

**Equipments to be provided under National Programme
for Prevention and Control of Deafness**

To the district hospital

1. Surgical operating Microscope for ENT use
2. Microdrill System
3. Ear Surgery instrument
4. Indigenous Digital Audiometer
5. Impedance Audiometer
6. OAE Analyzer
7. Sound proof room

To the CHC and PHC

1. PHC Kit
 - a) Head Light
 - b) Ear Specula
 - c) Ear Syringe
 - d) Otoscope
 - e) Jobson Horne Probe
 - f) Tuning fork
 - g) Noise Maker

Technical Specifications of the above listed equipments

Technical specifications of the equipments to be procured under National Programme for Prevention and Control of Deafness

SURGICAL OPERATING MICROSCOPE FOR E.N.T. USE-

Surgical Operating Microscope with heavy sturdy floor base with precision to produce sharp images with following specifications,

Magnification Range	:	4X to 25X, in 5 steps.
Field of View	:	52 mm to 8 mm
Objective Focal Lengths	:	200mm//400mm
Fine focusing range (Manual):	:	24mm – 30mm
Tilt Range of optical head	:	Axial + 90deg. With side tilt provision

Illumination: High intensity up to 100,000 Lux with built-in cold light source with fiber optic light guide with provision for filters.

The microscope should be versatile with provision to tech accessories like CCTV Attachment, single monocular co-observation tube.

- Two years warranty /Guaranty to be given with the equipment.
- Rates for five years comprehensive maintenance contracts to be quoted separately after warranty period.
- Minimum of two routine maintenance services/inspections to be provided annually.
- The rates of Comprehensive Maintenance Contract (CMC) for 5years should be quoted along with the price rate. CMC rates will be included in calculating the total cost for evaluation of price bids.
- Price quoted should be inclusive of their installation at site.

MICRODRILL SYSTEM-

Micromotor system having following specifications:

Speed Variation	:	Maximum should not be less than 30,000 rpm
Rotations	:	Clockwise & Anticlockwise
Foot Control	:	Variable speed type

Surgical type hand pieces suitable for ENT– Straight type & angled type.

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EAR SURGERY INSTRUMENTS-

The surgical instruments should be made using top quality medical grade hardened stainless steel with defined specifications like AISI-410, AISI-420, AISI-304, AISI-303, AISI-440 etc. using guidelines of ASTM standard F899-94 and ISO 7153 and with a dull finish.

Each centre will procure at least two sets of following instruments used for microsurgery of the ear.

1. Mollison's Mastoid wound retractor
2. Ear speculum (black finish) Set of 5 of different sizes
3. Self retaining ear speculum Set of 3 of different sizes
4. Perichondrium/Periosteal elevator
5. Cell seaker
6. Lempart curette Set of 3 of different sizes
7. Crocodile forceps-micro
8. Cup forceps/granulation forceps- micro
9. Myringotomy knife
10. Tympano meatal flap elevator
11. Circular knife
12. Flag knife/Radial knife
13. Straight needle/pick
14. Curved needle/pick
15. Right angle Needle
16. Sickle knife
17. Micro scissors - straight,
18. Set for stapedectomy
19. Micro suction tips Set of 5 of different sizes
20. Set of Burrs : Tungston Carbide Cutting and Diamond Polishing Burrs.
(size 2mm, 3mm, 4mm, 5mm, 6mm, 7mm cutting and
polishing)–
21. Oscopes with 3.5 volts rechargeable battery with battery charger.

