

# **DISASTER MANAGEMENT**

**BY  
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# WHAT DID YOU SEE....?



**IS THE SITUATION FAMILIAR ?**



# SO, WHAT IS A DISASTER ?



# What is a “Disaster”?

## Disaster- dis-as-ter *n.*

- a. An occurrence causing widespread destruction and distress; a catastrophe.
- b. A grave misfortune.
- c. *Informal*- A total failure



# “Disaster” Definition

*A disaster is present when need exceeds resources!*

**Disaster = Need > Resources**

- A response need that is greater than the response available!



# DEFINITIONS OF DISASTER

1. WHO - Sudden Ecologic Phenomenon of Sufficient magnitude to require external existence.
2. Colin Grant - Catastrophe causing illness or injury simultaneously to at least 30 people who will require Hospital services



# DEFINITIONS OF DISASTER

3. ACEP - Sudden massive disproportion between Hostile Elements of any kind and the survival Resources that are available to counterbalance these in the shortest period of time





# DEFINITIONS OF DISASTER

4. Humberside Country Council UK - Major incident arising with little or no warning causing or threatening death or serious injury to or rendering homeless, such numbers of persons in excess of those which can be dealt with by the public services operating under normal procedures and which calls for the special mobilization and organization of these services



# **CHARACTERISTICS**

- 1. Suddenness of Occurrence**
- 2. Vastness of Damage**
- 3. Loss of Life and Property**
- 4. Disruption of Communication**
- 5. Panic and Anxiety**

# CLASSIFICATION OF DISASTERS



# **HEALTH IMPLICATIONS OF DISASTERS**

## **Direct health consequences**

**Injuries**

**Deaths**

## **Indirect health consequences**

**Transmission of Communicable diseases**

**Rehabilitation**

**The Aftermath**

# Are We Prepared?

Is the Indian healthcare system prepared?

We think we are ... The Armed Forces, Law enforcement agency, Fire department, The Railways and Community has...

- ... a disaster plan

- ... properly documented drills

- ... annual training documented

But...



# RESCUE

**INDIAN EXPRESS 27 JAN 2001**

- \* **NO IMMEDIATE RESCUE OPERATIONS AND NO COORDINATION**
- \* **ADMINISTRATION PARALYSED**
- \* **DELAY IN DEPLOYMENT OF RESCUE TEAMS**



# RELIEF



## INDIA TODAY FEB 2001

- \* RELIEF PILING UP
- \* FOOD WAS ROTTING UP

## TIMES OF INDIA FEB 2001

- \* RELIEF SPINS OUT OF CONTROL
- \* **RELIEF STILL IS A FAR CRY**
- \* RED TAPE, POOR DISTRIBUTION
- \* **LOOTING OF RELIEF MATERIAL**





## **INDIA TODAY FEB 2001**

- \* MINIMAL EQPT AND BROKEN ROAD
- \* CROWBAR LEVEL MACHINERY AND SPADES
- \* NO THERMAL OR LASER EQUIPMENT FOR RESCUE
- \* NO SNIFFER DOGS
- \* ARMY, NAVY AND AIR FORCE WORK ROUND THE CLOCK
- \* TECHNOLOGY FACILITATES RECOVERY PROVIDED
- \* I-T SUPERPOWER IS ALIVE TO IT



# Are We Prepared?

KATRINA TAUKTAE  
YAAS NISARGA  
AMPHAN



# Are We Prepared?

Interagency communication failures!

Why do we all treat a cardiac arrest the same?  
...because there is an agreed-upon approach.

# Are We Prepared?

Critical to healthcare preparedness

uniform

coordinated approach

mass casualty management from any cause

**NEED: A nationally standardized plan, training program and policy**



# **WHY WE ARE NOT PREPARED**

Traditional Approach fails

**Need Equipment and logistics**

Need Training

**Need Rs**

Fear of the unknown

**It can't happen here**

Not Interested

**Inherent lethargy**



# SO, WHAT HAVE WE GOT AND WHAT WE SHOULD DO



# THE ORGANISATION FOR DISASTER MANAGEMENT



# Management at Global level

United Nations Disaster Assessment and Coordination (UNDAC)

UNDP, WHO and operational humanitarian United Nations Agencies

On request, the UNDAC team can be deployed within hours



# Management at Global level

International Search and Rescue Advisory Group  
(INSARAG)

**INSARAG** is a global network of more than 80 countries and disaster response organisations under the United Nations umbrella.

Earthquake response





# International Health Regulations

First constituted - 1969

Last revision – 2007

India became signatory – 2005

Includes provision of technical assistance and resources to member states

Coordinating agency - WHO



# Disaster Planning at National level



# Over all Responsibility

National Disaster management – transferred to Min of Home Affairs in 2002

Disaster management Act 2005 - enacted 23 Dec 2005



# Disaster Management Act

Continuous and integrated process of planning, organising , coordinating and implementing measures which are necessary for

