

The following Equipment specifications were finalized by the technical Committee:

1. Crash cart:

1. Overall size shall be >900 mm length * 500 mm width *1500 mm height (all numerical parameters will have tolerance of +/- 10%).
2. Should be made of 25.4mm * 18 gauge SS tubular framework.
3. Should have push handle on one side.
4. Should have SS shelf, 18 coloured removable bins and 2 polystyrene lockable storage units with 3 drawers each.
5. Facility to carry ECG monitor, defibrillators etc. On open areas on top shelf of dimension 500 mm in length, thickness of 1 inch and width of 12-15 inches
6. Should have movable saline rod of SS 304 grade, 12mm diameter, and 1metre length with 2 hooks.
7. 2 accessory mounting brackets to mount accessories anywhere without the need of pre threaded holes.
8. Crash cart should be mounted on 12.5 cm diameter, non- rusting, swiveling caster wheels. Out of 4 caster wheels, 2 wheels in the front should have locking arrangements.
9. One side Oxygen cylinder stand of MS grade with pretreated and epoxy coated finish

2. Instrument trolley

The specification for the instrument trolley will be as follows:

1. Overall approximate 680mm length, 450 mm width, and 900 mm height
2. Sturdy framework made of 16 gauge SS 304, 1inch tubular frame mounted on 4 castor wheels with appropriate brakes (minimum 2) of 100 mm diameter.
3. Should have 2 stainless steel 16 gauge, SS 304 grade double press bent mirror polished shelves with 8 mm protruding railing on 3 sides, 3 inches above the top shelf. The railings should be placed 2.5 inches above the top sheet. In the lower shelf, similar railing should be placed 6 inches above the shelf.
4. The above items must confirm to the BIS Standards
5. Warranty for 3 years

3. Dressing trolley:

1. Overall approx. size: 780mm (L) X 500 mm (W) X 900 mm (H).
2. Approx. shelf dimension: 750 mm(L) X500 mm (W).
3. Tubular CRC frame (1 inch) mounted on 4 caster wheels of minimum 100 mm diameter.
4. Two shelves of MS grade pretreated and epoxy coated with protective railings on 3 sides.
5. Should have provision for holding bowl and bucket.
6. Warranty of 3 years.

4. Instruments in dressing room

1. Cheatle forceps with metal jar: 2 No.
2. Artery forceps medium size (15cm): 6 No.
3. Scalpel handle, size 3 & 4 compatible blade size 11 & 15
4. Normal forceps 6 No.
5. Tooth forceps 6 No.
6. Needle holder 6 No.
7. Suture material: black silk with needle 2-0
8. Dressing drums: 6X6 2 No. 9X9 2 No. 11X9 2 No.

5. Instrument for resuscitation

(A) Adult resuscitation kit:

1. Adult Ambu Bag: 1600 ml capacity, latex free silicon make, autoclavable, self-inflating bag with non-breathing valve with 22mm OD/ 15 mm ID patient connection, with appropriate pressure relieving valve.
2. Oxygen reservoir bag with appropriate GSM and 1 m oxygen tubing.
3. Face mask: Silicon make adult, autoclavable size two, three, four & five - 1 each
4. Laryngoscope: macintosh type – green line standard handle with set of 4 compatible blades (1 each for infant, child and adult size with 1 extra-large blade).
5. Laryngeal mask airway: size-3 and 4, disposable type, 1 of each.
6. Should be ISI/CE/FDA certified.
7. Warranty for 12 months.

B. Neonatal Resuscitation Kit

1. Ambu bag with oxygen reservoir. Should be reusable, made of silicon rubber of International standard. Ambu bag volume: 250 ml and 500 ml. Should have pressure release valve (40 cm of H₂O). Should be supplied with oxygen reservoir and connecting tube of 1 m.
2. Round facemask (cushioned) neonatal size no: 00 and 01-one each.
3. Laryngoscopes handle with millers two straight blades: size 0 and 1.
4. CE/ISI/FDA/ISO certified

6. Spotlight or Focus Lamp:

1. Clinical purpose: widely used in labour ward for focusing specific area such as perineum for the purpose of conducting delivery and suturing the episiotomy wound.
2. Technical characteristics: LED light; minimum illumination 40000 lux; height adjustment ≤ 440 mm and radial and axial movement of the lamp.
3. User interface manual.
4. Heat dissipation: should maintain nominal temperature and the heat should be disbursed through a cooling mechanism.
5. Power requirement: Recharging unit: input voltage: 220- 240 Volts AC 50 Hz.
6. External / In Built Battery operated with minimum 2 hour backup
7. Protection should have over charging cut off with visual symbol.
8. Atmosphere: operating condition: Capable of being stored continuously in ambient temperature of 0 to 50 degrees C and relative humidity of 15 to 90%.

