

# DISASTER MANUAL

VARDHMAN MAHAVIR MEDICAL COLLEGE

&

SAFDARJUNG HOSPITAL  
NEW DELHI

Dated 23<sup>rd</sup> March 2023

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## INTRODUCTION

Safdarjung Hospital, having 1531 beds till now, has been added with extra 500 Beds in New Emergency Block which is functioning since 26<sup>th</sup> January 2018. The Safdarjung Hospital is one of the prestigious hospitals of Government of India, located in South Delhi. It caters to the population of Delhi and adjoining states. Vardhman Mahavir Medical College attached to Safdarjung Hospital, inaugurated by Sh. Atal Bihari Vajpayee the then Hon'ble Prime Minister on 17th December 2001, is functioning since March 2002 with the first batch of 100 students.

The New Emergency block has state of the art facility to provide multi-disciplinary care to patients suffering from all medical and surgical emergencies, provided by different category of staff i.e. Specialist doctors of various discipline of medicine, nurses, para-medical and support staff. The facility has been providing emergency services **24\*7** round the clock. The Emergency block has state of the art ICUs, OTs, Emergency receiving rooms and wards, equipped with latest technology. It has a wastewater treatment plant ensuring that no water is wasted and Hospital Information Management system to offer paperless operations in the facility.

The Safdarjung hospital provides services in almost all the major specialties, specially known of **Tertiary care** in super specialties line Cardio thoracic surgery, Cardiology, Neurosurgery, Burns and Plastic surgery, Urology, Respiratory and Critical care Medicine, Gastroenterology etc. Further it has modern imaging facilities including C.T. Scan, Cardiac Cath Lab, and M.R.I. Spiral C.T. Scan, automated hematology and pathology labs Etc. There is no fixed catchment area for the hospital and patients are also coming from neighboring States, i.e., U.P., Haryana, Punjab, Rajasthan, Bihar etc. This attains significance in case of a **disaster** involving **mass casualties** as the public is expected to flock to this hospital for its sheer reputation. Hence, it becomes imperative that the hospital has a plan for management of disasters.

The Super Specialty Block with **800 beds** along with state of art infrastructure, equipped with the latest equipment has been providing highest standards of medical care in Safdarjung Hospital, as an additional block.

## **DEFINITION OF DISASTER**

**A disaster is a serious disruption**, occurring over a relatively short time, of the functioning of a community or a society involving widespread human, material, economic or environmental loss and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

### **DEFINITION OF DISASTER OR UNMANAGEABLE INCIDENT FOR HOSPITAL:**

Can be defined in terms of Hospital Treatment Capacity (HTC) which is number of casualties that can be treated in a hospital in an hour which will be equal to 3% of total number of beds.

For Safdarjung hospital, the total number of beds is approximately 2800. So, HTC will be 84.

The casualties then will be categorized as:

Category 1- Up to 80 casualties belonging to a single accident or any other emergency coming to Safdarjung Hospital casualty at one time.

Category 2- 80-140 casualties belonging to a single accident or any other emergency coming to Safdarjung Hospital casualty at one time.

Category 3- >140 casualties belonging to a single accident or any other emergency coming to Safdarjung Hospital casualty at one time.

## DISASTER MANAGEMENT

It is the organization, planning and application of measures preparing for, responding to and recovering from disasters. It is an art (Skilful application of knowledge) and science (since based on established principles)

### Disaster Management Cycle



## **TYPES OF DISASTERS**

It is not possible to enumerate all possible situations which may arise from time to time. However commonly disaster is:-

1. Natural calamities like earthquake, floods, etc
2. Vehicular accidents, industrial accidents, air crash emergencies.
3. Fire
4. Bullet and blast injuries.
5. Collapse of a building
6. Civil commotion like communal riots, violent agitation, terrorist attack etc.
7. Mass food poisoning or epidemics
8. Heat wave, air pollution, etc
9. Conventional, Nuclear, Biological or Chemical Warfare casualties.

### ***HAZARD PROFILE OF DELHI***

Hazard is an event or occurrence that has the potential for causing injury to life or damage to property or the environment. The magnitude of the phenomenon, the probability of its occurrence and the extent and severity of the impact can vary. In many cases, these effects can be anticipated and estimated. In order to focus limited resources on to those areas of the state at risk, it is necessary to understand the pattern of hazard activity precisely and put a quantitative probability to the likelihood of occurrence of hazards.

#### **Earthquake:**

Delhi lies in **IV seismic zone**.

#### **Floods:**

Flood is a recurring phenomenon in Delhi due to the mighty river Yamuna and there are flash floods caused by rains compounded by the choked drains of Delhi. The rise in water levels also causes backflowss in the connecting drains affectsfect the city's drainage network and causing overflow, thus causing many monsoon-related diseases.

**Fire:**

This includes fires due to chemicals, LPG, explosives as well as short circuits of electrical systems.

**Epidemics:**

In the recent past, this hospital has managed following epidemics successfully

1. H1N1
2. Dengue fever
3. Viral fevers / Infective Hepatitis
4. Chikungunya
5. Typhoid
6. Gastroenteritis/Dysentery/Acute Diarrhea
7. Food Poisoning etc.

**Road Accidents:**

Due to the increasing number of vehicles on roads, there is a rise in the number of road accidents, leading to injuries and fatalities to pedestrians, bystanders passengers, and drivers of vehicles.

**Terrorist Attacks and Bomb Blasts:**

Delhi being National Capital is also under the threat of all forms of conventional and contemporary warfare.

**ACTIVATION OF HOSPITAL DISASTER MANAGEMENT PLAN**

Based on the number of casualties coming to Safdarjung Hospital Emergency at one time a, disaster management plan will be activated and will be classified as:

Class A- The plan can be put into practice without any disruption to the normal and routine work of the Hospital.

Class B- The plan can be put into practice with minor disruption and with some readjustment to normal and routine work of the Hospital. It can be upgraded to Class C if the number of casualties arriving in Safdarjung Hospital casualty increase with time.



Class C- The plan can be put into practice with definite and major disruption to normal and routine work of the Hospital and needs major readjustments.

Other catastrophic events in the cities like blasts, earthquakes, biological disasters like epidemics, or damage to hospital infrastructure in case of fires will also lead to the activation of the disaster management plan.

Hospital committee for making plans, policies, and guidelines of R/O disaster management plan of VMMC & Safdarjung Hospital, New Delhi

**Members:-**

S. No.	Name	Designation	Phone No.
1.	Dr. Prem Kumar	Nodal Officer/Chairman	Mobile No. 9212577407 Office: 011-26707372
2.	Dr. Dharam Singh Meena	Member	9910277131
3.	Dr. Manish Kumath	Member	9868984826
4.	Dr. Monika Matlani	Member	9582691920
5.	Dr. Surinder Kr. Goyal	Member	9718089066
6.	Dr. Mukesh Nagar	Member	9868443077
7.	Dr. Sandeep Sharma	Member	9212523086
8.	Mr. Sudhir Kumar	Member	9313668666
9.	Mrs. Samiksha Srivastava	Member	9695871747

**1. CONSTITUTION OF DISASTER MANAGEMENT COMMITTEE**

The following officers of Vardhman Mahavir Medical College & Safdarjung Hospital will form the 'Disaster Management Committee' under the Chairmanship of the Medical Superintendent (Table 1).

