

Technical Specification for medical equipment for 59 ambulances under National Ambulance Service

1. Cervical Collars
 - a. Hard Cervical Collars of reputed manufacturer's make
 - b. Three sizes – large, Medium , Small
2. Ambu Bag Adult –Silicon
 - 1600ml. self inflating double ended silicone bag with mounts
 - Siliconised
 - Side feed oxygen inlet
 - Type "L" non-rebreathing valve
 - Size 4 Clearhood facemask with silicone cuff
 - 1.5mtrs oxygen enrichment tubing
 - In carrying case.
3. Ambu Bag Child- Silicon
 - 500ml Self inflating double ended silicone bag with mounts
 - Side feed oxygen inlet
 - Type "L" non-rebreathing valve with pressure limiting device 40cms of water
 - Size 0A Circular Paedi All Silicone facemask
 - Reservoir Hose (5037) with Adaptor (9034) to provide higher oxygen & 1.5mtrs oxygen enrichment tubing
 - Carrying case
4. AC / DC - Suction Pump
 - 0 to 30 Lits flow rate
 - High Vacuum below - 300 mm of Hg & High Vacuum of - 800 mm of Hg
 - Portable & with a mounting bracket.
 - Battery back up of 90 minutes minimum- rechargeable in ambulance
 - Collection bottle 600 ml capacity and e-Sterilizable
 - Overflow protection ensured
 - Weight not more than 5 Kgs
5. Bed Pan Plastic

Resistant to stains & cracks

Contoured design molded plastic for adults with wide seat

Can be boiled or autoclaved up to 275 degrees F

350-pound weight capacity
'pontoons' on sides to aid stability
Recessed tailbone area for comfort

6. BP Apparatus dial

2-tube rubber arm bag and chrome plated air control valve with rubber bulb.
I.S.I. mark & able to withstand hard daily use.
0 to 300 mm of Hg scale
Good Finishing and Fine numbering with background of good visibility

7. BP Apparatus Digital

- Motion tolerant,
- self inflating,
- ± 2 mm of Hg systolic or Diastolic,
- AC / DC , Rechargeable in Ambulance

8. Cervical Collar Large

Hard Cervical Collars of reputed manufacturer's make

9. Cervical Collar Medium

Hard Cervical Collars of reputed manufacturer's make

10. Cervical Collar Small

Hard Cervical Collars of reputed manufacturer's make

11. Collapsible Stretcher

Auto Loader – Collapsible stretcher

- a. Automatic Loading, made of aluminum alloy with side lock system on floor.
- b. Collapsible. Wheeled to slide into the ambulance with ease with out damaging the ambulance floor.
- c. One person should be able to raise and lower it into an ambulance easily.

- d. Provision for head end elevation adjustable. Sitting posture for breathless patients -
Maximum Angle of the Back 60°
- e. Side Railings to prevent fall of patients either side and to hold medical equipment
- f. IV fluid holding rod to go with the Stretcher
- g. Should be light, safe and reliable trouble free.
- h. Levers to control front and hind legs to fold while loading the stretcher in to the ambulance.
- i. Lock to lock & unlock the legs to prevent collapse of the stretcher while standing
- j. Locks for the wheels.
- k. Straps 3 in number to restrain the patient.
- l. Fixing devices to secure the stretcher in place not allowing side to side or vertical movements in the ambulance while on run.
- m. 50 mm thick high density foam mattress with Head rest -up holstered with water proof and fire proof rexin
- n. Net weight : 40 Kgs Gross Weight 50kgs
- o. Bearing Pressure or minimum load: 159Kgs.
- p. Product dimensions: 190*54*90 cms

12. Glucometer

- Should be a hand held meter
- Should require no routine maintenance
- Should have reading range/linearity from 20 to 600 mg/dl
- Should have a maximum reading time of less than 10 seconds
- Should use electrochemical technology
- Should use a minimum blood sample less than 1.5µl
- Should have a LCD display
- Should have measuring unit in mg/dl.
- Should have wide operating temperature
- Should have a minimum memory of 50
- Should have life time replacement offer
- Should have easy code entry technique
- Battery should be replaceable
- Should have facility to ensure accuracy of measurements.
- Should have safety certificate from a competent authority CE / FDA (US) / STQC CBcertificate / STQC S certificate or valid detailed electrical and functional safety test

13. Kidney Tray

20 cms. x 15 Cm x 4 cm

18/ 8 Stainless Steel.

500 ml capacity

14. Mouth to mouth respirator-Adult- Manufactured by a reputed manufacturer

15. Mouth to mouth respirator-Child- Manufactured by a reputed manufacturer

16. Needle and Syringe destroyer

Burn the needle electrically and cut the syringe tip.

