

**MINUTES OF THE PRE BID MEETING HELD ON 04-11-2024 AT 11:00 A.M. IN THE SYNDICATE ROOM OF THE ADMIN BLOCK IN THE CHILDREN'S HOSPITAL & UNIVERSITY OF CHILD HEALTH SCIENCES LAHORE FOR THE PROCUREMENT OF ELECTRO MEDICAL EQUIPMENT UNDER ADP SCHEME ESTABLISHMENT OF ICU AT THE CHILDREN'S HOSPITAL & UCHS, LAHORE FY 2024-25**

Reference advertisement letter No. P.C./47296-304/CH&UCHS dated 30-10-2024 regarding the Procurement of Electro Medical Equipment under ADP Scheme Establishment of ICU at the Children's Hospital & UCHS, Lahore for the year 2024-2025 held on 04-11-2024 at 11:00 a.m. in The Children's Hospital, University of Child Health Sciences, and Lahore.

- Tender uploaded E-PADS & PPRA website on 29-10-2024.
  - As per schedule given in invitation of bid a Pre-Bid Meeting held on 04-11-2024 at 11:00 am.
  - Meeting starts with the recitation of the Holy Quran. It was briefed to the Chairperson that pre-bid meeting scheduled to clarify the queries of the companies in order to avoid any misunderstanding during the bidding process. Discussion made on Bidding documents regarding the E-Pad tendering
1. "Finalization of Equipment Specifications:
    - The committee emphasized the importance of incorporating end-user feedback into the final specifications.
    - A comprehensive exercise was conducted between the firm representatives and end-users to finalize the draft specifications.
  2. End-users provided valuable feedback during the exercise, ensuring that the specifications align with their requirements and usage scenarios.
  3. Reservations received against the bidding clauses by the firms & Decision were made by the Pre Bid Committee are as under:

Sr. No	Reservation regarding the point	Discussion	Decision.
1.	Increase of Delivery period 90 days to 120 days		Delivery period is remain the same as mentioned in the bidding documents i.e.90 days
2.	Product performance for last 03 years should be limited to one year.		As per bidding documents clause 14 of form 8.12 (Bid evaluation criteria) remained the same.
3.	Valid Equipment Registration certificate of quoted Product from DRAP Pakistan		Valid Equipment Registration certificate from DRAP of quoted product. As per DRAP S.R.O 224(I)/2023 Islamabad, the 27 <sup>th</sup> February 2023. (where applicable)
4.	Allow China as country of manufacturer.		Not accepted

*[Handwritten signatures and initials in blue ink]*

**MINUTES OF THE PRE BID MEETING HELD ON 04-11-2024 AT 11:00 A.M. IN THE SYNDICATE ROOM OF THE ADMIN BLOCK IN THE CHILDREN'S HOSPITAL & UNIVERSITY OF CHILD HEALTH SCIENCES LAHORE FOR THE PROCUREMENT OF ELECTRO MEDICAL EQUIPMENT UNDER ADP SCHEME ESTABLISHMENT OF ICU AT THE CHILDREN'S HOSPITAL & UCHS, LAHORE FY 2024-25**

Sr. No	Reservation regarding the point	Discussion	Decision.
5.	ICU (motorized) Beds (Local) with mattress, bed side cabinet over head table and attendant seat.	1. Remove extended bed length. 2. Remove extended mattress. 3. Remove tilt in overhead table. 4. Remove battery backup	1, 2,3 .Approved 4 Not Accepted
6.	ICU Ventilator with Compressor	Request for allowing turbine based compressor	Not Accepted.
7.	Non invasive Monitor	Requested to amend the screen size from 15" to 12".	Accepted
8.	Invasive Cardiac Monitor	Requested to amend the screen size from 15" to 12".	Accepted
9.	Central monitoring System	55 inches LCD for extended vision locally.	Accepted
10.	Portable DR system for x ray	1. Request to change the exposure time from 1-3 sec. 2. Detector size.16x16 3. Cesium (CsI) scintillator or better Pixel size 200 µm or better. 4. A dedicated workstation of 17" or better with touch screen for system and image acquisition. 5. Dedicated soft for paediatrics to provide better image quality at low set parameters.	1. Not Accepted. 2. Amended to 14x17. 3. Cesium (CsI) scintillator or better Pixel size 150 µm or better. 4. Accepted 5. Accepted.
11.	Color Doppler ultrasound machine Medium End	1. Viewing Dept. 30 cm to 40cm. 2. Frame Rate 1000f/sec to 2500. 3. 2 - 6 MHz Multi-Frequency Convex Probe for B/M/CDI/PW, with shear-wave Elastography to 2 - 6 MHz Multi-Frequency Convex Probe for B/M/CDI/PW, with Strain and shear-wave Elastography.	Not Accepted
12.	Laryngoscope LED screen		Refer to specs provided after pre bid
13.	Blood Warmer	Decided to procure online warming system.	Refer to specs provided after pre bid
14.	Intermittent compression devices	Compression devices are not as per use of the paediatric population, Refer to DVT /Sequential Devices after Pre Bid	Refer to specs provided after pre bid
15.	Portable EEG Machine (32 Referential Channel with Electrodes)		Refer to specifications provided after pre bid
16.	EMG /NCS / VEP System, ore configured machine with accessories kit		Refer to specifications provided after pre bid



MINUTES OF THE PRE BID MEETING HELD ON 04-11-2024 AT 11:00 A.M. IN THE SYNDICATE ROOM OF THE ADMIN BLOCK IN THE CHILDREN'S HOSPITAL & UNIVERSITY OF CHILD HEALTH SCIENCES LAHORE FOR THE PROCUREMENT OF ELECTRO MEDICAL EQUIPMENT UNDER ADP SCHEME ESTABLISHMENT OF ICU AT THE CHILDREN'S HOSPITAL & UCHS. LAHORE FY 2024-25

Sr. No	Reservation regarding the point	Discussion	Decision.
17.	EEG long term monitoring with 32 referential channels, bed side camera, head cap and patient event switch		Refer to specifications provided after pre bid
18.	Pediatric Flexible Bronchoscope	It was highlighted that specs missing the part of Light Source and video recording segment whereas the PVMS is available	Refer to specifications after Pre bid