Prevention of threat of disaster

Mitigation of risk of any disaster / its severity



# Disaster Management Act

Preparedness to deal with any disaster

Assessing the severity

Evacuation/rescue /relief

Rehabilitation / reconstruction



# National Disaster Management Authority

Chairperson – Prime minister

**Members – 9**

Responsibility to lay down policy /plans/ guidelines



# **National Advisory Committee**

**National Authority will constitute Advisory Committee  
– Experts from various fields**



# National Executive Committee

**Secy to GOI IC of Disaster Management**

**Secy – Dept of**

**Atomic Energy**

**-Defence**

**Drinking water supply**

**-Health**

**Environment and Forests**

**- Power**

**Rural development**

**-Space**

**Science & Technology**

**-Telecom**

**Urban development**

**-Finance**

**Rural development**

**-Agriculture**

**COAS + Chiefs of Staff Committee**



# State / District level

Parallel Org / authorities at

**State Disaster Management Authority**

**District Disaster Management Authority**

**Executive Committees – Responsible for implementation of**

**National disaster plan**

**State disaster plan**

**District plan**



# DISASTER MGMT ORGANISATION IN ARMED FORCES

HQ IDS is Nodal Agency

Defense Crisis Management Group

Chairman- CISC

Members - DGMO- Army

- Dir Naval Ops- Navy

- ACAS Ops- Air Force

- DGAFMS

DGsMS – Executive Arms of DGAFMS



# DISASTER MGMT CELL AT THE DIRECTORATE OF DGAFMS

**Chairman-** DGHS(Armed Forces)

**Members**      -Rep of DGMS (Army)  
                             -Rep of DGMS (Air)  
                             -Rep of DGMS (Navy)

**OIC DMC-** Director (Coord)



# Disaster Bricks

Medical Bricks for Disaster relief

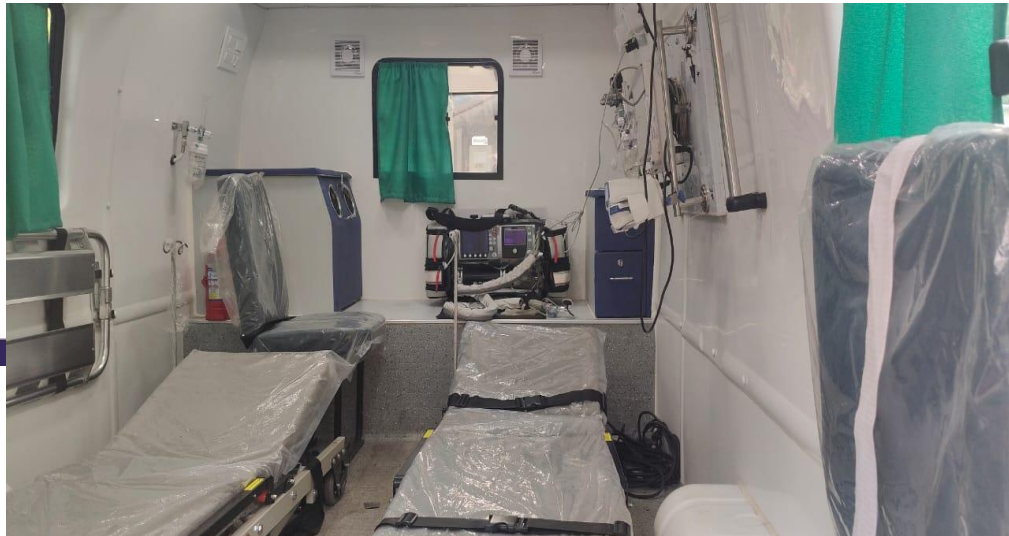
1. Basic Medical Brick

2. Basic Surgical Brick

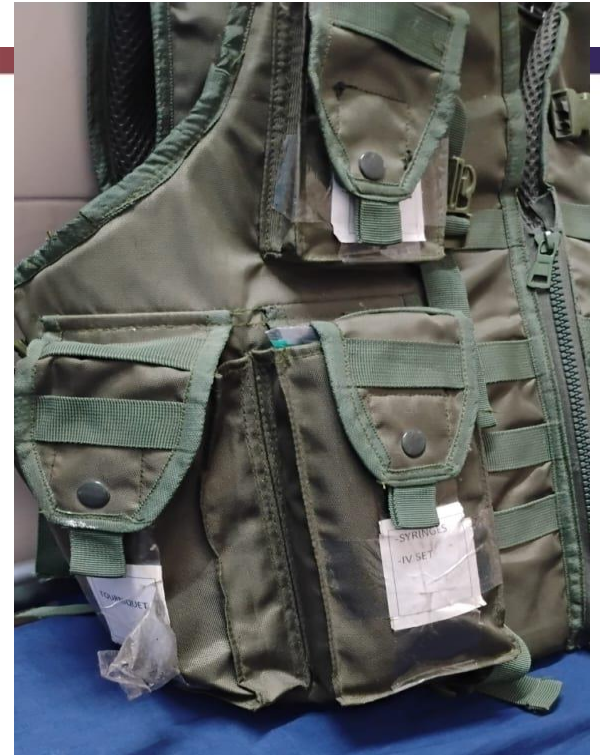
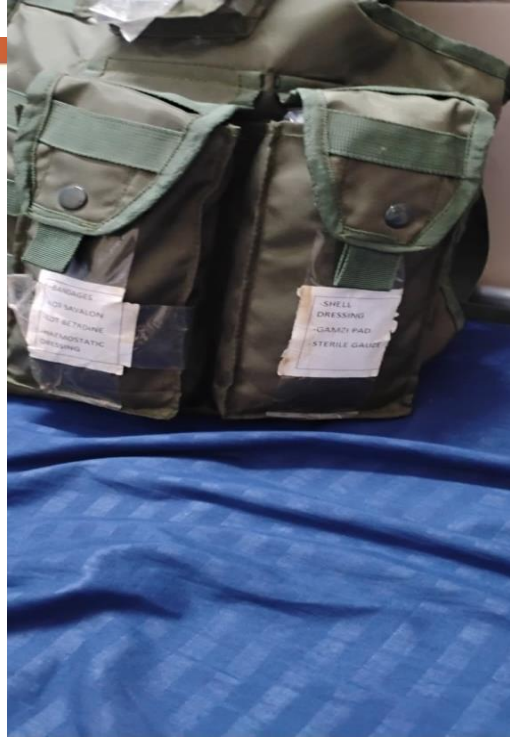
3. International Brick

