

EMERGENCY MEDICAL SERVICES

Introduction

The Emergency Medical Services will consist of a comprehensive organization to deal with various Medical Aid related tasks during emergencies. These will include:-

- Basic Life Support by Emergency First Aid Parties.
- Advanced Life Support Services by Emergency Medical Posts.
- Ambulance Services for Transportation of injured.
- Emergency Hospital Services to deal with mass casualty situations.
- Emergency Field Surgical Hospitals close to disaster site.
- Emergency Veterinary Services for care of injured animals.

Organization of Emergency Medical Services (EMS)

The Emergency Medical Services in a district will be organized under the guidance and supervision of the District Medical & Health Authority (Civil Surgeon) and report to the Controller of Civil Defence. He shall be designated as Chief Emergency Medical Officer (CEMO) and he will designate a Emergency Medical Staff Officer (EMSO) for every 3 lakh population who will organize, enroll, train and administer the Emergency Casualty Services in their respective area of jurisdiction. A Medical Assistant will be provided to CEMO and each EMSO for documentation and record maintenance.

1. Emergency Medical Aid Parties (EMAP)

The EMAP will be organized @ one party per 10,000 population with a provision for 25% reserve for manpower. Each EMAP will comprise of 4 BLS providers with one member designated as leader of party. All EMAP will be located at the Civil Defence Depot and provided with an Ambulance with driver per 3 EMAP. An EMAP Group Leader should be assigned for every Civil Defence Depot to control and co-ordinate the activities of the EMAP personnel, their training and equipment.

The EMAP equipment is listed as **Annexure** to this chapter.

2. Emergency Medical Treatment Post (EMTP)

The Emergency Medical Staff Officer (EMSO) will explore, locate and mark suitable Primary Health Centers / Nursing Homes / Dispensaries to act as Emergency Medical Treatment Post during / after any disaster or emergency. The EMTP shall be organized @ 1 per 30,000 population with the provision of 25% reserve for manpower and work under the direction of the respective EMSO. The EMSO will also be responsible for emergency provisioning, enrollment, training and administration of all EMPT's. The EMPTs will provide medical aid and treatment to all walking wounded casualties from the incident scene and should be planned in such a manner that no victim is to be transported more than 500 mts. Every EMTP will have the following minimum staff-

- | | | |
|------------------------------|---|---|
| • Medical Doctor | - | 2 |
| • Nurse / Nursing Assistants | - | 2 |
| • ALS providers | - | 6 |
| • Clerk | - | 1 |
| • Information Assistant | - | 2 |
| • Sanitary Worker | - | 1 |

The EMTP equipment is listed as **Annexure** to this chapter.

The EMSO will also arrange to organize **Mobile Emergency Medical Treatment Teams** (MEMT) through hospitals both in the government as well as private sector. The MEMT Team will be called upon to support the EMAP's where the distance is long and the incident involves mass casualties. The MEMT will consist of –

- Medical Doctor - 1
- Nurse / Nursing Assistants - 1
- ALS providers - 2
- Sanitary Worker - 1
- Driver - 1

The MEMT Team will be located at the Civil Defence Depot during war emergencies and the Medical Doctor will be entrusted with the responsibility of training EMAP personnel, provide medical assistance to all inmates of CD Depot and deal with administrative matters pertaining to EMAP and MEMT teams.

3. **Emergency Ambulance Services (EAS)**

The EMSO will be the Controlling Officer for Emergency Ambulance Services within his jurisdiction. The EAS will be organized @ 1 Ambulance per EMTP with a provision of 10 % reserve. In the absence of sufficient number of available ambulances, other vehicles may be modified to perform the functions of an EAS. Each Ambulance must be provided with the below given staff with a provision for 25% reserve and will be stationed at the EMTP.

- Medical Attendant / ALS Provider - 2
- Driver - 1

The Ambulance equipment is listed as **Annexure** to this chapter.

In the event of Mass Casualty Incidents requiring large scale movement of victims over a long distance, a provision must be made to organize Emergency Ambulance Trains (EAT) through the Local Railway Authorities. The Emergency Ambulance Trains will be stationed at selected railway sidings close to the incident scene and arrangements for transporting victims from incident scene to the EAT and from destination station to hospital will be the responsibility of EAS.

4. **Emergency Hospital Services (EHS)**

In all parts of the country every district has different categories of hospitals with varied capacities. The District Medical & Health Authority / Civil Surgeon will select & designate hospitals that will form part of the Emergency Hospital Services. The Hospitals will be categorized as-

- Emergency Trauma Hospitals- to receive initial casualties and provide immediate life support critical care.
- Emergency Support Hospitals – to take care of casualties transferred from Emergency Trauma Hospitals for post critical care.

As a preparedness measure, the hospitals included in the Emergency Hospital Services will plan & provide for one bed per 1000 population for emergency purposes and –

- Discharge patients who do not require continuous medical supervision and can receive care in their homes within 24 hrs. of declaration of emergency.
- Arrange extra beds in areas identified for emergency purposes.
- Earmark TRAIGE and reception areas for mass casualties.

The District Medical & Health Authority will direct and designate hospitals to establish Emergency Medical Stores Depot within their premises. A stock pile of medical stores for Civil Defence services should be built up in a Central Medical Stores Depots selected from already designated depots. The Emergency Medical stores depots will also stock a 15 days reserve stockpile of life saving medicines. Where the depots are not able to meet the demand, State Governments will be authorized to purchase these locally.

The District Medical and Health Authority will liaise with the local law enforcement authorities for placement of documentation teams at emergency hospitals to undertake any medico-legal procedures during/post emergency.

5. Emergency Field Surgical Hospitals (EFSH)

The District Medical and Health Authorities will plan and organize one EFSH per district having a capacity to be mobilized at short notice and overcome the problems of transportation of victims from disaster site. The deployment of an EFSH will be necessitated in case the distance between the disaster site and the nearest hospital is greater than 30 Kms. The EFSH will be staffed by Medical personnel drawn from different emergency hospitals of the district as per below given details:

- | | | |
|---|---|---|
| • Medical Doctor | - | 5 |
| (General Surgeon – 1, Orthopedic Surgeon – 1, Anesthetist – 1, General Medical Officer - 2) | | |
| • Nurse / Nursing Assistants | - | 5 |
| • Operation Theatre Assistants | - | 2 |
| • Radiographer | - | 1 |
| • Laboratory Technician | - | 1 |
| • Operation Theatre Attendants- | | 2 |
| • Sanitary Worker | - | 1 |

The Equipment for EFSH is listed at **Annexure** to this chapter.