Mazhar Iqbal Noor  
Computer Programmer / I.T.  
Incharge

Engr. Irfan Haider  
Bio Medical Engineer

Dr. Yasir Ali  
AMS (Purchase)  
The Children's Hospital, UCHS

Dr. Nighat Sultana  
Associate Prof. Paediatric Intensive  
Care

Dr. Muhammad Sarwar  
Associate Prof. Paediatric  
Intensive Care

Dr. Zia ur Rehman  
Associate Prof. of Paeds  
Neurology

Dr. Syed Salman Shah  
Professor of Cardiovascular

Dr. Saeedah Asar  
Professor of Paediatric  
Anesthesiology

Dr. Abid Ali Qureshi  
Prof. of Paeds Radiology /  
Head of Radiology Department

Submitted for approval please

Medical Director

Specification for the establishment of II unit of Medical ICU

Estimated Unit Cost	415,000/-	Quantity	33
Generic Name	<b>LOCAL (ICU MOTORIZED BEDS WITH MATTRESS, BED SIDE CABINET OVER HEAD TABLER AND ATTENDANT SEAT WITH IV STAND SS)</b>		
Clinical Purpose	Suitable for use in ICU / Recovery room. Appropriate for high dependency patients who pose a moving and handling risk and whose clinical condition requires that they are positioned with minimal physical handling. (after pre bid)		
<b>TECHNICAL SPECIFICATIONS</b>			
<p><b>Electrically operated four Sectional ICU Bed.</b></p> <ol style="list-style-type: none"> <li>Positions: Backrest, height, Trendelenburg &amp; Reverse Trendelenburg, Cardiac Chair Positions.</li> <li>Stainless Steel or ABS or polypropylene split side rails with integrated control panel for patient.</li> <li>Mattress base should be disinfect-able.</li> </ol> <p><b>Motorized Movements</b></p> <ol style="list-style-type: none"> <li>Height adjustments from 44 to 76 cm or better without mattress.</li> <li>Trendelenburg &amp; Reverse Trendelenburg 12 deg or better</li> <li>Back rest movement up to 60° or better</li> <li>High section movement should be up to 20° or better</li> <li>Should be operated with a single button for the position of the cardiac chair or chair (Cardiac chair purpose should be fulfill.</li> <li>Radio translucent backrest with X-ray cassette tray or rail.</li> <li>The overall standard length should be of 218cm or better.</li> <li>Overall width should be 90cm or more.</li> <li>Bed should have central lock and castor size 125mm or more.</li> <li>Nursing or attendant control panel or remote control with system lockout switch.</li> <li>Bed should have Single button motorized and manual CPR function.</li> <li>Head &amp; foot panel with locking function &amp; should be removable.</li> <li>Drainage bag rail with hooks should be on both side.</li> <li>Operating Input: 220VAC, 50Hz / 60Hz.</li> <li>Built-in battery backup.</li> </ol> <p><b>Bed Side Cabinet:</b></p> <ol style="list-style-type: none"> <li>Upper drawer, niche, large bottom cupboard.</li> <li>Made from Zinc plated steel or Thermo formed PVC.</li> <li>Fronts of the drawers and cupboards from HPL boards.</li> <li>4 castors, 2 of which can be braked</li> </ol> <p><b>Over Bed Table:</b></p> <ol style="list-style-type: none"> <li>Height adjustable HPL or ABS or PVC board.</li> </ol>			

*[Handwritten signatures and initials in blue ink]*

Specification for the establishment of II unit of Medical ICU

24. 4 castors, 2 with brakes.

**ATTENDANT SEAT**

25. Should be made of S.S

**ACCESSORIES:**

26. IV pole adjustable height with two hooks QTY-01

27. Foam mattress with cover QTY-01

28. Nurse or attendant Control Panel QTY-01

**I.V POLE SS WITH FIRM GRIP AND WHEELS.TOTAL QTY -33**

29. S. Steel Column 1" round pipe.

30. 5/8" Stainless steel telescopic rod with 4 prongs.

31. Adjustable height 55" to 80" or better.

32. S. S base five legs with 2" dual castors.

33. Tightening knob for telescopic rod adjustment.

**WARRANTY:**

3 years comprehensive warranty including all parts and consumables.

**Note:** Viz a Viz compliance of specification is required and also highlight the point on brochure.

**COUNTRY OF MANUFACTURER:**

Local





Specification for the establishment of II unit of Medical ICU

Estimated Unit Cost	8,000,000/-	Quantity	25
Generic Name	PEDIATRICS VENTILATOR		
Clinical Purpose	Ventilator is a machine that provides mechanical ventilation by moving breathable air into and out of the lungs, to deliver breaths to a patient who physically unable to breathe, or breathing insufficiently. (after pre bid)		

**TECHNICAL SPECIFICATIONS**

**VENTILATION:**

1. Microprocessor controlled powerful ventilation system mounted on trolley
2. Color touch screen 15" Minimum LCD or TFT or better.
3. Patient Range: Adult and Pediatrics.
4. Breathing classification: Pressure control, Volume control Pressure control with set Volume Breath.

**MODES OF VENTILATION:**

5. Volume control.
6. Assisted CMV.
7. Pressure control PC.
8. Assist Pressure Control.
9. CPAP.
10. SIMV with VC.
11. SIMV with PC.
12. Pressure support.
13. Bi-PAP ventilation.
14. APRV or equivalent.
15. Noninvasive ventilation (NIV) with PC, SIMV and PS.
16. High flow O2 Therapy.

**CONTROL:**

17. Set & measured parameters simultaneously.

**MEASUREMENT RANGE AND SPECIFICATION:**

18. Inspiratory tidal volume: 20 to 2000 ml or more in VC.
19. Respiratory frequency: 5 to 120bpm or better
20. SIMV breath frequency: 1 to 50 bmp or better
21. Inspiratory pressure: 10 to 80 cmH2O or better
22. Inspiratory flow: 80 L/Min or cmH2O or better.
23. I : E ratio: 1:4 / 4:1 inverse or better
24. PEEP: 3 to 30cm H2O or better.
25. FiO2 or O2 delivery: 21 to 100%
26. Monitoring parameters for set and measured value simultaneously:
27. Total breath rate.
28. Oxygen concentration FiO2 (Through Paramagnetic sensor technology or Non consumable sensor)
29. Expired minute volume.
30. I: E ratio.
31. Peak Pressure.
32. Mean pressure.
33. Lung Mechanics with pressure and volume loops.
34. Others control and functions:
35. Back up ventilation.
36. Microprocessor gas delivery system.
37. Breathe circuit Compliance Compensation.
38. Expiratory hold or Inspiratory hold.

*(Handwritten signatures and initials)*

Specification for the establishment of II unit of Medical ICU

39. Pressure or Volume or flow trigger sensitivity.
40. Spon Triggered breaths should be indicating in pressure or volume curve.
41. Trend Data of 72 hours or more.
42. Automatic weaning method for automatically performs a spontaneous breathing trial.
43. The waveform should be displayed on ventilator's screen.
44. Expiratory valve should be Sterilize-able or autoclave-able and easily detachable.
45. Patient data, monitoring parameters data, alarms and trend data can be transfer in USB / equivalent and it should be readable and printable through laptop or PC.

**ALARMS:**

46. Apnea
47. AC power failure
48. High and low Expired minute volume
49. High and low peak air way pressure.
50. High and low breath rate
51. FiO2 variation.
52. Gas supply source failure
53. Low battery

**NEBULIZER:**

54. Built in nebulizer during ventilation.

**COMPRESSED AIR SUPPLY:**

55. The ventilator should be driven on external compressor for powerful ventilation and should have the capability to connect with central medical pipeline system of the hospital.

