

# Annexure

# 4

## Annexure-A

### SCALES FOR PRE-HOSPITAL FACILITIES ACCORDING TO POPULATION

Population Coverage	=> 3-5 lakhs
No. of first-aid parties	=> 40
No. of First Aid Posts.	=> 7, Mobile - 1, Static - 6
No. of mobile surgical units	=> 1
No. of Ambulances	=> 6
No. of Emergency Hospital Beds	=> 100-150

## Annexure B

### EQUIPMENT FOR A FIRST AID PARTY (EQUIPMENT FOR CASUALTY SERVICES)

S.No	Equipment / Particulars	Scale	Authoriz- ation	Recommendation /	Remarks
<b>I) For Each Member of FA Party</b>					
1.	Helmet	Per member	1	1 fiber glass	-
2.	Water bottle with sling		1	1 steel glass	
3.	Electric torch		1	1 commander 4 cell	
4.	First aid pouch with contents		1	1	
<b>II) For Driver of FA Party</b>					
5.	Vehicle Helmet	Per driver	1	1 fiber glass	
<b>III) For First aid Party</b>					
6.	Stretchers	Per party	Per party	2 aluminum & preferably folding	
7.	+ Blankets		2	2	
8.	Durries		2	2 ground sheets	
9.	Leg splints sets		2	2	
<b>IV) Haversack Containing The Following Items</b>					
10.	Bandages triangular		36	36	
11.	Bandages roll		36	36	
12.	Cotton wool		8	8 (100 gm packets)	
13.	Cans for tightening		8	Nil	
14.	Dressing pads*		24	24 (sterile)	
15.	Lint, cut in size of 8"x12"		6	6 (45m x 30cm)	
16.	Safety pin, large		2	2	
17.	Scissors (approx 7" long, one blade pointed and one blade blunt)		1	1 (approx 15cm)	
18.	Pencil, lead		1	2	
19.	Labels, casualty identity (packets of 20)		1	1	

20.	Safety razor blade		1	1 packet	
21.	New addition		1	1 liquid spray for	One each
22.	Sterile dressing pad on sticking plates		100	Band Aids	for pains, burns, wound and bleeding
23.	Tincture of iodine			1x1 pints bottle	
24.	Paracetamol tablets			100 NocX 0.5g	For pain
25.	Brufen tablets			100 Noc X 400 mg	relief in open wounds For pain
26.	Bathing Soap			1 cake	in closed wound
27.	Hand bellow type Ambu bag			1	
28.	Hand balloon attached suction apparatus			1	
<b>V. Contents of First Aid</b>					
	POUCH (with each First Aider)				
29.	Bandages Triangular	Individual First	9	9	
30.	Bandage roller		9	9	
31.	Dressing, sterile pads		9	9	
32.	Labels casualty identity (packets of 20)		1	1	
33.	Safety pins, large		1 doz.	1doz.	
34.	New addition		1	1 safety razor blade	
35.	New addition			10 Band Aid dressing	
<b>VI) Ambulance Equipments</b>					
<b>a) Personnel Equipments</b>					
36.	Driver	Helmet per driver	1	1 fiber glass	
37.	Attendant	Helmet per attendant	1	1 fibre glass	
<b>b) Ambulance Equipments</b>					
38.	Water bottle ambulance	Per	1	1 steel glass	
39.	Stretcher	4		4 light aluminum	
40.	Blankets	4	4		

41.	Hot water bottle	4	4		
42.	Torch	1			
<b>c) Ambulance satchel containing</b>					
43.	Bandages triangular	6	6		
44.	Bandages, loosewave, 5 cm	6	6		
45.	Cotton wool	6	6 100g pkts		
46.	Dressing, First Field	12	12 (sterile)		
47.	Lint, unmedicated	6	6 100g pkts		
48.	Safety pins (large)	2 doz	2 doz		
49.	Scissors (approx. 7" cm long, 1 blade pointed, 1 blade blunt)	1	1 (15 cm long)		
50.	Pressure bandage	1	2		
51.	Splints, Wooden set	1	1		
52.	Snaps for splints	1	1		
53.	Canes for tightening improvised tourniquets	4	4		
54.	New addition	Nil		1 Hand Bellow type Resuscitator ambu bag	
55.	New addition	Nil		1 Foot operated suction	
<b>VII) First Aid Party Drugs</b>					
56.	Tincture Benzoin	Per party		1 x 1 pint bottle	
57.	Tabs. Paracetamol	For each FA Party	Nil	100	100
58.	Tabs. Trimepridine (sepran)	Nil	100	100	
59.	Cap. Ampiclox (500 mg)	Nil	10 Nos.	100	
60.	Tab. Diazepam 5 mg	Nil	50	100	
61.	Tab. Diazepam 10 ml Amp.	Nil	5	100	

## Annexure C

## MEDICAL STORES &amp; EQUIPMENT FOR FIRST AID POSTS

S.No	Equipment / Particulars	Scale	Authorization		Recommendation		Remarks
			Basic requirement	Percentage of reserve	Basic requirement	Percentage of reserve	
1.	Tablets acetylsalicylic acid	For each FA post	30 tab 100	100%	Disprin	100%	
2.	Tablets sulphadiazine		50 tab	100	Septran 100	100	
3.	Lysol, 8 oz bottle		1	100	1 box	100	
4.	Morphine sulphate, 1/4g, 1 c.c. Ampoules, boxes of 6		1 box	100	1 box	100	
5.	Liq. Adrenalin Hydrochloride		1 amp	100	10 amp	100	
6.	Sod. Bicarbonate 8 oz		8 oz	100	500 gm	100	
7.	Sera ATS ampoules (inj.)		3	100	Inj. TT 5 amp	100	
8.	Spirit, methyaled, mineralized 500 ml		4	50	4	50	
9.	Air way medium I.R.		1	Nil	2	Nil	
10.	Forceps Torque (Cross action)		1	Nil	1	Nil	
11.	Mouth gag (sydenhauns)		1	Nil	1	Nil	
12.	Glucose saline giving		10 set	50 10	I/V sets	50	
13.	Bandages loose wove		100 4" x 6 yards	75 6m 100	5cm x	75	
14.	Bandages loose wove		100 2-1/2" x 6 yards	75 metres	5cm x 6	75	
15.	Bandages triangular		18	50	18	50	
16.	Bandages many tailed		3	100	3	100	
17.	Dressing first field		25	100	25	100	
18.	Dressing shell		10	100	10	100	
19.	Gauze absorbent, 25" wide x 3 yards		6 pkts	50 pkts	60cm wide in of 3 m folded, 6	50	
20.	Lint, cotton absorbant in 1 lb pkts		1 lb 1 lb	100	500 pkts,	100	
21.	Wool, cotton absorbant in 1 lb pkts		2 lb 2 lb	75	500 pkts,	75	
22.	Plaster, adhesive, zine		1 spool	50	1 spool	100	

	oxide 5 cm x 5 m yards spool						
23.	Silk, stabilized, no.3 (T) in vial		1	100	1	100	
24.	Wool, cotton absorbent		2 lb	50	2 lbs	50	
25.	Forceps astery 5" post	Per F.A.	4*	100	10cm 4	100	
26.	Forceps dissecting		1*	100	1	100	
27.	Forceps sinus 7"		1*	100	15cm 1	100	
28.	Forceps, dressing		1*	100	1	100	
29.	Forceps, sterilizer, chattels		1*	100	1	100	
30.	Probe		1*	100	1	100	
31.	Scissors, surgical		1*	100	1	100	
32.	Scalpal		1*	100	1	100	
33.	Knife B.P. Handle Blade No. 22		1 3	100 50	1 1	100 100	
34.	Splinter forceps		1*	100	1	100	
35.	Tongue depress forceps		1*	100	1	100	
36.	Smgeons overalls		*	2	100		
37.	Smgeons rubber gloves		2 pairs	100	2 pairs	100	
38.	Scissors, stretcher bearers (7" long) blade blunt		2 pointed - 1	50	2	50	1 blade
39.	Catcher No.8 I.R.		1	100	1	100	
40.	Catcher No.6 I.R.		1	100	1	100	
41.	Razor common *For medical officer on duty DISPOSABLE		1	100	1	100	
42.	Syringes Hypodermic 2cc with needles 2, in case	Per F.A. post	1	100	5	100	
43.	Syringo record, 10cc with needle space for 2cc		4	100	5	100	
44.	Syringe hypodermic with needles space for 2cc		4	100	20	100	
45.	Syringe hypodermic with needles space for 10cc		2	100	10	100	
46.	Medicine glass, 2 oz		1	100	20 ml	100	
47.	Pins safety, tins of 36		1	100	1	100	
48.	Tourniquet		2	50	2	50	
49.	Splinting, Gooches wood 24" x 18" pieces	96cm, 2	2	50	60 x	50	
50.	Splints, arm, wood, plain sets of 8		1	100	1	100	
51.	Splints, knee, thomas's without foot pieces		3	100	3	100	

52.	Splints, posterior, wood with a foot piece		4	100	4	100	
53.	Straps and buckles for splints doz		2	50	2	100	
54.	Eye sheds		3	50	3	50	
55.	Hot water bottle I.R. 12" x 8"		4	50	30 x 20cm, 4	50	
56.	Stevilizer, fish kettle with long size 15x4 cm cm, 1		1	100	40x10	100	
57.	Stoves, kerosene small gasstove (stand by)		1	100	1	100	
58.	Basin, Dressing, E.I. Kidney shape, 10cm		2	100	25cm, 2	100	
59.	Bowl, E.I. 8 cm		2	100	20cm, 2	100	
60.	Jug, measure, E.I. Graduated 1 point		1	100	20 cm, 2	100	
61.	Jar, dressing 10"x7" E.I. with cover		2	100	25x15cm, 2	100	
62.	Tray, dressing E.I. 11"x9"x2"		1	100	30x20x5 in, 1	100	
63.	Basin, E.I. washing 14"		2	50	40cm, 2	50	
64.	Bed		1	100	1	100	
65.	Bin, Ash, Large		1	100	11	100	
66.	Bottle urine E.I.		1	100	1	100	
67.	Brush, Nail, ward		1	100	1	100	
68.	Cup, feeding, E.I.		2	100	2	100	
69.	Mug, enameled		3	50	3	50	
70.	Pail, plastic		1	100	1	100	
71.	Table with trestles size		1	100	1	100	
72.	Lamp hurricane torch		6	100			
73.	Candles		6	50	6	50	
74.	Math boxes		6	50	6	50	
75.	Kerosene oil		2 gallone	50	10 litre	100	
76.	Towel handsize		4	25	4	25	
77.	Soap, hand-cake		2	50	2	50	
78.	Soda washing		1 lb.	50	½ kg.	50	
79.	Floor mop-shest handle		1	100	1	100	
80.	Stretcher, ambulance (modified light aluminium)		6	50	Modified light aluminium, 6	50	
81.	Sheets, water proof width 36"	3m	100	3m	100		
82.	Blankets	12	50	12	50		
83.	Crutches	2 pairs	50	2 pairs	50		
84.	Walking sticks	3	50	3	100		