**TABLE 1-DISASTER MANAGEMENT COMMITTEE**

Name and designation		Tel. No.
Dr. B.L. Sherwal Medical Superintendent	Chairman	<b>26190763</b> <b>26707282</b> <b>26707555</b>
Dr. Geetika Khanna Principal, VMMC	Member	<b>26161365</b> <b>26733001</b>
Dr. R.P. Arora Addl. Medical Superintendent	Member	<b>26707653</b>

Dr. Vandana Chakravarty Addl. Medical Superintendent	Member	<b>26707275</b>
Dr. R.K. Wadhwa Sr. CMO (SAG), Casualty	Member	<b>26761355</b> <b>26761351</b>
Dr. Neeraj Gupta Sr. CMO (SAG)	Member	<b>26707653</b>
Dr. Jayanthi Mani Addl. Medical Superintendent	Member	<b>26707339</b>
Dr. P.S Bhatia Addl. Medical Superintendent (Security)	Member	<b>26164277</b> <b>26707564</b>
Dr. V.C. Aggarwal Head of Deptt. Surgery	Member	<b>26198508</b> <b>26730104</b>
Dr. Y.C. Porwal Head of Deptt. Medicine	Member	<b>26730356</b> <b>26166443</b>
Dr. K.B. Shankar Head of Deptt. Neurosurgery	Member	<b>26766274</b>
Dr. Vandana Talwar Head of Deptt. Anesthesiology	Member	<b>26198462</b> <b>26730247</b>
Dr. Shalabh Kumar Head of Deptt. Burns & Plastic Surgery	Member	<b>26109078</b> <b>26730370</b>
Dr. Amita Malik Head of Deptt. Radiology	Member	<b>26198075</b> <b>26730268</b> <b>26730314</b>
Dr. L.G. Krishna Head of Deptt. Orthopedics	Member	<b>26160634</b> <b>26730299</b>
Dr. Sunil Ranga Head of Deptt. Pathology	Member	<b>26181093</b> <b>26707281</b>
Dr. Rekha Tirkey Head of Deptt. Blood Bank Officer	Member	<b>26168470</b> <b>26730124</b>
Dr. Charanjeet Kaur Head of Deptt. Biochemistry	Member	<b>26100134</b> <b>26733038</b>

Dr. S.K. Tandon Head of Deptt. Forensic Medicine	Member	<b>26198188</b> <b>26733070</b>
Dr. Jugal Kishore Head of Deptt. Community Medicine	Member	<b>26733021</b>
Dr. Rajni Gaiind Head of Deptt. Microbiology	Member	<b>26733027</b>
Mr. Atul Singh Public Relation Officer (PRO)	Member	<b>26161165</b> <b>26707386</b>
Dr. Sameer Gulati Officer In-charge Medical Store (Drugs)	Member	<b>26198460</b> <b>26730262</b>
Dr. Ashok Kumar Officer In-charge Medical Store (Surgical & Consumables)	Member	<b>26714395</b> <b>26730668</b>
Dr. Rekha Tirkey Officer In-charge General Store	Member	<b>26190952</b> <b>26730242</b>
Dr. S.K. Chandan Officer I/c Transport	Member	<b>26707160</b> <b>26707563</b>
Dr. Tilak Raj Singh CMO In-charge, Security	Member	<b>26730320</b>
Dr. Bindi Garg CMO In-charge, Sanitation	Member	<b>26714421</b> <b>26730573</b> <b>26730473</b>
Nodal Officer on Duty (Control Room) Casualty, Emergency Block	Member	<b>26194690</b> <b>26761225</b>
Dr. Shobhna Gupta Chief Medical Officer Medical Record Department (MRD)	Member	<b>26730453</b> <b>26730253</b> <b>26730160</b>
Ms. Rekha Rani Officiating Nursing Superintendent	Member	<b>26713198</b>
Dr. R.K. Wadhwa Officer In Charge, Emergency Block	Member Secretary	<b>26761351</b>

Dr. Surinder Kr. Goyal Nodal Officer, Emergency Block	Member	<b>26761355</b>
Fire Safety Officer	Member	
Mr. Rajeshwar Singh, Executive Engg.(Civil), CPWD	Member	<b>26190229</b> <b>26730115</b>
Mr. Sanjay Dhingra, Executive Engg.(Electrical), CPWD	Member	<b>26198771</b> <b>26730418</b>
Hospital Kitchen/ Dietary Services I/C	Member	<b>0407</b>
Dr. Tilak Raj Singh Officer In- Charge Social Welfare Deptt	Member	<b>26105770</b> <b>26707264</b>
Hospital Union President	Member	
Resident and Student Organization	Member	

The Committee would co-opt any other functionary of the hospital depending upon the situation and the type of disaster. It would also form sub-Committee/s to assist it as and when necessary. The Committee will meet at least once in 3 months to review the working of the contingency plan, problems faced in recent disaster and amendments/modifications to be adopted in the future.

The Committee will be responsible for deciding to activate a disaster plan policy-making for managing disasters, taking administrative decisions as and when required, reviewing the disaster plan, and informing the Government on the situation. The debriefing will also be done by this committee post-disaster.

## **External Advisory Committee**

This committee will be playing a significant role in supervision, advising, and audit on disaster-related preparedness and activities. This will meet quarterly or at least biannually under the chairmanship of The Medical Superintendent VMMC & SJH

1. Director General Fire Services: Mr. Shami DK
2. National Institute of Disaster Management: Dr. Anil Kumar Gupta
3. National Disaster Management Authority: Col Rahul Devrani
4. National Center for Disease Control, DGHS
5. Centre for Disaster Management Studies GGSIPU
6. Fire Safety [management] In-charge
7. Department of Community Medicine VMMC & SJH

### **DISASTER CONTROL ROOM**

In the eventuality of a disaster, the Emergency Control Room located on the ground floor of the NEB would function as the Disaster Control Room. It is manned round the clock by the Nodal Officer / Chief Medical Officer/s who are designated as **EMERGENCY CONTROL ROOM OFFICERS (ECRO)** under the overall supervision of the Medical Superintendent. The Control Room will collect, collate, coordinate and disseminate relevant information on disaster situations.

For such purpose, the Disaster Control Room is equipped with communication facilities to contact the command nucleus, crisis points, hospital functionaries, police control room, fire station control room, and the nodal ministry.

The contacts numbers of the Disaster Control Room are:

- i. Direct Telephone
- ii. PABX No.

All the required information like telephone numbers and addresses of Heads of Deptt., details of Specialists/ Sr. Residents on duty will be furnished to the ECRO room by all the HODs. The ECRO is authorized to call the concerned HODs/ Specialist/ Sr. Resident directly to the casualty as and when required.

The usual occupancy rate (expected number of people at probable locations) of each floor and department in the hospital and college building will be submitted by all HODs to ECRO, for timely evacuation if required in case of fire.

**DISASTER PLAN**

The following doctors are on call duty for the month of .....20..... from the department of.....

a. Specialist/medical Officers and Tel.Nos.

1. ....

2. ....

3. ....

b. Senior Residents and Tel. Nos.

1. ....

2. ....

3. ....

**COMMAND NUCLEUS**

The Command Nucleus will be in Control Room.

**Table - 2**

	Officers of Command Nucleus	Telephone Number
1	Medical Superintendent (In charge)	<b>26190763</b>
2	Additional Medical Superintendent (Casualty)	<b>26164277</b>
3	All Additional Medical Superintendents	26165060(telephone exchange)
4	Chief Medical Officer i/c Casualty	<b>26194690</b>
5	Officer in charge New Emergency Block	<b>26761351</b>
6	Nodal Officer, New Emergency Block	<b>26761355</b>
7	HOD Surgery	<b>26160635</b>
8	HOD Medicine	<b>26196574</b>
9	HOD Neurosurgery	<b>26198109</b>
10	HOD Anaesthesia	<b>26184442</b>
11	HOD Community Medicine	<b>26181923</b>

12	HOD Microbiology	<b>26733027</b>
13	HOD Orthopedics	<b>26106787</b>
14	Nursing Superintendent	<b>26713198</b>
15	CMO i/c Security	<b>26730320</b>
16	CMO i/c Sanitation	<b>26714421</b>
17	Fire Safety Officer	

Medical Superintendent/ Additional Medical Superintendent (Casualty) would supervise and coordinate the activities with the Departmental Heads and with outside agencies. **The ECRO will continue to coordinate till the arrival of the above officers.** A chain of command would supervise the hospital staff during mass casualty event to provide orderly response when large numbers of casualties arrive.

### **RAPID RESPONSE TEAMS**

A list of doctors from various Specialties, nurses and Para-medical staff who will respond to disaster within short notice will be drawn. **The list of such doctors, nurses and Paramedics along with their addresses and telephone is kept and displayed in the Disaster Control Room.** If required, the Medical Superintendent in consultation with the nodal Ministry would decide on dispatching the rapid response teams to the crisis point (even outside the State) to provide on the spot pre-hospital medical care.