**HUMIDIFIER:**

56. Automatic compensation (Servo) controlled heated humidifier with temperature monitoring at air way and Humidification chamber with alarm for low/ high limits with water tarp in the patient circuit.
57. Supplies by same manufacturer.

**AIR COMPRESSOR:**

58. Air compressor should be supplied by same manufacturer for better compatibility.
59. In case of central air supply pressure failure, air compressor should be automatically switch on & off
60. Air compressor should be mounted on same ventilator trolley.

**SUPPLY REQUIREMENTS:**

61. Electric 220 V 50 Hz.
62. Built-in or integrated battery backup for main ventilator.
63. The warranty of equipment will be including batteries, all kind of sensors and flow sensor.

**Accessories:**

64. Reusable breathing circuit for Peads QTY 2 with each ventilator.
65. Tool kits for Biomedical Engineering Department QTY 10 (Detail of tool attached as annexure.)

**WARRANTY:**

5 years comprehensive warranty including all consumables (Batteries, flow sensor etc).

**PPM and maintenance kits :**

Should provide the complete list of PPM kits during warranty period as per recommendation of manufacture along with Documents (**Mandatory**), these PPM kits will be supplied with equipment.

**Note:** Viz a Viz compliance of specification is required and also highlight the point on brochure.

**Quality Certification:**

CE(MDD) Nando Verified/FDA-510 K/MHLW

**COUNTRY OF MANUFACTURER/QUALITY CERTIFICATIONS:**

USA/ EUROPE / JAPAN.





Specification for the establishment of II unit of Medical ICU

<b>Estimated Cost</b>	2,200,000/-	<b>Quantity</b>	10
<b>Generic Name</b>	<b>INVASIVE CARDIAC MONITOR</b>		
<b>Clinical Purpose</b>	In CCUs, ICUs, operating rooms, and pre and post – operative wards, a monitor that allows for the monitoring and management of patients' Hemodynamics data, such as Cardiac Rhythm, Saturation, Waveforms, Temperature, Non – Invasive Blood Pressure (NIBP), and Invasive Blood Pressure (IBP) for Invasive monitors.(after pre bid)		

**TECHNICAL SPECIFICATIONS**

1. Bedside Monitor to display vital signs and other parameter for Adult and Paeds.
2. Screen Size: At least 12" diagonal (Touch Operated) or better with non-fade LCD / TFT LCD / LED color display.
3. Electro-Surgical Interference Suppression / Protection
4. Defibrillator Protection
5. Freeze and Cascade Facility
6. Waveform: Six wave forms or more
7. Waveform Traces Speed: 25 & 50 mm / sec Parameters:
8. ECG
9. Numeric: Heart Rate
10. Real Time, and freeze ECG Trace
- Non-Invasive Blood Pressure (NIBP):
11. Method: Oscillometric Principle
12. Numeric: Systolic, Diastolic, and Mean Pressure
13. Selectable auto inflate interval settings
14. Rising Cuff / Continuous Pressure Display
15. Invasive Blood Pressure (IBP)
16. IBP Two Channel
17. Side Stream / Mainstream Capnography (EtCO2)
- Temperature:**
18. Numeric: Temperature selectable in °C / °F Pulse Oximetry:
19. Numeric: 0 – 100% oxygen saturation measuring range
20. Waveform-Plethysmograph Pulse with Pulse Strength Indication Arrhythmia Analysis:
21. Arrhythmia Analysis and ST Analysis Respiration:
22. Breath Rate display and settable apnea alarms
23. Sweep Speed: 6.25, 12.5 mm / sec or better Other Features:
24. Trend Data: Graphical / Tabular with at-least 48 hours' back-up or better
- Alarms:**
25. High & Low (settable) on all parameters
26. Visual and audible indication of alarms Other Parameter:
27. Operating Requirement: AC 220 V & 50 Hz
28. Built-in rechargeable battery for fully operational back-up for at least 1.5 – 2 hours or online pure Sine wave UPS (imported) with fully operational back-up for at least 2 hours or better (Batteries included in warranty):
- Communication**
29. Capability to interface with LAN / WLAN for data transfer.
- 30. Accessories for each Units.**
- BP Hose QTY 2
- NIBP CUFFS (2 Peads ,1 Adult)
- SPO<sub>2</sub> probe with reusable Sensors.(3 Peads ,2 Adult)
- IBP Leads Qty 3
- IBP transducer (side stream/mainstream as per system) QTY 5







Specification for the establishment of II unit of Medical ICU

EiCO<sub>2</sub> sensor and Cable QTY 5

**WARRANTY:**

5 years comprehensive warranty including all parts and consumables

**COUNTRY OF MANUFACTURER:**

USA /EUROPE/JAPAN.

**Quality Certification:**

CE(MDD) Nando Verified/FDA-510 K/MHLW



Specification for the establishment of II unit of Medical ICU

<b>Estimated Cost</b>	1,600,000/-	<b>Quantity</b>	17
<b>Generic Name</b>	<b>NON INVASIVE CARDIAC MONITOR</b>		
<b>Clinical Purpose</b>	In CCUs, ICUs, operating rooms, and pre and post – operative wards, a monitor that allows for the monitoring and management of patients' Hemodynamics data, such as Cardiac Rhythm, Saturation, Waveforms, Temperature, Non – Invasive Blood Pressure (NIBP).(after Pre bid )		
<b>TECHNICAL SPECIFICATIONS</b>			
<p>1. Bedside Monitor to display vital signs and other parameter for Adult and Paeds.                  2. Screen Size: At least 12" diagonal (Touch Operated) or better with non-fade LCD / TFT LCD / LED color display.                  3. Electro-Surgical Interference Suppression / Protection                  4. Defibrillator Protection                  5. Freeze and Cascade Facility                  6. Waveform: Six wave forms or more                  7. Waveform Traces Speed: 25 &amp; 50 mm / sec Parameters:  <b>ECG</b>                  9. Numeric: Heart Rate                  10. Real Time, and freeze ECG Trace Non-Invasive Blood Pressure (NIBP):                  11. Method: Oscillometric Principle                  12. Numeric: Systolic, Diastolic, and Mean Pressure                  13. Selectable auto inflate interval settings                  14. Rising Cuff / Continuous Pressure Display  <b>Temperature:</b>                  18. Numeric: Temperature selectable in °C / °F Pulse Oximetry:                  19. Numeric: 0 – 100% oxygen saturation measuring range                  20. Waveform-Plethysmograph Pulse with Pulse Strength Indication Arrhythmia Analysis:                  21. Arrhythmia Analysis and ST Analysis Respiration:                  22. Breath Rate display and settable apnea alarms                  23. Sweep Speed: 6.25, 12.5 mm / sec or better Other Features:                  24. Trend Data: Graphical / Tabular with at-least 48 hours' back-up or better                  25. High &amp; Low (settable) on all parameters                  26. Visual and audible indication of alarms Other Parameter:                  27. Operating Requirement: AC 220 V &amp; 50 Hz                  28. Built-in rechargeable battery for fully operational back-up for at least 1.5 – 2 hours or online pure Sinewave UPS (imported) with fully operational back-up for at least 2 hours or better (Batteries included in warranty):                  Communication                  29. Capability to interface with LAN / WLAN for data transfer.  <b>Accessories for each Units.</b>                  BP Hose QTY 02                  NIBP CUFFS QTY (2 peads,1 adult)                  SPO2 probe with Sensor.(3 peads ,2 adult )                  Wall mounted stand with Bucket Local with 14 gauge metal having a capacity to hold the monitor and ensuring the safety of equipment sample evaluation is mandatory.</p>			
<b>WARRANTY:</b> 5 years comprehensive warranty including all parts and consumables including batteries			
<b>Quality Certification:</b> CE(MDD) Nando Verified/FDA-510 K/MHLW			
<b>COUNTRY OF MANUFACTURER:</b> USA /EUROPE/JAPAN.			



