



DISASTER MANAGEMENT- APPROACH

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KEYWORDS :

Definition-

According to WHO- any occurrence that causes damage, economic disruption , loss of human life and deterioration of health and health services on a scale sufficient to warrant an extra-ordinary response from outside the affected community or area.

Disaster may be regarded as a particular type or sub-type of emergency which suggests an intense time period and level of urgency.

Classification-

The disaster which affects hospital can be extraneous factor affecting community from where casualties are being received by hospital or it can be due to intrinsic factors like fire, flood and earthquake affecting hospital itself. Classification as per National Institute of Disaster Management.

Natural Disaster (Physical)- May be weather related.

(a) Natural phenomena beneath earth's surface

- Earthquake
- Tsunami's
- Volcanic eruptions

(b) Natural phenomena at earth's surface

- Landslides
- Avalanches

(C) Meteorological /Hydrological phenomena

- Windstorms(Cyclones, Typhoon, Hurricane)
- Tornadoes
- Hailstorms & Snowstorms
- Seasurges
- Floods
- Droughts

(d) Biological phenomena

- Locust swarms
- Epidemic of diseases

Man made Disaster**Caused by warfare**

- Conventional warfare
- Nuclear, Biological and Chemical

Caused by Accidents

Vehicular (Train, bus, ship, car, Plane etc.)

Drowning

Collapse of Building

Explosions

Fires

Biological

Chemical include poisoning

Types Of Hazards/disaster- Other Classification

1.SUDDEN ONSET(Geological & Climatic)- Earthquake, Tsunami's(Undersea earthquake), Floods, Tropical storms, Volcano eruptions, Land slides

2.SLOW ONSET(Environmental)- Drought, Famine, Environmental degradation, Desertification, Deforestation, Pest infestation.

3.Industrial/ Technological-

- System failure/accidents, Spillage, Fires, Explosions
- Gas leakage MIC(Methyl isocyanide), CL2(Chlorine), H2SO4(Sulphuric acid)

4.War and Civil Strives-

Armed aggression, Insurgency, Terrorism and other actions leading to displaced persons and refugees.

5. Water/Food borne diseases, Plague, Vector borne diseases

DISASTER MANAGEMENT & PLAN

- Disaster management is a multi-institutioned approach.
- Hospital is one of the institution.
- Demands advanced planning.
- Extension of Emergency and Casualty dept. of the Hospital.
- Requires well functioned Casualty dept. to manage disaster effectively.
- There should be written Disaster plan and 2 mock drills to be carried out each year.

DISASTER PLAN**Emergency Contingency plan**

Aim- Provide prompt and effective medical care to maximum possible in order to reduce morbidity and mortality.

Objective- Optimally prepare the staff and institutional resources of Hospital for effective performance.

Alerting system- Disaster can happen any time. Plan to stay active 24hours/day, seven days a week including weekends and holidays.

Should also identify how and who in the staff will be informed and what shall be the alternative system of notification in case of loss of telephone lines and power.

Messengers have to be sent out immediately in such event.

RECEPTION OF CASUALTIES(Managerial issue)

CLINICAL- In order to cope with the surge of casualties, a procedure must be developed for the reception of mass casualties.

It should include proper arrangements for the casualties to be identified, registered, triaged, treated, admitted, transferred to ward, kept back for less urgent treatment or discharged.

Triage criteria for Disasters and the patients should be colour coded according to the kind of treatment they deserve.

1. IMMEDIATE RESUSCITATION (RED)
2. POTENTIALLY LIFE THREATENING INJURY(YELLOW)
3. WALKING WOUNDED(GREEN)
4. DEAD(BLACK)

ADMINISTRATIVE ISSUES

a. Documentation- Each patient should be tagged on arrival and case sheet given. Daily status report of casualties and death with post-mortem reports or discharge to be recorded.