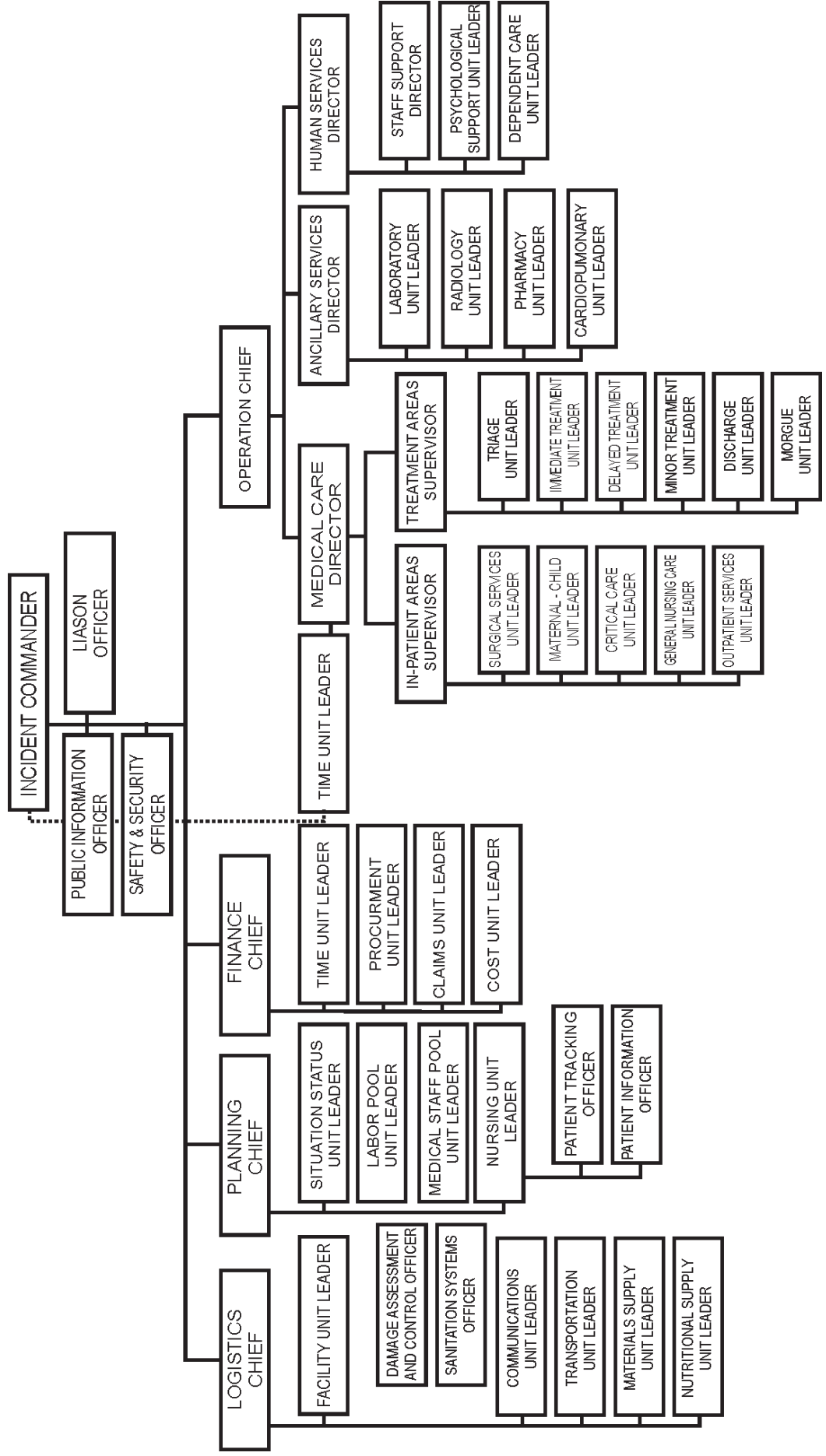
85.	Pencils	1	100	2	100		
86.	Torches with dry battery	2	50	2	50		
87.	Casualty register	For F.A. Post	2	50	2	50	
88.	Tie-on-labels, set of 18 in an envelop		4 sets	100	4 sets	100	
89.	Tea-box contents: i. Tea ii. Condensed milk  iii. Sugar iv. Cups & saucers  v. Sauce pan vi. Spoons vii. Kettle E.I		2 lb 2 lb 4 lb 3 sets 1 6 1		2 lbs 2 lbs 4 lbs 6 sets 2 6 1		
90.	Chlorosol (P.G.M.S. Dettol)		1 lb	100 velon 500ml	Dettol/sa	100	
91.	Injectic thiopentomi sodi, ampoule of 0.5cc (pentothel sodium)		6 amp	50	6 amp	50	
92.	Paraffirum Liouidum		8 oz.	100	8 oz.	100	
93.	Tab. Phenobarbitone gr.1 (Luminal, Gaudenal)		51 Nos.	100	51 Nos.	100	
94.	Pethidaine Hychochloride 500 mg. Amp Pethidaine Hychochloride 100 mg. Amp		25 Amp.	100	25	100	
95.	Tr. Benzoin Co		1 lb	100	1 lb	100	
96.	Antigas gangrene serum (4000 i.u.)		10 Amp	100	10 Amp	100	
97.	Bandages, elastic, adhesive, 2-1/2" x 5 yards		3 Nos.	100	3 Nos.	100	
98.	Needle, serum		4 Nos.	100	4 Nos.	100	
99.	Needle holder, Mayo		1 No.	100	1 No.	100	
100.	Nylon snuture material medium Hanks of 50		1 hank	100	1 Hank	100	
101.	Forceps, Dissecting, Toothed 7"		1 No.	100	1 No.	100	
102.	Splinting, wire, (Cramer) 60mm x 8cm		6 piece	100	6 piece	100	
103.	Listons Long Splint		1 set	100	1 set	100	
104.	Sphygmomanometre dial type		1 No	100	1 No	100	

105.	Tubing Drainage 3/16"		1 metre	100	1 metre	100	
106.	Measure glass double (1/2 oz & 2 oz) 100		1	100	1		
107.	Bag, ice, head 1.R.7-1/2 ins		1 No.	100	1 No.	100	
108.	Bag, sand, empty, 16inx6in		3	100	3	100	
109.	Thermometer, cliniel case for		1 No.	100	1 No.	100	
110.	Tray, E.I. kidney shaped 10"		2	100	2	100	
111.	Transfusion equipment self		1 set	100	1 set	100	
112.	Mask (face)		6	100	6	100	
113.	Nose pads		10	100	10	100	
114.	Oxygen cylinder		1	100	1	100	
115.	Measuring tape		1	100	1	100	
116.	Needles, snuture, cutting, straight, triangular pointed, size 2 (large) packets of 6		1 pkts	50	2 pkts	50	
117.	Liner thread size 30-12 inch length(CENTRAL) MARKET, LAJPAT NAGAR-II (REGD.) hanks of 50		2	50	2	50	
118.	PERSONAL EQUIPMENTS: Doctors Nurses First Aiders Lay personnel Drivers Attendants	person		1 each			
119.	In xylocaine 50ml vial	For F.A. Party				1 vial	100
120.	Sunction Apparatus foot operated				1 No.	100	
121.	Ethyl Chloride Spray				1 No.	100	
122.	Liquid spray for pains, burns, wounds and bleedinganest				1 each	100	
123.	Band-Aid strip				1		
124.	Hand bellow type Resuscitation				1 No.	100	
125.	Ryle's tube (Polythene)				5 Nos.	100	
126.	Butterfly hypodermic needle set				1 Nos.	100	
127.	Brufen tablets (400mg) each				100 Nos.	100	
128.	Oral rehydration solution				100 Nos.	100	
129.	In. Tetanus Toxide 10 dose vial				10 gals	100	
130.	Pneumatic Splints				1	100	
<b>NBC WARFARE CASUALTIES AND PROTECTION OF STAFF</b>							
131.	Gas Mask	Per individual			1	50	
132.	Impermeable N.B.C. suit				1	50	
133.	Rubber handgloves				1 pair	100	

134.	Gumboots				1 pair	100	
135.	Impermeable stockings				1	100	
136.	Chemical agent detection kit	Per F.A. party			1	100	
137.	Decontamination kit with perssmised sprayers				1	100	
138.	Inj. Atropine Sulphater 2mg Amps.				10	100	
139.	Amyl Nitrile pearls				12	100	
140.	Inj. Sodium Thiosulphate solution Amps (10ml of 30% sol each)						
141.	Inj. Sodium Thiosulphate solution Amps. (50 ml of 25% sol. Each)				2	100	
142.	Inj. Diethylenetriamine Amps. Pentacetic Acis (DTPA)				12	100	
143.	Aodium Alginate 6 pints and Aluminium Hydroxide Gel				50		
144.	Prussion blue				6 pints	50	
145.	Inj. Calcu. Gluconate 10 ml Amp.				12 Amp.	100	
146.	Inj. Ammonium Chloride Amps				12 Amps	100	
147.	Atomic contamination Monitors				1	100	
148.	NBC Decontamination Toilet				1		