Specification for the establishment of II unit of Medical ICU

Estimated Cost	4,000,000/-	Quantity	1
Generic Name	<b>CENTRAL MONITORING SYSTEM</b>		
Clinical Purpose	A Central Monitoring System (CMS) is a smart monitoring system that links a number of patient monitors to a Central Monitor, so that the patient's data can be seen and managed on the central / main display, regardless of patients' location in the ward(after Pre bid )		
<b>TECHNICAL SPECIFICATIONS</b>			
<p>Multi-channel central station for 24 bedside monitors.</p> <p><b>Operating features and characteristics:</b></p> <ol style="list-style-type: none"> <li>1. Colored monitor Resolution minimum 1024 x 1024</li> <li>2. For connection to: Bedside monitors with LCD or TFT of at least 19 Inches central station monitor (supplied by same manufacturer).</li> <li>3. Slave display at-least 56 inches or more LED, 4K, Android to be supplied locally.</li> </ol> <p>Parameters:</p> <ol style="list-style-type: none"> <li>4. Selectable, control and display of all parameters of bedside monitors.</li> <li>5. All parameters alarms on central station monitor with bed no. Identification.</li> <li>6. All alarms of each bedside monitors selectable from central workstation.</li> <li>7. Full Disclosure.</li> </ol> <p><b>Other Features:</b></p> <ol style="list-style-type: none"> <li>8. AC 220v / 50Hz.</li> <li>9. Trend data: graphical and tabular for 72 hours</li> <li>10. Arrhythmia analysis feature.</li> </ol> <p><b>Operating Requirements:</b></p> <ol style="list-style-type: none"> <li>11. Power backup for 1 hour on AC power failure at full parameter (Supplied locally but pure sine wave UPS with dry batteries).</li> </ol> <p>Note: All hardware and software should be supplied by same manufacturer.</p> <p><b>Accessories:</b></p> <ol style="list-style-type: none"> <li>12. HP Laser Jet Printer QTY-01</li> <li>13. Speaker QTY-01</li> <li>14. Key Board QTY-01</li> <li>15. Mouse QTY-01</li> </ol>			
<b>WARRANTY:</b>			
5 years comprehensive warranty including all parts and consumables.			
<b>COUNTRY OF MANUFACTURER:</b>			
USA /EUROPE/JAPAN.			
Quality Certification's(MDD) Nando Verified/FDA-510 K/MHLW			

Handwritten signatures and initials, including a stylized 'AS' and other illegible marks.

Specification for the establishment of II unit of Medical ICU

<b>Estimated Unit Cost</b>	300,000/-	<b>Quantity</b>	10
<b>Generic Name</b>	<b>PULSE OXIMETER</b>		
<b>Clinical Purpose</b>	A pulse Oximeter is a medical device that indirectly monitors the oxygen saturation of a patient's blood (as opposed to measuring oxygen saturation directly through a blood sample) and changes in blood volume in the skin, producing a photo Plethysmogram. (after Pre bid )		
<b>TECHNICAL SPECIFICATIONS</b>			
<ol style="list-style-type: none"> <li>1. Non-invasive measurement of oxygen saturation and pulse rate with LCD screen. Desktop unit.</li> <li>2. Display of oxygen saturation and pulse rate.</li> <li>3. Oxygen saturation measurement range from 0 -100%.</li> <li>4. Pulse strength perfusion indication</li> <li>5. Capability of Plethysmography.</li> <li>6. Pulse rate measurement from 30-250 bpm.</li> <li>7. Visual and audible indication of alarms.</li> <li>8. Built-in battery backup 05 hours.</li> <li>9. High and low alarms settings. Power of 220 V, 50 Hz.</li> </ol>			
<b>Accessories:</b>			
Reusable SPO2 probe with sensor Quantity - 05. (Infant 3 ,Adult 2)			
<b>WARRANTY:</b>			
5 years comprehensive warranty including all parts.			
<b>COUNTRY OF MANUFACTURER:</b>			
USA/ EUROPE / JAPAN			



Specification for the establishment of II unit of Medical ICU

<b>Estimated Unit Cost</b>	35,000,000/-	<b>Quantity</b>	1
<b>Generic Name</b>	<b>PORTABLE DR SYSTEM FOR X RAY</b>		
<b>Clinical Purpose</b>	They are used in wards, in ICUs and at accident sites.(after Pre-bid)		
<b>TECHNICAL SPECIFICATIONS</b>			
<ol style="list-style-type: none"> <li>1. Mobile Microprocessor based X-Ray Unit.</li> <li>2. DICOM active.</li> <li>3. High frequency, 30KW X-Ray Generator.</li> <li>4. 300 mA at 100 kv.</li> <li>5. Digital display of all set parameters.</li> <li>6. Rotating anode x-ray tube, with dual focus / Single Focus</li> <li>7. Anode heat storage capacity of at least 120 KHU or more</li> <li>8. Electronic timer with exposure time of 1-3 msec.</li> <li>9. Automatic over-load protection device and automatic line compensation.</li> <li>10. The unit should be battery supported for exposure and movement (Motorized) with minimum 100 exposures.</li> </ol> <p><b>Flat Panel Detector</b></p> <ol style="list-style-type: none"> <li>11. Flat panel detector with active image size of 14"x17".</li> <li>12. Cesium (Csl) scintillator or better Pixel size 150 µm or better.</li> <li>13. Spatial Resolution 2.5 lp/mm or better or DQE 60% or more</li> <li>14. Matrix size approximately 2800 x 2800 or better.</li> <li>15. 14 bits or better detector depth.</li> <li>16. Time for data acquisition, transmission and viewing for full image to be 10 sec. or less.</li> <li>17. A dedicated workstation of 17" or better with touch screen for system and image acquisition.</li> <li>18. Desktop system core I-9 11<sup>th</sup> generation of 1 TB HDD along with computer table and two chair as a review station with UPS.</li> <li>19. Servo Control Voltage stabilizer for DR system as per system requirement.</li> <li>20. Dedicated soft for paedtrics to provide better image quality.</li> <li>21. Comprehensive high end service training of Biomedical Engineer at manufacturer site for one week.</li> </ol> <p><b>ACCESSORIES:</b></p> <ol style="list-style-type: none"> <li>22. Lead Aprons 0.5 mm Pb (Qty x 03)</li> <li>23. Service manual.</li> </ol>			
<b>WARRANTY:</b>			
5 years comprehensive warranty including all parts and consumables X rays tube, detector and any updates and up gradation of software's etc.			
<b>COUNTRY OF MANUFACTURER:</b>			
USA/ EUROPE / JAPAN			
<b>Certifications:</b>			
<b>FDA 510k /CE (MDD) Nando verified/MHLW</b>			
Any two certificate.			