6. Emergency Veterinary Services (EVS)

During emergencies, death and injury may also be caused to domestic animals/pets resulting in dangerous behavior amongst them and posing a risk to human survivors. Therefore, organized veterinary services will be essential for better management of any disaster under the District Medical and Health Authority. EVS will be organized through staff drawn from local veterinary hospitals and voluntary services. Every district must have 2 EVS teams consisting of the following:

- | | | |
|-------------------------|---|---|
| • Veterinary Doctor | - | 2 |
| • Veterinary Assistants | - | 2 |
| • SPCA Volunteers | - | 3 |
| • Sanitary Worker | - | 1 |

The EVS equipment is listed as **Annexure** to this chapter.

Emergency Medical Record Keeping

Maintenance of proper records of casualties while in transit or at hospitals will be essential to an effective emergency management process. Records must be maintained at different levels and by various responding agencies as given below:

- Medical tags by EMAP for victims transported from incident scene.
- Casualty Registration Book at EMTP's
- In-patient & Out-patient Record Books at Hospitals/EFSH.

Civil Defence Ambulance Trains – In order to arrange for transportation of mass casualties from an affected area, a Ambulance train will be made up of passenger coaches to take lying as well as sitting cases with arrangement for medical staff, equipment and feeding. Adequate staff consisting of doctors, nurses, clerks etc., as authorized for EMTP be arranged along with cooks and attendants for transit period. The Ambulance train will be under the supervision of Divisional Railway Civil Defence Officer who will organize the loading /unloading of casualties. The planned movement through Ambulance trains will be directed by the Federal Civil Defence Authority.

Identity Cards – All designated personnel and staff working for Emergency Medical Services in Civil Defence will always carry an identity card as shown below.

	<p><i>The bearer of this card is protected under Protocol Additional to the Geneva Conventions of 12 August 1949 relating to Protection of Victims of International Armed Conflicts (Protocol I- Article 62)</i></p>	<p>Photograph</p>
<p>NAME OF THE CIVIL DEFENCE AUTHORITY</p> <p>Civil Defence</p>		
<p>This is to certify that Shri has been duly appointed to Civil Defence Emergency Medical Service w.e.f.and has been authorized to carry out all the duties assigned to him during an Emergency by the(name of C.D. authority).</p>		
Place.....	Signed	
Date of issue	Controller of Civil Defence	
Blood Group		
Signature of Member	Contact No.	

Annexure-I (Chapter-V)

EMERGENCY MEDICAL TREATMENT POSTS

The EMTP's must be identified and below given sign posted on the entrance.

In case of non-availability of Nursing homes / small hospitals that can act as EMTP, an Emergency arrangement with tents can be made as per given guidelines. The number of Posts should not be greater than the area to be covered.

Requirements of a Post : The Post should consists of three rooms, namely, Reception Room, Treatment Room, Holding & Observation Room.

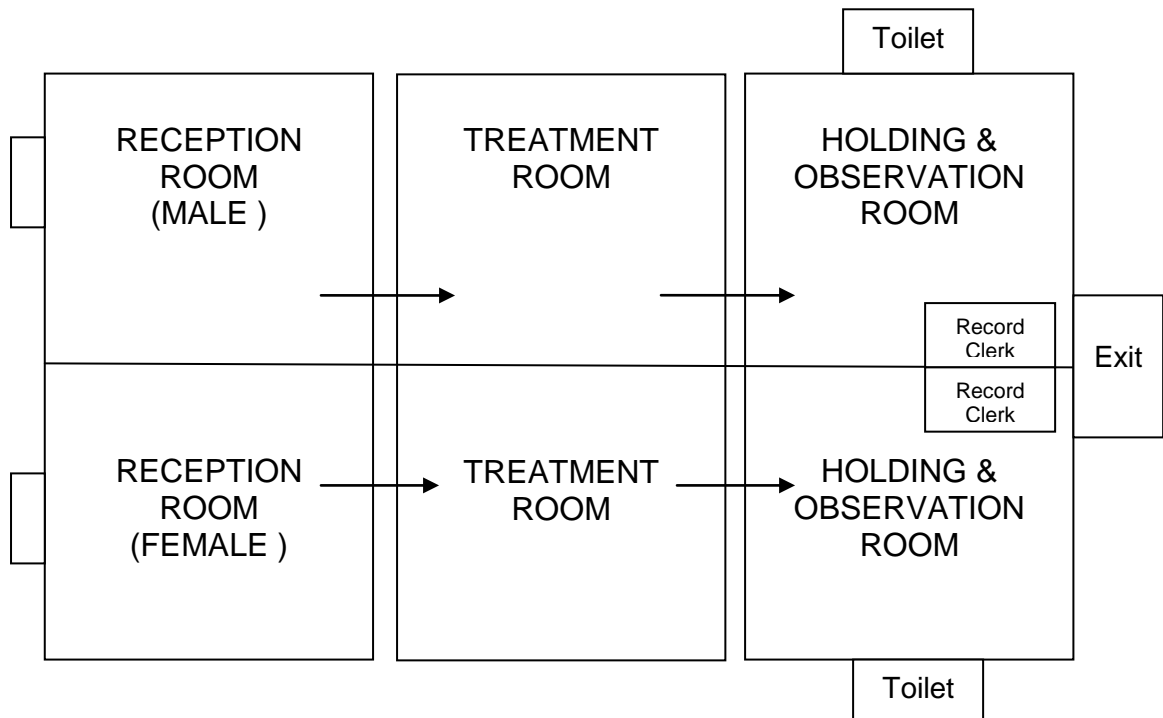


The Reception Room, in which casualties would first be admitted, would be a place where their outer clothing may be removed if necessary. They would then pass straight into the Treatment Room. The Reception Room should be large enough to permit a certain number of casualties remaining there if the Treatment Room happens to be full.

The Treatment Room in the EMTP should have larger space allotted to prevent casualties from being delayed in the Reception Room. Preferably, the Treatment Room must be divided into two parts so as to allow separate enclosure for female casualties.

The Holding & Observation Room would be used for attending to casualties that require critical observation or transportation to a Medical facility.

The layout of the EMTP is given below:-



Layout of EMTP

2. Size for a EMTP

The capacity of the Post should obviously be related to the factors which would affect the possible number of casualties to be handled. No estimate of any kind can be given on this point, but areas with a high density of population which are likely to be affected by frequent emergencies need more provision than areas of lower density. The precise factors cannot be expressed numerically, but the recommendations below are the result of careful consideration and should be followed.