Maximum weight 2.5 Kgs

Motion Tolerant

17. Oxygen cylinder with regulator and humidifier

Oxygen Cylinder D Type

- Chrome Molybdenum Alloy 34 Cr
- Capacity :: 46.7 Ltr cap
- Working pressure : 150kg/cm² at 15 c
- Test Pressure : 250kg/cm² at 15o c
- Wall thickness : 5.5 mm min
- Gas (O₂) : 7 cumtr (7000 ltr of O₂)
- Standard : IS 7825 part II
- Valve : IS 3224
- Statutory certifications : ISI Standards,BMP Certification WHO & Certified by Dept Explosives – Gol

Oxygen Key

- Matching Key cum Spanner to release oxygen - same key may be used to release oxygen from portable cylinder.

18. Oxygen Flow meter

19. Pulse Oxymeter with charger

Battery operated with integral display on finger tip

Rechargeable batteries along with charger

With motion tolerance

CE marked / ISI marking is mandatory

Multi directional display

20. Pupillary Torch

For quick and effective evaluation of pupillary reflex.

Spot illumination with out peripheral ring of light.

Easy to handle and easy to power on and off.

21. Scissors 6" with round tip

22. Scoop Stretcher

Should be light, safe and reliable. Made of aluminum alloy

Clutch Design (Lateralised / in center) so that the stretcher can be divided into left and right halves.

Adjustable length according to patient's height.

Easy to lock and unlock

3 Quick release buckle belts

Dimensions: Max. Size (L*W*H) : 225*45*6cm &

Min. Size (L*W*H)

168*43*7cm

Net weight: 9Kgs

Stretcher bearing: 159kg

190*54*90cm

23. Spine Board- Stretcher with head immobilizer

High Density Poly ethylene - Single piece

Rigid , Light & Floatable

Resistant to bumps and corrosion

Non absorbent, immune to infiltrations

Easy to clean- water & soap should be enough.

X ray & MRI compatible

Net weight: 9Kgs Load Capacity : 159 Kgs

L*W*H : 184 * 45 * 5

Rigid Head Blocks

- 24. Splints- Long arm
- 25. Splints- Long leg
- 26. Splint roller- (36"x4.25"/18x4.25")
- 27. Splints- Short arm
- 28. Splints- Short leg

For item no 24-28

- Shall be of 4 different kinds : Short Arm, Long Arm, Short Leg, Long leg
- Malleable
- X Ray translucent, MRI compatible
- Medical grade, non absorbent, closed cell foam padding on one side and High quality, resilient open cell foam padding on the other side
- Shall offer immobilization support in favorable anatomical positions

29. Sputum cup Steel

Cup with hinged cover to close completely made of high finish 18/8 steel

30. Stethoscope

- a. 125 gms weight, 76 cms length. Tunable diaphragm and a bell with out removing the chest piece from the point of auscultation.
- b. High quality buffed stainless steel snap tight ear tubes
- c. Poly vinyl chloride double lumen tubing 76 cms in length.
- d. Soft sealing ear tips.

31. Thermometer- Digital

Battery operated,
with on and off audio alarm,
Measurable in Fahrenheit and Centigrade.
Memory of the last reading

32. Clothed Stretcher

33. Tele ECG Machine

Specifications for Remote ECG on Mobile System

- Portable 12 lead ECG machine.



- Large 3.5" TFT display with touch screen.
- Minimum 20 patient's storage memory.
- Inbuilt GSM / GPRS modem for ECG transmission.
- Inbuilt rechargeable battery with 20 hours of stand-by time.
- 3 channel thermal recorder to print ECG at patient site.
- The ECG should reach consultant within 5 min. from transmission.
- Two way Transmission should be Possible i.e. From Technician to Doctor and from Doctor to technician
- Software Support for all types of smart phones (Android, Blackberry, Windows, I Phone).
- Support of Web portal for anywhere, anytime access of ECG .
- Support Auto-interpretation & manual reporting from Web portal.
- Should comply with CE / FDA standards.
- Should be supplied with all the standards accessories including carry case.
- 1 years warranty.
- Should have capability to print on A4 size ordinary paper
- Should have flexibility to send ECG to multiple consultants

- ECG device Specifications.
 - Should capture and display all 12 leads.
 - ECG signals should be good quality free of artifacts
 - Should be able to transmit signals from any region of the state.
 - Should have sampling rate of 500 / sec.
 - Should have CMRR > 100 db
 - Storage of ECG 20 past ECGs.

34. Nebulizer

Atomizer (Diaphragm-type / Piston-type) electric aspirator. Compressed air nebuliser

Motion Tolerant and for continuous use in Pre Hospital.

Operating voltage: 230 V AC with (preferred with Battery back up (with minimum 90 minutes backup)

Maximum pressure 3.5 bar

Air power: 14 litres per minute

Aerosol output: 106 µl per minute

Residual volume: 1.24 ml

Droplet size: MMAD 3.3 microns

Filling volume: maximum 7 ml

Noise level: 55 dBA

In built thermal cut off systems may be desirable.

Provision for fixing/Hanging in the Ambulance desirable.