible to  
teach Disaster  
Medicine  
whenever  
there is no  
disaster?





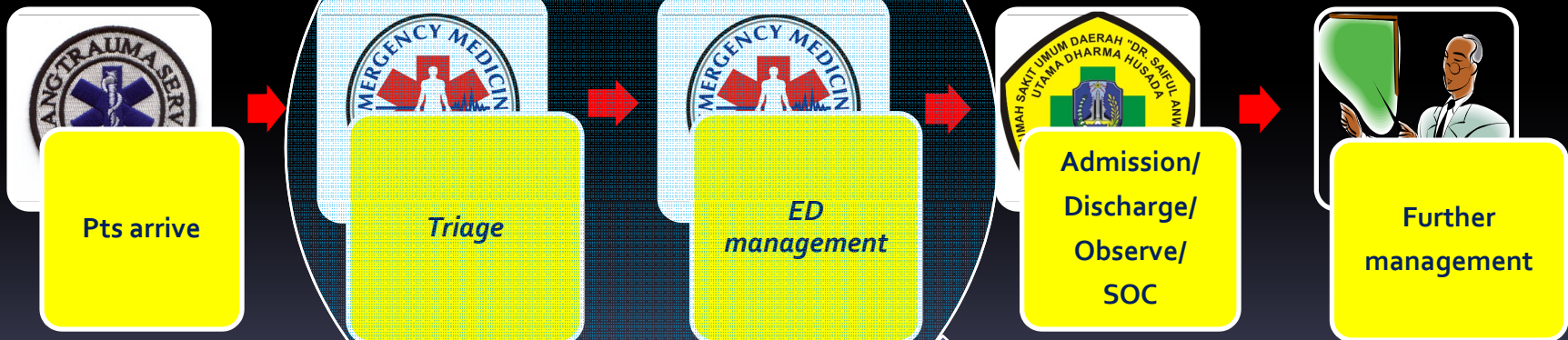


# 4 Components of Disaster Response

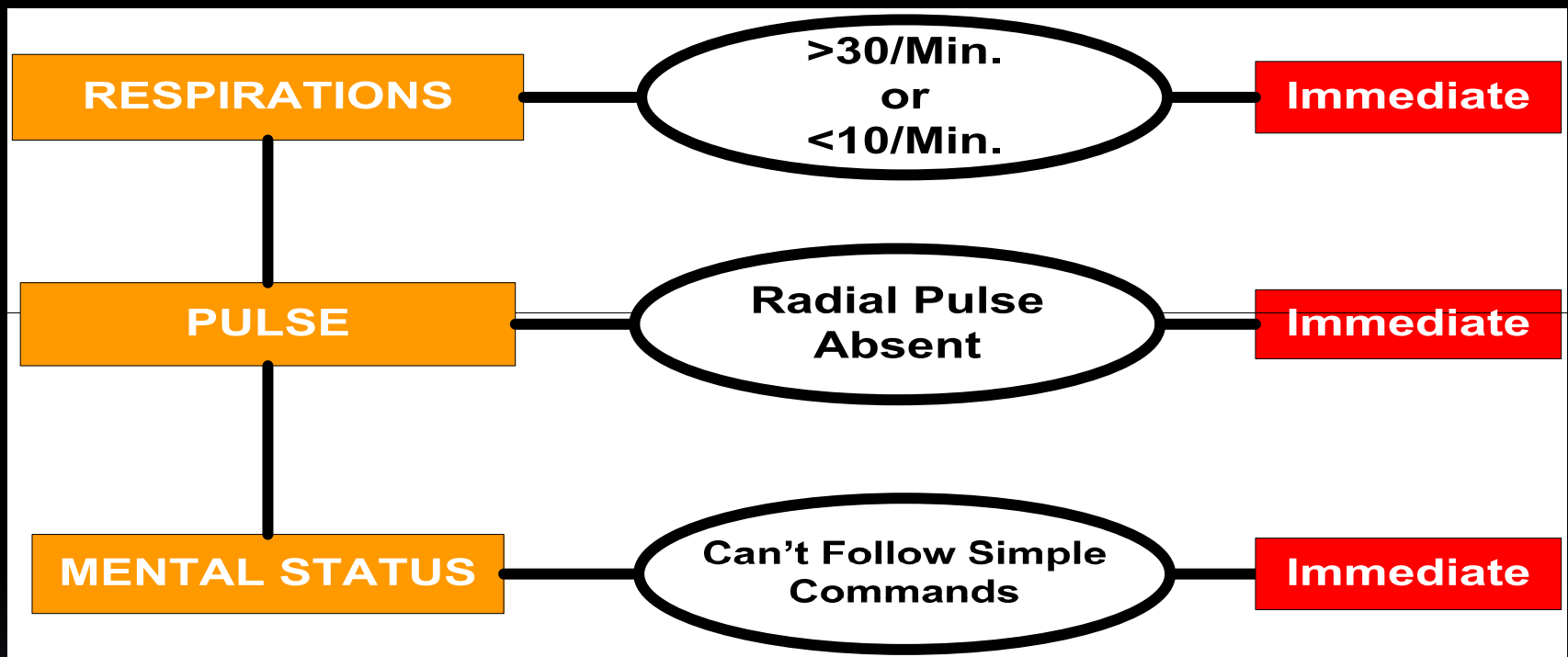


# Emergency Department Flow

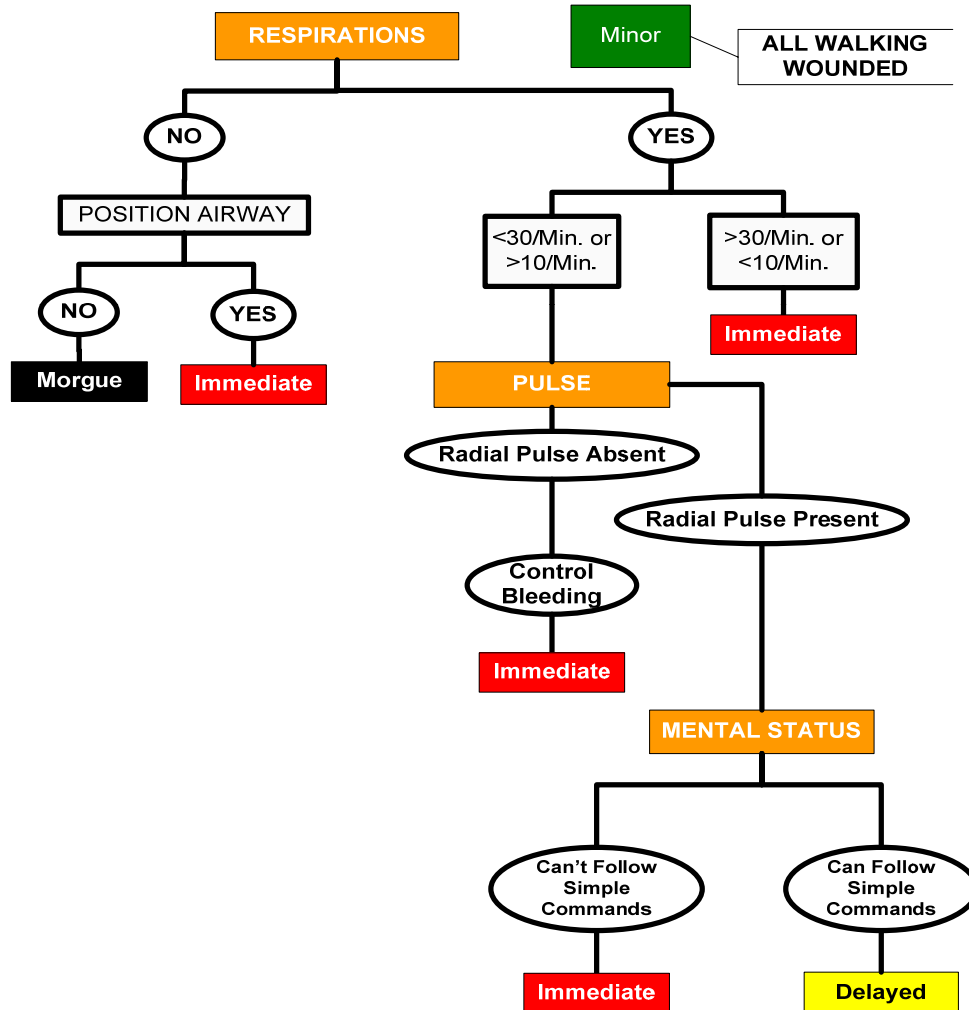
Response Time



# S.T.A.R.T. (Simple Triage And Rapid Transport)



# TRIAGE DURING DISASTER



## FRONT

Personal Property Receipt/  
Evidence Tag \*1234567\*

Destination: \_\_\_\_\_  
Via: \_\_\_\_\_ \*1234567\*

### TRIAGE TAG

S  L  U  D  G  E  M  
S: Severe Laceration, Bleeding, Deformation & Distress, Emesis, Blood

AUTO INJECTOR:  1  2  3  4  5

File No: \_\_\_\_\_ Primary Device: \_\_\_\_\_  
File No: \_\_\_\_\_ Secondary Device: \_\_\_\_\_  
Solution: \_\_\_\_\_

Start Trauma: \_\_\_\_\_  
Burn: \_\_\_\_\_  
Spine: \_\_\_\_\_  
Chest: \_\_\_\_\_  
Clashes: \_\_\_\_\_  
Fracture: \_\_\_\_\_  
Laceration: \_\_\_\_\_  
Penetrating Injury: \_\_\_\_\_

Other: \_\_\_\_\_

VITAL SIGNS			
Time	B/P	Pulse	Respiration

Time	Drug	Solution	Dose

## BACK

Comments/Information