Three such Rapid Response Team will be on standby for a period of three months at a time for a total period of one year. The members of one team may replace any member of the other team, who may be on leave or duty outside the hospital during his team's standby period. In case, the Rapid Response Team is mobilized outside Delhi, then it is proposed that they will be equipped with medicines and other essential equipment.

They will triage the patient, provide basic life support at incident site and transport patients to hospital.



Rapid Response Team for epidemics preparedness and control includes:

- Faculty from Epidemiology and Community medicine Department
- Faculty /Specialist of Microbiology
- Faculty / Specialist of Medicine or Pediatrics depending of epidemics
- Public Health Nurse/Senior Nurse

**INFORMATION AND COMMUNICATION**

The Telephone exchange would be responsible for communications linkages with all concerned. All events which could be the warning signals for disaster will be communicated through a telephone exchange. It would be connected directly to the Disaster Control Room and will establish contact with the Medical Superintendent and Addl. Medical Superintendent and desk areas of all the wards and supportive services. Communication facilities would also be established round the clock with other Central Govt. Hospitals and Nodal Ministry.

All-important numbers of hospital personnel, police, Fire, other nearby hospitals, etc. are available in Annexure-II in the disaster manual and a copy of this manual should also be present in the communication room/ telephone exchange.

On getting the go-ahead from the control room the disaster message should be flashed/ communicated to all the numbers.

**Disaster Alert**

1. Date ..... Time .....
2. Nature of Disaster.....  
.....
3. Casualties expected .....
4. Name of informant .....
5. Designation .....
6. Tel. Number .....
7. Call Received by .....
- .....

## DISASTER BEDS

- A. Requirement of Beds depends upon the magnitude of the disaster. The hospital must take into consideration that in case of mass casualty, medico-legal zoning concept should not be operational. The medical superintendent would delegate the power to Emergency Control Room officer to utilize the available beds for disaster management. Non-emergency patients will not be admitted increasing the availability of beds for disaster victims.
- B. Surge capacity- 150 **disaster beds** are earmarked in casualty. The hospital has 130 Beds in emergency medical and surgical wards, ward A & B respectively. Besides, a well-defined sequential plan would be put into action in case of a disaster involving mass casualties. The effort would be to create an addition intake capacity of 100-150 indoor patients at a short notice.

These beds are available immediately on receipt of information.

Disaster ward	60
Ward A	35
Ward B	35
Total	130

These beds can be created within 30 minutes

In case extra beds are needed for following movement protocol may be followed:

Protocol for vacating beds in ward A & B Attention: Sister I/C ward A,B Ward 11-17, Ward 24-29	
1.	N/A,S/B from ward 18-21 to be ward A-report to sister i/c
2.	N/A,S/B from ward 27-29 to be ward B-report to sister i/c
3.	Ward A patients to ward 11 and ward B patients to ward 24
4.	N/A ward 12,13 to vacate ward 11 and shift patients to ward 12,13
5.	N/A ward 25,26 to vacate ward 24 and shift the patient to ward 25,26

6.	N/A ward 11 and 24 will prepare wards to receive patients from ward A & B
7.	Surplus patients from medical wards will be shifted to wards 15-17
8.	Surplus patients from surgical wards will be shifted to ward 27-29
9.	In case of Biological welfare ward 30 to be vacated shift patient to New spinal ward

C. Additional capacity will be created by:

- ❖ Utilization of vacant beds.
- ❖ Utilization of day care beds.
- ❖ Utilization of all pre-operative beds.
- ❖ Augmenting vacant bed capacity by discharging the following categories of patients:
  - a. Convalescing patients needing only nursing care.
  - b. Elective surgical cases.
  - c. Patients who can have domiciliary care or OPD advice.
- ❖ Utility areas to be converted into temporary wards such as ward's side rooms, galleries, seminar room etc.
- ❖ Creating additional bed capacity using trolley beds, folding beds and floor beds.

This modality should be prominently displayed in the respective wards and control room in the form of a directive so that it can be implemented by the nursing staff at short notice.

### LOGISTIC SUPPORT SYSTEM:

- A. ECRO will coordinate the Logistic Support required to manage a disaster. Separate AlmiraH/ cupboards marked as Disaster AlmiraH should be kept in the casualty/ disaster ward which will stock all the essential medicines and other surgical supplies required to treat and manage about 200 casualties with list pasted on the almiraH. Bricks of medical stocks for 50/100/200 patients will be kept ready to move with Rapid Response Teams.

#### Keys of these almiraH will be with

- a. ANS Casualty
- b. Nurse on duty
- B. All essential medicines, dressing materials, splints, disinfectants, vaccines T.T, personal protective equipment including surgical masks, N 95 masks, impermeable gowns etc. for management and treatment of injuries should be stock-piled. Constant turnover of these logistics would be done to ensure their utilization before expiry of their life. Enough emergency trays containing lifesaving drugs will be kept ready in the casualty. Availability of plastic wraps to cover contaminated material, disposable shoe covers, flooring paper covers will be ensured.
- C. A well-equipped resuscitation room with ECG monitor, defibrillator, ventilator, laryngoscope, ambu bag, suction machine, Oxygen cylinder, resuscitation kits, endo-tracheal tubes and emergency medicines etc. should be available in the casualty.
- D. Rs. 10,000/- should be kept as imprest money with the ECRO to meet any patient care related items.
- E. Enough stretchers, wheelchairs, linen and blankets for undertaking mass evacuation of cases should be piled up in the casualty from where these could be rushed at the time of need. These items are kept in the Garage as well in store in room No.
- F. Enough linen should be available as buffer stock in the 2<sup>nd</sup> floor OT or any other space identified by the HOD Anesthesia. This buffer stock should include at least:

<u>S. No</u>	<u>Items</u>	<u>Nos.</u>
<u>1.</u>	<u>Sterile Gowns</u>	<u>100</u>
<u>2.</u>	<u>Surgical dresses</u>	<u>100</u>

<u>3.</u>	<u>Sterile linen for 12 surgeries</u>	
<u>4</u>	<u>Sterile gauze &amp; cotton for at least 12 surgeries</u>	
<u>The sterile items may be suitably routed to ensure their sterility</u>		

### MOBILIZATION OF STAFF

#### Doctors:

On the receipt of information of disaster, the ECRO will call the Sr. Resident from ward A and B to the casualty. They will supplement the existing staff working in the casualty at the time. Triage teams will be formed by the ECRO who will quickly attend and prioritize the casualties.

The Unit in-charges of the units on the duty will be called by the ECRO, they are ANY OTHER DOCTOR DEPUTED will reach the casualty immediately. The HOD or his representative of the respective department will arrange to inform the other specialists of his department who will reach the casualty within 45 minutes.

In case of biological disasters, Nodal officer, HOD community Medicine and HOD Microbiology will be informed. Rapid Response Teams will be activated and deputed.

In case of fire, Fire Safety Officer will be informed. Rescue and evacuation teams will be activated. HODs of all Departments will ensure safe evacuation of all members of their Department.

<b>PROTOCOL FOR MOBILOZATION OF DOCTORS BY ECRO</b>	
<b>1.</b>	Call senior resident from ward A and B
<b>2.</b>	Call Sr./PG/From ICU
<b>3.</b>	Form Triage teams
<b>4.</b>	Call senior residents and junior residents from wards 17, Gynae wards
<b>5.</b>	Warden residents' hostel to mobilize interns JRs
<b>6.</b>	Warden students hostel to mobilize interns
<b><u>RESUSCITATION TEAMS</u></b>	

Sr. orthopedics	Sr. Surgery
Sr. Anesthesia	Sr. Anesthesia
Junior Resident	Junior resident
Nurse on duty	Nurse on duty
Nurse on duty	Nurse on duty
Intern	Intern
<b><u>RESCUE AND EVACUATION TEAMS</u></b>	
HOD all Deptts	Professor all Deptts
SR all Deptts	SR all Deptts
JR all Deptts	JR all Deptts
Nurse on duty	Nurse on duty
MSW on duty	Health Inspector on duty
Warden all hostels	Care taker all hostels
Security guard	Security guard
Sanitation worker	Sanitation worker
<b><u>TRIAGE TEAMS</u></b>	
<b>BATCH IN CHARGE NURSING STAFF</b> (In case more teams are need they may be constituted by ECRO)	

In case the need is felt for general mobilization of all doctors and other staff, the Hooter can be sounded.

