



Notice Inviting e-Tender

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Procurement of Different Medical Equipment for Calcutta National Medical College & Hospital
(Submission of Bid through *online*)

Bid Reference No.: WBMSCL/NIT-031/2025

Dated-10.01.2025

The following amendment has been made in the tender document,

Amendment – 2

Revised Technical Specification

Schedule-I

Portable Ultrasound Unit

A state of art fully digital, compact portable Colour Doppler Ultrasound machine (weight < 7 kg) with pin-less transducer technology is required with following technical features

1. Unit should be able to give very high Image quality with advance technologies like compound imaging for better cardiac contrast resolution, tissue differentiation and edge detection, equivalent to high end cart based systems. Please specify the technology
2. System should be able to support speckle reduction imaging for better tissue differentiation and edge enhancement please specify the technology
3. The system shall have the ability to enhance tissue margins and Improve contrast resolution by reducing artifacts and Improving visualization of texture patterns & needle tip within the Image, please specify the technology
4. System should have both online (Read) as well as offline(Write) zoom facility
5. Imaging modes of Real time 2D, Colour Doppler, Pulsed wave Doppler, Continuous wave Doppler, Power Doppler must be available on all cardiac transducers
6. System must have fast start up to scanning in less than 120 seconds from off condition, for use in critical and emergency situations
7. System should support transducer technologies like phased array, convex, linear, TEE etc.
8. Cone memory on all modes.

9. The system shall process a dynamic range that is at least 165db The system must display at a maximum depth of 35 cm
10. The system must have a dedicated cardiac calculation packages With PISA, TDI calculation packages, vascular calculations package.
11. The unit must be compact, portable and lightweight, weighing less than 7 kg.
12. Unit must be sturdy, resistant to breakage & damage on fall/hit against the wall or hard surface for use in emergency situations.
13. Flat LCD/ TFT monitor of at least 12 Inches with flicker free image
14. Alphanumeric soft keys keyboard with easy access scans controls & touch pad, facility to sanitize the system keyboard to avoid cross contamination
15. The system must have the ability to function by AC/DC or battery power with the same degree of functionality the battery life (run time) shall be at least 1.5 hours, this need to be demonstrated.
16. The system must have archive capability for storage and retrieval of Images and clips data.
17. Data transfer facility should be available as standard, to transfer images etc easily onto another system/computer etc.
18. The system shall support the all DICOM functionality, Storage, Print, and Work List, also ready to connect to PACS
19. System should posses software for Enhanced Needle Visualization to track the needle clearly at steep angles during the procedures while maintaining striking image quality of the target structures and the surrounding anatomy With simple On/Off functionality With convex and linear transducers.
20. The equipment should be mountable on trolley & locking mechanism should be inbuilt into the trolley for safety & security of the system
21. Suitable online UPS to be supplied with machine with min 30 mins backup.
22. Transducers to be supplied as standard
 - 4-8 MHz (± 1 MHz) multi-frequency broadband Phased array transducer for Pediatric
 - 4-9 MHz (± 1 MHz) Abdominal Micro Convex Pediatric
 - 6-13 MHz (± 1 MHz) linear probe for Pediatric
 - Neonatal Head applications
 - Minimum 3 port & probe to be supplied with the machine
 - Mobile cart with transducer holder and space for printer from same OEM

Warranty: The unit and main transducers should be covered with comprehensive onsite warranty for five years commencing from the date of issue of installation certificate.

Essential Requirement:

Onsite training to end users and education material must e provided post installation of the system.

Certification: Should submit valid CDSCO Certificate/ Registration/ License for both the manufacturer(s) and importer(s) as applicable.

Schedule-II

Paediatric Video Bronchoscope

1. **Video Processor:** Should be latest and high end model. It should be separate or integrated model.
 - Should be compatible with Analog, HD-SDI and DVI-D output & 16:9 & 16:10 output for a HDTV monitor should be available.
 - Compact, lightweight (10-11kg) and ergonomically designed