INDIGENOUS DIGITAL AUDIOMETER-

Essential

Power supply: 220 Volts, 50Hz

Transducer: headset with earphones (TDH 39, TDH 39P, TDH 49) & supraaural ear cushions (MX41 AR), insert earphones, bone vibrator (Radio ear b-71), Talk over microphone, Talk back microphone

Patch cords

Stimuli

Type: Pure tones (continuous, pulse tone, interruptor), Narrowband noise, speech noise, speech (monitored live voice and recorded voice)

Frequencies: 250Hz to 8000Hz in octaves for air conduction 250Hz to 4000Hz in octaves for bone conduction

Intensity:

-10dB HL to 120dB HL in steps of 5dB for air conduction

-10dB HL to 70 dB HL in steps of 5 dB for bone conduction from 250Hz to 4000Hz
Power supply: UPS/Battery backup & mains.
Self-calibration

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IMPEDANCE AUDIOMETER-

Essential

Power supply: 220 Volts, 50Hz

Probe tone: 220 or 226 Hz

Probe assembly with contralateral test facility (with supra aural earphones: TDH 39/TDH39A/TDH49/TDH49A/TDH 50 with MX 41 AR ear cushions or insert earphones (ER Tone 3A)

Test cavities (0.5, 2, 5 cc)

Probe tips - assorted

Printer

Tests required

- Compensated tympanometry (ear canal volume and tympanometric peak pressure)
- Ipsilateral and contralateral acoustic reflexes

Air pressure range: + 200da Pa to - 400 da Pa

Stimuli for acoustic reflexes:

Type: Pure tones

Frequencies: 500Hz, 1000Hz, 2000Hz and 4000Hz

Intensity : up to 120 dB HL

Power supply: Battery operated & main

Self-calibration

- Two years warranty /Guaranty to be given with the equipment.
- Rates for five years comprehensive maintenance contracts to be quoted separately after warranty period.
- Minimum of two routine maintenance services/inspections to be provided annually.
- The rates of Comprehensive Maintenance Contract (CMC) for 5years should be quoted along with the price rate. CMC rates will be included in calculating the total cost for evaluation of price bids..
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OAE ANALYZER

Essential

Power supply: 220 Volts, 50Hz

Type of OAE: TEOAEs, DPOAEs

Stimuli: clicks at 80dB SPL for TEOAEs and 40-70 for DPOAEs

Stimuli frequency: 500 to 8000Hz; Intensity: 0-85 dB SPL, 5dB steps

Automatic F1 and F2 ratio calculation

Low battery warning

Serviceable probes; probe mount

Probe tips – assorted
Cleaning kit
Printer
Power supply: Battery operated
Can be used as stand alone or with a PC
Self-calibration
Separate probe for infants and adults

- Two years warranty /Guaranty to be given with the equipment.
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SPECIFICATION OF SOUND PROOF ROOM-

Chamber features:

1. A single chamber sound treated room.
2. The wall of the chamber will be cavity walls filled with Sound insulation material.
3. The inside of the cubicle will have acoustic treatment on wall and ceiling and sound absorbent flooring.
4. Inner size of the cubicle should not be less than 8 ft. X 8 ft.
5. Air Conditioner: Split type at least 1 ton. A.C. should be fitted inside the chamber.
6. Door : There will be one sound treated door for the main entry which will be of 750mm (W).
7. Chamber should have one double glass window of at least 2ft.X 2ft.

PHC Kit-

1. Features and Specifications of Head Light

- Combination of xenon bulb and LED bulbs
- 18 lumens, xenon: 7.5 lumens, LED
- 90 degree tilting head
- Water resistant
- Push button switch
- Unbreakable polycarbonate lens
- Weighs less than 5 Oz with batteries
- Runs on alkaline batteries

2. Ear specula

- Troeltschs ear specula, adult size, set of 3
- Troeltschs ear specula, infant size, set of 3

3. Ear Syringe

- Ear syringe – stainless steel, 4oz capacity, 3 nozzles of varying sizes.

4. Otoscope

- All Plastic Moulded Head.
- 2.5v Halogen Bulb.
- Acrylic viewing window with magnification.
- Swiveling viewing window built into instrument.
- Four (4) Reusable Specula of different sizes.

5. Jobson Horne Probe

- Double ended --- serrated tip& smooth ring, length 140mm.
- Made up of good quality rust free stainless steel material

6. Tuning fork

- Of frequencies 512Hz
- Made up of good quality rust free stainless steel
- Should have minimum Decay time of 40 sec.
- Footplate should be present

7. Noise Maker

- Rattle toy made with food grade plastic.