### **BLOOD BANK**

Vardhman Mahavir Medical College & Safdarjung Hospital Blood Bank has a capacity for storage of 1900 units of blood and 600 units of blood is available at any given time. The hospital would store enough units of blood belonging to all groups for the requirement of an anticipated mass casualty involving 200 patients. The hospital would also be able to requisition/ collect blood from fractionalization would be followed for availability of the requisite components at short notice.

## AMBULANCES

The ambulance available at Vardhman Mahavir Medical College & Safdarjung Hospital would be kept in a functional state. The Chief medical Officer I/c Transport would be responsible for maintaining their roadworthiness. The name, address and telephone number (if any) of the drivers and mechanics would be available with Chief medical Officer I/C transport in the drive room. The ambulance would be fitted with light siren to have easy access to the site of disaster. It will have a two-way communication system and GPS based maps. Apart from this Vardhman Mahavir Medical College has 9 other vehicles i.e. staff cars, jeep, truck etc. Vardhman Mahavir Medical College & Safdarjung Hospital also has a hearse van.

Staff trained in First aid and basic life support including Pre-trauma technicians, paramedics and Doctors will be posted in the ambulance along with the driver. This will be coordinated by the DDA and CMO Transport.

ECRO may ask for more ambulances from sister organization, CATS, Police, Fire services, Red Cross and St. John Ambulance, if needed through Integrated Ambulance Network.

Number to be displayed in the control room.

## FIRE SAFETY

A team of three officials (preferably one member having P.G. Diploma in Disaster Management) in each high-rise building will be constituted to look after preventive aspects of fire management and periodical drills in association with fire personnel's of CPWD working under designated J.E. (Electrical). Nodal officers of each team will be authorized to take necessary steps/ changes in the fire-fighting arrangement with the approval of the competent authority through nodal officer disaster management. They will submit their monthly /fortnightly reports/suggestions about lapses and prevention to curb down the fire incidence in VMMC & SJH campus with the nodal officer Disaster management (Addl. M.S.).

S. No.	Name of the Deptt./Block	Fire safety in-charge	Other members
1.	Main OPD Block	Dr. Pankaj Ranjan	Dr. Prem Kumar
2.	Boys Hostel	Sh. Sushil Kumar Mishra	Warden In-Charge hostel
3.	Gynae Block	Nominated member	HOD O & G
4.	O.T. Block	Dr. R.K. Anand	HOD Anesthesia
5.	Surgical Block	Sh. Sudhir Kumar	HOD Surgery
6.	Ortho Block	Dr. Sandeep Sharma	HOD CIO
7.	Girls Hostel	Mrs. Samiksha Srivastava	Warden In-Charge hostel
8.	VMM College	Dr. VP Gautam	Principal VMMC
9.	Sport Injury Centre	Mrs. Jasvinder Kaur	Director SIC
10.	Laundry Block	Nominated Member	Dr. Sanjay Sood
11.	New Emergency Block	Dr. Mukesh Nagar	Dr. Naresh Bharadwaj
12.	Super Specialty Block	Dr. Sandeep Sharma	Dr. Neeraj Gupta
13.	Emergency Block (Old)	Dr. Mukesh Nagar	Dr. Naresh Bharadwaj
14.	Burns & Plastic	Sh. Sushil Kumar Mishra	HOD Burn & Plastic
15.	Medical Store Block	Sh. Sudhir Kumar	Dr. Vinod Kumar



16.	H- Block	Mrs. Samiksha Srivastva	HOD Medicine
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Underground water tanks, with capacity of 15,000 litres, will be ensured in all high-rise buildings for fire-fighting operations. Hose reels, sprinkler system will be made available.

Fire in the building is mainly due to short circuit, use of heater and other equipment directly by the open wire, overuse of PowerPoints, use of faulty wire, over storage of files and inflammable. Possible preventive measures are:

1. Switch off all power points when they are not in use;
2. Before leaving the room ensure every switch is put off;
3. Not to storage inflammable material near to electric or gas stove, etc.
4. Saving energy should be motive of all staff and professionals

In case of fire, whosoever from hospital staff will notice the fire first, will break the glass of nearest fire alarm, if it would be present. He/ She will attack the fire extinguished, only if knows how to use it. Otherwise inform ECRO, HOD of department and prepare for evacuation. Rescue and evacuation teams will be then activated. Safe evacuation of all members of the department will be responsibility of HODs of respective department.

A public address system, alternate power supply system, in case of fire, which will be different from main power supply will be ensured. It will provide back-up supply for at least 90 minutes.

LED Signages depicting exit routes and nearest evacuation zone will be displayed at appropriate places in all buildings.

Emergency lighting will illuminate the escape routes. It will be activated within one second of failure of normal lighting.

Smoke exhausts will also start working within one second of smoke detection. Sprinklers will starts sprinkling water to extinguish fire as much as possible.

Patients and their attendants will be made aware of:

1. Hazards and risks in hospital- Through posters and hoardings
2. Emergency exit routes and evacuation plans through signages.

## Biological disasters

These are the events caused by microbial agent or its toxin in humans, animals or plants that is beyond the coping ability of the State.

**Surveillance-** The early warning signals including unexpected increase in number of cases of communicable diseases of public health importance or intimation from IDSP will be looked up by the Department of Community Medicine through regular reporting of data to IDSP. A nodal officer from Department of Community Medicine will be deputed to look after the management of these disasters.

**Rapid Response teams-** In case of biological disasters, these teams will consist of an *epidemiologist/ public health specialist* who will be an Assistant Professor from Department of Community Medicine, a *microbiologist* not less than the post of Assistant Professor from Department of Microbiology, and a *medical/ pediatric specialist* and a *nurse*. The inclusion of other members in team like entomologist, veterinary experts may be included in the team as deemed appropriate and it will be decided by the Nodal Officer from Department of Community Medicine. Three such teams will be formed. This team will be deployed for outbreak investigations and control.

The members of team, other first responders and hospital staff who will be handling the biological disaster, will receive prophylaxis including immunization against the suspected cause of biological disaster. This will be the responsibility of Nodal Officer to ensure provision of such prophylaxis.

If these teams must be mobilized outside Delhi, they will be equipped with essential medicines and other equipment.

**Laboratory diagnosis-** For biological disasters, ambulances will have provision for collection of samples, adequate I.V. fluids and antibiotics along with other emergency drugs. The samples of body fluids will be collected and dispatched to microbiology laboratory. The required Bio-safety level will be ensured by microbiologist and if necessary, samples may be sent to NCDC laboratory. Environmental samples can also be collected if directed by public health specialist.

**Patient care-** In case of biological disasters, patients requiring decontamination will be decontaminated first by removing the clothes and quick one-minute head-to-toe wash with water. This will be done in a separate and isolated ward with shower facility. Thereafter, they will be triaged. The entry for victims of biological disasters will be separate from main casualty entry.

In the event of a biological warfare, the health care facility is expected to receive patients with communicable diseases of high infectivity. Such patients must be kept in isolation. In such an eventuality, temporary isolation wards would be set up. The period of isolation will be decided by members of Rapid response teams. Quarantine wards will also be set up after consultation with Rapid Response Teams and public health specialists. Samples of body fluids will be taken and dispatched to laboratory for investigations.

**Infection Control-** Barrier nursing along with the universal precaution would be followed in handling such cases. The hospital staff working in these areas would be closely monitored for early signs and symptoms. The Hospital infection control committee would be responsible for the monitoring of infection control practices and BMW management in the hospital premises.

In the event of a Biological warfare, the doctors, nurses and the paramedics working with the rapid response teams, Decontamination station, Triage area must wear personal protection equipment (PPE).