9. Should be FDA/CE/BIS / ISO 13485 approved product.
10. Electrical safety confirms to the standards for electrical safety IEC 60601-1 general requirements.
11. Shall meet internationally recognized standards for electromagnetic compatibility and interface IEC 60601-2-4 for usability.
12. Manufacturer should have ISO certification for quality standards.

7. Instruments for conducting Delivery

1. Scissors (cord cutting)
2. Artery forceps : 2 No.
3. Cord clamp: 2 No.
4. Sponge holder: 1 No.
5. Speculum: 1 No
6. Kidney tray: medium size 1 No.
7. Bowl for antiseptic lotion: 1 No.
8. Tray size 9 X 12 inch

8. Episiotomy tray

1. Episiotomy scissors: 1 No.
2. Kidney tray: medium size 1 No.
3. Artery forceps: Mosquito forceps 2No &
4. Allis forceps: 2 No.
5. Sponge holder: 1 No
6. Toothed forceps: 1 No.
7. Needle holder: 1 No.
8. Thumb forceps: 1 No.

9. Electric suction apparatus

1. Should be complete stainless-steel body/ any non-corrosive material.
2. Should have pump air flow rate of minimum 30 to 40 Liters /min.
3. Should have vacuum above 580 mm Hg.
4. Should have variable knob for adjusting pressure /flow rate.
5. Should have secretion container of 2 L capacity 2 jars.
6. The hose connection between the suction system and the secretion jar should be less than 15 cms.
7. Should have hygienic bacterial filter with overflow protection.
8. Should have sound level maximum of 55 to 65 dB.
9. Should have motor capacity of minimum 0.5 HP (half HP) working power of 220/ 230 volts single phase.
10. Should have power supply indicator, suction on indicator, unit ON/OFF 5 amps DP switch, protector fuse and minimum chord length of 5m with 5 amps 3 pin top.
11. Should be mounted on easy moving caster wheels.
12. Warranty of 3 years.

10. Vertical Auto Clave

S.N.	Specification
1	Vertical Autoclave - Cylindrical type (steam sterilizers) 6 KW: Size D X H (mm): 400 x 600
2	Load KW: 6(3ph)
3	Material: Lid ring & lid, outer cover-SS 316.
4	Vertical Cylindrical type steam sterilizers pressure type shall have single door.
5	The immersion heater used for electric heating shall have mineral filled sheathed heating elements and shall be BIS marked and complying with safety requirements.
6	Autoclave should confirm IS 3829.
7	The immersion heater shall be wired for operation on 3 Phase, 4 Wire, 400/440 V AC supply.
8	Air shall be removed from the sterilization chamber after loading the sterilizer by one or more pressure / vacuum pulsing for proper steam penetration.
9	9a) The control will be of independent switch or Microprocessor Chamber Jacket Door 9b) Door Ring used shall in SS-316 Grade Material wherever applicable
10	Nuts and Bolts used shall be in SS-304 Grade material for all items.
11	The Sterilizer shall be of the following size/type and corresponding electric loads
12	Standard Certification of ISI / ISO / CE / FDA

11. Wheelchair (non-foldable):

- Overall size: 670 mm Width * 1120 mm Diameter *920mm height.
- Should be made of 16-gauge SS304 grade, tube frames and 16-gauge SS 304 sheet for seat and back rest.
- Should have a fixed arm rest.
- Should have a reticulated and breathable cushion of 2 inch thickness as backrest and seat.
- There should be restrainer belts- with latch locking for patient safety
- Should have two minimum 6" diameter swivel nylon caster front wheel, 24" bicycle type rear wheel with solid tyres.
- Two handles are provided with the hand grips.
- Back wheel fixing bolt shall be covered with cup type nut.
- Should have breaking system on both sides.
- All pipes & foot rest to be made of SS304.
- Should confirm to ISO 7176-1 2014/ ISO 9001 certification.
- Warranty of 3 years.

12. Stadiometer:

1	Folding	Fully folding stretcher
2	Brand	STANDARD STEEL
3	Usage/Application	FOR HEIGHT MEASURING
4	Measuring Range	214 CM
5	Accuracy	100%
6	Type	FOLDING
7	Range	8 TO 214 CM
8	Display	MANUAL
9	Weight	2.5 kg
10	Graduation	in MM
11	Material	Light weight ABS

13. Infantometer:

1. Colour: white
2. Form Factor: Foldable
3. Material: Acrylic

About this item

4. Sleek broad acrylic base with one sliding side adjustable as per length of baby, dual scale for direct reading in cms / inches upto 90cm.
5. Folding sides for easy storage, baby can comfortably lay on the chest of the scale.
6. Size approx: 18" x 7" (Length x Width).
7. PACKING: Packed in a cardboard box which ensure safe delivery upto final destination.
8. Baby can comfortably lay onto the chest of the scale.