Handwritten signatures and initials in blue ink, including a large signature on the right and several smaller initials on the left.

Specification for the establishment of II unit of Medical ICU

Estimated Unit Cost	14,000,000/-	Quantity	1
Generic Name	COLOR DOPPLER ULTRASOUND MACHINE MEDIUM END		
Clinical Purpose	It is immediately available imaging modality with its main use in obstetrical and antenatal care likewise in conditions when ionizing radiations are contra indicated. (after Pre bid )		
<b>TECHNICAL SPECIFICATIONS</b>			
<p><b>1 B-MODE Specification:</b> Sector Scan Angle Variable in Four Steps.</p> <ol style="list-style-type: none"> <li>Viewing Depth: 30cm or more (Both in B &amp; W and Color).</li> <li>Frame Rate: 1000 f/sec or more.</li> <li>Built-in cine loop with ability to vary reverse and slow motion of display; Internal Memory 2000 /500MB or more Color Images.</li> <li>Real time and Freeze Image Magnification at least 10X** or more with panning for Real, Freeze and Memorized Images.</li> </ol> <p><b>2 M-MODE SPECIFICATION:</b></p> <ol style="list-style-type: none"> <li>Magnification: x2 or more.</li> <li>Sweep Speed: Slow, Medium and Fast.</li> <li>Color Display of M-Mode.</li> </ol> <p><b>3) D-MODE SPECIFICATION:</b></p> <ol style="list-style-type: none"> <li>Pulse-Wave Doppler Measureable Velocity Range.</li> <li>HPRF Doppler.</li> </ol> <p><b>e) CONTINUOUS-WAVE DOPPLER:</b></p> <ol style="list-style-type: none"> <li>Measurable Velocity Range: Steerable.</li> <li>Must have Doppler Beam Steering and Bi-Directional Stereo-Audio.</li> <li>Colorized Spectrum Display.</li> <li>Automatic Baseline and Velocity Range Control.</li> <li>Live Measurements for Doppler Spectrum.</li> </ol> <p><b>4) COLOR DOPPLER MODE SPECIFICATIONS :</b></p> <ol style="list-style-type: none"> <li>Both CW and PW Doppler must be Continuous Steerable in the Color Blood Flow Image mode in Real Time.</li> <li>2D Image with Color, CW and PW Doppler.</li> <li>Windows based System for easy usage with Programmable Control Panel Keys.</li> <li>Tissue Harmonic Imaging with 4THI or more Frequency.</li> <li>Power Doppler.</li> <li>Triplex Mode for Simultaneous Display of Color B/M and D-Mode Displays. - 250db or more system dynamic range or more.</li> </ol> <p><b>8) MEASUREMENT PACKAGE:</b></p> <ol style="list-style-type: none"> <li>To provide Comprehensive Software Package for Measurement of Distance, Circumference, Area, Time Depth, ANGLE, Velocity, Frequency, Heart Rate, Volumes, Nuchal Thickness Measurement Software to be Provided as a Standard.</li> </ol> <p><b>9) SYSTEM COMPLETE WITH FOLLOWING FACILITIES AND ACCESSORIES:</b></p> <ol style="list-style-type: none"> <li>Minimum 21-Inches LCD / OLED Color Monitor, with Resolution 1280 x 1024 Pixels minimum.</li> <li>Foot-Switch.</li> <li>4 Active Transducer Connector for trans-thoracic Probes.</li> <li>DVD /CD Drive for Image Storage to be Built-in to the System.</li> <li>500GB or more hard disk drive to be Built-in to the System.</li> <li>Built-in DICOM Compatibility. (3.0 with all components)</li> <li>Touch Command Screen Control at least 10.0" or more LCD / TFT or more.</li> </ol>			

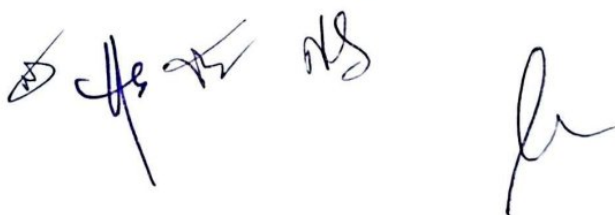


<p>30. Full DICOM (Upgradable). <b>10) UPGRADEABILITY:</b></p> <p>31. System Software must be Upgradable. <b>11) STANDARD PROBES:</b></p> <p>32. 2 – 6 MHz Multi-Frequency Convex Probe for B/M/CDI/PW, with shear-wave Elastography. 33. 7-14 MHz or more multi frequency linear probe for small parts and MSK studies. 34. 5-9 MHz or more Multi-Frequency Linear Probe for vascular studies. NOTE: 35. All Probes must be supplied by same Manufacturer. 36. + 1 MHz deviation from the quoted frequencies of probes would be considered as minor deviation.</p> <p><b>STANDARD RECORDING DEVICES:</b></p> <p>37. Tissue Doppler Imaging Mode. 38. Pure Wave / Pulse Inversion / Differential Tissue Harmonic Imaging to Enhance Effective Wide Band Frequency Range to provide Simultaneously Spatial Resolution, Contrast Resolution and increased Penetration using Two Transmission Pulses at Different Frequencies Simultaneously and Reception at Harmonic as well as Differential Component. 39. Auto Image Optimization / Quick Scan Imaging for Automatic STC / GAIN and Doppler Spectrum Adjustment with Optimal Image Quality by using One Touch Operation. 40. B-Flow / Dynamic Flow Imaging / E-Flow / Clarify. 41. Trapezoid Imaging / Virtual Convex Imaging with Linear Probe. 42. Compound / Aplipure Imaging for THI/both Frequency Compounding and Spatial. 43. Compounding in BW and Color Mode. 44. Panoramic / SIESCAPE / Logic view Imaging with Measurements. 45. Tissue contrast enhancement software/Speckle reduction/x-view plus/cpi 46. N-Sight/ Adaptive Suppression/ Precision Imaging /Cross beam/ XFlow or equivalent to Enhance B-Mode Imaging, Xress/ Care/ DTCE or equivalent Detailed in Layers and Boundaries and Sharpened Outlines of the Lesions and reduce Cluttering. 47. Micro CPA/ Superb Micro Imaging/vascular enhancement/B flow HD Color/Micro-V spectral to Clearly Show Blood Flow in tiny Vessels. 48. Voltage: 220V – 240V, 50 – 60 Hz</p> <p><b>Accessories:</b></p> <p>49. Thermal Printer 256-Gray scale (Sony, Mitsubishi or equivalent) 50. UPS: on line with sine waves 2 KVA with thirty minutes back up time. (IMPORTED) 51. 50 High Density / High Glossy thermal paper Rolls 52. Gel: 30 liters 53. Revolving chairs for the ultrasound operator (2 per machine) 54. Patient Couch 55. Latest computer (I9, 10th Generation) system with Heavy duty Printer (50 PPM) for Ultrasound reporting. Package should include computer table with computer chair.</p> <p><b>Optional:</b> 4-11Mhz micro-convex pediatric probe.</p> <p><b>REMOTE SERVICES</b> The firms will provide the remote service connectivity through modem with manufacturer's remote service center. The firms will also provide the connectivity/license to share the global resources for information, images, clinical protocols and research purposes and remained valid till the life of USG.</p> <p><b>WARRANTY</b> 05- Years Manufacturer's comprehensive warranty of the unit along with other third party items will be provided including service and spare parts for components of the system.</p> <p><b>COUNTRY OF MANUFACTURER:</b> USA/ EUROPE / JAPAN (Any two certificates)</p>
--