As a rule the adjacent Posts should not be more than 1 Km apart so that no casualty should have to go more than 1000 mtrs. to reach a Post. Each area where Posts are required should be planned out on a map to show the proposed position of each Post, and the area which it would serve.

Where building space provided is less than the specified standard, efforts should be directed towards increasing the effective capacity of the Post either by arranging for temporary structures or by endeavouring to hasten the rates of flow through the post as the capacity of the Post is really governed by the rate of flow through the different sections.

In addition to the accommodation for patients, every Post must have an office and store rooms for administrative purposes, a rest room and canteen facilities for the Staff. The office must be in the Post itself, but the store rooms and staff accommodation can if necessary be in a separate building.

Description	EMTP	
	Area of Room Sq. Ft.	Number of casualties at one time
Reception Room	120	4
Treatment Room	350	12
Holding & Observation Room	130	6
Total	600	---
Administrative Office	100	---
Additional accommodation for Staff Rest	250	16
Store Room	100	---
Total space required (excluding rooms)	1,050	---

The above calculations are based on following space allowances for different purposes :-

- ***Lying Cases – Reception area and holding / observation area - 27 sq.ft. per patient
Treatment area - 40 sq. ft. per patient.***
- ***Sitting Cases – Reception area and holding / observation area - 7 ½ sq. ft. per patient.
Treatment area - 15 sq. ft. per patient.***
(Allowance has also been made for furniture and equipment in the rooms.)

The amounts of space listed in the above tables are designed to permit of the following rates of flow in the Posts, expressed as the number of patients of each sex arriving within half an hour. It is assumed that this period would represent the peak inflow following an emergency.

Description	EMT Post	
	Lying	Sitting
Inflow in half an hour	10	10

In all schemes for setting up Posts in existing buildings the greatest possible simplicity in planning and avoidance of major structural changes are to be aimed at in order to reduce the time which would be necessary when there is a threat of war to get the Post in proper condition for use.

The administrative work at EMTP will consist of

- Arrangement for the rotation of duties for staff
- Compiling records of persons treated at the Post.
- Keep records of the stores supplied and consumed.

3. **Further points for consideration**

- All lights must be obscured after dark, so that none are visible from outside except a dim sign indicating the position of the Post.
- To prevent damage from broken glass, all glass should be replaced by hard board or cloth or thick paper.
- Alternative lighting arrangements should be made against failure of electricity. Similarly the hot water supply should not, as far as possible, be solely dependent upon gas or electricity.
- Sufficient water should be stored in tanks, in case of disruption in main supply. Adequate arrangements should be made for drinking water for the patients.
- A shelter for the staff should be provided to protect them against hazards. One of the rooms in First Aid Post could be given suitable structural protection for this purpose.

Annexure-II (Chapter-V)

CASUALTY LABEL AND RECORD BOOK

FORM A-1
Casualty Identity Label
OBSERVE

Date

Name Age Sex

Father's or Husband's Name.....

Address

Site of injury

Nature of injury.....

Special Instructions

Signature
EMTP Leader,

REVERSE

1. To
From EMTP No.
.....
.....
Forwarded for treatment and disposal.
2. To Medical Superintendent
..... Hospital
.....
Please admit.

Note:- *If discharged from EMT Post cross out 2 and give this card to the patient with instructions, where necessary, to present it at the nearest hospital for further treatment (on the same or the next day).*

Annexure-III (Chapter-V)

REGISTER

**FORM A-2
Casualty Register Book**

Prepare four copies of the form, using carbon paper:

- Original retained in EMT Post.
 - Second copy to hospital Medical Superintendent.
 - Third copy to Emergency Medical Staff Officer.
 - Fourth copy for CD Headquarters. (for Personal Injury Claims Officer)
-

EMT Post

Town & District.....

Date & Time of arrival.....

NameAge.....Sex.....

Father's/Husbands Name.....

Address.....

.....

Occupation.....

If CD volunteer On duty/Off duty

By whom brought.....

Nature of Injury.....

Treatment

A.T. Serum.....

Morphine (dose & time).....

Disposal.....

Special Instructions.....

.....

Medical Officer Incharge
EMT Post

Annexure-IV (Chapter-V)

CASUALTY IN-PATIENT BOOK

FORM No. B-1

Prepare two copies of the form, using carbon paper:

- Original retained in Emergency Trauma Hospital.
 - Second copy for CD Headquarters. (for Personal Injury Claims Officer)
-

Hospital

Town & District.....

Date & Time of admission

NameAge.....Sex.....

Father's/Husbands Name.....

Address.....

.....

Occupation (mention if CD volunteer).....

Where First Treated (with date).....

By whom brought.....

Nature of Injury (mention if exposure to Gas).....

Date of Injury.....

Name & Address of Next of kin.....

Date of Discharge.....

Special Instructions.....

.....

Medical Officer Incharge

Annexure-V (Chapter-V)

CASUALTY OUT-PATIENT BOOK

FORM No. B-2

Prepare three copies of the form, using carbon paper:

- Original retained in Hospital /Dispensary
 - Second copy for CD Headquarters. (for Personal Injury Claims Officer)
 - Third copy handed over to patient.
-

Name of Hospital /Dispensary No.....

Town & District.....

NameAge.....Sex.....

Father's/Husbands Name.....

Address.....

.....

Occupation (mention if CD volunteer).....

Where First Treated (with date).....

EMT posts at

Casualty Book No.....Whether former in patient.....Yes/No

Nature & Date of Injury (mention if exposure to Gas).....

Name & Address of Next of kin.....

Date of First Treatment (in OPD).....

Special Instructions.....

.....