Patient's Name: \_\_\_\_\_

RESPIRATIONS:  YES  NO  
PERFUSION:  > 2 Sec.  < 2 Sec.  
MENTAL STATUS:  Can Do  Can't Do

Move the Walking Wounded:  MINOR  MORGUE

No Respirations After Head Tilt:  MORGUE

Respirations - Over 30:  IMMEDIATE

Perfusion - Capillary Refill Over 2 Seconds:  IMMEDIATE

Mental Status - Unable to Follow Simple Commands:  IMMEDIATE

Otherwise:  DELAYED

Other: \_\_\_\_\_

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PERSONAL INFORMATION

NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
CITY: \_\_\_\_\_ ST: \_\_\_\_\_ ZIP: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMMENTS: \_\_\_\_\_ RELIGIOUS PREFERENCE: \_\_\_\_\_

MORGUE		MORGUE	
Pulseless/Non-Breathing		Pulseless/Non-Breathing	
IMMEDIATE Life Threatening Injury	IMMEDIATE Life Threatening Injury	IMMEDIATE Life Threatening Injury	IMMEDIATE Life Threatening Injury
DELAYED Serious Non Life Threatening	DELAYED Serious Non Life Threatening	DELAYED Serious Non Life Threatening	DELAYED Serious Non Life Threatening
MINOR Walking Wounded	MINOR Walking Wounded	MINOR Walking Wounded	MINOR Walking Wounded

# Natural Vs Manmade Disaster



Natural disaster have predominated in frequency & magnitude over manmade ones.

SARS have proven in recent years that, despite of pasage of time & the great advances in medicine.

Today, the possibilities of terrorist attack threatens populations across the globe.



# HAZMAT

Hazardous Materials (HazMat) still represent one of the most common disasters that occur in the community setting.

These patients typically arrive with little or no warning or information regarding the responsible agent.

To evaluate and treat these victims safely, policies and procedures that govern contaminated victim assessment & management must be developed.



# THE ROLE OF EMS IN DISASTER MEDICINE

The goal of most emergency medical services is to either provide treatment to those in need of urgent medical care, with the goal of satisfactorily treating the malady, or arranging for timely removal of the patient to the next point of definitive care.