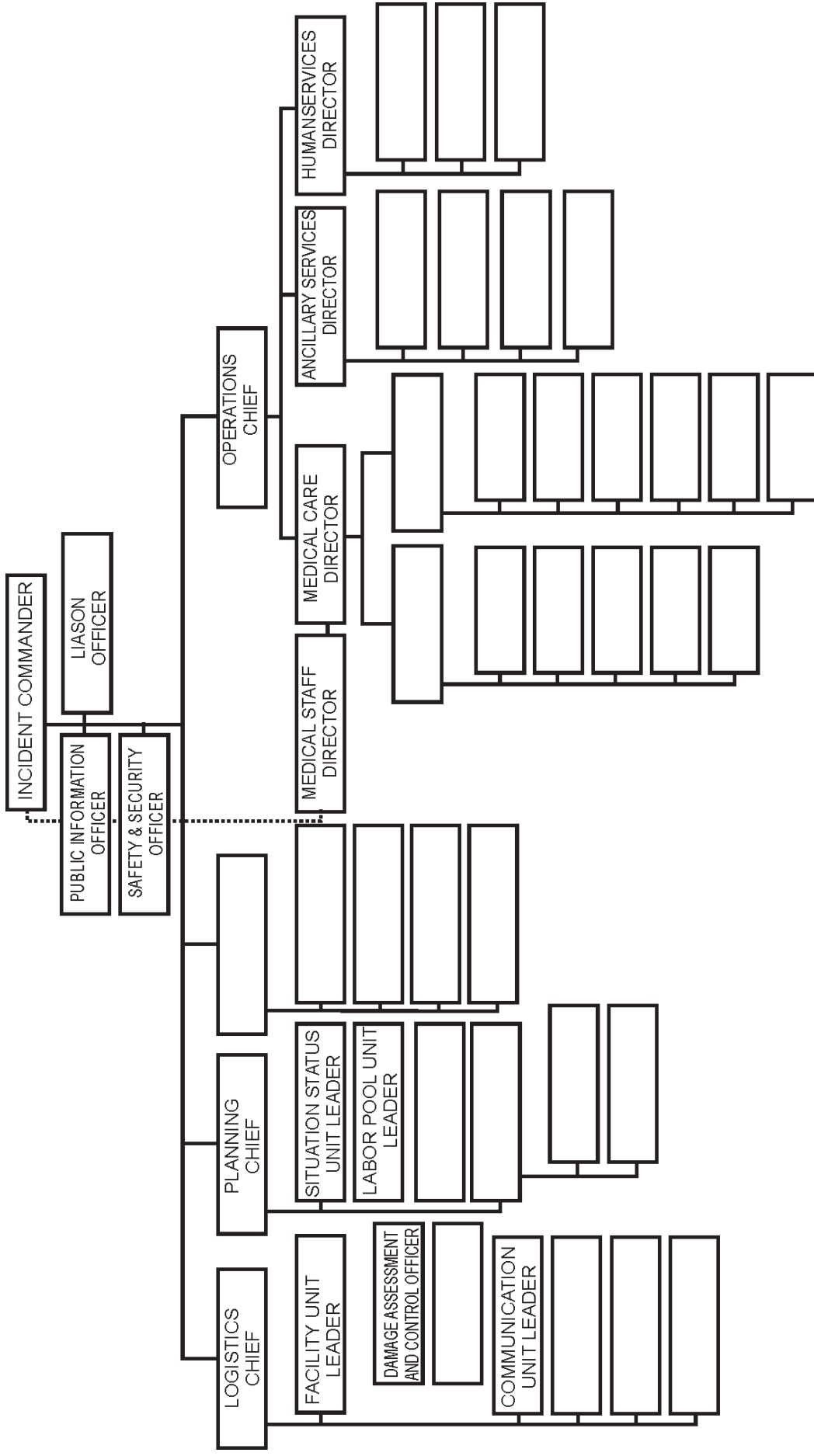
**Annexure D**  
**HOSPITAL EMERGENCY INCIDENT COMMAND SYSTEM (HEICS)**  
**ORGANIZATIONAL CHART FULLY OPERATIONAL**

This organizational chart represents the response portion of a hospital's emergency or disaster plan. The HEICS management system fits within a facility's overall Emergency Preparedness Plan, and is supported by policies and procedures which outline this response plan's activation.



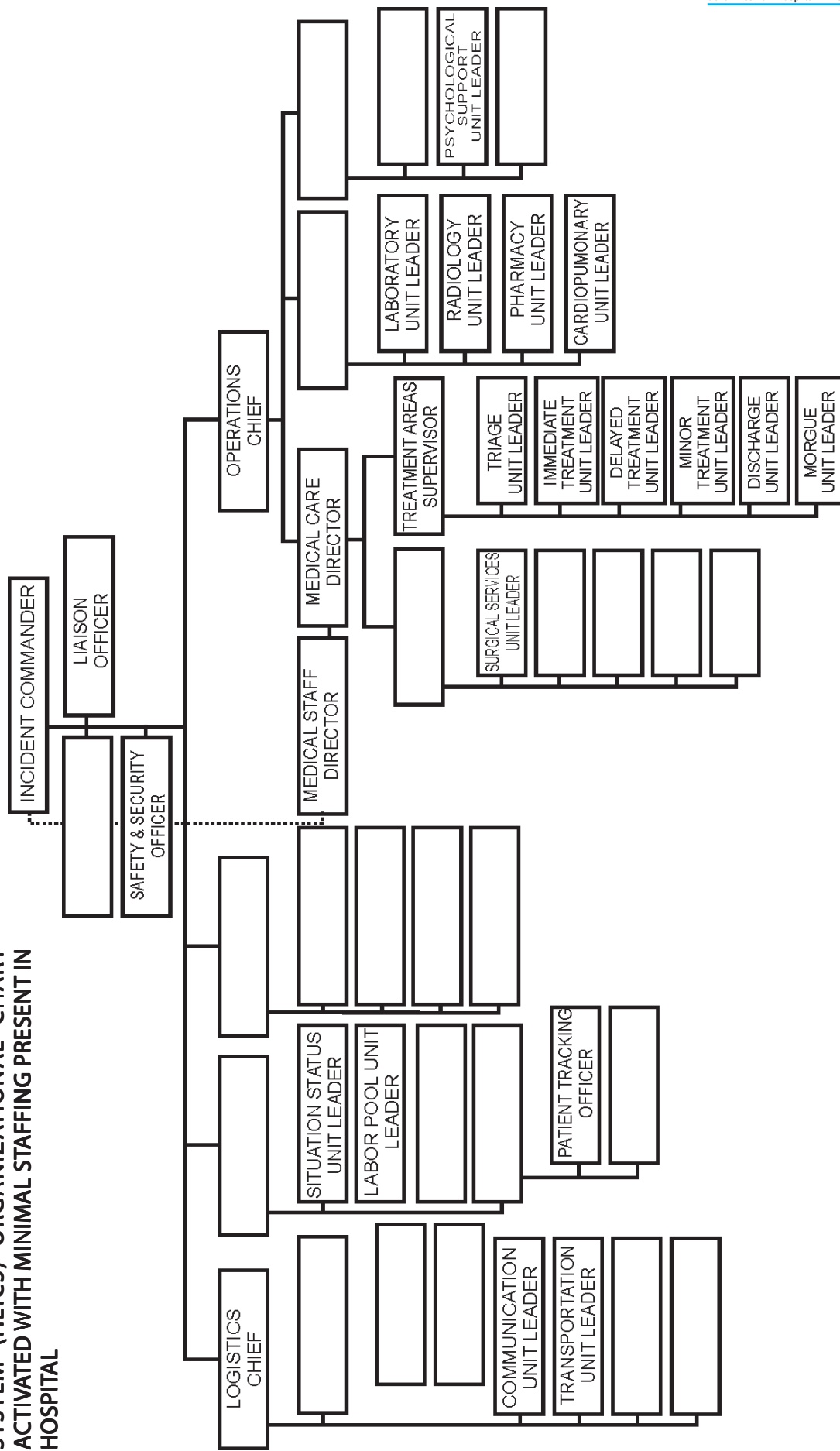
## Annexure E

### HOSPITAL EMERGENCY INCIDENT COMMAND SYSTEM (HEICS) ORGANIZATIONAL CHART SHOWING FLEXIBILITY OF THE SYSTEM



The activation of positions for a mass casualty accident will be different than those activated for a hazardous material spill or an impending labor strike. HEICS will flex to accommodate the unique needs of each emergency. The above chart illustrates the positions which may be opened to address issues associated with a storm alert. This pre-disaster activation allows alerted staff to be in a "stand-by" mode in the event future positions need to be filled. Keep in mind, each emergency has its own set of priorities and circumstances. With easy to understand, pre-written checklists, almost anyone can assume a role after a few minutes of reading.

**Annexure F**  
**HOSPITAL EMERGENCY INCIDENT COMMAND**  
**SYSTEM (HEICS) ORGANIZATIONAL CHART**  
**ACTIVATED WITH MINIMAL STAFFING PRESENT IN**  
**HOSPITAL**



A bus crash in the early A.M. hours will find hospital management and staff at a minimum. The HEICS system allows a minimum activation of positions necessary to care for the arriving injured. The 5 position with double-bordered are those which should be immediately activated upon notice of the crash. The other positions can be added as more personnel arrive. It should be remembered that a person might be required to perform more than one job. As more staff becomes available they relieve the individual with multiple assignments. For example: the Night Supervisor initially become the incident Commander and Labor Pool Unit Leader. Tasks (positions) which are assigned a high priority may be divided among arriving (available) individuals.

## Annexure G

### SAMPLE JOB CARDS

- Job cards will be made available in all areas concerned with the emergency management plan. Each card will contain a checklist of instructions for the key individuals in the respective areas to enable them to carry out their duties effectively.
- These cards will also have all the information required for the individual to carry out his instructions, e.g., phone numbers, pager numbers and addresses (updated periodically)
- These cards will be colour coded for different categories of staff for easy identification, e.g., consultants, senior residents, junior residents, nurses, etc.
- The cards will be kept in an easily accessible area in clearly labeled slots.
- In addition colour coded cards, as per International guidelines will be kept in the casualty for triaging and further management.