Medical Officer Incharge

BACK SIDE

Hospital Copy-

- Particulars of any refusal to undergo treatment
- Date of further treatment and discharge.
- Whether incapacitated to work (mention date)

Signature of Medical Officer

Patient Copy- (carry every time you visit the hospital)

- Date of further treatment and discharge.
- Whether incapacitated to work (mention date)

Signature of Medical Officer

Annexure-VI (Chapter-VI)

Equipment for Emergency Medical Services

Sr. No.	Items	Quantity
EMERGENCY MEDICAL AID PARTY (per member)		
1.	Helmet Fibre Glass	1
2.	Water Bottle with sling + Glass steel	1
3.	Rechargeable Electric Torch	1
4.	First Aid Pouch	1
5.	Motorola Set	1
6.	Surgical Gloves	5 pairs
7.	Tourniquet	1
8.	Surgical Masks	5
Driver EMA Party Vehicle		
9.	Helmet Fibre Glass	1
10.	Motorola Set / Mobile Phone	
EMA Party Equipment		
11.	Stretchers (Aluminium folding)	2
12.	Blankets	2
13.	Durries/Ground sheets	2
14.	Pneumatic Splints	2
First Aid Bag containing the following Items-		
15.	Bandages triangular	36
16.	Bandages roller	36
17.	Cotton wool 100 gms packets	8
18.	Dressing sterile pads	24
19.	Lint, out-in-place of 45 cms x 30 cms	6
20.	Safety pin, large	2 Doz.
21.	Scissors Stainless steel 12.5 Cms	1
22.	Forceps Stainless Steel 12.5	1
23.	Ball Point pen	2
24.	Triage labels	4 pads with 20 each colour.
25.	Safety Razor Blade	1
26.	Liquid sprays for pain, burn, wound	4(one each for burns & wounds)
27.	ORS Packets	20
28.	Micropore/ premopore surgical dressings of different sizes	100
29.	Portable Aluminium oxygen cylinder 4-5 ltr. Along with oxygen Nasal catheters / masks	1
30.	Crepe bandage	4
32.	Eye pads	1 pair
33.	Thermometer / Tongue depressor	1 each
34.	Paracetamol tablets	100 tabs.
35.	Brufen tablets	100 tabs.
36.	Tab. Combiflam	100 tabs.
37.	Soap bathing	2 cakes.
38.	Ambu Bag with 2 masks	1
39.	Surgical Gloves	1
40.	Suction apparatus with sterile disposable suction catheters – 5 each paediatric and adult size.	1
41.	Foldable splints	2

42.	Surgical Masks	5
	Contents of FA Pouch (per First Aiders)	
43.	Surgical Gloves	2 pair
44.	Bandage triangular (individual)	9
45.	Bandage roller first Aider pouch	9
46.	Dressing, sterile pads	9
47.	Triage labels	10 each for yellow, red, green and black)
48.	ORS packets	2
49.	Safety pins, large	1 doz.
50.	Safety Razor Blade with handle	1
51.	Band aid dressings	10
52.	Leucoplast	1 pkt.
53.	Tourniquet	1
EMERGENCY AMBULANCE EQUIPMENT		
I	Personal Equipment	
55.	Helmet per driver	1
56.	Helmet per attendant	1
II	Ambulance Equipment	
57.	Water bottle with sling	1
58.	Stretchers light aluminium	4
59.	Blankets	4
60.	Hot water bottle, improvised	1
61.	Rechargeable Electric Torch	1
61.	Thermometer / tongue depressor	1 each
III.	Ambulance Medic Bag containing	
62.	Bandage triangular	6
63.	Bandage loose woven 6 cms	6
64.	Cotton wool, 100 gms packets	6
65.	Sterile surgical dressings	12
66.	Lint, undedicated, 100 gms pkt.	6
67.	Safety pins large	2 Doz.
68.	Scissors stainless steel 12.5 cms.	1
69.	Forceps stainless steel 12.5 cms	1
70.	Pressure bandage	1
71.	Pneumatic splints	1
72.	Pneumatic splints	1
73.	Portable Aluminium oxygen cylinder 10 ltr along with Nasal catheters /Masks (back up with O2 cylinder	1+1
74.	Ambu Bag with 2 masks	1
75.	Suction apparatus with sterile disposable Suction catheters -5 each paediatric / adult.	1
76.	ORS packets	5
77.	Surgical Gloves	5 pair
78.	Surgical Masks	5
79.	Tourniquets	2
80.	Oxygen cylinder –backup	1

MEDICAL STORES & EQUIPMENT
EMERGENCY MEDICAL TREATMENT POSTS.

Sr.	Items for each EMT Posts	Basic Requirements	Percentage of Reserve
1.	Tablets Combiflam preferred for palm relief	100 tabs	100
2.	Tablets Septran	100 tabs	100
3.	Lysol, 1 lit. Bottle	1	100
4.	Morphine sulphate, 1 cc ampoules boxes of 6	1	100
5.	Liq. Adrenalin Hydrochloride	100	100
6.	Sodium Bicarbonate	100 gms	100
7.	Spirit, Methytaled, Mineralised, pints	100 ml	50
8.	Air way Medium I.R./Paediatric	1	Nil
9.	Forceps tongue (cross action)	1	1
10.	Mouth Gag	1	Nil
11.	Glucose Saline I.V. sets	10	50
12.	Bandages loose woven, 5 cms x 6 cms	100	75
13.	Bandages loose woven 5 cms x 6 cms	100	75
14.	Bandages triangular	18	50
15.	Bandages many tailed	3	100
16.	Premopore dressing + surgical sterile	25	100
17.	Dressing	10	100
18.	Gauze, absorbent, 1 mts x 10 cms wide folded	6 pkts.	50
19.	Lint, cotton absorbent in 500 gm pkt.	5 pkts.	100
20.	Wool, cotton absorbent in 500 gms pkt.	5 pkts.	100
21.	Plaster, adhesive, zinc oxide spool (75 cms x 5 mts)	1 spoon	100
22.	Silk surgical braided, sterilized No. 3(T) in vial	1	100
23.	Wool cotton, non absorbent 500 gms Pkt,	5 pkt	100
24.	Forceps artery 5"	4*	100
25.	Forceps dissecting	1*	100
26.	Forceps sinus	1*	100
27.	Forceps dressing	1*	100
28.	Forceps, sterilizer, cheattle's	1*	100
29.	Probe	1*	100
30.	Scissors, surgical	1*	100
31.	Scalpel	1*	100
32.	(a) Knife B.P. with handle	1	100
33.	Blade NO 22	3	100
34.	Splinter forceps	1*	100
35.	Tongue depressor, metal	1*	100
36.	Surgeons overalls	1	100
37.	Surgical Gloves	2pairs	100
38.	Scissors (7"long, 1 badge pointed 1 blade blunt)	2	50
39.	Catheter No.8 IR	1	100
40.	Catheter No.6 LR per FA party	1	100
41.	Razor common	1	100
42.	Syringe Hypodermic 2 cc with needles (Disposable)	100	100
43.	Syringe 2cc with needles (Disposable)	100	100
44.	Syringe hypodermic 10 cc with	50	100