4. Incremental Surgical Brick























# Basic Medical Brick

Cater for 100 emergencies for 07 d for use in India by a Medical Officer

Kept ready at AH RR, all Command Hosp & Zonal Hospitals

Additions to be made on the nature of aid required



# Basic Surgical Brick

Cater for 100 emergencies for 07 d

For providing preliminary First Aid by Medical Officer

No Operations can be carried out



# International Brick

Cater for 500 emergencies for 07 d

For aid in cyclones, earthquakes for nation to nation help

To be air lifted

02 Bricks to be kept ready at AFMSD Delhi, Lucknow & Mumbai



7/3/202

5

57



# Incremental Surgical Brick

Cater for 500 emergencies for 07 days

**Brick to be deployed with a Surgical Team**

Capable of providing emergency trauma and surgical care as per WHO guidelines

**01 brick be kept at AFMSD Delhi**

Costing – 02 Crore



7/3/202

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# TRAINING

All courses for officers and nurses in Officers Training College include disaster management and CBRN preparedness

Trg of PBOR at AMC Centre & AFMC incl disaster response and CBRN preparedness

Specialised trg at institutions viz CME

All hosp/Fd hosp carry out trg and drills

Fd hosp earmarked for regular trg and drills in CBRN cas mgmt



# **Disaster Aid - International**

<b>Sr No</b>	<b>Mission</b>	<b>Year</b>	<b>Remarks</b>
<b>1.</b>	<b>Iran Earthquake</b>	<b>2003-04</b>	<b>2353 patients treated</b>
<b>2.</b>	<b>Indonesia &amp; Sri Lanka, Tsunami</b>	<b>2004-05</b>	<b>11754 patients treated</b>
<b>3.</b>	<b>Cyclone relief to Myanmar</b>	<b>2008</b>	<b>15,000 patients treated; Aid amount Rs 1,88,22,473/-</b>
<b>4.</b>	<b>Kabul Bomb Blast</b>	<b>2008</b>	<b>Team reached location same day</b>
<b>5.</b>	<b>Aid for Earthquake to China</b>	<b>2008</b>	<b>Med stores &amp; eqpt provided as per request</b>
<b>6.</b>	<b>Aid to Pakistan</b>	<b>2008</b>	<b>Med stores &amp; eqpt provided as per request</b>



# Disaster Aid - National

Sr No	Location	Year	Remarks
1.	Kashmir Earthquake	2005	6723 patients treated
2.	Bihar floods	2008	33 Medical Teams for 02 months
3.	W Bengal – Cyclone 'AILA'	2009	16 Med Teams treated 13516 patients
4.	Andhra/Karnatka Floods	2009	Med Teams treated 941 patients



# **CBRN - Preparedness**

**Medical Equipment procured**

**First Aid kits, Casualty Bag, Resuscitator,  
Autojet Injector, Water Poison Testing Kit**

**Units trained & Equipped for CBRN threat**

**Army – 06, Navy – 03, Air Force - 01**



# Location of QRT/QMRT

S No	Command	Location QRT	Location QMRT
1.	North Comd	Nagrota	Akhnoor
2.	South Comd	Pune	Pune
3.	East Comd	Kanchrapara	BH B'pore
4.	West Comd	Jalandhar	Jalandhar
5.	West Comd	Delhi	Delhi
6.	Cent Comd	Barabanki	Allahabad
7.	SW Comd	Bhatinda	Bhatinda

# Location of QRT/QMRT – Navy & Air Force

S No	Command	Location QRT	Location QRMT
1.	West Naval Comd	Mumbai	Mumbai
2.	East Naval Comd	Vishakhapatnam	Vishakhapatnam
3.	South Naval Comd	Cochin	Cochin
4.	Air HQ (VB)	Delhi	

# Medical Equip – QRT/QMRT

First Aid Kit CW type 'A' & 'B'  
Casualty Bag Half  
Casualty Bag Full  
Resuscitator  
Autojet Injector  
Water Poison Test Kit

Multi roll four outlet resuscitator  
with Oxygen concentrator  
Multi roll single outlet  
resuscitator with Oxygen  
concentrator  
NBC protective film ( chemical  
agent resistant material)



## Miscellaneous Equipment

Fire Fighting Protective suit with compressed oxygen cylinder & breathing apparatus

Individual communication set

Torch

Battery operated flood light

Air crew ensemble with portable ventilator, respirator, head blower

Night vision goggles



**DGMS (Army) - 06 Fd Hosp earmarked for Disaster Response including NBC Preparedness as under: -**

- |            |                   |              |
|------------|-------------------|--------------|
| <b>(a)</b> | <b>South Comd</b> | <b>- one</b> |
| <b>(b)</b> | <b>East Comd</b>  | <b>- one</b> |
| <b>(c)</b> | <b>West Comd</b>  | <b>- one</b> |
| <b>(d)</b> | <b>Delhi Area</b> | <b>- one</b> |
| <b>(e)</b> | <b>SWest Comd</b> | <b>- one</b> |
| <b>(f)</b> | <b>North Comd</b> | <b>- one</b> |

## STOCKING

AFMSD Delhi Cantt.