14. Instruments for Audiometry

1. Head light
2. Otoscope
3. Ear specula
4. Ear syringe
5. Jobson Horne probe
6. Tuning fork (512Hz) noise maker

14.1 Headlight:

Positioning		Head Band
Body Material		PVC
Light Source Type		LED
Light Color		White
Usage/Application		Hospital
Country of Origin		Made in India

1. Should be a cold headlight system suitable for ENT Operating Theatre with provision to adjust light intensity.
2. Should have head light adjustment side to side and up and down and Multiple position swivel head - 180° rotation, made of chemical resistant resin and includes adjustable comfortable elasticated light weight head strap with lock.
3. Should be a coaxial fiber optic light headlight with a variable light spot.
4. Should have focusing sleeves for uniform quality illumination.
5. Should use a halogen light source with spare lamp and should have provision to change over in the event failure of the primary bulb
6. Noise (in dBA) <50 dB
7. Should work with input 200 to 240Vac 50 Hz supply.
8. Should have in built rechargeable battery.
9. Recharge should be possible with direct mains supply

14.2. Otoscope:

Magnification of lens	2.5 x
Diameter of ear specula	2.5 mm, 4.0 mm
Luminance	24 Lumen
Battery type	Alkaline battery

1. 3-point 5V LED Bulb.
2. Should be a convenient pocket type otoscope.
3. Swivelling viewing with at least 3x magnification.
4. Should be able to detach the otoscope head.
5. Should provide no reflections and obstructions.
6. Should provide detachable accessories of various sizes.
7. Should have in built rechargeable battery. Recharge should be possible with direct mains supply
8. Should work with input 200 to 240Vac 50 Hz supply.

15. Instruments for refraction

1. Trial Set
2. Trial Frame (Adult & Child)
3. Vision Testing Drum (LED)
4. Plane mirror for Retinoscopy
5. Streak Retinoscope
6. Snellen Chart
7. Schiottz Tonometer
8. Epilation forceps
9. Lid Speculum
10. Direct Ophthalmoscope

16. Digital weighing machine (adult):

Weighing scale is based on highly exact, responsive and consistent mechanism for delivering long trouble-free service life.

1. Suitable for hospitals, clinics.
2. Anti-skid, tempered glass, auto-calibration.
3. Accurate reading.
4. Capacity: 180 kg +/- 100 grams.
5. Net weight: <2 kg.
6. Size: all sizes of adult weighing scale is acceptable.
7. LED/LCD display.
8. Should be battery operated.
9. Warranty of 3 years.

17. Cheatles Forceps with Metal Jar

- 10'' Good Quality SS Mild Steel – Metal Jar to keep Cheatles Forceps

18. H2S Strip test kit

1. Sterilized
2. Durable, Easy to use, high efficiency, Portable.
3. Indicative type (presence/absence).
4. Usage: Hospital, Laboratory, Clinic.
5. Bottle Material: Neutral Glass.
6. Application: To be used for detection of pathogenic bacteria in water.
7. Use Type: Single Use

Performance Parameter:

Ambient Temperature (max) :45 degree Celsius

Incubation Time Period: Up to 48 hours

Ambient Temperature (min): 25 degrees Celsius

19. Choloroscope:

An Ideal apparatus for residual chlorine estimation in water.

Instruments & Accessories follows

- Chloroscope instruments for testing chlorine.
- 10ml glass test tube with marking
- glass stirrer to mix the solution in water
- brush for cleaning the test tube
- O.T. solution bottle
- instrument cleaning book

20. Xray view Box:

On-Off function & rotary continuous adjustable brightness control at the bottom of panel for convenient operation

Frame made of Electrophoresis Coated Aluminum Alloy and Acrylonitrile butadiene styrene (ABS) Plastic

Front viewing screen made of high quality Polymethyl Methacrylate (PMMA) Flicker free high frequency light for reduction of eye strain

21. Thomas Splint (all 4 size):

Size – 50x15, 73x19, 89x21, 95x23, 102x25

A leg splint consisting of two rigid rods attached to an ovoid ring that fits around the thigh; it can be combined with other apparatus to provide traction

Sizes : Child, small, Medium, Large