(*) For Medical Officers on duty

45.	Pins safety, tins of 36	1	100
46.	Splinting, Gooches wood '(60 cms x 45 cms pieces)	2	50
47.	Splints, knee, Thomas's without foot pieces	3	100
48.	Splints, posterior, wood with a foot pieces	4	100
49.	Straps and buckles for splints doz.	2	50
50.	Eye Shades	3	50
51.	Hot water bottle IR 30x20 cms	4	50
52.	Sterilizer, fish kettle with lamp complete size 37.5 x 37.5 cms x10 cms	4	50
53.	LPG gas stoves- 4kg	1	100
54.	Basin, dressing, E.I. Kidney shape-25 cms	2	100
55.	Bowl, E.I. 20 cms	2	100
56.	Jug, measure EI graduated 500ml	1	100
50	Jar, dressing 25x20 cms EI with cover	2	50
51.	Tray, dressing EI 28x22x5 cms	1	100
52.	Basin, E.I. washing 35 cms	2	50
53.	Bed	1	100
54.	Bin, Ash, large	1	100
55.	Bottle Urine E.I.	1	100
56.	Brush, nail, ward	2	100
57.	Cup, Feeding, E.I.	2	100
58.	Mug, enamelled	3	100
59.	Pail, Plastic	1	100
60.	Table with trestles size	1	100
61.	Pair of trestles	1	100
62.	Rechargeable emergency light	2	
63.	Candles	10	
64.	Match Boxes	10	
65.	Kerosene oil	10 ltr	100
66.	Towel hand size	6	25
67.	Soap, hand cake	6	25
68.	Detergent Powder	½ Kg	50
69.	Floor mop short handle	1	
70.	Stretchers ambulance (modified light Aluminium)	6	
71.	Sheet, water proof width 90 cms	3 mtr.	
72.	Blankets	12	
73.	Crutches	2 pair	
74.	Walking sticks	3	
75.	Ball point pen	1	
76.	Rechargeable electric torch	1	
77.	Casualty Register	2	
78.	Tie-on-labels, set of 18 in an envelop	4 set	
79.	Tea Box (Aluminium)		
	• Tea	½ kg	
	• Milk Powder	½ kg.	
	• Sugar	1 kg.	
	• Mugs	6	
	• Sauce pan	2	
	• Spoons	6	
	• Kettle E.I.	1	
80	Detol/Savlon/Betadine	1 bottle large	100
81	Injection thiopentomi sodium ampoule of 0.5 cc (pentothal sodium)	6	50

82	Paraffinum liquidum	100 ml	100
83	Diazepam Nitrozepam 5 mg (calmpose/ Nitrogen 5 mg)	50	100
84	Pethedeine Hydrochloride 50 mg & 100 mg Ampoule	25	100
85	Bandages, elastic, adhesive, 5 cm x 5 mtr.	3	100
86	Needle, serum	4	100
87	Needle holder, Mayo	1	100
88	Nylone suture material medium hanks of 50	10 Pkts.	100
89	Forceps, dissecting, toothed 10 cms	1	100
90	Splinting, wire(cramer) 60x8 cms	6	100
91	Listone long splint	1 set	100
92	Sphygmomanometer dial type	2	100
93	Tubing, drainage 3/16"	1 mtr.	100
94	Measure glass double (15x60ml)	1	100
95	Bag ice,head I.R. 15 cms	1	100
96	Bag, sand, empty, 40x15 cms	5	100
97	Thermameter clinical	4	100
98	Tray, E.I. Kidney shaped 26 cms	2	100
99	Mask (face) Paediatric / Adult	2	100
100	Nasal catheters	10 each	100
101	Oxygen cylinder with regulator	1	100
102	Measuring tape	1	100
103	Needles, suture, cutting, straight Per F.A. triangular, pointed size 2(large) packet of 6	2 Pkts	50
104	Linen thread size 75x30 cms length hanks of 50	2	50
105	Inj. Xylocaine 50 ml vial	5 vial	100
106	Suction apparatus	1 No.	100
107	Ethyl Chloride Spray	1 No.	100
108	Liquid sprays for pains, burn, wounds	1 each	100
109	Band Aid Strips	100 Nos.	100
110	Ambu Bag	1 No.	100
111	Ryle's tube (polythene)	5 Nos.	100
112	Butterfly hypodermic needle sets	5 Nos.	100
113	Brufen tablets (200 mg) each	500 Nos.	100
114	Oral Rehydration solution Dry Powder packs of 100 gm each	10 Nos.	100
115	Inj. Tetanus toxide 10 dose vials	6	100
116	Penumatic splints	6	100
117	Suction Catheters (disposable)	5 Nos.	100
118	Ryle's tube (disposable)	5 Nos.	100
119	Stethoscope per doctor	1	1 per doctor of EMTP
120	I.V fluids	50 bottles	50
121	Personal Equipment		
	<ul style="list-style-type: none"> • Helmet for each, Doctors, Nurse, First Aiders, Lay Personnel, Drivers & Attendants 	1	
	<ul style="list-style-type: none"> • Surgeons gown 		
	<ul style="list-style-type: none"> • Surgical mask 		
	<ul style="list-style-type: none"> • Surgical gloves 		
	<ul style="list-style-type: none"> • Eye goggle (if possible) 		
122	Body bags for dead bodies	50	100
123	Nasal Spray	5	50

**Additional list of Injections, Tablets, Ointments, Syrup & Drops
For Emergency Medical Treatment Posts**

Sr.No.	List if items	Quantity
INJECTABLES		
1.	Normal Saline	200
2.	Ringer Lactate	200
3.	Dexstrose 5 %	200
4.	Haemaccel	100
5.	Efficorlin	30
6.	Decadron	30
7.	Atropine	20
8.	Aminopylline	20
9.	Lasix	50
10.	Paracetamol	100
11.	Perinorm	50
12.	Ranitidine	100
13.	Dizepam	100
14.	Stemetil	50
15.	Inj. Tetanus toxide	50
16.	Inj. Amplox	50
TABLETS		
1.	Crocin	500
2.	Brufen	500
3.	Nimulid	500
4.	Perinorm	100
5.	Avil	500
6.	Digene	5000
7.	Amoxycilin	500
8.	Furoxone	500
9.	Oral Rehydration Salt(ORS)	500
LIQUIDS		
1.	Septorn Syrup	30
2.	Ampicilin Syrup	30
3.	Furozone Syrup	30
4.	Paracetamol Syrup	30
5.	Metronidozole Syrup	30
6.	Ibugesic Syrup	30
MISCELLANEOUS		
1.	Soframycin	10
2.	Silvers Sulfadiazine Cream	10
3.	Leucoplast	30
4.	Crepe Bandage (6"/3")	30
5.	Eye-Drop-Ciplox	30
6.	Ear drop otek AC	30
7.	Band Aid (assorted tow pkt)	30
8.	Methylated spirit	1 bottle
9.	Savlon	1 bottle
10.	Betadine	1 bottle
11.	Sterile cotton (200 gm)	30