At the time of discharge, modified discharge with photograph and thumb impression to be provided to establish the identity of victims later.

b. Communication- Telephone lines to be kept in order. Messengers to be kept ready.

c. Friends and Relatives- To console, calm and give all possible details. Number of attending relatives should be minimum.

d. Crowd control- Controlled, evacuated and only persons with authorised pass to enter at Hospital. Important from point of Security and Safety.

e. Involvement of voluntary workers- Their requirement and disposition to be decided by Hospital administration. Contact number and name of contact persons should be recorded.

f. Blood donation- Can be arranged as and when required. Needed in riots or bomb blast where surgical injuries are more. List of volunteers and contacts may be kept ready.

g. Donation of foods, clothes, drugs etc.- Cooked foods and medicines to be regularised and controlled, because food go waste. Drugs in large numbers cause problem in inventory, storage, utilisation as well as quality control because many unwanted, near expiry and sub-standard medicines are also donated.

h. Patient's property- Large polythene bag with tag should be used for keeping the patients property. Care should be taken that valuables and cash of patient is not lost.

i. Press and broadcasting service- Only one person to give press release. Should be discouraged to give interviews and their personal opinion.

j. Ambulance service- Ambulance van should be in order. Additional van may be requisitioned from nearby Hospital and social organisation. To be kept in control of one person, should be stationed at control room who can authorise their trips. Drivers and attendants must be sitting in van all the time.

k. Emergency light- Arrangement of additional light in triage area, treatment area should be ensured. O.T, X-Ray and Blood Bank should be provided with generators. Reception and approach road for ambulance should be well lighted.

l. Disposal of dead- The arrangement for prompt disposal of dead should be made. Hospital mortuary will not be able to cope with large number of dead bodies and may pose public relation and public health problems.

m. VIP visits- Should be avoided for first few days as it interferes hospital work and entails additional security problems. Visit by political and social organisations and their spokesman should be discouraged.

n. Team of Doctors and other professionals- Unless asked should not on their own rush to site because it hampers rescue work. Many times they have no work and get dissatisfied.

o. Materials and Supplies- Buffer stock for disaster situation should be maintained in a disaster cupboard and key holder should be identifiable. In case of additional requirement, the stores should be opened at off hours also.

Checklist For Manpower, Drugs & Equipments Manpower-

- Doctors both Male and Female including Specialists
- Nurses fully trained
- AMV, LHV, Health Supervisor, HI & HW (Male)
- Pharmacists and Compounders
- X-ray, Lab technician and dressers
- Physiotherapists
- Ward boys, ayas
- Stretcher bearers
- District media and information officers
- Drivers, social workers and administrative officers
- Secretariat personnel- Clerk, accountant, Store keeper
- Cooks, Dhobis, Sweepers

LIST OF MEDICINES

- i) Inj. Hydrocortisone
- ii) Inj. Dexamethasone

- iii) Inj. Mephentine
- iv) Inj. Adrenaline
- v) Inj. Mannitol
- vi) Inj. Antihistaminic
- vii) Inj. Xylocaine
- viii) Inj. Morphine/Pethidine/Fortwin
- ix) Disposable I/V set
- x) Disposable syringes 2ml/5ml/10ml
- xi) Disposable needles no.21,22,23
- xii) I/V Fluids- 5%D, DNS, Isotonic saline
- xiii) Savlon/Tr. Benzoin
- xiv) Xylocaine skin ointment
- xv) Eye/Ear ointment

LIST OF EQUIPMENTS

- Endotracheal tube/Laryngoscope
- Tracheostomy set
- Venesection tray (complete)
- Ambu bag (adult and child)
- Airways and tongue clip
- Oxygen cylinder with face mask, pressure gauge and flow meter
- Artery forceps
- Suturing needles
- Tourniquet
- Splints
- Long and short spine board
- Cotton, Bandages
- Suction machine (foot operated)
- BP apparatus
- Stethoscope, Torch, Hammer
- Ryle's tube
- Foley's and rubber catheter
- Kidney tray and Urine pot
- Band Aid (Different sizes)
- Crepe and Elastic bandage
- Scissors with stitching plaster
- Blood donation and transfusion set