AFMSD Mumbai

AFMSD Lucknow

Each AFMSD to stock: -

**Basic Med Brick-10**

**Incremental Surgical Brick-01**





# WHAT SHOULD WE DO

We should Plan for Managing Disaster  
so that we do not get overwhelmed  
when the disaster strikes us

# **HOSPITALS AND DISASTERS**

1. Where Hospital itself is not involved in the Disaster
2. **Where Hospital is Directly involved in the Disaster**
3. Where Hospital is Indirectly involved in the Disaster
4. **Where Disaster affects the Hospital only.**

# PRE REQUISITES FOR HOSPITAL DISASTER PLANNING



1. **Role, Responsibilities and work Relationships to be clarified.**
2. **Hazard Analysis**
3. **Hospital Capability Analysis**
  - \* **Hospital Treatment Capacity – 3% of total Hosp Beds**
  - \* **Hospital Surgical Capacity**  
**No of operating rooms X 7 X 0.25**
4. **Hospital Community Co-operation in Disaster Planning.**

# AIM

**To provide prompt and effective medical care to the largest number of people needing that care in order to bring about early recovery and reduce the death, disability, distress and disease associated with the disaster incident**



# **OBJECTIVES**

1. To prepare the staff and institutional resources for optimal performance in an emergency situation of a certain magnitude
2. To make the community aware of the importance of the disaster plan, how it is executed and the benefits it provides
3. To establish security, traffic control and public information arrangements

# PRINCIPLES OF DISASTER PLAN

It should be :-

- \* **Simple**
- \* **Flexible**
- \* **Clear**
- \* **Concise**
- \* **Adaptable**
- \* **Extension of normal hospital working**
- \* **Practised Regularly**
- \* **Permanent and Periodically updated**
- \* **A part of a Regional Disaster Plan**

# **DISASTER ORGANIZATION**

Organization chart

**Disaster committee**

Departmental representation

**Medical**

**Diagnostic and supportive**

**Nursing**

**Administration**

**Others as on required basis**



# **DISASTER COMMITTEE FUNCTIONS**

**Develop hospital disaster plan.**

**Develop departmental plans.**

**Allocate duties to hospital staff.**

**Establish standard of emergency care.**

**To conduct and supervise training.**

**Supervise drills to test the hospital plan.**

**To review and revise disaster plan regularly.**



# **HOSPITAL DISASTER PLANNING** **PROCESS**

Analysis of risk, hazards and vulnerability.

**Resources available.**

Response capabilities.

**Determination of aim.**

Development of plan.

**Determination of organization structure.**



# **HOSPITAL DISASTER PLANNING** **PROCESS**

Development of organization.

**Training of organization.**

Testing of the organization.

**Testing of the plan.**

Revision of both the plan and the organization.

**Re-testing and the cycle continues.**

# HOSPITAL DISASTER PLAN MUST CLEARLY PROVIDE FOR:

**Alert**

**Recall**

**Deployment**

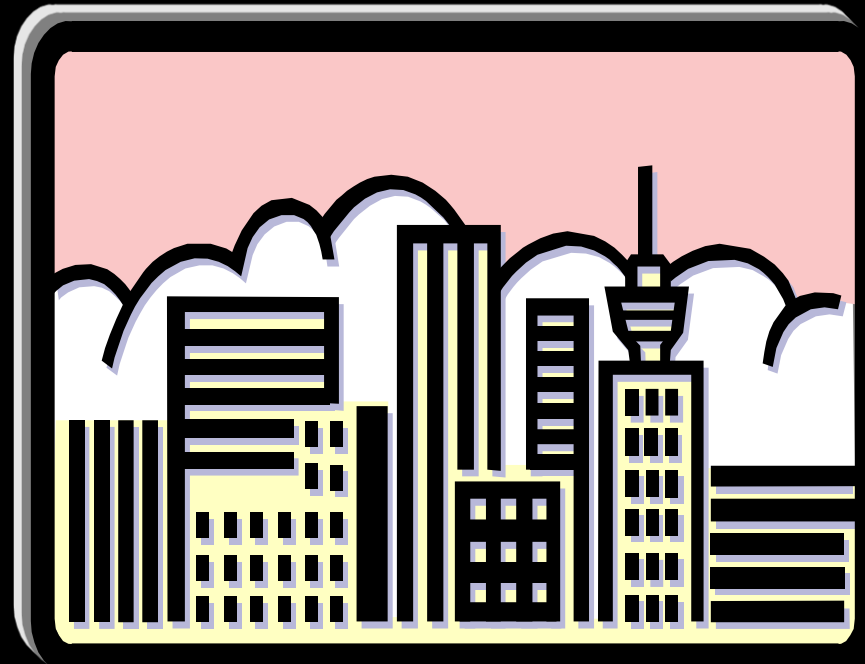
**Expansion**

**Sustenance**

**Normalcy**

**Revise and update**

**Drill**





# GRADED RESPONSE

All or none situation- major problem

## Graded response

- Green alert- on duty staff to support casualty
- Amber alert- Large number of casualty, extn of  
green alert
- Red alert- Major community disaster, normal  
activity suspended

# **HOSPITAL DISASTER PLAN** **PROVISIONS**

**An efficient system of alert and staff assignment.**

**Conversion of a usable space into clearly defined areas for triage, patient observation and immediate care.**

**Removal of casualties to more appropriate and definitive medical care facilities.**



# **HOSPITAL DISASTER PLAN** **PROVISIONS**

**Special medical services for disaster cases.**

**Procedure for prompt transfer of patients within the hospital.**

**Security arrangements.**

**Establishment of a public information centre.**



# **HOSPITAL DISASTER PLAN** **PROVISIONS**

**Evaluation of hospital services and its sources of electricity, gas, water, food and medical supplies.**

**Method of identifying patients who are immediately dischargable or transferable.**

**Special disaster medical record & medical tag.**

**Planning use of OT, Radio diagnosis, blood bank, laboratory and critical care facilities.**





# **ORGANIZING FOR DISASTER**

**Organization and line of authority.**

**Role and responsibility-**

**Disaster co-ordinator, medical staff, administrator, dept heads , nursing, accident & emergency dept, operating dept, lab, radiology and special units**