<u>EQUIPMENT FOR EMERGENCY FIELD HOSPITAL SERVICE</u>		
1.	Instrument table	1
2.	Monitoring Equipment	
	• Stethoscope	6
	• BP Apparatus	6
	• Thermometer	10
	• Multifunction monitor with following features-	2
	• ECG with all alarms and leads.	2 sets
	• ET Co2 with 2 sampling lins & filters	2 sets
	• Invasive pressure (2 lines) monitoring set	2 sets
	• Temperature module with probe	2 sets
	• Pressure transducers	2 sets
	• Sufficient NICD batteries for power	2 sets
	• External pacing facilities with pacing pads	2 sets
	• ECG Electrodes	1 pkt
	• Electrode Jelly	6 tubes
	• NICD Battery Charger	2
3.	Ventilator, fixed tidal volume 10% and 30%	1
4.	Electrical suction apparatus, light weight wall mount negative pressure 100-700 m/bar adjustable.	1
5.	Portable patient monitor	1
6.	Defibrillator	1
7.	Tentage	1
8.	Emergency light	1
9.	Generator	1
10	OPERATIVE UNIT	
	• Operation Ceiling lamp	4
	• Operation table	2
	• Electrical surgical fan	2
	• Electro-caytery (unipolar and bipolar)	3
	• Compact monitored NIBP Pulse oximeter	2
	• Capnograph and EKG	2
	• Portable anaesthesia Machine with ventilator	2
	• Brain circuit	4
	• Serum hanger(mobile)	3
	• Infusion pump	4
	• Instrument desk	4
	• Square table	3
	• Stool	3
	• Central gas outlets (Oxygen 4, Nitrogen)	
	• Protocsite 2 and Vacuum 2)	
	• Step (duplex)	2
11	Intubation equipment	
	• Laryngoscope (with 4 blades) Macoy's laryngoscope	1
	• Endotracheal tubes in different sizes (2.5 via 9,7,8.5)	20 each rest 02 each
	• 3 way Cannulae connector	50
	• IMA (size 3)	2
	• Combitube	4
	• Oral and nasal 2 sets airways tube	2 sets
	• Face mask (size 2,3,4) each	2

	• Venture mask	5
	• Intubation stilet	5
	• Resuscitator (Ambulance emergency case complete)	5
	• Mobile transport oxygen apparatus	1
	• Blood and serum heater	2
	• Infected garages box	2
	• Non infected garage box	2
	• Dirty sheet trolley	2
	• Patient transporter	2
	• Autoclave not less than 180 ft.	2
	• Storing boards with basin	2
	• Surgical washbasin	2
	• Ultraviolet lamp	4
	• Plugs for every operative unit, 200 V	3
	• Surgical Equipment cleaning unit	1
	• Oxygen Cylinder	12
	• N20 Cylinders	12
	• Vaporisers (Halothane)	2
	• Suction Machine (foot operated)	2
	• Transport Ventilators (Min. T Volume 20 ml)	2
	• Refrigerator	1
	• Wall clock	1
Additional Airway Equipment-Trolley –I (standard)		
1.	Airways (all sizes)	1 each
2.	Leucoplast	6 Rolls
3.	Bandages (2")	12 pkts.
4.	Laryngoscope with blades all 4 sizes	2
5.	Battery Cells (Medium)	4
6.	Harness (all sizes)	2 each
7.	Suction catheters-all sizes	1 Pkt. Each
8.	Infant feeding tubes	1 Pkt.
9.	Ambu bag with reservoir-both sizes (Paediatric & Adult)	2
10.	Head ring (small & Adult)	2
11.	Oxygen cylinder, pressure gauges with regulator	1 each
12.	Opening key for Oxygen Cylinder	6
13.	H.P. Pipeline for connection	6
14.	Connectors ET Tube connections (All sizes)	10 mtrs
15.	HP tube to Ambu Connectors	1 each
16.	Suction machine Catheter connectors	1
17.	Xylocain Jelly	6 tubes
18.	Style with stopper	6
19.	Gloves (6, 6 1/2, 7 sizes)	4 each
20.	Maggils forceps (small & large)	2 each
Airways Equipment-Trolley II (different Airway)		
1.	Cervical collars (all sizes) with holes for trachostomy tube	1 each
2.	Tracheostomy tubes (all sizes)	1 each
3.	Tracheostomy tray (preferably, precutneous tracheostomy tray)	2 in Nos.
4.	Laryngeal Mask of all sizes	1 each
5.	Fibrotic laryngoscope (adult & paediatric size)	1 each
6.	Macoy laryngoscope with blades of all sizes	1
7.	Gum Elastic Bougie all sizes	2 each
8.	Style with stopper	Plenty

9.	Jelly (lubricating)	2 bottles
10.	Connectors of all sizes	2 each
11.	HP Tubes	20 mts.
Disposable Equipments		
1.	Measured volume sets (Paediatric drip set)	20
2.	LV sets	1000 pkts.
3.	Blood infusion sets	100
4.	Syringes of 2 ml, 5 ml	1000 each
5.	Syringes of 10 ml	100
6.	LB Canula of all sizes 16,18,20,22,24 & 26	5 each
7.	CVP canula (long line)	10
8.	Sutures (Non absorbable)	20
9.	Stitching needles all types	2 pkts each
10.	Spinal needles all types	10 each
11.	Chest tube + Chest drainage sets	5
12.	Suction catheters	100
13.	Blades (surgical)	10 pkts.
14.	ECG Recording paper	10 Rolls
15.	Torch Cells large size	10
16.	Laryngoscope bulbs spare	10
17.	Electrode Jelly	2 bottles
18.	Epidural needles 16,18,20	5 each
19.	Stomach aspiration (Bon's) tube with funnel	1
20.	Ryles tubes	20
21.	Flatus tube	2
22.	Urinary Catheter & drainage set	10 each
23.	Urine & Blood samples collecting bottles	50
24.	Various types e.g. fluoride bottle	20
25.	EDTA bottle	20
26.	Cotton rolls	100
27.	Bandages all sizes	100 pkts each
28.	Leucoplast	100 Rolls
29.	Threeway cannulae connectors	50
30.	Gauze pieces	50 thans
31.	Soaps, polythene bags for waste disposal	5000
Cut Down Set		
1.	Lancet handle small 10-15 Nos	1
2.	Scissors straight 13-15 cms	1
3.	Scissors small curved 13-15 cms	1
4.	Forceps Mayo	2
5.	Edson forceps 15-18 cms	2
6.	Forceps gas holder curved	1
7.	Forceps Hem, Mosquito curved 10 cms	2
8.	Forceps Hem Medium size curved 14	2
9.	Forceps right angle size 14-18 cms	1
10.	Forceps cloth standard	4
11.	Stile (blunt tip)	2
12.	Needle holder small standard size	1
13.	Portegu (needle holder) small size fine	1
Suturing Set (12 sets)		
1.	Scissors straight standard 13-15 cms	1
2.	Scissors curved (Baby metzenbaum) 13-15-cms	1
3.	Forceps straight	2
4.	Portegu (Needle holder) small standard size thick	1