**Reporting-** Incidents of Biological disasters with preliminary investigation report will be reported by Rapid Response Teams within 24 hours of the incident to District IDSP and administration.

**Logistics-** All essential medicines, dressing materials, splints, disinfectants, vaccines T.T, personal protective equipment including surgical masks, N 95 masks, impermeable gowns, insecticide etc. for management of biological disasters should be stock-piled. Availability of plastic wraps to cover contaminated material, disposable shoe covers, flooring paper covers will be ensured. Bricks of medical stocks having essential medicines, vaccines as appropriate for the disease for 50/100/200 patients will be kept ready in the Biological Disaster Almirah to move with Rapid Response Teams. This almirah will be present in Department of Community Medicine and will be maintained by Public Health Nurse. Constant turnover of these logistics would be done by Assistant Professor of Department of community Medicine to ensure their utilization before expiry of their life.

**Specific public health interventions-** The interventions specific to water borne, vector borne, zoonotic and respiratory diseases etc. will be implemented on recommendations by Department of Community Medicine. The person authorized by Medical Superintendent of the hospital will brief the media. All measures to allay public anxiety and fear will be taken. For biological disasters,

simple and precise messages developed by the Department of Community Medicine will be conveyed to community members.

**Monitoring-** The members of rapid response team will meet daily and discuss the future course of action. If required, assistance from other agencies like NCDC will be undertaken.

**Post-outbreak-** In case of biological disasters, post outbreak surveillance will be done. Public and community will be encouraged to report fresh cases of disease. A reward system will be established for those reporting fresh cases.

Once disaster will be managed, a debriefing exercise will be done by Disaster Management Committee. The entire management process will be reviewed. The gaps will be identified and addressed. Nodal Officer will oversee recovery operations. Post disaster damage assessment will be done.

**Capacity building-** They will be trained and retrained in process of triage, providing basic life support at incident site and transferring patients to hospital, if required. Regular training in handling of specific biological disasters as per guidelines given by National Centre for Disease Control from time to time, will be undertaken for members of the team. The training will be conducted by Department of Community Medicine in collaboration with other Departments as will be deemed necessary. The frequency of such training will be quarterly.

Tabletop exercises will be conducted by Department of Community Medicine with Microbiology, medicine, pediatric departments, nursing officials and other stakeholders to identify gaps in preparedness and response to a biological event. Simulation exercises and mock drills will be done after tabletop exercises based on different types of biological disasters and different situations including on- site management and hospital management of such disasters. These exercises will be conducted at least biannually.

### **Rapid Response Team of VMMC & SJH**

1. Epidemiologist: Dr. Shalini Smanla, Assistant Professor Department of Community Medicine VMMC & SJH
2. Microbiologist
3. Medical specialist/ Pediatrician
4. Nurse

## ACTIVATION OF DISASTER PLAN

### Standard operating procedure

A standard operating procedure would be developed that defines how each task will be accomplished. Each task would be defined for such purpose and specific check list would be prepared to be consolidated and reviewed by Disaster Management Committee from time to time. The standard operating procedure is placed at Annexure-I

### Activation of Plan (Action ECRO)

Pick the disaster pack kept in the tray in control room and fill details in the disaster detail form pated on the register- all details to be recorded in the same

### Contents of the pack

- ❖ Register to entry particulars of the patients
- ❖ File containing case sheets

### Triage cards and I card pouches with color coded neck bands.

- i. As soon as the information regarding disaster is received /first disaster patients arrive in the hospital, ECRO on duty would activate the disaster plan. He would immediately contact following officials and inform about the time, place of occurrence, nature of casualties, number of likely casualties and source of information to following officials:

OFFICERS TO BE INFORMATION BY ECRO
TELEPHONE OPERATOR
MEDICAL SUPERINTENDENT
ADDITONAL MS (CASUALTY)
CMO I/C CASUALTY
ANS CASUALTY
ANS CASUALTY
RAPID RESPONSE TEAMS – IF NEEDED

- ii. The ECRO in consultation with the Medical Superintendent and depending upon the magnitude of casualties would call the requisite manpower/rapid response teams to the hospital. The public address system/telephone exchange would be used to mobilize the manpower at short notice and to disseminate other relevant information.

iii. In case of major disaster, the Hooter will be sounded and all the staff on duty will reach the casualty. The resident and the students are also to report the casualty. **The ECRO will nominate one Sr. official (for each category of staff) to be the Nodal Officer who will receive and depute all the staff who has reported.**

❖ In-Charge Triange _____
❖ In-Charge Security _____
❖ In-Charge Beds _____
❖ In-Charge Drugs and Disposables _____
❖ In-Charge OT _____
❖ In-Charge Sanitation _____
❖ In-Charge Nursing _____
❖ In-Charge Group D _____
❖ In-Charge Forensic _____
❖ In-Charge Documentation _____
❖ In-Charge Refreshments _____
❖ In-Charge Engineer Civil _____
❖ In-Charge Engineer Electrical _____
❖ In-Charge Public Relations _____
❖ In-Charge Fire Safety _____

**Reception Area**

- a. The present casualty will function as the reception area and triage area
- b. For heavy load, Main hall of ground floor OPD will be converted into temporary reception area. This main hall may also be utilized as waiting area for attendants and patients with minor injuries i.e. priority iii.

**Triage**

1. The triage team will comprise of:

TRIAGE TEAMS
BATCH IN CHARGE
NURSING STAFF
(IN CASE MORE TREAMS ARE NEEDED THEY MAY BE CONSTITUTED BY ECRO)

**TRIAGE** is a process of prioritizing patients based on the severity of their condition. This rations patients treatment efficiently when resources are insufficient for all to be treated immediately. The term comes from the French verb trier, meaning to separate, sort, sift or select. There are two types of triage: simple and advanced. The outcome may result in determining the order and priority of emergency treatment, the order and priority of emergency transport, or transport destination for the patient, based upon the special needs of the patient or the balancing of patient distribution in a mass- casualty incident (mascal) triage team will carry out triage and in case of mascal follow AVPU

A	ALERT
V	RESPONDE TO VERBAL COMMANDS
P	RESPONDS TO PAIN
U	UNRESPONSE

Another model of use is:

Lying and silent	Priority I/IV
Lying and crying for help	Priority II
Walking wounded	Priority III

TRIAGE		
	INTERPRETION	ACTION
RED	The casualty required IMMEDIATE MEDICAL ATTENTION and will not survive if not seen soon. Any compromise to the casualty's respiration, hemorrhage control, or shock control could be fatal	<b>SHIFT TO RESUS AREA / OT /ICU IF NEEDED</b>
YELLOW	The casualty requires medical attention within 6 hours. Injuries are potentially life threatening, but	<b>SHIFT TO WARD B AFTER</b>

	can wait until the Immediate casualties are stabilized and evacuated	<b>STABILIZATION</b>
GREEN	Walking wounded,"the casualty requires medical attention when all higher priority patients have been evacuated, and may not require stabilization or monitoring	GIVE FIRST AID ADMIT IF BED AVAILABLE
BLACK	<b><u>DEAD</u></b>	

An area to be identified and kept ready for dead bodies in the casualty. Body bags may be arranged for the purpose. The dead bodies will be shifted to mortuary after triage.

Differently colored ribbons are available with the Sister In-Charge of casualty and in the Disaster Room. These should be hung on the patient's neck attached to the I card pouch having color, coded triage card and card with personal particulars of the patients. These will be serially numbered.

### **Creation of additional bed space**

- a.** Additional beds would be created as per the plan envisaged in the Disaster manual.
- b.** In the event of a biological warfare, the health care facility is expected to receive patients with communicable diseases of high infectivity. Such patients have to be kept in isolation. In such an eventuality, temporary isolation wards would be set up. Quarantine wards will also be set up after consultation with Rapid Response Teams. Samples of body fluids will be taken and dispatched to laboratory for investigations.
- c.** Barrier nursing along with the universal precaution would be followed in handling such cases. The hospital staff working in these areas would be closely monitored for early signs and symptoms. The Hospital infection control committee would be responsible for the monitoring of infection control practices and BMW management in the hospital premises.