# LOGISTICS SUPPORT

Pharmacy

Linen and laundry

CSSD

Dietary

Housekeeping

Medical records

Portering staff



# LOGISTICS SUPPORT

Engineering

**Social work**

Transport

**Security and traffic control**

Communication

**Media control**

Morgue

**Handling of family members**



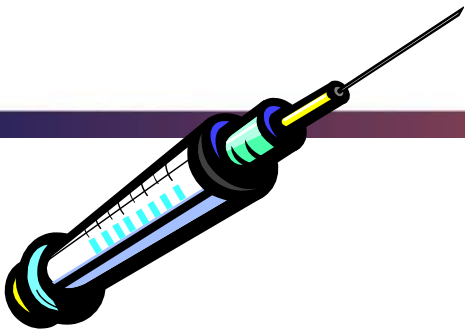
# **DISASTER FACILITIES**

**Triage**

**First aid station**

**Primary treatment areas- immediate, urgent and non-urgent care**

**Secondary care areas- wards, ICU, Theatres , radiology**



# **DISASTER FACILITIES**

**Inpatient, evacuation, holding area**

**Control and information centre**

**Volunteer reception**

**Relatives waiting area**

**Press room**



# **DISASTER FACILITIES**

**Special areas**

**Disaster bed capacity**

**The bed state**



# **STAFFING TREATMENT AREAS**

**Reception**

**Primary treatment areas**

**Secondary treatment areas**



# **DISASTER ADMINISTRATION**

**Control centre**

**Staff report board**

**Information centre**

**Communication**

**Stand down**

**Aftermath**





# CONTROL CENTRE INFO CENTRE

**MED STAFF  
REPORT  
CENTRE**

**POLICE  
DOCU  
CENTRE**

**CAS  
PROPERTY  
ROOM**

**NURSING STAFF  
REPORT  
CENTRE**

**PRESS ROOM**

**RELATIVES  
RECEPTION**

**VOLUNTEER  
RECEPTION**



# CASUALTY LOCATION

CASUALTY STATUS ID & STATUS BOARD	DISASTER Tag No	A&E	X- RAY	ICU	WD-1
Pt. NAME	01			01	
Pt. NAME	02		02		
Pt. NAME	03	03			
Pt. NAME	04				04

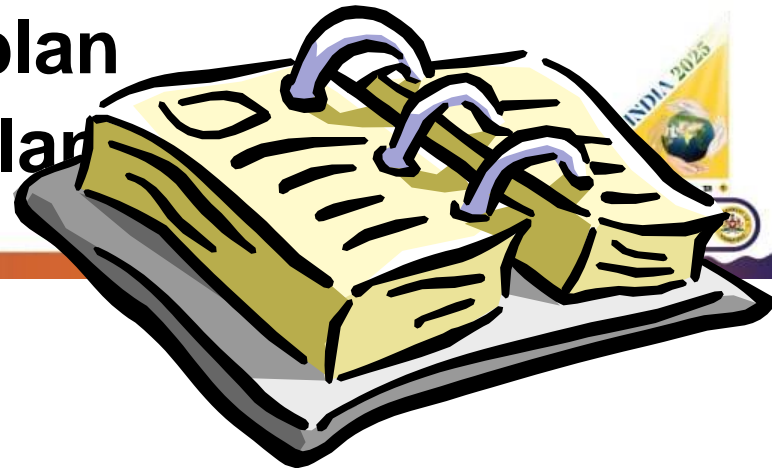
# **DISASTER MANUAL**

## **General hospital policy and procedures**

- Responsibility
- Alert
- Response
- Stand down

## **Disaster notification**

- Working day plan
- Silent hours plan



# **DISASTER MANUAL**

**Accident and emergency dept**

**Special duties and responsibilities**

**Nursing services**

**Departmental duties and responsibilities**



# **HOSPITAL DISASTER DRILL**

**To test the hospital response**

**To determine effectiveness and efficiency**

**To train the staff of the hospital**

**To detect errors or flaws in the plan**

**To minimize the time required to put the hospital on an emergency footing**



# **DISASTER DRILL EVALUATION**

Form an evaluation group

**Timely and proper execution of plans**

Adequacy of medical care in the disaster area

**Whether the evacuation to the hospital proceeded according to plan**

Whether the intra hospital care was adequate, timely and speedy



# **WHY AMC NEED TO BE PREPARED AT ALL TIME?**

- Armed Forces main stay of emergency response
- **Armed Forces is a key resource org**
- Armed Forces are key agency for rescue, relief and med care
- **AFMS have a wide network in field and peace**
- AFMS have trg and competence to deal with emergencies



# **WHY AMC NEED TO BE PREPARED AT ALL TIME?**

- AFMS will continue to be called upon for providing med care in disasters
- Therefore preparedness plans, trg, and regular drills necessary






# WHAT NEEDS TO BE DONE?

- Course curriculum of para-med, nurses, med-offrs and spl must include disaster mgt
- **Each station must have a plan incorporating all elements because disaster mgt is multi disciplinary**
- Requirement of area and formation based plan with appropriate coordination and control mechanism
- **Promote inter-services coordination**
- Coordination with other existing med – facilities on station basis.