- Should have optical band imaging facility like NBI/ BLI & LCI/ OE – ISCAN
 - Recording of both still images
 - Portable Memory & USB Slot for image recording
 - Automatic IRIS control & automatic white balance
 - Picture in Picture display & Index function ability.
 - Electronic Zoom up to 1.5X.
 - Equipped with memory back up for setting.
 - Should have pre freeze function for image stabilization.
- 2. Light Source (Xenon short are Ozone free 300 Watt lamp/LED):**
- Equipped with Band Imaging capability with high intensity Xenon Light source (300W) or LED light source.
 - Compatible waterproof connector (with or without soaking cap).
 - Equipped with special filter for Band Imaging
 - Backlit front panel indicators.
 - Emergency halogen/LED light for backup.
 - Equipped with automatic light adjustment forced air-cooling, regulated air feeding pump and fan with low noise.
- 3. Video Bronchoscope**
1. It should have high resolution/ definition image quality with crisp, clear images and true-to life Color.
 2. Should have facility for pressure regulated leakage testing through inbuilt / manual air pump of light source.
 3. Should have optical band imaging facility like NBI/ BLI & LCI/ OE – ISCAN
 4. Scope should have four minimum user programmable remote switches to improve operability.
 5. Insertion Outer diameter should be 5.5 mm or less.
 6. Channel diameter should be 2.0 mm or more.
 7. Insertion tube length should be 600mm or more.
 8. Field or view should be 120 degree or more.
 9. Depth or Field should be 3-100mm or better.
 10. Angulation-UP-180 degree, Down-130 degree or better.
 11. Minimum visible distance should be 3mm or less.
 12. Should be compatible with laser and electrocautry.
- 4. High Resolution Medical Grade LCD Monitor:**
- 26 inch full HD LCD monitor with high resolution
 - Lower Power consumption
 - Should be light weight
- 5. Compact Trolley**
- 6. Computer with Laser printer**
- 7. Software for image capture**
- 8. Certification:** Should submit valid CDSCO Certificate/ Registration/ License for both the manufacturer(s) and importer(s) as applicable.

Schedule-III

Paediatric Fibre Optic Bronchoscopy

- i) Paediatric intubating Fiberscope
 - a. Paediatric intubating fiberscope OD 3.1 mm or less

- b. Fiberscope for difficult intubation having OD 3.1 mm or less in order to be compatible for minimum ETT size 3.5 and above with working length strictly not less than 65cm.
 - c. Up/down tip deflection should be same 120/120 degree or better.
 - d. Scope should have length calculation marks preferably 5cm each.
 - e. Should have light source connection for LED operated light as well as via light cable for electricity operated light source.
 - f. Total length should be ranging between 98cm.
 - g. It should have inbuilt suction port which can be attached to already available suction machine and should have an instrument of 1.15 mm or more to use flexible forceps or for oxygenation
 - h. Scope should have very good image quality and can be attached through camera for visualizing on monitor
 - i. Scope should have 90 degree angle of view and 0 degree direction view.
 - j. Standard accessories for operating, cleaning & maintenance of the equipment
- ii) Suitable for following applications
1. Bronchoscopy
 2. Endotracheal intubation (Gold standard for difficult airways)
 3. Foreign body removal
 4. Bronchial lavage
 5. Inspection of the airways
 6. Dilatation tracheotomy
 7. DL T placement for 29 french and more

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Schedule-IV

Paediatric Flexible Upper GI Endoscopy

A. Video Gastroscope (UGI):

- It should have superior image quality with crisp clear images with megapixel CCD camera
- Should have optical band imaging facility
- Direction of view 140 degree
- Should have outer diameter of ≤6mm
- Should have an instrument channel of 2.0mm or more
- Insertion tube length of 1100mm
- Depth of field should be 3-100mm
- Angulation Up/DN – 210/90-degree or better, angulation LT/RT – 100/100 degree or better

B. High-definition / resolution video processor

- It should be compact, lightweight Digital color video processor
- It should be a high-definition video processor with 150-watt or more xenon light source/ LED.
- It should have HD Image output such as DVI-D/ HD-SDI, RGBS Connectors, Y/C Connectors and Composite video connector as Video Out
- It should have facility for a USB port on front and rear panel.
- It should have a freeze scan to temporarily select the best image on monitor.
- The processor should be upgradable to optical image enhancement technology
- It should have a digital zoom of 1.5X or more.
- The video processor should be compatible with EUS FNA for future upgradations.