The term Emergency Medical Service evolved to reflect a change from a simple transportation system (ambulance service) to a system in which actual medical care occurred in addition to transportation.





# Emergency Medicine Specialist Training Programme Curriculum

## DAK7007 Disaster Medicine

Principles of Disaster Medicine and Management

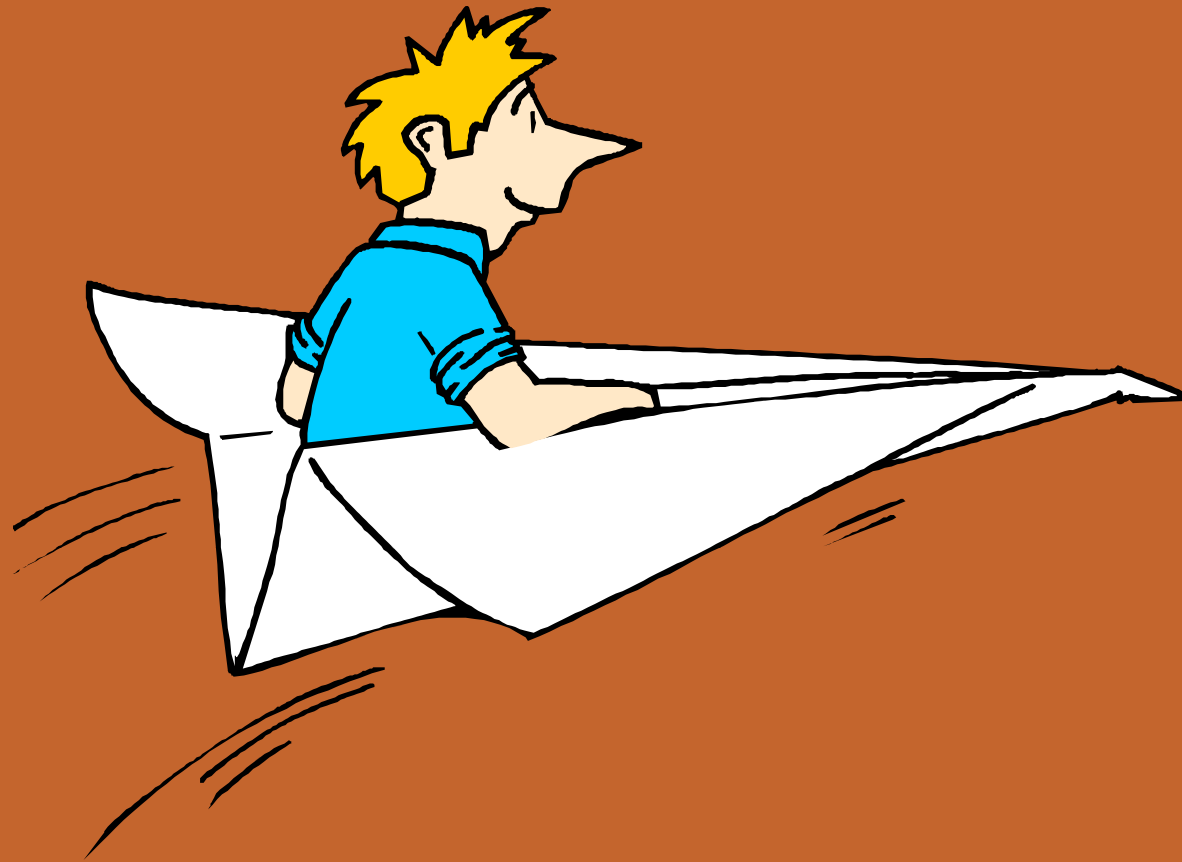
Environmental Emergencies

Principles of Pre-Hospital Care

Methods for Disaster Medicine and Management

Major Incident Management & Mass Destruction

Decontamination & Hazmat



HOW FAR CAN WE GO?

Thank you...