5.	Pens, Hem, Medium size curved 14 cms	4
Dressing Set (16 sets)		
1.	Scissors straight standard 13-15 cms	1
2.	Forceps straight	1
3.	Pens Hem, medium size curved 14 cms	2
General Surgery (8 –Sets)		
1.	Abdominal tool kit metal	1
2.	Bistury handle, small (10-15 nos)	1
3.	Bistury handle short (18-38 no)	1
4.	Bistury handle big	1
5.	Scissors straight standard 13-15 cms	1
6.	Scissors curved 18-25 cms (Mayo type)	1
7.	Scissor curved (Metzenbaum) 13-15 cms	2
8.	Scissors curved fine (Baby Metzenbaum) 13-15 cms	2
9.	Pens straight standard 13-15 cms	2
10.	Pens straight Rechester 13-15 cms	2
11.	Pens straight standard big 25-30 cms	2
12.	Debakey pense 20-30 cms	2
13.	Pens tampon holder (Dressing forceps) forester-Balienger (curved)	2
14.	Pen Allies (standard) 15 cms	2
15.	Forceps cloth 13.5 cm	10
16.	Pens holder Mayo type 14 cms	5
17.	Pen Hem. Mosquito curved 10 cm	6
18.	Pan Hem Mosquito straight 10 cm	6
19.	Pens Hem Medium size curved 14 cm	12
20.	Pens Hem Medium size straight 14 cm	6
21.	Pens Hem curved bis 18-24 cms	1
22.	Pens Kocher 14-15 cms	1
23.	Pens medium size curved (thick mouth) 14-18 cms	1
24.	Pens Moynihan (big) 20-24 cms	1
25.	Pens Moynihan (Medium) 14-18 cms	1
26.	Clamp Right angle (medium size) 14-18 cms	1
27.	Clamp Right angle (big) 20-24 cms	6
28.	Pens pean 18-23 cms	4
29.	Forceps intestine curved 18-24 cms	4
30.	Babcock (big size)	2
31.	Babcock (medium size)	2
32.	Stile	1
33.	Cuvette (small size)	2
34.	Vein ecarteur	2
35.	Farabeuf ecarteur	2
36.	Richardson retractor small	2
37.	Richardson retractor big	2
38.	Automatic abdomen ecarteur	2
39.	Ecarteur Deaver 19x180 mm	1
40.	Ecarteur Biogsari	2
41.	Needle set	1
42.	Kidney Cuvette	1
43.	Square Cuvette	1
44.	Aspirator tip metallic	1
45.	Dissector Micro Adson 14 cm	1
46.	Dissector long(baby) 18 cm	1
47.	Portegu (needle holder) thick tip	2

48.	Portegu (needle holder) thick tip long(8-24 cm)	2
49.	Portegu (needle holder) fine tip small (13-15 cms)	1
50.	Portegu (needle holder) fine tip long(18-24 cms)	2
51.	Poretoloty set	1
52.	Oscope	1
53.	Daniel Pens	2
54.	Anal ecarteur	2
Big Vascular Set (1 set)		
1.	Vascular set tool box metallic	1
2.	Pens ration	1
3.	Pens vascular	2
4.	Scissors safen	2
5.	Scissors curved	1
6.	Portegu atraumatic	2
7.	Portegu atraumatic	1
8.	Thorax ecarteur	1
9.	Soft clamp (long, medium, short)	6
10.	Small cross clamp	2
11.	Satensky pens for vessel	4
12.	Cross clamp	2
13.	Clips holder	2
14.	Siner hook	1
15.	Rujin	1
16.	External fixation set	1
17.	Hand Surgery set	1
18.	Osteotomy set 62 mm	1
19.	AO compression plate + screw set	1
20.	Mini fragman plate and screw set	1
21.	Compression Supracondylar plate + screw set	1
22.	Unreamed Kuntcheer set(femur, tibia, humerus)	1
23.	Kuntcher set	1
24.	Harris Muller hip plate 1 nail set for infants	1
25.	Illip Parliar Prosthesis set	1
26.	Different size, stienmen, pin and kirchner set	1
27.	Bone set (Electricity or /and pneumatic)	1
28.	General tool set	1
29.	Osteotomy set	1
30.	Sterilizing Tray/l/l deep	1
31.	Lid 1/1	1
32.	Ambu Vacuum splints: (a) Ambu full leg splints (b) Ambu leg splint (c) Ambu arm splint (d) Ambu artieu splint	10 10 10 50
33.	Ambu NAJO backboard	50
34.	Ambu Stretcher/transfer Mattresses	10
35.	Ambu perfit and ambu perfit ACE	10
General Surgery Set		
1.	Bone hook, sharp, small, length 230 mm	1
2.	Bone hook, sharp, medium, length 230 mm	1
3.	Retractor, 8 mm wide, short narrow tip, length 220 mm	2
4.	Retractor, 18 mm wide, short narrow	1
5.	Retractor, 24 mm wide, long end wide tip length 270 mm	1