#### A. JOB CARDS-surgery

##### i) Surgical Consultant Admitting Unit

**Reporting Area**      **Casualty**

**Reporting Officer:** Chief of the admitting unit

- (1) Assess whether an emergency exists.
- (2) Arrange for the entire surgery unit on call to report to the Casualty.
- (3) Distribute treatment protocols to Senior/Junior Residents.
- (4) Supervise treatment for patients who have been triaged.
- (5) Assign residents to these patients
- (6) Prioritize patients for surgery in order of urgency
- (7) Communicate with relatives of surgical patients as and when required.

##### ii) Surgical Chief Admitting Unit

**Reporting Area**      **Casualty**

**Reporting Officer:** Chief of surgery

- (1) Triage the patients in the Casualty as per triage guidelines laid down for a disaster situation.
- (2) Inform head of the Department of Surgery (Ph: Res Intercom: Mobile: Other:)
- (3) Designate one consultant and residents to the designated ward if the Casualty is full.
- (4) Depute one intern to contact hostels to mobilize all surgical residents.
- (5) Alert the next day's duty team about looking after the operation theatres.
- (6) Alert the previous days duty team to report to the Casualty to help.
- (7) Supervise surgical treatment in the Casualty.

##### iii) Surgical Consultant OT

**Reporting Area**      **Operation Theatre**

**Reporting Officer:** Chief of surgery

- (1) Receive cases for surgery from the Casualty or the other designated ward and assign them to

different OTs.

- (2) Make scrub teams for each table who will operate on cases assigned by you.
- (3) Depute resident/intern for obtaining blood/communicating with other team.
- (4) If you have to scrub for any case, ensure availability of another consultant to receive patients and to co-ordinate surgery.
- (5) Supervise surgical teams in the OT.
- (6) Ensure monitoring of patients while transferring back to ward/ Intensive care areas.

#### iv) Surgical Senior Resident

**Reporting Area**      **Casualty**

**Reporting Officer: Chief of Unit**

- (1) Report to your unit consultant to collect treatment protocols and for instructions.
- (2) Assign one resident to each serious patient.
- (3) Supervise and help in resuscitation and treatment of seriously ill patients.
- (4) Have 2 interns on stand by for blood samples, reports, blood etc.
- (5) Inform unit head of any problems

#### v) Surgical Junior Resident

**Reporting Area**      **Casualty**

**Reporting Officer Senior Resident**

- (1) Report to your unit consultant to collect treatment protocols & instructions.
- (2) Organize and carry on the treatment of the case assigned to you as per treatment protocol given to you.
- (3) Inform Senior Resident of any problem.

#### vi) Surgical Senior and Junior Residents OT

**Reporting Area**      **Operation Theatre**

**Reporting Officer: Chief of Unit**

- (1) Report to your unit head for instructions.
- (2) Operate on cases assigned to you as per the instructions of your unit head.
- (3) Report to your unit head when free.
- (4) Don't change your scrub team unless ordered by your unit head.
- (5) Ensure that the patient is personally handed back to residents in the designated post operative ward so that there is continuity of care.

## B. JOB CARDS – Casualty

### i) Senior Consultant Casualty

**Reporting Area**      **Casualty**

**Reporting Officer: Chief of Casualty**

- (1) Clear the emergency department of any patients, either admit or discharge them.
- (2) Inform the Casualty chief.

- (3) Inform the chief nurse to organize additional trolleys and drugs and disposables.
- (4) Allot emergency residents and physicians to the different receiving areas of the department.
- (5) As the patients come in inform the chiefs of units of the involved departments.
- (6) Send an intern to contact casualty medical officers who are not on duty depending on the number of patients that have arrived.

**ii) Chief of Casualty Services**

**Reporting Area      Casualty**

**Reporting Officer: Medical Superintendent**

- (1) Clear and organize the incoming patient and triage area.
- (2) Allot another consultant to the triage area.
- (3) Contact the chiefs of units of the other service and support departments.
- (4) Shift patients requiring acute resuscitation to the resuscitation rooms.
- (5) Shift the walking wounded patients to the designated area for them.
- (6) Shift those patients categorized as 'delayed' or beyond salvage' to the designated area for them and allot a nurse to man this area.
- (7) Shift those received dead to the mortuary after identification and other medico legal procedures.
- (8) Supervise the medico legal formalities.
- (9) Reorganize the shifts for the next day.

**iii) Resident Casualty**

**Reporting Area      Casualty**

**Reporting Officer: Senior consultant Casualty**

- (1) Report to the senior consultant and collect treatment protocols and instructions.
- (2) Organize and carry on the treatment of the case assigned to you as per the treatment protocol given to you.
- (3) Inform the senior consultant of any problems.

**C. JOB CARDS – Department of Orthopedics**

**i) Chief Orthopedic Unit on Call**

**Reporting Area      Casualty**

**Reporting Officer: Chief Orthopedic Department**

- (1) Arrange for the entire orthopedic unit on call including the plaster technician to report to the Casualty
- (2) Inform the chief of orthopedics about the emergency.
- (3) Depute one intern to contact hostels to mobilize all orthopedic residents.
- (4) Distribute treatment protocols to Senior/Junior Residents.
- (5) Supervise orthopedic treatment for patients who have been triaged.
- (6) Assign residents to these patients.
- (7) Assign consultants and residents to the operation theatres.

- (8) Prioritize patients for surgery in order of urgency.
- (9) Communicate with relatives of patients as and when required.

**ii) Orthopedic Consultant OT**

**Reporting Area            Operation Theatre**

**Reporting Officer: Chief of Orthopedics Unit on call**

- (1) Receive cases for surgery from the Casualty or the other designated ward and assign them to different OTs.
- (2) Make scrub teams for each table who will operate on cases assigned by you.
- (3) Depute resident/intern for obtaining blood/communicating with other team.
- (4) If you have to scrub for any case, ensure availability of another consultant to receive patients and co-ordinate surgery.
- (5) Supervise orthopedic teams in the OT.
- (6) Ensure monitoring of patients while transferring back to ward/Intensive care areas.

**iii) Orthopedic Senior Resident**

**Reporting Area            Casualty**

**Reporting Officer: Chief of unit**

- (1) Report to your unit consultant to collect treatment protocols and for instructions.
- (2) Assign one resident to each serious patient.
- (3) Supervise and help in resuscitation and treatment of seriously ill patients.
- (4) Have 2 interns on stand by for blood samples, reports, blood etc.
- (5) Inform unit head of any problems.

**iv) Orthopedic Junior Resident**

**Reporting Area            Casualty**

**Reporting Officer: Senior Resident**

- (1) Report to your unit consultant to collect treatment protocols & for instructions.
- (2) Organize and carry on the treatment of the case assigned to you as per treatment protocol given to you.
- (3) Inform Senior Resident of any problem.

**v) Orthopedic Senior and Junior Residents OT**

**Reporting Area            Operation Theatre**

**Reporting Officer: Chief of Unit**

- (1) Report to your unit head for instructions.
- (2) Operate on cases assigned to you as per the instructions of your unit head.
- (3) Report to your unit head when free.
- (4) Don't change your scrub team unless ordered by your unit head.
- (5) Ensure that the patient is personally handed back to residents in the designated post operative ward so that there is continuity of care.

#### **D. JOB CARDS – Department of Anesthesiology**

##### **i) Anesthesiology Consultant on duty**

**Reporting Area**      **Operation Theatre**

**Reporting Officer: Chief Anesthesiology**

- (1) Inform the nurse in charge of OT about the Emergency.
- (2) Oversee the functioning of the Operation theatres.
- (3) Send one junior resident to the Casualty to do a pre anesthetic check up for patients requiring surgery.
- (4) Inform the anesthesiology chief about the emergency.
- (5) Recruit additional residents and consultants depending on the number of surgical cases posted.
- (6) Inform the concerned wards about the cancellation of the elective surgery list.

#### **E. JOB CARDS – Department of Medicine**

##### **i) Chief Medicine Unit on call**

**Reporting Area**      **Casualty**

**Reporting Officer: Chief Medicine**

- (1) Alert residents and consults of his unit.
- (2) Take over the medical management of cases in the Casualty.

#### **F. JOB CARDS – Department of Pediatrics and Pediatric Surgery**

##### **i) Chief Unit on call**

**Reporting Area**      **Casualty**

**Reporting Officer: Chief of the department Medicine**

- (1) Alert residents and consultants of his unit.
- (2) Take over the management of cases in the Casualty.

#### **G. JOB CARDS – Nurse incharge of alternate ward to receive emergencies**

##### **i) Nurse incharge**

**Reporting Area**      **Alternate Ward**

**Reporting Officer: Nursing Superintendent.**

- (1) Arranges to shift patients from that ward to other hospital beds after getting a list of vacant beds from the reception
- (2) Arranges for an adequate number of mattresses for the emergency patients.
- (3) Contacts the nursing superintendent to depute necessary additional staff to her ward.
- (4) The drugs, supplies and equipment required for the emergency as per the list has to be brought from the store and pharmacy.
- (5) Allot nurses to receive, resuscitate and stabilize the urgent cases, triaged in from the Casualty.
- (6) Shift these cases to the OT, MICU, dialysis unit or other areas as specified by the respective consultants managing the cases.
- (7) Receive postoperative cases in a separate receiving area.

**H. JOB CARDS – Chief of the Stores****Reporting Area**      **Casualty****Reporting Officer: Medical Superintendent.**

- i) Arranges to shift medical supplies and equipment as previously designated in the `                      d i s a s t e r` plan to the casualty and other designated areas.

**I. JOB CARDS – Nurse in Charge of the OT****Reporting Area**      **Operation Theatre****Reporting Officer: Nursing Superintendent**

- (1) Mobilizes adequate personnel and gets the theatres ready.
- (2) Quickly gets the premeditation and recovery rooms ready.
- (3) Organizes shift duties and sees that reserve operation theatre staff is available 24 hours a day.
- (4) Ensures that additional supplies of clothing and sterile surgical instruments are readily available.
- (5) Allots staff to receive and transfer out the operated cases.
- (6) Allots staff to transfer postoperative cases back to the designated ward.