### **Mobilization of additional O.T Table**

**A.** In case of mass casualties, where a long number of surgeries are to be performed in a short span of time, the routine surgery tables in different operation theatres of the hospitals will be used for emergency surgeries. The routine/elective surgery will automatically stand cancelled. Similarly minor O.T tables can be used for simple emergency surgeries. O.Ts staff and paramedics shall be mobilized from running OTs.

**B.** The ANS on duty will be responsible for mobilizing extra nursing staff for the OTs. She will also coordinate with the CSS for mobilization of Group D staff.

### **Inventory of Essential Drugs**

A. The ECRO will monitor the consumption of essential drugs and other consumables. The officer In-Charge stores will be responsible for replenishing the stocks. Whenever necessary emergency drugs, if not available, shall be procured from the imprest money kept in the control room.

B. In the event of a Nuclear, Biological, Chemical warfare, the doctors, nurses and the paramedics working with the rapid response teams, Decontamination station, Triage area have to wear personal protection equipment (PPE). Such equipments would be identified to be procured at short notice. The nuclear/chemical warfare may necessitate use of equipments to give mechanical ventilation. An inventory of ambu bags and ventilators available in the hospital would be kept by the ECRO & Store I/C to be mobilized to the casualty at short notice. Additional sources of ventilators available in other hospitals and with outside agencies would be identified.

### **Documentation**

- ❖ Documentation will be done at the casualty by CMO or any officer designated by the ECRO. All the MLCs will be recorded properly. However, the patients will get priority over the paper work. The ECRO will prepare the list of casualties including nature of injury sustained. For heavy load of casualties, officer incharge of record section will post an additional medical record assistant /technician to cater to the additional load of work. One nurse will be posted to check the

documentation and identification of patients. The services of medico-social officers will also be utilized for this purpose.

### **Mortuary**

- ❖ Those brought dead or died in hospital will be transferred through a different route to mortuary and kept in the mortuary to its fullest capacity. Required formalities as laid down for Medical Legal Cases will be followed. Whenever the space falls short, temporary morgue for keeping dead bodies will be created at an appropriate place to be decided in consultation with ECRO/HOD, Forensic medicine/Anatomy. Anatomy Hall can be used for the purpose.

Necessary identification and handing over the bodies to the relatives after medico Legal Clearance will be done in this area. All procedures for release of dead bodies will be strictly adhered to as laid down in the hospital Manual and applicable to Mortuary. Officer in charge photography section shall arrange to take photographs of dead bodies if required. Plastic Identification tags will be procured and used.

### **CROWD MANAGEMENT**

- ❖ On receiving of the information of disaster, immediate mobilization of security staff available within the hospital campus will be made to augment the security in the casualty department and to manage the crowd. The local police station will also be informed to provide assistance in managing the crowd. The incoming traffic needs to be regulated to provide unhindered passage to ambulances.
- ❖ Plan to be kept in operation and communicated to CMO i/c casualty to ensure Sanitization of the premises in case of disaster. (Action for CMO i/c security and Addl. MS Security)

### **PUBLIC RELATIONS**

- ❖ The identified officer/s would liaison with the relatives of the victims to inform them on their clinical status. For such purpose, the hospital will make efforts to establish information desk to provide the requisite information. The list of the casualties along with their status displayed at

a prominent place outside casualty, in both English and local language, would be updated regularly. Two dedicated telephone lines in casualty, OPD, Burns Casualty shall be activated by calling telephone in charge from the exchange.

A separate waiting area for attendants will be created. Arrangements for water, snacks, tea, coffee and tent will be made for attendants outside casualty. Vulnerable groups like pregnant women, elderly, children will be given special attention. One staff member from Social Welfare Department will be posted to stay with attendants of victims.

Psychiatry ward will be upgraded to admit disaster survivors with symptoms of post traumatic psychological disturbances. Psycho-social counselling and observation will be provided to them.

The person authorized by Medical Superintendent of the hospital will brief the media. All measures to allay public anxiety and fear will be taken. For biological disasters, simple and precise messages will be conveyed to community members.

The PRO to outline a plan for ensuring that the above objectives are achieved.

ECRO at the time of disaster. (Action PRO)

## **ESSENTIAL SERVICES**

- ❖ Adequate provision would be made to meet additional requirement of water. Alternative sources of water would be identified. Efforts would be made to support the entire emergency services through standby generators. In addition, appropriate number of emergency light, depending upon the situation, would also be kept in readiness. The In charge of the Civil and Electrical Engineering divisions would be responsible for providing uninterrupted power and water supply. (Action Ex. Engineer CPWD (Civil) and Ex. Engineer CPWD (Electrical))  
A list containing addresses and telephones numbers of the specialists of various departments, Nursing Personnel, CSSD laundry staff, Sanitation staff, administrative and secretarial staff, MRD and telephone exchange staff,

canteen and kitchen staff, medical store and general store staff is available in the Control Room Casualty.

- Maintenance of sanitation (Action CMO and Addl. MS Sanitation)
- Maintenance of security (Action CMO and Addl. MS Security)
- Ensure adequate, clean and sterile linen and Equipment.(Action CMO. Laundry and CSSD)
- Department of record Clerks (Action CMO, MRD)
- To explore additional communication channels in case of communication failure. (Action CMO Telephones)

### **MONITORING AND EVALUATION**

- ❖ Once disaster will be managed, a debriefing exercise will be done by Disaster Management Committee. The entire management process will be reviewed. The gaps will be identified and addressed. A designated officer of hospital will oversee recovery operations. Post disaster damage assessment will be done and presented to appropriate authority for quick funding and reconstruction activities.
- ❖ Regular annual audit for fire and structural safety will be undertaken by both internal and external agencies. Any health care staff can report to HOD of respective department, if any exit door, **route found obstructed and immediate clearance of such obstruction should be ensured by HOD.**
- ❖ NOC will be obtained from fire department.
- ❖ **External evaluation committee will be formed for guidance, supervision, monitoring purpose and 3-6 monthly meeting will be organized.**

### **DRILLS**

- ❖ The Plan would be rehearsed through mock exercise at frequent intervals, minimum at 6-month interval, to ensure that all the staff in general and those associated with management of mass casualties are fully conversant with their responsibilities. Periodic mock drills will also help in checking response time and reducing it to minimum. They will be preceded by Tabletop exercises.
- ❖ Every month member of the disaster committee/Addl.MS/CMO In-Charge Casualty will check the disaster facilities, public address systems and other relevant matters.

### **CAPACITY BUILDING**

- ❖ Mandatory introductory training and periodic re-training about disaster management to all health care workers including Doctors will be imparted. **Special training programs for hospital leadership will be conducted by the**

department of Community medicine in collaboration with emergency medicine, anesthesia and external agency of national importance.

- ❖ Ambulance drivers will also be trained. For fire safety, training will focus on sanitation workers, security guards as they know the buildings better.
- ❖ Mental health aspects of disasters will be given due care. Health care staff will be trained for same.
- ❖ Medical and paramedical staff will be trained in proper implementation of universal safety precautions, use of personal protective equipment, disaster communication, triage, barrier nursing and collection and dispatch of samples. A team of specialists will be made to handle disasters of infectious diseases.
- ❖ All hospital staff will be trained in use of fire extinguishers. They should know location of these extinguishers, nearest exits, assembly points.
- ❖ Medical preparedness week will be celebrated biannually during which CMEs, seminars, training programs, mock drills etc. will be organized.

### **ANNEXURE-I**

#### **GOVERNMENT OF INDIA**

#### **OFFICE OF THE MEDICAL SUPERINTENDENT**

#### **VARDHMAN MAHAVIR MEDICAL COLLEGE & SAFDARJUNG HOSPITAL**

#### **NEW DELHI**

#### **DISASTER MANAGEMENT PLAN OF VMMC & SAFDARJUNG HOSPITAL**

1. As soon as any intimation regarding disaster is received/Disaster patients arrive, casualty doctor on duty shall receive them and attend to them promptly efficiently and courteously. He would record the details after taking out the disaster pack.
2. Immediately inform the Nodal officer who in turn will immediately inform officer I/C casualty, CMO and Addl. M.S on call all as per list in. Nodal officer and CMO on duty shall immediately put in service more no. of trolleys, wheelchairs from casualty as well as ward A & B and in case of necessity from other wards also. In case of fire, inform Fire Safety Officer.
3. Nodal officer will immediately alert and press into service doctors from Ward A&B.
4. Order vacation of Ward A&B in all, 70 beds are available in Ward A&B of NEB.
5. Alert ICU, EOT, OT 1<sup>st</sup> floor Blood Bank, Burn Casualty and CT Scan, Ultra Sound and X-Ray rooms in casualty block.