# COMPONENTS OF HOSPITAL DISASTER PLAN



- 
- 1. Efficient system of Alert and staff assignments**
  - 2. Unified Medical command**
  - 3. Mobilisation of Resources**
    - \* Medical Nursing Administrative Staff**
    - \* Medical Stores Supply and Equipments**
    - \* Conversion of useable space into clearly defined areas for Reception, Triage observation and immediate care**
  - 4. Procedure for prompt transfer of patients within hospitals**
  - 5. Procedures for discharge / referral / Transfer of patients including Transportation**

# **HOSPITAL DISASTER MANUAL**

**Written statement of disaster plan**

**To be activated during disasters**

**Divided into five sections**



# **SECTION I**

## **INTRODUCTION**

- \* **Disaster Alert code**
- \* **General Principles of Conduct**
- \* **Brief Synopsis of total plan**



# **SECTION II**

## **DISTRIBUTION OF RESPONSIBILITIES**

- \* Requirements and Responsibilities of Individuals and Departments**
- \* Action Cards**



# **SECTION III**

## **CHRONOLOGICAL ACTION PLAN**

- \* Initial Alert**
- \* Activate Hospital Disaster plan**
  - Notify Key personnel**
  - Activate key Departments**
  - Give details of Resource Mobilisation**
  - Pre Arranged wards / areas for casualties**
- \* Formulation of Command Nucleus**
  - Preferably near the casualty**
  - Define Roles of Hospital Controller, Senior Nursing Officer, Hospital Administrator.**



# **SECTION III**

## **CHRONOLOGICAL ACTION PLAN**

### **\* Clinical Principles of Mgmt of Casualties**

**-Reception**

**-Triage**

**-Admission of patients**

**-Utilisation of Supportive Services**

**-Principles of Treatment of Casualties**

**# BLS**

**# ALS**





# **SECTION III**

## **CHRONOLOGICAL ACTION PLAN**

### **\* Specific problems of Disaster Management**

#### **- Clinical Problems**

- **Less, serious patients report first**
- **Contaminated casualties**

#### **- Administrative Problems**

- **Documentation**
- **Police Documentation Team**
- **Communication**
- **Friends and Relatives**
- **Crowd Control – Convergence effect**



# **SECTION III**

## **CHRONOLOGICAL ACTION PLAN**

- **Voluntary workers**
- **Patients Property**
- **Press and Broadcasting**
- **Disposal of Dead**



# **SECTION IV**

## **Check list of Personnel and Items**

- Designation of overall Medical Authority
- Establishment of communication network
- Notification Rosters
- Triage centre with triage officer
- Personnel Assignments
- Designation of Teams and Area of Operations



# **SECTION IV**

## **Check list of Personnel and Items**

- **Routes of disposition**
- **Criteria for patient categorisation**
- **Security Arrangements**
- **Plans for logistics and supplies**
- **Records**
- **Evacuation system**



# **SECTION V**

## **Repeated Rehearsals**

- **To Train**
- **To test performance**
- **To correct weaknesses and deviations.**



# **SUGGESTED GUIDELINES FOR A** **COMPOSITE, MULTI SECTORAL,** **LONG TERM DISASTER PLAN**



**National disaster Policy supported by Central, State and district level disaster plans.**

**Retrospective Epidemiological study of disasters in the area**

**Action plan**

**Resource planning**

**Training Plan**

**Allied planning**

**Periodical execution and practice**

**Post practice evaluation**

**Collaboration of plan with allied agencies, areas and states**



# RETROSPECTIVE STUDY

**Data collection and analysis for forecast of disasters**

**Mapping of vulnerable areas**

**Community profile**

**Population at risk**

**Risk identification and analysis**





# PLAN OF ACTION

**Prevention of risk**

**Promotion of health**

**Specific treatment**

**Rehabilitation**

**Disposal of the dead**



# RESOURCE PLANNING

Health manpower

Medical stores and equipment

Logistics requirements

Ambulances

Medical / health set up facilities

Food and water



# TRAINING PLAN

## **Training of Health manpower**

**Training of Administrators and others incl BDO, Police,  
Fire and civil defence personnel, village pramukhs etc**

**Health education to population**



# ALLIED PLANNING

Augmentation of political will

Involvement of NGOs and voluntary groups

Commitment and allocation of funds

Formation of core groups at central and state levels

Formation of area level functional bodies and  
earmarking of their specific tasks and  
responsibilities