**J. JOB CARDS – Nursing Superintendent****Reporting Area**      **Control Room****Reporting Officer: Medical Superintendent**

- (1) Mobilizes adequate nurses to the casualty and other designated areas.
- (2) Organizes shift duties so that the nurses can be replaced after 8 hours by a fresh batch of nurses
- (3) To ensure efficient patient care.

**K. JOB CARDS – Blood Bank Officer****Reporting Area**      **Blood Bank****Reporting Officer: Medical Superintendent**

- (1) Makes necessary arrangements for grouping and issue of blood or blood components.
- (2) Recruits additional technical staff.
- (3) Assigns one of the consultants to mobilize voluntary donors as per the existing list.
- (4) Liaisons with other blood banks to procure additional blood.

**L. JOB CARDS – Chief of Clinical Pathology and Microbiology Laboratories****Reporting Area**      **Laboratories****Reporting Officer: Medical Superintendent.**

- (1) Arranges additional residents, consultants and laboratory technicians.
- (2) Deputes staff to the casualty to collect the specimens.
- (3) Deputes a senior laboratory technician to keep all the required material for processing the specimens, like the stains, media and reagents for various biochemical tests ready.

#### **M. JOB CARDS – Chief of Radiology**

**Reporting Area** Radiology Department

**Reporting Officer:** Medical Superintendent

- (1) Ensures the presence of adequate medical and technical staff in the department to handle requests for various radiological investigations including X-rays, Ultrasonography, CT Scan, etc.
- (2) Ensures that the necessary quantities of film and developer are available.
- (3) Collaborates with the HOD of Anesthesiology to ensure that facilities for resuscitation of patients are available in the department.
- (4) Allots a separate portable X-ray machine for the Casualty and the other designated wards so that unstable patients do not have to be shifted to the radiology department.

#### **N. JOB CARDS – Chief of Pharmacy**

**Reporting Area** Pharmacy

**Reporting Officer:** Medical Superintendent.

- (1) Ensures the availability of drugs and supplies from the emergency reserves and keeps a record of items distributed and needs that may arise.

#### **O. JOB CARDS – Chief of Forensic Medicine**

**Reporting Area** Casualty

**Reporting Officer:** Medical Superintendent

- (1) Handles autopsies and other medico legal procedures that may arise

#### **P. JOB CARDS – Chief of Medical Records Department**

**Reporting Area** Medical Records Department

**Reporting Officer:** Medical Superintendent.

- (1) Mobilizes staff to the Casualty and the registration area to register victims in the emergency.
- (2) Designates one staff from the MRD to keep up to date records of the hospital bed position and send the list of vacant beds to the Casualty nurse in charge.

#### **Q. JOB CARDS – Chief of House Keeping Department**

**Reporting Area** House keeping department

**Reporting Officer:** Medical Superintendent

- (1) Mobilizes additional aides and helpers to the Casualty and other designated areas.
- (2) Mobilizes extra staff to move patients to and from the theatre and radiology department, to bring linen, medicine, IV fluids, blood etc., to take specimens to the laboratories for analysis etc.

#### **R. JOB CARDS – Chief of Maintenance Department**

**Reporting Area** Maintenance Department

**Reporting Officer:** Medical Superintendent

Deputes additional people to look after the electricity, water supply, sanitation, oxygen and suction units required during the emergency.

**S. JOB CARDS – Chief of Laundry****Reporting Area** Laundry**Reporting Officer:** Medical Superintendent

Ensures fresh supply of linen to the casualty, other designated areas and the operation theatres.

**T. JOB CARDS – Chief of Sterilization Unit****Reporting Area** Sterilization Unit.**Reporting Officer:** Medical Superintendent

- (1) Supplies sterile equipment and linen to the casualty, other designated areas and the operation theatres.

**U. JOB CARDS – Chief of Dietary Department****Reporting Area** Dietary**Reporting Officer:** Medical Superintendent

- (1) Makes the necessary arrangement to provide coffee and snacks to the casualty, other designated areas and the operation theatre.

**V. JOB CARDS – Public Relations officer****Reporting Area** Public Relations Office**Reporting Officer:** Medical Superintendent

- 1) Is responsible for giving information to the press and public.
- 2) Issues periodic bulletins that provide information of general interest.

**W. JOB CARDS – Chief of Security Services****Reporting Area** Control room**Reporting Officer:** Medical Superintendent

- (1) Is responsible for maintaining order and safety within and outside the hospital
- (2) Allots personnel to direct traffic so that ambulances are guaranteed free access to the incoming patient area.
- (3) Allots personnel to protect the key installations of the hospital.
- (4) If the hospital's security personnel are not sufficient to handle the situation, she requests help from the police.
- (5) Deputes additional security staff to the Casualty and other designated wards.
- (6) Designates a separate waiting area in the OPD block for relatives of the injured.
- (7) Makes sure that on no account will be relatives be permitted into the Casualty or designated wards during the emergency.
- (8) Deputes an officer to be in charge of ensuring the comfort and needs to the relatives. He will be responsible for obtaining information about individual patients to pass on to the relatives.

## Annexure H

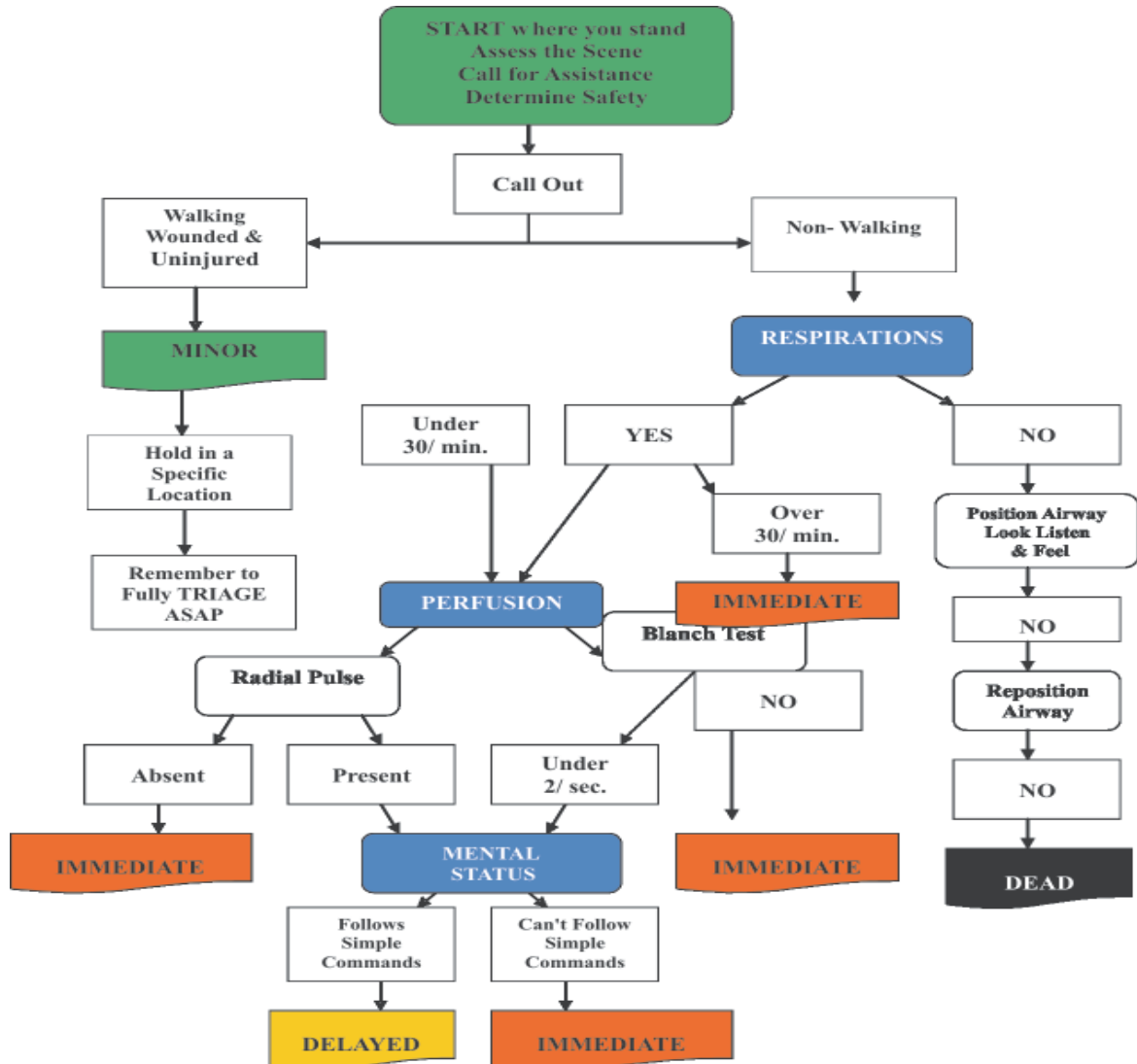
### SAMPLE IN HOSPITAL TRIAGE PROTOCOL IN DISASTERS

#### TRIAGE

(COLOUR CODED WRIST BAND)

On the basis of:

- Respiration
- Perfusion
- Mental Status



#### PRIORITY

ONE - Immediate Resuscitation (RED) TWO - Potentially life threatening Injuries (YELLOW)

THREE - Walking Wounded (GREEN) FOUR - Dead (BLACK/WHITE)

## Annexure: I

### HOSPITAL EVACUATION PLANS AND GUIDELINES ACCORDING TO INTERNATIONAL BEST PRACTICES

#### I. Purpose:

Evacuation - the removal of patients, staff and/or visitors in response to a situation which renders any medical facility unsafe for occupancy or prevents the delivery of necessary patient care.

#### II. Policy Statement:

- **Partial Evacuation** - patients are transferred within the hospital. There are two levels of a partial response:
  1. Horizontal - first response; patient movement occurs horizontally to one side of a set of fire barrier doors.
  2. Vertical - movement of patients to a safe area on another floor or outside the building.  
This type of evacuation is more difficult due to stairways which will require carrying of non-ambulatory patients; elevators cannot be used.
- **Full Evacuation** - patients are transferred from Hospital to an outside area, other hospitals, or other alternatives areas.
  1. Paramedic escorted patients will be diverted from the Emergency Department due to internal disruption.
  2. The building should be evacuated from the top down as evacuation at lower levels can be easily accelerated if the danger increases rapidly.