6. He / She will also deploy extra nursing staff, Nursing orderlies, stretcher-bearers, safai Karamchari & Security Gurads with the help from ANS/DNS on duty, Sanitary Inspector on duty.
7. He will give instructions to security officer on duty regulate the patients and crowd with the help of security and police personnel.
8. Nodal officer will immediately alert all the staff and concerned heads of unit and departments with help of central announcing systems in central enquiry and central telephone exchange.
9. All the available ambulance shall be put in service.
10. List of all the categories of staff with address, telephone numbers is available in the control room.
11. Doctor working in casualty will immediately conduct a triage i.e sorting out case of minor, moderately serious and very serious nature and take the necessary steps accordingly. Blood shall be indented immediately and patients taken to minor OT/Major OT directly in priority I cases if needed.
12. All the MLCs will be recorded properly and in details in MLC register.
13. More no. of OT tables shall be made available to handle increased load of surgery.
14. A comprehensive list of all patients coming to casualty shall be prepared and prominently displayed in English & Hindi outside casualty.
15. Two dedicated telephone lines shall be activated with the help from central telephone exchange, for public.
16. As far as possible all the cases shall be managed in the shortest possible time.
17. Wherever necessary, emergency drugs, which are not available, shall be procured from the imprest money kept in control room.
18. If necessary extra trays shall be indented from CSSD which is working round the clock.
19. All the dead bodies shall be properly packed, identification tags put on them and then sent to mortuary.
20. Arrangements for tent, water, snacks, tea, coffee, shall be made for attendants as well as staffs through kitchen, canteen.
21. AIIMS ECR will also be informed for possibility of pooling of resources.

<b>Check list (place checked mark)</b>	
Record Disaster Detail-Disaster Pack	
Inform	
Alert casualty medical staff and form triage and resus teams	
Call ward A-	
Call ward B-	
Alert ANS to arrange N/A,S/B, Nursing Staff	
Inform Fire Safety officer (Fire incident)	
Alert Rescue and evacuation teams (Fire incident)	
Inform HOD Community Medicine (Biological disaster)	
Inform HOD Microbiology (Biological disaster)	
Alert Rapid Response Teams (Biological disasters)	
(Shift Patients as per protocol)	
Ward A vacant	
Ward B vacant	
Ward 11 vacant	
Ward 24 vacant	
Ward 30 vacant	
Alert	EPABX
EOT	
OT 1 <sup>st</sup> floor	
ICU	
BURNS	
CT SCAN	
X-RAY	
BLOOD BANK	
Alert security	
Sister I/C to report stretchers deployed	
Ambulances deployed	
Inform forensic medicine specialist on call	
Deploy JRs for MLC recording in fresh MLC book	
Arrange for notice board	
CSSD for extra trays	
Imprest money available – Key no. 18	
Extra telephone lines- earmark staff to record calls	

<b><u>CHECK LIST FOR ANS ON DUTY</u></b>	
Alert Sister I/C Casualty	
Stretchers deployed	
S/B and N/A called to ward A & B	
Coordinate vacation of ward 11& 24	
OT 1 <sup>st</sup> floor alerted	OT floor on stand
OT 2 <sup>nd</sup> floor on stand by	
CSSD alerted extra trays-deploy staff	
Coordinate with ECRO	Coordinate with CSS
Coordinate with CSS	
Receive telephone – deploy staff with register	
Notice board – deploy staff	
Arrange sheets for packing bodies – deploy staff	

***Check list for Sister I/C on duty***

Stretchers and wheel chairs	
Triage nurse deployed (1)	
Resus nurses deployed (2)	
Disaster room opened and nurses (3) deployed	
Observation room opened	
Ventilator deployed	
Monitors attached with accessories	
Notice board	
Telephone deployed	



Extra S/B and N/A to be deployed	
Trays available	

<b><u>OFFICERS TO BE INFORMED BY ECRO</u></b>
TELEPHONE OPERATOR MEDICAL SUPERINTENDENT ADDITIONAL MS (CASUALTY) CMO I/C CASUALTY ANS CASUALTY RAPID RESPONSE TEAMS FIRE SAFETY OFFICER

## Annexure II (Rapid Response Team)

	Officers of Command Nucleus	Telephone Number
1	Medical Superintendent (In charge)	<b>26190763,7282</b>
2	Additional Medical Superintendent (Cas.)	<b>26164277</b>
3	All Additional Medical Superintendents	26193792/26195342
4	Chief Medical Officer i/c Casualty	26761355
5	Officer in charge New Emergency Block	26761251
6	Nodal Officer, New Emergency Block	26761251
7	HOD Surgery	<b>26198508</b>
8	HOD Medicine	26166443
9	HOD Neurosurgery	<b>26198109</b>
10	HOD Anaesthesia	26178713
11	HOD Orthopedics	26192467
12	HOD Community medicine	26174819
13	HOD Microbiology	26198412
14	Nursing Superintendent	26713198
15	CMO i/c Security	26790320
16	CMO i/c Sanitation	26714421

## IMPORTANT TELEPHONE NUMBERS

S. No	Department name	PABX
1	Control Room	7114
2	Emergency Wd. A	7236
3	Emergency Wd. B	7235
4	Casualty	7260
5	ICU	7243
6	ICU (Burns)	0451
7	ICCU	7343
8	CSSD	0290
9	Transport	7325
10	CPWD Complaints	0255
11	Blood Bank	0254/0454
12	Security	7320/7149
13	Telephone	0400/ 9
14	Deployment Cell	0573
15	Medical Store	0262
16	Emergency Lab.	7522
17	CT Scan	7597
18	Burn Casualty	0460
19	EOT	0298
20	GRR	0294
21	O.T 1st Floor	0345
22	Maternity O.T	0271
23	ENT/EYE Ward	0217
24	Pediatric Ward 21	0221

25	Pediatric Ward 20	0220
26	Pediatric Ward 18	0218
27	Pediatric Surgery WD 19	0219
28	Mortuary	7333
29	Enquiry	7361
30	Casualty X-Ray	7413

**OTHER IMPORTANT TELEPHONE NOS**

S. No.	Departments	Phone Number
1	Police	100
2	Fir	101 / 26160963
3	Ambulance CATS	1099
4	AIIMS Casualty	26594405 / 26594810
5	AIIMS, Control Room	26593308
6	BVG	0552
7	Lift Complaint	101
8	Mr. V.K. Singh (Civil)	115/ 011-26109901 / 9810284340
9	Mr. Manoj Kumar Sonkar XEN, (Elec)	0418 / 9868145656
10	AIIMS POSIONING CELL	26593677

## **Evacuation of Hospital during Disaster**

Transferring patients, their relatives, and hospital staff to safer zones during a Disaster is called the evacuation of the hospital. Emptying the entire hospital or a part of it may be required, as an essential component of a hospital disaster management plan. The decision-making about the total or partial evacuation in disaster threats is within the purview of the disaster management committee with the concurrence of the competent authority of the hospital. A significant number of manpower i.e. hospital staff is available at the moment of disaster for evacuation at short notice from other unaffected areas of the hospital. In the event of the hospital being completely out of use, a mechanism is available for seeking help from various agencies i.e. Fire Department, Civil Defense, and other hospitals through district and state management authorities.

The medical files and laboratory and imaging results should be sent along with the patients who have been referred to other centres. After completion of the evacuation processes, the hospital is checked, and whether any section of the hospital can be taken into service following the event is decided.