# ALLIED PLANNING

**Establishment of common channels**

**Establishment of alternative sources of power and energy**

**Monitoring and evaluation**

**Propaganda and publicity, promotion of public awareness**

**Plan for mitigation and rehabilitation**



# **OTHER PLANNING ASPECTS**

**Periodical execution and practice of the long term plan**

**Post practice evaluation of plan at central and state levels and modifications thereof**

**Collaboration of plan with allied agencies, areas and states for uniformity of action**

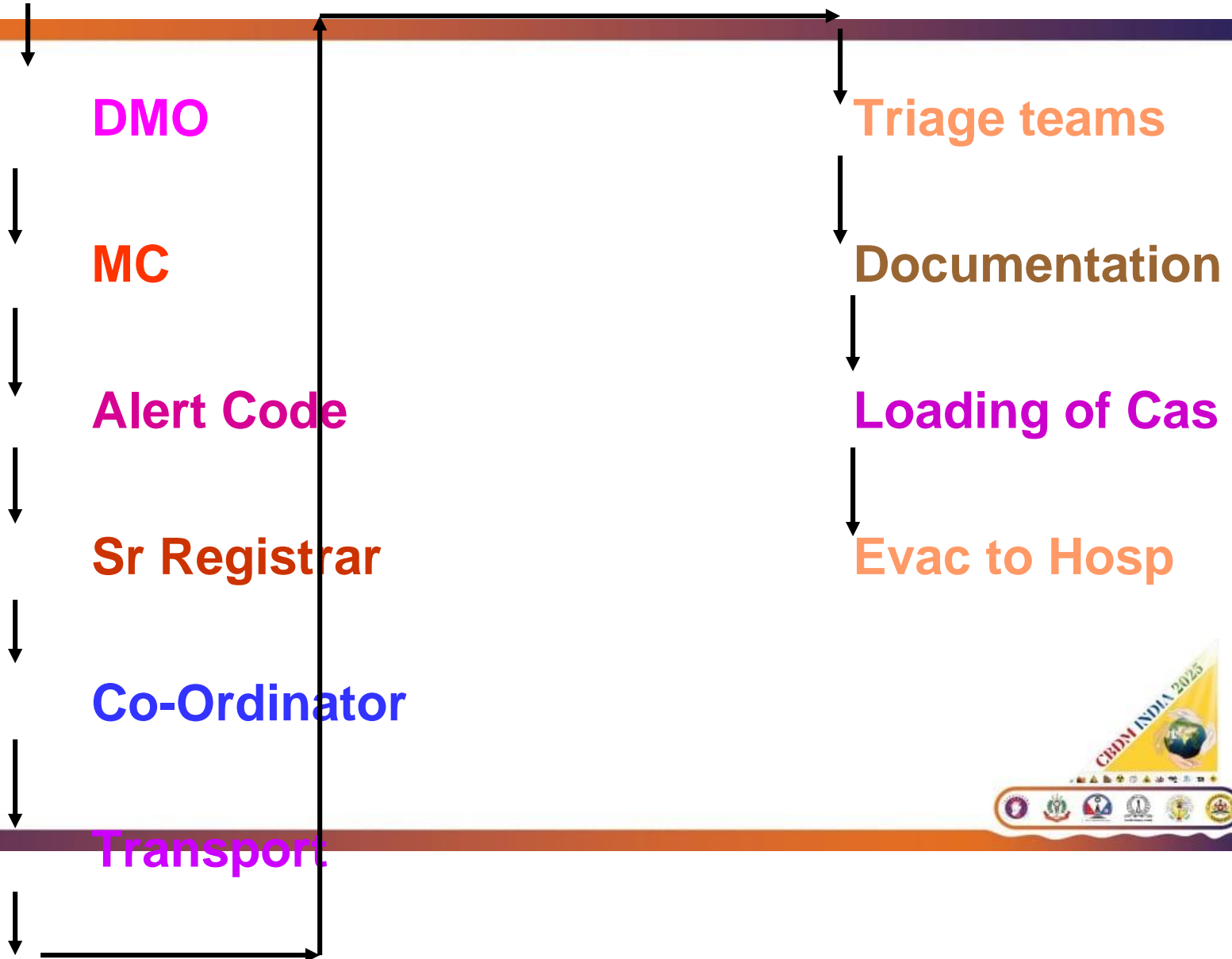


# SEQUENCE OF ACTIONS ON RECEIPT OF INFORMATION



# THE SEQUENCE OF ACTIONS

Receipt of info





# SEQUENCE OF ACTION IN HOSPITALS BEFORE RECEIPT OF CASUALTIES



# SEQUENCE OF EVENTS AT HOSPITAL

**Setting up of Control HQ**



**Setting up of Reception point**



**Procurement of necessary materials**



**Discharge of Cold Cases**



**Mobilisation of manpower**



**Operation Theatre Activation**



**Selection of Surgical Teams**

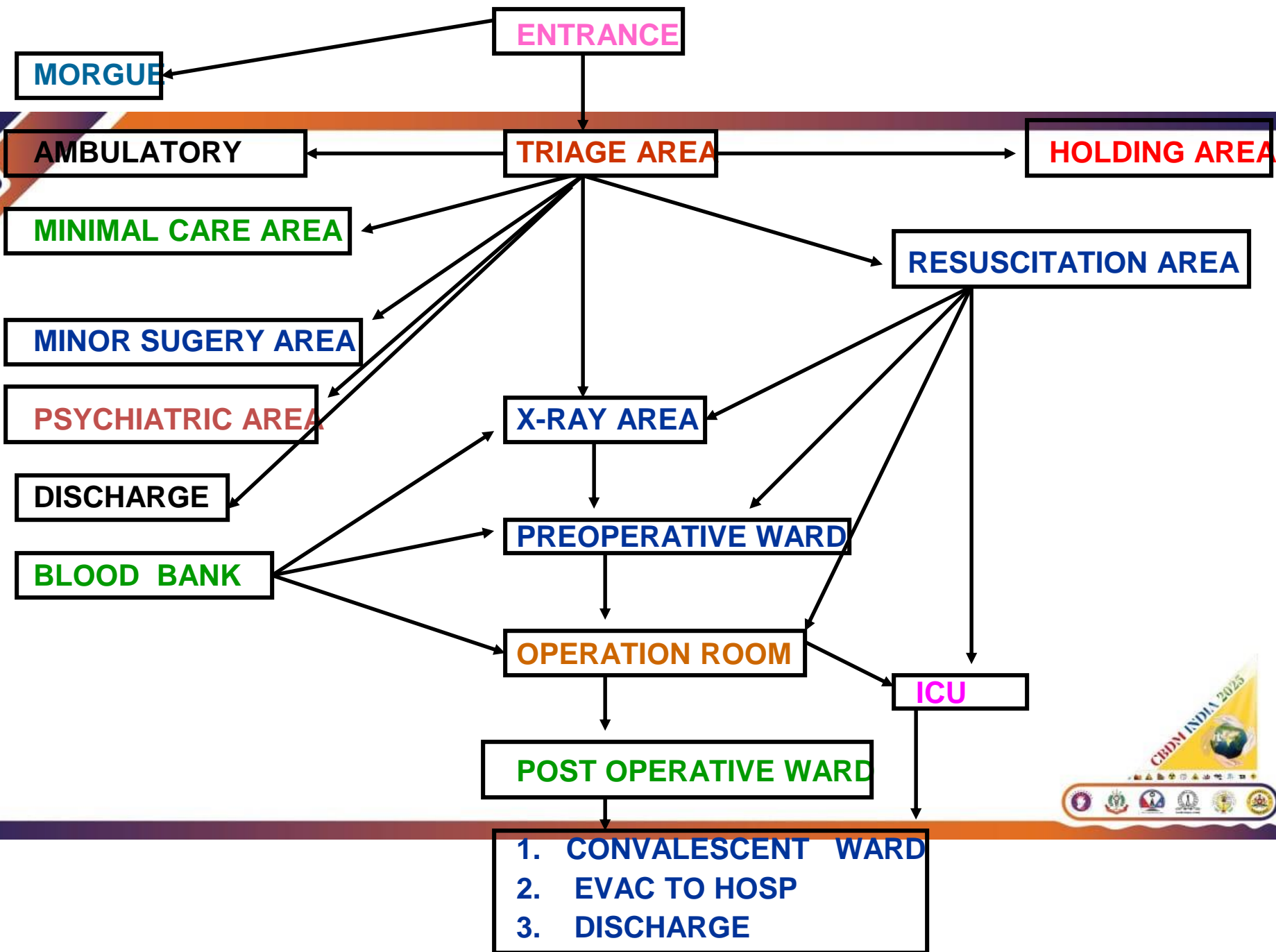


**Assignment of duties**



# SEQUENCE OF ACTION ON RECEIPT OF CASUALTIES





**DO REMEMBER**

# *D-I-S-A-S-T-E-R* Paradigm



**D:** Detection  
**I:** Incident Command  
**S:** Safety & Security  
**A:** Assess Hazards  
**S:** Support  
**T:** Triage & Treatment  
**E:** Evacuation  
**R:** Recovery

# D-I-S-A-S-T-E-R Paradigm

## Incident Command System (ICS)

Born in Fire Service

Managing wildfires in early 1970's

Interagency task force collaborative effort

Uniform structure

Clearly delineated roles/responsibilities

Clear chain of command/ communication



# Incident Command System

## The Basics

**“Commander”**

**Unified Command**

**Planning**

**Logistics**

**Operations**

**Finance**

**“Thinkers” “Getters” “Doers” “Payers”**



# **D-I-S-A-S-T-E-R Paradigm**

## **Assess Hazards**

Be Aware of Secondary Devices!

Bombs, Shrapnel devices, Incapacitating Devices,  
Multiple Snipers/Terrorists, Delay Devices



# **D-I-S-A-S-T-E-R Paradigm**

## **Assess Hazards**

### Be Aware of Secondary Devices!

Bombs, Shrapnel devices, Incapacitating Devices, Multiple Snipers/Terrorists, Delay Devices



# D-I-S-A-S-T-E-R Paradigm

## Support

### Unexpected Volunteers and Donations:

Positive intentions, often negative impact

Does your preparedness plan include them?

ICS, Identify needed skills and needed supplies

Negatives:

Time to sort large, poorly labeled goods

Storage space used

Unplanned personnel are a liability

At risk of injuries, require food, water and shelter

# Volunteers

**Well-Meaning Volunteers Can.....**

***Overwhelm, Interfere, Confuse, Burden & Even Endanger  
themselves and others***