#### III. Responsibility:

- **Authorization for Evacuation -**
  - a) **Evacuation of the facility or portion thereof can only be authorized by:**
    1. Public Safety Officer (Fire or Police)
    2. Chief Executive Officer or Administrator on call
    3. Nursing Supervisor
  - b) **The decision to evacuate from unsafe or damaged areas shall be based on the following information:**
    1. The Engineering Department's evaluation of the utilities and/or structure of the department.
    2. The medical staff and/or Nursing Department's determination whether adequate patient care can continue.
    3. Evacuation should only be attempted when you are certain the area chosen for the evacuees is safer than the area you are leaving.
- **Communication of Evacuation –**
  - a. **This evacuation plan is based on the premise that an event has occurred, causing the Hospital to be in an internal disaster mode**

#### IV. Procedure:

##### a. General Instructions-

1. Evacuate most hazardous areas first (those closest to danger or farthest from exit).
2. Use nearest or safest appropriate exit. Sequence of evacuation should be:

- a. Patients in immediate danger
  - b. Ambulatory patients
  - c. Semi-ambulatory patients
  - d. Non-ambulatory patients
3. Close all doors. If time permits, shut off oxygen, water, light and gas, if able.
  4. Elevators may be used, except during a fire or after an earth quake

**b Hospital Emergency Incident Command Structure: -**

**1. Emergency Incident Command (in the Command Center/EOC)**

- a. All available information shall be evaluated and evacuation schedule established in coordination with the Section Chiefs. This information shall include:
  - i. Structural, non-structural, and utility evaluation from Engineering/Damage Assessment & Control Officer.
  - ii. Patient status reports from Planning Section Chief.
  - iii. Evaluate manpower levels and authorize activation of staff call-in plans, as needed.
- b. Disaster evacuation schedule to:
  - i. *Planning Section Chief*
  - ii. *Liaison Officer*
  - iii. *Safety and Security Officer*
  - iv. *Logistics Chief*
  - v. *Operations Chief*

**2. Liaison Officer**

- a. Maintain contact with Public Safety Officials, Health Dept. and Ambulance Agency.
- b. Complete "Hospital Evacuation Worksheet"

**3. Logistics Chief**

- a. Assign Transportation Officer to assemble evacuation teams from Labor Pool.
- b. Notify Planning Section Chief of plans.

**4. Transportation Officer**

- a. Assemble evacuation teams from Labor Pool.
- b. Ensure coordination of off-campus patient transportation
- c. Confirm implementation of Transportation Action Plan.
- d. If able, assign six people to each floor for evacuation manpower.
- e. Brief team members on evacuation techniques, (attached)
- f. Arrange transportation devices (wheelchairs, gurneys, etc. to be delivered to assist in evacuation).
- g. Report to floor being evacuated and supervise evacuation.
- h. Report to Nurse Manager/Charge Nurse for order of patients being evacuated and method of evacuation.

## 5. **Nursing Service Officer**

- a. Designate holding areas for critical, semi-critical, and ambulatory evacuated patients.
- b. Organize efforts to meet medical care needs and physicians staffing of Evacuation Holding areas.
- c. Distribute evacuation schedule to Nurse Managers.
- d. Verify Nurse Managers/Charge Nurses have initiated evacuation procedure.
- e. Request Medical Staff Officer to notify physicians of need for transfer orders.
- f. Assign Holding Area Coordinators, and adequate number of nurses to holding areas.
- g. Contact pre-established lists of hospitals, extended care facilities, school, etc. to determine places to relocate patients. Forward responses to Planning Section Chief.

## 6. **Medical Staff Officer**

- a. Notify physicians of need for patient transfer orders.
- b. Assist Nursing Service Officer as needed.

## 7. **Nurse Managers or Charge Nurses**

- a. Determine patient status. Patients will be evacuated according to status.
- b. Communicate status with large sticker on patient's chart according to the following criteria:
  - i) non-critical/Ambulatory
  - ii) non-critical/Non-ambulatory
  - iii) critical/requires ventilation or special equipment
- c. Report patient status to Nursing Service Officer.
- d. Assign specific nurses to maintain patient care.
- e. Assign two nurses to prepare patients for evacuation.
1. *Place personal belongings in a bag labeled "BELONGINGS" with name Patient No. with medications, prosthetics, and special Patient need items the inside bag.*
2. *Place KARDEX and addressograph in Patient's chart secured with tape, which is to remain with the patient.*
- f. Designate a safe exit after determining location of patients to be evacuated.
- g. Assign a person to record Evacuation Activity, including:
  1. Time of evacuation
  2. Method of evacuation
  3. Name of patient
  4. Evacuation status A B C
  5. *Evacuated from Rm. to (area)*
- h. Forward documentation of evacuation and patient disposition to Patient Tracking Coordinator or Patient Info Manager.

## 8. **Patient Information Manager**

- a. Compile patient info on Inquiry Sheets.

## 9. **Cardiopulmonary Services Manager**

- a. Assign staff members to perform ventilation on required patients.
- b. Assess number of positive pressure breathing devices/bag-valve-masks available

**10. Safety and Security Officer**

- a. If able, assign a security person to each area being evacuated for traffic control/safety.
- b. Turn off oxygen, lights, etc. as situation demands.
- c. Check the complete evacuation has taken place and that no patients/staff remain.
- d. Place "Evacuated at " (date/time) sign up at main area exit/entrance of evacuated area after evacuation is complete.

**11. Facilities Operation Officer**

- a. Obtain equipment/supplies needed for structural safety during evacuation.
- b. Obtain portable toilets and privacy screens for use in areas where evacuated patients are relocated, if necessary.

**12. Labor Pool Officer**

- a. All available Engineering, Housekeeping, Security staff, etc. not previously assigned to incident will assist in the movement of patients.

## ANNEXURE - J

## SAMPLE STOCK INVENTORY FOR DISASTER STORES

Sl. No.	Items	Total Quantity Required/ Place	
		Emergency Department	Emergency Ward
	<b>I.V. Fluids</b>		
1.	Normal Saline 500 ml	15 bottles	20 bottles
2.	Dextrose 5% 500 ml	10 bottles	10 bottles
3.	Ringer lactate 500 ml	30 bottles	50 bottles
4.	Normal Saline 25 ml	5 amps	10 amps
5.	Haemaccel/ Hydroxyethyl Starch	20 bottles	20 bottles
6.	Inj. Glucose 50% (100 ml)	3 amps	3 amps
7.	Distilled water for injection	30 amps	30 amps
8.	Inj. Mannitol (20%) (100 ml)	5 bottles	5 bottles
	<b>Resuscitation Drugs</b>		
1.	Inj. Adrenaline 1mg	30 amps	20 amps
2.	Inj. Atropine sulphate 0.6 mg	50 amps	50 amps
3.	Inj. Lignocaine HCl (Xylocard) 2% (50%)	2 vials	2 vials
4.	Inj. Calcium gluconate/chloride 1 gm	20 amps	20 amps
5.	Inj. Hydrocortisone 100 mg	5 vials	5 vials
6.	Inj. Dopamine 200 mg	10 amps	5 amps
7.	Inj. Soda Bicarbonate 25 ml	20 amps	20 amps
8.	Inj. Potassium Chloride 10 ml	2 amps	2 amps
9.	ORS	20 packets	20 packets
	<b>Antibiotics</b>		
1.	Inj. Cefotaxime 1 gm	10 vials	10 vials
2.	Inj. Crystalline Penicillin 6 lakh units	10 vials	10 vials
3.	Inj. Gentamicin 80 mg	5 vials	10 vials
4.	Inj. Ampicillin 500 mg	10 vials	10 vials
5.	Inj. Metronidazole 500 mg	5 vials	5 vials
	<b>Antiallergics</b>		
1.	Inj. Chlorpheniramine Maleate (2 ml)	4 amps	4 amps
	<b>Antidotes</b>		
1.	Inj. ATG (Tetglob) 250 IU	10 ampoules	
2.	Inj. Tetanus Toxoid	10 amps	
	<b>Bronchodilators</b>		
1.	Inj. Aminophyllin 250 mg	5 amps	5 amps
2.	Liq. Salbutamol (15 ml)	5 bottles	5 bottles
	<b>Analgesic and Anesthetic Agents</b>		
1.	Inj. Diazepam 10 mg	5 amps	5 amps
2.	Inj. Midazolam 5 mg	5 vials	5 vials
3.	Inj. Ketorolac 30 mg	10 amps	10 amps

4.	Inj.Lingocaine HCl without adrenaline 2% (30 ml)	5 vials	2 vials
5.	Inj. Fentanyl 100 ug	10 amps	10 amps
6.	Inj.Pethidine 100 mg	5 amps	5 amps
7.	Inj. Tramadol 50 mg	5 amps	5 amps
8.	Syr. Trichloryl (30 ml)	2 bottles	2 bottles
9.	Inj.Haloperidol 10 mg	3 amps	3 amps
	<b>Diuretic Agents</b>		
1.	Inj.Frusemide 10 mg	10 amps	5 vials
	<b>Antiepileptics</b>		
1.	Inj.Phenytoin Sodium 100 mg	50 amps	50 amps
	<b>Anti coagulants</b>		
1.	Inj.Heparin 25,000 IU	2 vials	2 vials
	<b>Anti Emetics</b>		
1.	Inj.Ondansetron 4 mg	10 amps	10 amps
	<b>Eye drops/ointment</b>		
1.	Paracain eye drops	2 bottles	2 bottles
2.	Prednisolone Acetate eye drops	2 bottles	2 bottles
3.	Cyclopentolate eye drops	1 bottle	1 bottle
4.	Ciproflox eye ointment	2 tubes	2 tubes
	<b>Antiseptic Solutions</b>		
1.	Betadine solution 5% (1 litre)	2 bottles	2 bottles
2.	Irrigating fluid (1 litre packs)	25 litres	25 litres
3.	Handscrub 1 litre	2 bottles	2 bottles
4.	Surgical spirit 1 litre	1 bottle	1 bottle
5.	Tincture benzoin 400 ml	1 bottle	1 bottle
	<b>Dressing Material (Disposable)</b>		
1.	Small towel bins	3	3
2.	Gauze (Big bin)	3	3
3.	Bandage roll (6" rolls)	60	60
4.	Triangular sling	10	10
5.	Crepe bandage (4" rolls)	5	5
6.	Micropore tape 5 cms.	3	3
7.	Elastoplast 10 cms	5	5
8.	Zinc Adhesive tape rolls	5	5
9.	Safety pins	2 dozen	2 dozen
10.	POP (6" rolls)	10	10
11.	Eyepads (Small bin)	1	1
12.	Roller bandages (Big bin)	1	1
13.	Abdominal packs	2 bins	2 bins