C. Miscellaneous Items

1. Should be provided with a 24-inch LED backlit LCD monitor

2. Image capture software should be provided

3. Should be supplied with indigenous trolley

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Schedule-V

Computerized PFT Equipment

Computerised Pulmonary function test Machine with Body Plethysmography
Body Plethysmograph System with facilities to measure the following parameters
a) Spirometry including bronchial challenge test
b) Thoracic gas volumes
c) Airway Resistance and conductance
d) Single Breath Diffusion Capacity of Lungs (DLCO-sb) with Helium (He)/Methane (CH ₄) tracer gas
e) Maximum inspiratory and expiratory pressures
f) Intra Breath Diffusion capacity
The body box should be standard Aluminum/Acrylic with an internal volume of 950-1050 Ltrs. It should be transparent with visibility from inside as well as from outside. Operable from both sides, equipped with intercom
Should have a multiuse heated screen/Lilly/Fleisch Pneumotachograph with range, linearity, resistance and accuracy meeting or exceeding American Thoracic Society. European Respiratory Society standards
Resistance/conductance studies by booth panting and tidal breathing, software should allow annual fitting of slope to the data.
Dosimeter/Aerosol generation system controlled by software for challenge Test
Gas analysers should meet the American Thoracic Society-European Respiratory Society standards for stability, linearity, response time and accuracy
Calibration and test gases: Gas mixtures for calibration and 500 tests; Cylinders should be supplied with double stage pressure regulators
Should be supplied complete with Calibration Syringe, Trolley, Software, Manual and Standard Accessories, Pulmonary Filters (500Nos), reusable mouth pieces (100), nose clips (10), adaptors for mouth pieces, additional screen (3) (for screen pneumotachograph only) and other standard accessories
Should be supplied with compatible branded computer – Intel Core i5, 3.1 GHz, 8 Gb RAM, 21" TFT Colour Monitor, CDR/W-DVD Drive, Keyboard, Mouse, Hard Disc Drive (1Tb SATA) USB Ports, windows 7/8, PC Trolley
PC and Printer Trolley
Laser printer
Online UPS 1 KVA with 1 hour battery back-up
Only manufacturers or their authorized representative are eligible to bid for the tender. In case of authorized representatives, it is mandatory to attach authorization certificate from manufacturer for sale and servicing.
Certification: Should submit valid CDSCO Certificate/ Registration/ License for both the manufacturer(s) and importer(s) as applicable

Schedule-VI

Neonatal Transport Incubator

1. Incubator with air/skin mode heating, collapsible trolley with provision to keep re-fillable oxygen cylinder and battery.
 2. Incubator with Double Wall Canopy, Front and Head End Access Doors with Access portholes and Tubing Access Ports. (2 access doors, 2 disposable infant restraint straps, 1Iris port, 2 Quiet Touch port doors, 6 tubing ports).
 3. Digital Displays of Air and Baby Skin Temperatures, set range 22.0°C -38°C (71°F-100°F).
 4. Indicators for Mains and Battery Modes of Operation.
 5. Indicator for Battery Power Capacity: Battery condition status 4 LED indication of battery charge and heater power condition 25-100%. Maintenance free, re-chargeable. Should support all functions together continuously for at least 2 hours.
 6. Examination Light.
 7. Power mode Illuminates AC, DC, or external DC, AC and 12VDC Connectors.
 8. Front mounted gas content display.
 9. Comprehensive Alarm System: Alarm indicators for High temp, Power fail, Sensor fault, Heater temp, Air flow, Low DC.
 10. 2D or 2E size tank mounts. The tank mount permits mounting gas cylinders with a diameter of up to 4.5 in (11.6 cm) and up to 34 in (85 cm) in length.
 11. Should have O₂ concentration range 21% to 58% minimum.
 12. Should have Noise level < 60 dBA.
 13. Humidity pad Holds 400 ml. (14 oz) sterile distilled water with no significant spillage for up to 45 tilt in either direction with relative humidity 50 to 70% for 10-12 hours using humidity pad.
 14. Air filter Removes > 99% of airborne particles greater than 0.5 micron diameter.
 15. Controller Displays: On/standby Illuminates when "On".
 16. Storage temperature -40°C to 70°C ambient.
 17. Trolley: Sturdy trolley. sturdy & shock absorbing
Wheels Space for accessories
 18. Power: On mains 230V AC \pm 10%, 50Hz + 3%
 19. Should have Optional Features like Accessory shelf, IV pole, High Hood, Pressure Regulator and Flowmeter.
 20. Should have Integrated T-piece resuscitation.
 21. Manuals: Operator & Service manual should be provided.
 22. Maintenance: Warranty (2 years).
 23. Training of hospital engineers & staff.
 24. Demonstration is compulsory.
 25. Rates of consumables & accessories should be freezed for 8 years.
- Certification:** Should submit valid CDSCO Certificate/ Registration/ License for both the manufacturer(s) and importer(s) as applicable.

Schedule-VIII

Ventouse Machine/Vacuum Extractor

- Mobile unit mounted on four swiveling castors with brake system.
- Polycarbonate/Polysulphone 2*2.0 liters jar with lid fully autoclavable.
- Overflow protection, jars are equipped with overflow protection device.
- Suction tubing, non collapsible and autoclavable
- Max suction power 50~55 liters/min
- Machine is equipped with anti bacterial filter
- Vacuum range-750 to 0 mm hg
- Vacuum pump type: oil free piston headed pump
- Motor: thermally protected
- Power: 110 volts/230 volts 50/60 HZ, AC supply
- Silicon cup 30mm-3 in no.
- Silicon cup 60mm – 3 in no.

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