6.	Periosteal Elevator, curved shell, 14 mm wide length 200 mm	1
7.	Periosteal Elevator, round edge, 6mm wide length 200 mm	1
8.	Periosteal Elevator, straight shell, 14 mm wide length 200 mm	1
9.	Hammer 500g, length 230 mm	1
10.	Chisel handle, length 230 mm	1
11.	Chisel blade, 10mm wide, length 81 thickness 0.9 mm	1
12.	Chisel blade, 25mm wide, length 81 mm thickness 0.9 mm	1
13.	Chisel blade, 25mm wide, length 81 mm thickness 0.9 mm	1
14.	Langenburg	1
15.	Hook	1
16.	Pens Bulldog	4
Tracheostomy Set (2 Sets)		
1.	Bistury handle (thin and thick)	2
2.	Farabeaf Ecarteur	2
3.	Pens straight short standard	2
4.	Pens Rochester short standard	2
5.	Tissue scissors (Baby Metzenbaum)	1
6.	Cotton scissors (short standard)	1
7.	Pens Hemostatik (small)	4
8.	Dissector (medium size)	1
9.	Single notched hook	1
10.	Portegu	1
11.	Mikulich Pens	2
12.	Allis Pens (Allis Forceps)	2
Orthopaedic Unit		
1.	Fracture reduction table (which can easily operate with C-Armed X-ray instrument)	1
2.	Plaster cutting engine	1
3.	Esmarch bandage	10
4.	Pnuematic turnstile (shall be an automatic turnstile which operates with electricity)	1
5.	Arm	1
6.	Leg	1
7.	Lee bag	10
8.	Set of Traction equipments (a) Skin traction (b) Skeleton traction (c) Different sizes of house shoes	6 5 1 10
9.	Gauge, curved, for cancellous bone graft, 10 mm wide, length 250 mm	1
10.	Bone holding forceps, self centering, length 240 mm speed lock	1
11.	Bone holding forceps, self centering, length 280 mm speed lock	2
12.	Reduction forceps, serrated, length 240 mm speed lock	1
13.	Reduction forceps scraped, length 170 mm	2
14.	Reduction forceps with pints, length 165 mm	1
15.	Reduction forceps large, with points, length 200 mm	1
Traction Material Set		
1.	Hollow Reamer for 3.5/4.0 mm	1
2.	Spare Reamer tube for Hollow Reamer No.1	1
3.	Extraction Bolt for 3.5/4.0 mm screws	1
4.	Extraction screw, Conical long 2,7,3.5 and 4.00 mm screw	1

5.	Hollow Reamer for 4.5 mm screw	1
6.	Spare reamer tube for hollow reamer No. 309, 450 mm	1
7.	Extraction screw, conical fro 4.5 mm screw	1
8.	Extraction screw, conical for 4.5/6.5/7.0 mm dia.	1
9.	Hollow reamer tube for hollow reamer No.5.0, 6.0, 6.5, 7.0 mm dia	1
10.	Spare reamer tube for hollow reamer No.309, 065	1
11.	Extraction bold for screw of 5.0,6.0,6.5,7.0mm	1
12.	Aluminium plate, anodized	1
13.	T. Handle, large, with quick coupling, length 160 mm	1
14.	Sharp Hook, length 155 mm	1
15.	Forceps for screw removal length 205 mm	1
16.	Gauge length 205 mm, 10mm wide	1
Diagnostic Equipments		
1.	Incubator	1
2.	Centriguge	1
3.	Microscope	2
4.	Portable X-ray unit	1
5.	Working table with drawer	1
6.	Hot and cold water basin	1
7.	Hematocrite	1
8.	Automatic and conventional pipettes, reagents	2
9.	Reagents and consumables / counter	1
Miscellaneous Items		
1.	Rectangular trays	1
2.	Surgical drums Laparotomy, Thoractomy, Craneotomy, Dressing Drum, Orthodrum)	1
3.	Sterilizer	1
	Linen items	
	(a) Curtains	10 mts
	(b) Bed sheet	1
	(c) Pillow	1
	(d) Pillow cover	1
	(e) Towel	1
	(f) O.T. Dresses (Surgeon caps, mask and gowns)	1 each
	(g) O.T. Linen, Laparatomy sheet	1
	(h) Slippers in adequate	1
	(i) Safety pin	1Pkt.
Medicines		
1.	Topical Spray	
	(a) Pain spray	10
	(b) Burn spray	10
	(c) Antiseptic spray	10
2.	Inhalers (along with nebulizer)	
	(a) Asthalin inhaler	10
	(b) Budecart inhaler	10
3.	Injectable	
	1. Ringer Lactate	200
	2. Normal Saline	200
	3. Dexstrose 5%	200
	4. Haemaccel	100
	5. Efficorlin	30
	6. Decadron	30
	7. Atropine	20
	8. Aminophylline	20

	9. Asthalin 10. Deriphylline 11. Adrenaline 12. Pethidine 13. Morphine 14. Voveran 15. Dopamine 16. Pottassium Chloride 17. Sodium Bicarbonate 18. Stemetil 19. Perinorm 20. Avil (25mg) 21. Phenergan 22. Paracetamol 23. Dizepam 24. Ranitidine 25. Buscopan 26. 2% Xylocard 27. Injection Tetanus toxid 28. Inj. Ciprofloxacin 29. Inj. Gentamycin 30. Inj. Amplox 31. Inj. Metrinidozole	20 20 20 20 20 30 20 20 30 50 50 50 50 50 100 100 100 100 50 50 50 50 50
4.	Tablets	
	1. Crocin 2. Brufen 3. Nimulid 4. Perinorm 5. Avil 6. Prednisolone (5 mg, 10 mg) 7. Sorbitrate (5mg, 10 mg) 8. Depin Capsules (5m, 10 mg) 9. Domstal (10 mg) 10. Alprax (0.25mg) 11. Norflox TZ 12. Metronidozole 13. Furoxone 14. Digene 15. Buscopan (10 mg) 16. Ciplox (500 mg) 17. Septran 18. Amoxycilin 19. Asthalin 20. Oral Rehydration Salt (ORS)	500 500 500 100 500 100 100 100 100 100 100 500 500 500 500 100 300 500 500 500 500
5.	Liquid Preparations (six bottles)	
	1. Septran syrup 2. Ampicillin Syrup 3. Furozone Syrup 4. Paracetamol syrup 5. Metronidozole syrup 6. Ibugenic syrup	30 30 30 30 30 30
6.	Miscellaneous	
	1. Soframycin Ointment 2. Silver sulfadiazine cream 3. Eye drops ciplox 4. Ear drops-ciplox	10 10 30 30

	5. Band Aid (assorted two packets)	30
	6. Methylated spirit	3 bottles
	7. Savlon	3 bottles
	8. Betadine	3 bottles
	9. Sterile cotton (200 mg)	30
	10. Cotton gauze (3'x 3')	100
	11. Cotton Roll (big size)	30
	12. Cotton bandage	100
	13. Leucoplast	30
	14. Eye pads	30
	15. Crepe Bandage (6"/3")	30
	16. Slings –elbow/ Shoulder	30
	17. Gloves (size 6 ½ , 7 ½)	30