<b>Dressing Material (non disposable)</b>			
1.	Scissors	2	2
2.	Sponge holders	10	10
3.	Kidney trays (enamel)	5	10
4.	Bowls (12")	5	5
5.	Basins (18")	2	2
<b>Instruments and Trays</b>			
1.	Dressing packs	25	
2.	Tracheostomy sets	2	2
3.	Venesection trays	2	2
4.	Catheterisation trays	6	2
5.	Suture trays	10	-
6.	Magil's forceps	1	1
7.	IC tube sets with under water seal	2	2
8.	DPL sets	1	1
9.	Pressure infusion cuffs	2	2
10.	IV infusion pumps	4	4
11.	Gauze pad bin	1	1
<b>Disposable Material</b>			
1.	IV infusion sets	20	20
2.	Blood transfusion sets	10	10
3 a.	IV cannulae 16G, 18G	10 each	10 each
3 b.	IV cannulae 20G, 22G	5 each	5 each
4.	Disposable syringes 2 ml, 5 ml, 10 ml	50 assorted	50 assorted
	Disposable syringes 20 ml	20	20
5.	Disposable needles - 20 G, 21 G	10 each	20 each
6.	Surgical gloves (sterile) – Size 6	5	10
	Sizes 6.5 and 7	15	35
7.	3-way Cannulae	10	10
8.	Disposable surgical masks	50	50
9.	Levine's tube-Size 18	3	3
10.	Suture material		
	3.0 atraumatic silk (reverse)	5 boxes	5 boxes
	1.0 atraumatic chromic catgut	1 box	10 boxes
	3.0 atraumatic Prolene reverse cutting	1 box	2 boxes

11.	Foleys catheter: Size 14 F, 16 F Size 8F, 10F, 12F	4 each 1 each	10 each 1 each
12.	Infant feeding tubes: Size, 8, 10	4 each	10 each
13.	Urosac	10	5
14.	Triple lumen cannulae	5 each	5 each
15.	Surgical blades no. 15	4 packets	10 packets
16.	Razor blades	2 packets	10 packets
17.	Disposable aprons	20	10
	<b>Splints and Tourniquets + B168</b>		
1.	Kramer wire splints	5	2
2.	Thomas' splints	5	2
3.	Aluminium arm splints	5	2
4.	Skin traction kits with weights 5 Kgs each set	0	2
	<b>For Emergency Operation Theatre</b>	For OT	Not Application
1.	External skeletal fixator for lower limb	3 sets	
2.	External skeletal fixator for upper limb	3 sets	
3.	Pelvic external fixator	3 sets	
4.	Skeletal traction kit	5	
5.	Skull tongs	2	
	<b>Airway Equipment</b>		
1.	Tracheostomy tubes (cuffed): Size 6,7,8	1 each	1 each
2.	Endotracheal tubes: Size 7.5, 8.5	5 each	5 each
2 a.	Size 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 8	1 each	1 each
2 b.	Stylets 3 sizes	1 each	1 each
3.	Ambu bags Paediatric	1	1
	Adult	2	2
4.	Oropharyngeal tubes: Sizes 3,4	5 each	5 each
4 a.	Oropharyngeal tubes: Sizes 1,2	2 each	2 each
4 b.	Suction Catheters Size 14	10	5
4 c.	Ryles Tube Size 14	10	5
5.	Simple Face masks	10	10
6.	Laryngoscopes (with all blades)	1	1
7.	Mobile suction apparatus (battery operated)	2	2
8.	Oxygen cylinder with trolley	4	4

<b>Linen</b>			
1.	Bedsheets	10	10
2.	Drawsheets	10	10
3.	Pillow-cases	10	10
4.	Towels	10	10
5.	Leggins	10	10
6.	Gowns (patients)	10	10
7.	Caps (patients)	10	10
8.	Blankets	10	10
<b>Miscellaneous</b>			
1.	Patient's trolleys with mattresses	2	2
2.	Wheel chairs	2	2
3.	Torch with batteries	2	2
4.	Portable emergency lamps	2	2
5.	Mackintosh	10	10
6.	Jet irrigation equipment	1	
7.	Sandbags (5 kg)	5	10
8.	Ventilators (battery operated)		1
9.	Ventilators fitted on trolleys		1
10.	Oxygen cylinders on patient's trolleys	2	5
11.	Humidifier	-	2
12.	Defibrillator	1	1
13.	Capnometer	-	1
14.	Portable Pulse Oximeter	1	1
15.	Nebuliser	2	2
16.	Mobile X-ray Unit (60 mA) with eliminator	1	-
17.	Arm bands (fluorescent)	20	-
18.	BP apparatus	2	2
19.	Bed pans	2	2
20.	Urinals	2	2
21.	Measuring jars: 1000 ml, 500 ml	1 each	1 each
22.	Thermometer	2	2
23.	Enamel buckets (4 lit.)	2	2
24.	SS containers for ORS	1	1
25.	Disposable cups	10	10

## Annexure K

### GUIDELINES FOR AVAILABILITY OF KNOWLEDGE, SKILLS AND RESOURCES FOR TRAUMA MANAGEMENT AT DIFFERENT LEVELS OF CARE

SOLO PHYSICIAN RESUSCITATING THE PATIENT		
<b>Airway</b>	Skills/ treatment required	Assessment of airway compromise, manual maneuvers (chin lift, jaw thrust, positioning), insertion of oral and nasal airway insertion, bag and mask ventilation.
	Resources required	Oral/nasal airway, Ambu bag.
<b>Breathing</b>	Skills/ treatment required	Assessment of respiratory distress and adequacy of ventilation, administration of oxygen, needle thoracostomy, three way dressing.
	Resources required	Stethoscope, oxygen supply, face mask with associated tubing, needle and syringe. Ambu bag.
<b>Circulation and shock</b>	Skills/ treatment required	Assessment of shock, control of hemorrhage, arterial tourniquet, splinting of fractures, fluid resuscitation, peripheral IV access, recognition of hypothermia and external re-warming for it, use of fluids and antibiotics for shock, knowledge of resuscitation parameters, pelvic wrap for hemorrhage control.
	Resources required	Watch with second hand, stethoscope, BP cuff, gauze and bandage, arterial tourniquet, crystalloids, IV set, thermometer.
<b>Chest injury</b>	Skills/ treatment required	Adequate pain control and respiratory physiotherapy for chest injuries/ rib fracture.
	Resources required	Analgesics, local anaesthetics, syringes.
<b>Abdominal injury</b>	Skills/ treatment required	Clinical assessment.
	Resources required	
<b>Head injury</b>	Skills/ treatment required	Recognition of altered consciousness, lateralizing signs, pupils.
<b>Spinal injury</b>	Skills/ treatment required	Assessment-recognition of presence of spinal injury, monitoring neurological function, immobilization.
	Resources required	Cervical collar, back board.
<b>Neck injury</b>	Skills/ treatment required	External pressure for bleeding.
	Resources required	Gauze and bandages.

<b>Extremity injury</b>	Skills/ treatment required	Recognition of neurovascular compromise, basic immobilization (sling, splint), pelvic wrap for hemorrhage control, assessment and splinting of hand injury.
	Resources required	Slings and splints.
<b>RESUSCITATION AND MANAGEMENT OF PATIENT AT PHC LEVEL</b>		
<b>Airway</b>	Skills/ treatment required	Assessment of airway compromise, manual maneuvers (chin lift, jaw thrust, positioning), insertion of oral and nasal airway insertion, bag and mask ventilation, use of suction, endotracheal intubation.
	Resources required	Oral/nasal airway, Ambu bag, suction device with tubing and tip, laryngoscope, endotracheal tube, basic trauma pack.
<b>Breathing</b>	Skills/ treatment required	Assessment of respiratory distress and adequacy of ventilation, administration of oxygen, needle thoracostomy, three way dressing, chest tube insertion.
	Resources required	Stethoscope, oxygen supply, face mask with associated tubing, needle and syringe, nasal prongs, chest tubes, underwater seal bottle.
<b>Circulation and shock</b>	Skills/ treatment required	Assessment of shock, control of hemorrhage, arterial tourniquet, splinting of fractures, fluid resuscitation, peripheral IV access, recognition of hypothermia and external re-warming for it, use of fluids and antibiotics for shock, peripheral cut down access, knowledge of resuscitation parameters, pelvic wrap for hemorrhage control ,differential diagnosis of shock. urinary catheterization.
	Resources required	Watch with second hand, stethoscope, BP cuff, gauze and bandage, arterial tourniquet, crystalloids, IV set, thermometer, urinary catheter, NG tube, weighing scale for children, lab facility for hematocrit.
<b>Chest injury</b>	Skills/ treatment required	Adequate pain control and respiratory physiotherapy for chest injuries/ rib fractures, rib/intrapleural block.
	Resources required	Analgesics, local anaesthetics, syringes.
<b>Abdominal injury</b>	Skills/ treatment required	Clinical assessment.
	Resources required	
<b>Head injury</b>	Skills/ treatment required	Recognition of altered consciousness, lateralizing signs, pupils, maintenance of normotension and oxygenation to prevent secondary brain injury, protein and calorie supplement, avoidance of overhydration in raised ICP.
	Resources required	
<b>Spinal injury</b>	Skills/ treatment required	Assessment-recognition of presence of spinal injury, monitoring neurological function, immobilization, maintenance of normotension and oxygenation to prevent secondary spinal injury, proper management immobilization patient to prevent complication e.g. bed sores, urinary retention/infection.
	Resources required	Cervical collar, back board.