The types of evacuation:

### **1. Internal (Partial) Evacuation:**

It is the evacuation of only the affected section in situations where the hospital was partially affected; this can be performed in two ways,

- a. Vertical and
- b. Horizontal.

The transfer from the lower floor to one or more floors up or the transfer to the lower floor in cases where the roof and top floor are damaged is called a vertical evacuation.

The type of evacuation that is performed simultaneously on several floors or in the entire block in a situation such as fire, explosion, or collapse, where a section of the hospital has been affected but has been taken under control is called a horizontal evacuation. This will be preferred as far as possible.

In case of fire, smoke and fumes might reach areas adjoining the actual incident site. In that case vertical or off-site (external) evacuation will be done.

2. **External (Complete) Evacuation:** It is the transfer of patients to pre-determined suitable hospitals in a situation when the hospital has been completely damaged and become unusable or the threat is continuing for the hospital

**Evacuation priorities for the transfer of patients:**

- 1<sup>st</sup> row: Small children and babies, patients who are not connected to machines and can walk (For rapid evacuation of patients who can walk, a group leader can provide the exit of patients to an appropriate area by shouting “All people who can walk should follow me!”)
- 2<sup>nd</sup> row: Patients who can move using a wheelchair or walker
- 3<sup>rd</sup> row: Patients for whom a stretcher is required for transport
- 4<sup>th</sup> row: All patients in the intensive care unit
- 5<sup>th</sup> row: Patients with the least probability of living

The place outside the area where the incident has occurred, is not affected by the disaster, and is safe for patients and their relatives and workers, is called the safe zone.

**The supplies that should be kept in this emergency case are as follows:**

- Rechargeable aspirator
- Full O<sub>2</sub> tubes, with their regulator-hoods ready to use
- Sterile clothing and sets
- Light source
- Sufficient amount of blankets

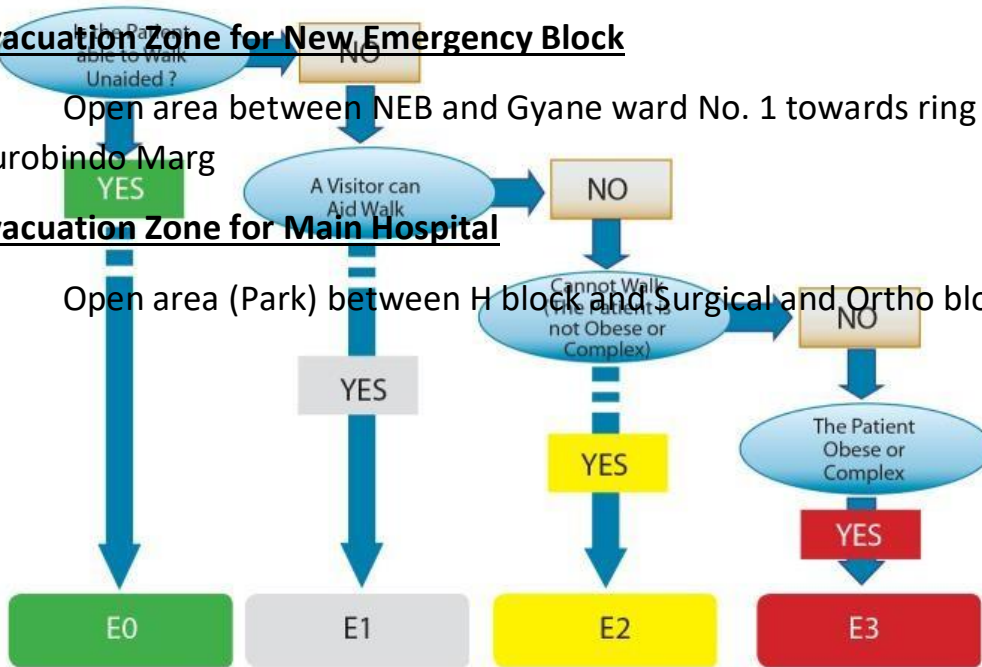
The decision-making for evacuation should be made as shown below  
The evacuation triage and categorization should be done as shown below.

**Evacuation Zone for New Emergency Block**

Open area between NEB and Gyane ward No. 1 towards ring road and Aurobindo Marg

**Evacuation Zone for Main Hospital**

Open area (Park) between H block and Surgical and Ortho block.



The evacuation triage.

**Evacuation Zone for Super Specialty Block**

The open area is adjacent in front of SSB.

**Evacuation Zone for Sports Injury Center**

Open area (park) in front of Main OPD Block.

**Evacuation Zone for VMHC**

Open area in front of the college.



## **Role of Department of Community Medicine in Disaster Management**

An important aspect of disaster management is disaster preparedness which will improve resilience, reduce the damage and will lead to better handling of disasters.

Preparedness is a part of preventive measures against disasters. This aspect will be taken care of by the Department of Community Medicine for all types of disasters.

This will include-

1. Update of disaster management plan- Keeping in mind the changing vulnerabilities and scenarios, the disaster management plan will be updated from time to time by the Department of Community Medicine. This will be done by consulting national guidelines on hospital preparedness by NDMA and other international guidelines.
2. Awareness generation- Disaster preparedness week will be celebrated in hospital biannually in which various awareness generation activities like rallies, plays, mock drills, tabletop exercises, CMEs, conferences, poster and slogan competitions and other events will be organized by Department of Community Medicine. This will help in sensitizing the hospital staff to disasters.
3. Training modules and guidelines- The modules for regular training and re-training of hospital administration, doctors and other staff will be prepared by the Department of Community Medicine in consultation with NIDM. The module will be disaster specific. They will specify the standard operating procedures during each disaster. They will be need based. Separate modules will be prepared for administrators, doctors and other health care workers.
4. Capacity building- The induction training to all people joining hospital including JRS and interns, six-monthly re-training, table top exercises and mock drills will be conducted by Department of Community Medicine. Other departments including Forensic Medicine, Anesthesia etc. can be included as required.

Certificate courses in disaster management, mainly biological disasters, will be undertaken by hospital. The course will be designed by the Department of Community Medicine in collaboration with NIDM.

Regular CMEs, conferences etc. will be organized for disaster preparedness.

5. The overall monitoring of disaster preparedness of the hospital will be done by the Department of Community Medicine in consultation with the Disaster management committee of the hospital. Quarterly or at least Biannual internal and external evaluations will be done. The gaps will be identified and addressed. Post-disaster reporting will be done to assess the damage, lacunas and measures to decrease them. The report will be submitted to the disaster management committee.

# Disaster Management Activation Plan

Disaster Information

Police Control Room

(011- 26761279)



Disaster Information

Casualty control room

(011- 26194690)



Disaster Information



Telephone exchange SJH  
(011- 26165060/26165032)

**Sequence for giving Information immediately-**

**1. Medical Superintendent,**

(Dr. B.L. Sherwal)  
M- 9868168400

**2. Additional M.S.**

Dr. R.P. Arora  
M- 9911441481

**3. Nodal Officer (DM)**

Dr. Prem Kumar  
M-09212577407

**4. Officer In Charge NEB**

Dr. R.K. Wadhwa  
M- 9868182025

**5. Nodal Officer NEB**

Dr. Surender Goyal  
M- 09718089066

**6. ONS**

Ms. Rekha Rani  
M- 09268803171/9999185193

**7. Additional M.S. (Security)**

Dr. P.S. Bhatia  
M- 9213381482, 7042142230



**8. Officer In Charge (Security)**

Dr. Tilak Raj Singh  
M- 9313333323



- a. will alert Head of Security Services (NEB)  
Mr Salaria M- 08595894725
- b. The security department of the Hospital (SJH)

- Will inform DNS NEB.
- Mobilize Nursing Officer to NEB for disaster ward.

**Note- Telephone exchange will inform all HODs and other members of the Disaster Management Committee (SJH), RDA President and will also inform hospital support services (supervisor/Head) and also Head of SAI/Gaurisha/BVG/Trig/Sudarshan, etc. as per the data provided to them**

\*All officers 1-9 will report to the casualty if the need arises based on the severity of the disaster and DDMA will be informed if needed and as decided by Medical Superintendent if no of casualties are too much to be accommodated in SJH.