Specification for the establishment of II unit of Medical ICU

<b>Estimated Unit Cost</b>	400,000/-	<b>Quantity</b>	4 + 4
<b>Generic Name</b>	<b>LARYNGOSCOPE LED SCREEN</b>		
<b>Clinical Purpose</b>	Equipment for minimal invasive Procedure (Basic and Advanced) Difficult Airway Management system for Adult intubation having signs of Mallampati classification from grade 1 to 3 expected intubation(after pre bid) After pre bid		
<b>TECHNICAL SPECIFICATIONS</b>			
<ol style="list-style-type: none"> <li>1. Video Laryngoscope blades with Chip on the tip technology and tip guided Mac Blade, Built in LED Light source with or Without Catheter channel.</li> <li>2. Should be with documentation (Recording feature).</li> <li>3. Monitor with built in Camera Processor and Documentation Feature for Teaching and training Purpose.</li> <li>4. Screen size 8" or better with 1200 x 1920 pixel resolution minimum.</li> <li>5. Two or more camera inputs to use the Rigid or Flexible scope at a same time</li> <li>6. Should have option to transmit the image on bigger screen, video and image capturing in real time on SD card.</li> <li>7. Playback of recorded Video clips and still images, data transfer from SD card to USB flash drive possible.</li> <li>8. Splash-proof according to IP54 or better, Suitable for wipe disinfection, shock resistant intelligent power management up to 2 hours.</li> <li>9. Stand and storage Basket / Trolley for Easy Movement of system with connecting Cords same brand will be preferably. Macintosh Blade Size # 0, 1, 2, 3 and 4. Miller: 0, 1, 2, 3 &amp; 4.</li> <li>10. Carrying case from manufacturer. <b>Optional:</b> All Standard accessories should be from same manufacturer.</li> </ol>			
<b>WARRANTY:</b>			
3 years comprehensive warranty including all parts and consumables			
<b>COUNTRY OF MANUFACTURE:</b>			
USA /EU/JAPAN			



Specification for the establishment of II unit of Medical ICU

<b>Estimated Unit Cost</b>	450,000/-	<b>Quantity</b>	3
<b>Generic Name</b>	<b>BLOOD WARMER</b>		
<b>Clinical Purpose</b>	A blood warmer is used to warm blood prior to transfusion to a patient. Often used in emergency settings, operating rooms, and intensive care units to prevent hypothermia, the instrument warms blood to a temperature that is safe for infusion. After pre bid		
<b>TECHNICAL SPECIFICATIONS</b>			
<ol style="list-style-type: none"> <li>1. Microprocessor controlled unit should have facility of reliable transfusion and infusion for intra and postoperative hypothermia.</li> <li>2. Dry warming system.</li> <li>3. Online warming with tubing.</li> <li>4. Pre-selected temperature settings over the range 37°C to 39°C.</li> <li>5. Indications/ display for different temperatures.</li> <li>6. Blood warming device with safety cutout at 41-43 °C.</li> <li>7. Visual and audible alarm for low and high temperature</li> <li>8. Firm stand to hold the system</li> </ol>			
<b>WARRANTY:</b>			
3 years comprehensive warranty including all parts and consumables			
<b>COUNTRY OF MANUFACTURER:</b>			
USA/ EUROPE / JAPAN			





Specification for the establishment of II unit of Medical ICU

<b>Estimated Unit Cost</b>	1,500,000/-	<b>Quantity</b>	4
<b>Generic Name</b>	SEQUENTIAL COMPRESSION DEVICE		
<b>Clinical Purpose</b>	DVT / VTE prophylaxis, the Compression device with Vascular Refill Detection increased the volume expelled per hour in the post-thrombotic leg, Customized Compression Cycles – Moves blood from the lower Extremities as quickly as the veins refill. After pre bid		
<b>TECHNICAL SPECIFICATIONS</b>			
<ol style="list-style-type: none"> <li>1. Prevention of Deep vein thrombosis (DVT) / Venous Thromboembolism (VTE).</li> <li>2. Display of pressure, garments detection, time laps and alarm.</li> <li>3. Prophylaxis for the obese &amp; morbidly obese patient.</li> <li>4. Capability of small, medium and large sleeves.</li> <li>5. Capability of foot, thigh and calf sleeves.</li> <li>6. Up to one hour of uninterrupted battery backup.</li> <li>7. One Touch Operation.</li> <li>8. Ports (2 or more) indicator.</li> <li>9. Audio and visual alarms, e.g. single port use etc.</li> <li>10. 220v AC</li> <li>11. Sequential or graduated, uniform or rapid inflation or circumferential.</li> <li>12. For foot: 120mmHg for 3 to 5 sec or better</li> <li>13. For calf &amp; thigh: 40 to 45mmHg or better.</li> <li>14. Automatic pressure adjustment.</li> <li>15. Compact &amp; Portable, patient bed hanging system.</li> </ol> <p><b>ACCESSORIES</b></p> <ol style="list-style-type: none"> <li>17. With all standard accessories.</li> <li>18. Foot (L, M) Qty-10 Disposable each.</li> <li>19. Calf (L, M, S) Qty-10 Disposable each.</li> <li>20. Thigh (L, M) Qty-10 Disposable each</li> <li>21. Set of 4 reusable of above mentioned accessories is also required</li> </ol> <p><b>WARRANTY:</b></p> <p>3 years comprehensive warranty including all parts and Disposable.</p> <p><b>COUNTRY OF MANUFACTURER:</b></p> <p>USA/ EUROPE / JAPAN</p>			

Handwritten signatures and initials in blue ink, including a large signature on the right and several smaller initials on the left.