Best if a member of a  
recognized, organized  
response team that  
has been invited in

**DON'T JUST SHOW  
UP !!**



# *M.A.S.S. Triage*

M – Move

A – Assess

S – Sort

S – Send

*M.A.S.S. Triage* is a disaster triage system that utilizes US military triage categories with a proven means of handling large numbers of casualties in a mass casualty incident (MCI).



# “ID-me”!

I - Immediate

D - Delayed

M - Minimal

E - Expectant

D - DEAD

“ID-me”! - a mnemonic for sorting patients during MCI triage. It is utilized effectively in the *M.A.S.S. Triage* model.



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# TRIAGE

CANNOT WAIT

HAS TO WAIT

CAN WAIT

LOST

# TRIAGE

Cat	Meaning	Consequences	Examples
<b>T1 (I)</b>	<b>Acute danger for life</b>	<b>Immediate treatment, transport as soon as possible</b>	<b>Arterial lesions, internal haemorrhage, major amputations</b>
<b>T2 (II)</b>	<b>Severe injury</b>	<b>Constant observation and rapid treatment, transport as soon as practical</b>	<b>Minor amputations, flesh wounds, fractures and dislocations</b>

Cat	Meaning	Consequences	Examples
T3 (III)	Minor injury or no injury	Treatment when practical, transport and/or discharge when possible	Minor lacerations, sprains, abrasions
T4 (IV)	No or small chance of survival	Observation and if possible administration of analgesics	Severe injuries, uncompensated blood loss, negative neurological assessment

Cat	Meaning	Consequences	Examples
T5 (V)	Deceased	Collection and guarding of bodies, Identification when possible	Dead on arrival, downgraded from T1-4, No spontaneous breathing after clearing of airway

# TRIAGE TAGS

**SMART TAG system. Note the bar code for patient tracking.**



**Even simple tape can be used as a last resort**

# **CONCLUSION**

**Disaster Management involves a host of Multi-discipline agencies of which Medical Relief is one of the most important steps. There can be no Tailor Made Disaster plan for the Hospitals. Each Hospital has to evolve its own plan based on the aforementioned considerations, and it has to be revised from time to time as each experience will bring new perspectives.**

# **CONCLUSION**

**Finally, it must be understood that a Disaster can occur anywhere and at any time. It is no respecter of circumstances. It strikes with suddenness and fury and has a curious tendency of choosing the most inopportune moment. To deal with such sudden influx of a large number of casualties, quantitative extension of Hospital services, operations and safety measures are required. At the Time of Disaster there is No Time For PLANNING. That is the Time for DOING**

**THANK YOU  
FOR YOUR  
PATIENCE, PERSEVERANCE  
AND  
TOLERANCE**