<b>Neck injury</b>	Skills/ treatment required	External pressure for bleeding, recognition of platysmal penetration, packing for bleeding.
	Resources required	Gauze and bandages.
<b>Extremity injury</b>	Skills/ treatment required	Recognition of neurovascular compromise, basic immobilization (sling, splint), pelvic wrap for hemorrhage control, assessment and splinting of hand injury, application of spine board, proper management immobilization patient to prevent complication.
	Resources required	Slings and splints, spine board.
<b>RESUSCITATION AND MANAGEMENT OF PATIENT AT CHC/DISTRICT HOSPITAL LEVEL</b>		
<b>Airway</b>	Skills/ treatment required	Assessment of airway compromise, manual maneuvers(chin lift, jaw thrust, positioning), insertion of oral and nasal airway insertion, bag and mask ventilation, use of suction, endotracheal intubation, cricothyroidectomy.
	Resources required	Oral/nasal airway, Ambu bag, suction device with tubing and tip, laryngoscope, endotracheal tube, basic trauma pack, Magill forceps.
<b>Breathing</b>	Skills/ treatment required	Assessment of respiratory distress and adequacy of ventilation, administration of oxygen, needle thoracostomy, three way dressing, chest tube insertion.
	Resources required	Stethoscope, oxygen supply, face mask with associated tubing, needle and syringe, nasal prangs, chest tubes, underwater seal bottle, pulse oximetry.
<b>Circulation and shock</b>	Skills/ treatment required	Assessment of shock, control of hemorrhage, arterial tourniquet, splinting of fractures, fluid resuscitation, peripheral IV access, recognition of hypothermia and external re-warming for it, use of fluids and antibiotics for shock, peripheral cut down access, knowledge of resuscitation parameters, differential diagnosis of shock, urinary catheterization, central/ intraosseous venous access, pelvic wrap for hemorrhage control, transfusion knowledge, use of pressors for neurogenic shock, use of warmed fluids, interfascial packing for severe wounds, core rewarming.
	Resources required	Watch with second hand, stethoscope, BP cuff, gauze and bandage, arterial tourniquet, crystalloids, IV set, thermometer, urinary catheter, NG tube, weighing scale for children, blood transfusion capability, CVP line, intraosseous needle, lab facility for hematocrit and electrolyte, pressors, fluid warmers.
<b>Chest injury</b>	Skills/ treatment required	Adequate pain control and respiratory physiotherapy for chest injuries/ rib fractures, rib/intrapleural block, epidural block.
	Resources required	Analgesics, local anaesthetics, syringes, spinal-epidural set, X-Ray machine.
<b>Abdominal injury</b>	Skills/ treatment required	Clinical assessment, diagnostic peritoneal lavage(DPL), ultrasonography, skill for intermediate laparotomy.
	Resources required	Ultrasonography machine, laparotomy set, X-Ray machine, CT scan desirable.

<b>Head injury</b>	Skills/ treatment required	Recognition of altered consciousness, lateralizing signs, pupils, maintenance of normotension and oxygenation to prevent secondary brain injury, protein and calorie supplement, avoidance of overhydration in raised ICP, burr holes.
	Resources required	X-Ray machine, CT scan desirable.
<b>Spinal injury</b>	Skills/ treatment required	Assessment-recognition of presence of spinal injury, monitoring neurological function, immobilization, maintenance of normotension and oxygenation to prevent secondary spinal injury, proper management immobilization patient to prevent complication e.g. bed sores, urinary retention/infection, non-surgical management of spinal trauma as indicated.
	Resources required	Cervical collar, back board, X-Ray machine, CT scan desirable.
<b>Neck injury</b>	Skills/ treatment required	External pressure for bleeding, recognition of platysmal penetration, packing for bleeding, skill to explore neck.
	Resources required	Gauze and bandages, standard neck dissection set, X-Ray machine, CT scan desirable.
<b>Extremity injury</b>	Skills/ treatment required	Recognition of neurovascular compromise, basic immobilization (sling, splint), pelvic wrap for hemorrhage control, assessment and splinting of hand injury, application of spine board, proper management immobilization patient to prevent complication, skin/ skeletal traction, internal/external fixation, operative wound management, debridement, closed/open reduction, tendon repair, amputation.
	Resources required	Slings and splints, spine board, X-Ray, instruments for skin/ skeletal traction, internal/external fixation, tendon repair and amputation, CT scan desirable.
<b>RESUSCITATION AND MANAGEMENT OF PATIENT AT TERTIARY CARE/TEACHING HOSPITAL LEVEL</b>		
<b>Airway</b>	Skills/ treatment required	Assessment of airway compromise, manual maneuvers(chin lift, jaw thrust, positioning), insertion of oral and nasal airway insertion, bag and mask ventilation, use of suction, endotracheal intubation, cricothyroidectomy.
	Resources required	Oral/nasal airway, Ambu bag, suction device with tubing and tip, laryngoscope, endotracheal tube, basic trauma pack, Magill forceps, esophageal detector device, other advanced airway equipment.
<b>Breathing</b>	Skills/ treatment required	Assessment of respiratory distress and adequacy of ventilation, administration of oxygen, needle thoracostomy, three way dressing, chest tube insertion.
	Resources required	Stethoscope, oxygen supply, face mask with associated tubing, needle and syringe, nasal prongs, chest tubes, underwater seal bottle, pulse oximetry, ABG analyzer, mechanical ventilators.
<b>Circulation and shock</b>	Skills/ treatment required	Assessment of shock, control of hemorrhage, arterial tourniquet, splinting of fractures, fluid resuscitation, peripheral IV access, recognition of

		hypothermia and external re-warming for it, use of fluids and antibiotics for shock, peripheral cut down access, knowledge of resuscitation parameters, differential diagnosis of shock, urinary catheterization, central/ intraosseous venous access, pelvic wrap for hemorrhage control, transfusion knowledge, use of pressors for neurogenic shock, use of warmed fluids, core rewarming, interfascial packing for severe wounds, CVP monitoring, ABG analyzer, right heart catheterization.
	Resources required	Watch with second hand, stethoscope, BP cuff, gauze and bandage, arterial tourniquet, crystalloids, IV set, thermometer, urinary catheter, NG tube, weighing scale for children, blood transfusion capability, CVP line, intraosseous needle, lab facility for hematocrit and electrolyte, pressors, fluid warmers, CVP monitors and more advanced patient monitoring system, colloids, ABG analysis.
<b>Chest injury</b>	Skills/ treatment required	Adequate pain control and respiratory physiotherapy for chest injuries/ rib fractures, rib/intrapleural block, epidural block, Autotransfusion from chest tubes, skill for thoracotomy.
	Resources required	Analgesics, local anaesthetics, syringes, spinal-epidural set, thoracostomy set, cell saver, X-Ray machine, CT scan desirable.
<b>Abdominal injury</b>	Skills/ treatment required	Clinical assessment, diagnostic peritoneal lavage (DPL), ultrasonography, skill for intermediate/advanced laparotomy, CT scan facility.
	Resources required	Ultrasonography machine, laparotomy set, X-Ray machine, CT scan.
<b>Head injury</b>	Skills/ treatment required	Recognition of altered consciousness, lateralizing signs, pupils, maintenance of normotension and oxygenation to prevent secondary brain injury, protein and calorie supplement, avoidance of over hydration in raised ICP, burr holes, monitoring and treatment of raised ICP, surgical treatment of closed/open depressed skull fractures, more advanced neurosurgical procedures.
	Resources required	X-Ray machine, CT scans, MRI desirable.
<b>Spinal injury</b>	Skills/ treatment required	Assessment-recognition of presence of spinal injury, monitoring neurological function, immobilization, maintenance of normotension and oxygenation to prevent secondary spinal injury, proper management immobilization patient to prevent complication e.g. bed sores, urinary retention/infection, non-surgical management of spinal trauma as indicated, assessment by international classification system, surgical treatment of spinal injury/neurological deterioration in presence of spinal cord compression.
	Resources required	Cervical collar, back board, CT scans, MRI desirable, spinal surgery set,
<b>Neck injury</b>	Skills/ treatment	External pressure for bleeding, recognition of platysmal penetration, packing/ balloon tamponade for bleeding, skill to explore neck, contrast radiography, endoscopy, angiography
	Resources required	Gauze and bandages, standard neck dissection set endoscope, X-Ray machine, CT scan, angiography facility, MRI desirable.

<b>Extremity injury</b>	Skills/ treatment required	Recognition of neurovascular compromise, basic immobilization (sling, splint), pelvic wrap for hemorrhage control, assessment and splinting of hand injury, application of spine board, proper management immobilization patient to prevent complication, skin/ skeletal traction, internal/external fixation, operative wound management, debridement, closed/open reduction, tendon repair, amputation, repair/fixation of hand injury, measurement of compartment syndrome and fasciotomy
	Resources required	Slings and splints, spine board, X-Ray, instruments for skin/ skeletal traction, internal/external fixation, tendon repair and amputation, portable X-Ray, image intensifier, CT scan, MRI desirable

**RAPID HEALTH ASSESSMENT  
FOR MASS CASUALTY INCIDENT**  
(To be submitted within 24 hrs)

**A. Description of the Event**

Nature of the Event : \_\_\_\_\_  
Time of the Event : \_\_\_\_\_  
Date of the Event : \_\_\_\_\_  
Place of the Event : \_\_\_\_\_

**B. Number of persons affected**

Death : \_\_\_\_\_  
Injured : \_\_\_\_\_  
Treated on site : \_\_\_\_\_  
Referred to hospital : \_\_\_\_\_  
OPD : \_\_\_\_\_  
Admitted : \_\_\_\_\_  
Missing : \_\_\_\_\_  
Total : \_\_\_\_\_

**C. Action Taken**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**D. Problems Encountered**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**E. Recommendations**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Prepared by: \_\_\_\_\_  
Position : \_\_\_\_\_  
Office : \_\_\_\_\_  
Date : \_\_\_\_\_

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