Estimated Unit Cost	11,000,000/-	Quantity	1
Generic Name	EMG / NCS / VEP SYSTEM, PRE-CONFIGURED MACHINE WITH ACCESSORIES KIT.(after prebid)		
Clinical Purpose	To be used for detection of nerve and muscles abnormality		

**TECHNICAL SPECIFICATIONS**

1. Pre-configured machine with accessories kit.
2. PC based system with Windows operating system and inbuilt patient centric database.
3. Latest EMG/NCS acquisition and review software.
4. Predefined and user configurable test protocols.
5. Continues EMG recording up to 10 min.
6. Storage to EMG with full acquisition resolution.
7. Archival recorded exams/reports CD/DVD.
8. Printing of reports on heavy duty HP laser printer (to be provided locally 400 series)
9. Ether LAN connectivity.
- NERVE CONDUCTION STUDY:**
10. Motor Nerve Conduction Study
11. Sensory Nerve Conduction Study
12. Autonomic testing
13. Repetitive Stimulation
14. F-wave
15. H Reflex
16. Blink Reflex
- SOMATOSENSORY EVOKED POTENTIAL:**
17. Upper limbs, lower limbs and dermatomes somatosensory evoked potentials
- VISUAL EVOKED POTENTIALS:**
18. VEP (Visual Evoked Potentials) with pattern reversal, flash, goggle and external stimulator and standard accessories including LED monitor for VEP.
- EMG/NCS Amplifier:**
19. No. of channels: 4
20. Input impedance: 1000 M.Ohm (Common Mode)
21. CMRR :> 106db.
22. Noise level: 0.6 uV RMS or better
23. Low-cut filter.(20Hz-20 KHz)
24. High-cut filter(0.1-3KHz)
24. Skin electrode contact impedance check.
25. Free run EMG
26. Quantitative EMG
27. Single fiber EMG
28. A/D converter 16 bit or better
- 30 Stim Current, 0- 100mA
31. Stim Duration, 50us – 1ms
32. Stim types, single, pair, train
- Standard Accessories:**
33. Concentric needles electrode 27mm QTY (100)
34. Concentric needles electrode 30mm QTY(100)
35. Constant Current Electrical Stimulator: QTY 2 (wihreplacable tip)
36. Extension cable for concentric needle electrode QTY 4
37. NCS extension cable QTY 2
38. Ground electrode QTY 4
39. RingFinger electrode QTY 4

AMT, ROH B. CH.

Indira.

Handwritten signatures and initials including 'KASBN', 'M-E-S', and other illegible marks.

<p>40. Disc/Surface stimulation electrode QTY 4  41. Conductive paste QTY 30 jars  42. Abrasive cream QTY 30 jars  43. Single fiber needles 30mm QY (20)  44. Gold plated cup electrode QTY 20  45. Heavy Duty HP Laser Printer (to be provided locally 400 series)  46. 1KVA or Compatible Online UPS  47. Trolley (Local) sample evaluation is mandatory  48. 55-inch Color LCD provide locally.  NOTE: Variation in specification according to the selected Numbers of the channels (as per manufacturer features) will be acceptable.</p>
<p><b>WARRANTY:</b>  5 years comprehensive warranty including all parts and consumables</p>
<p><b>COUNTRY OF MANUFACTURER:</b>  USA/ EUROPE / JAPAN</p>
<p><b>Training:</b>  One week Foreign Training of Clinician</p>

Handwritten signatures and initials including 'KASBN', 'MS', and several other illegible marks.

AMTRONECT  
Fluder.

*(Handwritten signature)*  
(M-ES)



<b>Estimated Unit Cost</b>	14,000,000/-	<b>Quantity</b>	1
<b>Generic Name</b>	<b>EEG LONG TERM MONITORING WITH 32 CHANNELS, BED SIDE CAMERA, HEAD CAP AND PATIENT EVENT SWITCH</b>		
<b>Clinical Purpose</b>	Used to detect various kind of Epilepsies		
<b>TECHNICAL SPECIFICATIONS</b>			
<ol style="list-style-type: none"> <li>1. Pre-configured EEG long term monitoring system machine with accessories kit.</li> <li>2. PC based system with Windows operating system and inbuilt patient centric database.</li> <li>3. Capable to acquire higher number of EEG channels for advanced EEG applications.</li> <li>4. Predefined and user configurable montages.</li> <li>5. Remote review and reporting capability of stored EEG exams via LAN.</li> <li>6. Archival of recorded exams/ reports with EEG reviewer to CD/DVD.</li> <li>7. Printing of reports on heavy duty HP laser printer. . (to be provided locally 400 series)</li> <li>8. Ethernet LAN connectivity.</li> <li>9. Synchronized full HD video camera with video encoding hardware and accessories.</li> <li>10. Physician remote review station for EEG long term monitoring system with complete eeg review software (as per acquisition system) and PC hardware (HP/Dell desktop PC, i7, 11<sup>th</sup> generation or greater, 1TB SSD, 16GB RAM, Full HD 24 inches LED)</li> </ol> <p><b>EEG Amplifier:</b></p> <ol style="list-style-type: none"> <li>11. Number of EEG Channels: 32</li> <li>12. Input impedance: 50 MΩ or greater</li> <li>13. Internal noise level: Less 2 μV</li> <li>14. CMRR: 100 dB or greater(=,-1 db is considered as minor variation)</li> <li>15. Low-cut filter and notch filter</li> <li>16. A/D conversion:</li> <li>17. Sampling frequency: 100 - 2000Hz</li> <li>18. AC interference filter: 50 or 60 Hz</li> <li>19. Sensitivity: EEG INPUT:</li> <li>20. Ethernet/ USB connectivity</li> <li>21. Impedance check capability</li> <li>22. Patient event switch interface.</li> <li>23. Inbuilt spike and event detection</li> <li>24. EEG trending software</li> </ol> <p>Standard Accessories:</p> <ol style="list-style-type: none"> <li>25. Head cap with neonates, infants, paed, toddlers and adolescent sizes</li> <li>26. Conductive Paste QTY 30 jars</li> <li>27. Abrasive cream QTY 30 jars</li> <li>28. Heavy Duty HP Laser Printer(HP 400 series)</li> <li>29. 1KVA or Compatible online UPS</li> <li>30. Trolley (Local) sample evaluation is mandatory</li> <li>31. 55 inches LCD display</li> </ol> <p><b>Review Station for LTM EEG monitoring System</b>  Physician remote review station of long-term monitoring EEG system with complete EEG review software  (As per acquisition of system specification) and PC hardware HP/Dell PC, i7, 11<sup>th</sup> generation or better, 1TB SSD, 16GB RAM, Full HD 24 inches LED</p> <p><b>Accessories:</b>  All required accessories</p>			
<b>WARRANTY:</b>			

*[Handwritten signature]*

AMT, ROJECH

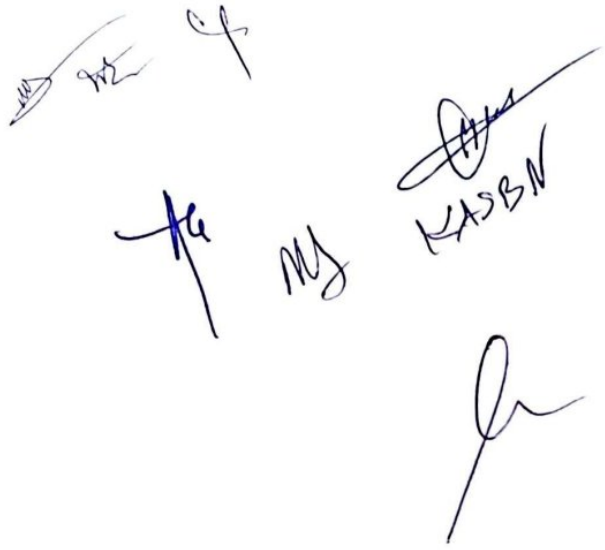
*[Handwritten signature]*

*[Handwritten signature]*  
KASBN

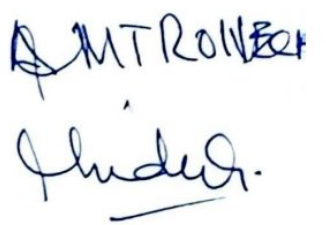
*[Handwritten initials]*  
H9 AS

*[Handwritten signature]*  
(M.E.S)

5 years comprehensive warranty including all parts and consumables
<b>COUNTRY OF MANUFACTURER:</b> USA/ EUROPE / JAPAN
<b>Training:</b> One week Foreign Training of Clinicians


 A collection of handwritten marks in blue ink. At the top left, there are three small, stylized initials. Below them, there is a larger signature that looks like 'K'. To the right of 'K' are the initials 'MS'. Further right is a signature that appears to be 'KASBN' with a large flourish above it. Below these, there is another signature that looks like 'R'.


 A handwritten signature in blue ink that reads 'Ali (M.E.S)'.


 A handwritten signature in blue ink that reads 'AMT ROLLER' with a flourish underneath.

<b>Estimated Unit Cost</b>	7,000,000/-	<b>Quantity</b>	1
<b>Generic Name</b>	<b>PORTABLE EEG MACHINE (32 CHANNEL WITH ELECTRODES)</b>		
<b>Clinical Purpose</b>	Used to detect various kind of Epilepsies(after Prebid)		
<b>TECHNICAL SPECIFICATIONS</b>			
<ol style="list-style-type: none"> <li>1. Pre-configured EEG machine with accessories kit.</li> <li>2. Lap Top based system with Windows operating system and inbuilt patient centric database.</li> <li>3. Capable to acquire higher number of EEG channels for advanced EEG applications.</li> <li>4. Predefined and user configurable montages.</li> <li>5. Remote review and reporting capability of stored EEG exams via LAN.</li> <li>6. Archival of recorded exams/ reports with EEG reviewer to CD/DVD.</li> <li>7. Printing of reports on heavy duty HP laser printer. (to be provided locally HP 400 series)</li> <li>8. Ethernet LAN connectivity.</li> </ol> <p><b>EEG Amplifier:</b></p> <ol style="list-style-type: none"> <li>9. Number of EEG Channels: 32</li> <li>10. Input impedance: 50 MΩ or greater</li> <li>11. Internal noise level: Less than 2 μV</li> <li>12. CMRR: 100 dB or greater(+,- 1 db is considered as minor variation)</li> <li>13. Low-cut filter and notch filter</li> <li>14. A/D conversion:</li> <li>15. Sampling frequency: 100 - 2000Hz</li> <li>16. AC interference filter: 50 or 60 Hz</li> <li>17. Sensitivity:</li> <li>18. EEG INPUT:</li> <li>19. Ethernet/ USB connectivity</li> <li>20. Impedance check capability</li> <li>21. Patient event switch interface.</li> <li>22. Photic Stimulator:</li> <li>23. LED Photic Stimulator with adjustable arm.</li> <li>24. Adjustable stimulation frequency (1-30HZ) in 1Hz steps</li> </ol> <p><b>Standard Accessories:</b></p> <ol style="list-style-type: none"> <li>26. EEG Electrodes (10mm gold plated). (70 electrodes of 10mm gold plated and 30 of 5mm gold plated)</li> <li>27. Conductive Paste QTY 30 jars</li> <li>28. Abrasive cream QTY 30 jars</li> <li>29. Heavy Duty HP Laser Printer 400 series</li> <li>30. 1KVA or Compatible online pure sinewave UPS.</li> <li>31. Trolley (Local) sample evaluation is mandatory</li> </ol> <p><b>Accessories:</b> All required accessories</p>			
<b>WARRANTY:</b>			
5 years comprehensive warranty including all parts and consumables			
<b>COUNTRY OF MANUFACTURER:</b>			
USA/ EUROPE / JAPAN			


  
 h  
 MS  
 KASBN  
 ME-S  
 AMT, RONECH  
 fludud.



Specification for the establishment of II unit of Medical ICU

<b>Estimated Unit Cost</b>	9,531,000/-	<b>Quantity</b>	1
<b>Generic Name</b>	<b>PEDIATRIC FLEXIBLE BRONCHOSCOPE</b> After pre bid		
<b>Clinical Purpose</b>	Bronchoscopy is an endoscopic technique of visualizing the inside of the airways for diagnostic and therapeutic purposes to evaluate a patient's lung and airways including the voice box and vocal cord, trachea, and branches of bronchi.		
<b>TECHNICAL SPECIFICATIONS</b>			
<p>High Definition(1280x720) video bronchoscope therapeutic with CCD/CMOS advanced technological features :</p> <p>Insertion tube Diameter: 6.5 mm or less.  Instrument channel 2.8 mm or more  Working Length: 600 mm or more  Distal End 6.3 mm or less  Field of View: 120 Degree or Better  Depth of view: 3-50 mm or better  Angulations up/down: 180 /130 degree or better  Image Enhancement Technology NBI/FICE/I-Scan/S-Filter  Fully Immersible  Compatible with Endoscopic Electrocautry ,Argon Plasma and Flexible Laser</p> <p><b>Ligh Source :</b>  Separate or built in (300W Xenon)/ LED light Source for Video Scopes. Average lamp life, Approx. 500 hours  Brightness level adjustable. High intensity mode. Air pump. Monitoring of lamp usage.</p> <p><b>Monitor:</b>  26" or more Medical Grade Monitor. Trolley / Wall mounted for teaching Aspect ratio of 16:9 or more.</p> <p><b>Video Processor :</b></p> <ul style="list-style-type: none"> <li>• High Definition Video System having following features.</li> <li>• HD-SDI or DVI outputs</li> <li>• HD Image Quality with (1280x720) or better Resolution</li> <li>• Programmable functions through endoscope switches</li> <li>• Auto/Manual White balance adjustment</li> <li>• Automatic gain control</li> <li>• Freeze screen display</li> <li>• keyboard for data handling</li> <li>• Capable for visual enhancement and differentiation of vessels and Capillaries.</li> <li>• Trolley based Workstation customizable as per end user requirement made of Stainless steel (local).</li> </ul> <p><b>Accessories:</b></p> <ul style="list-style-type: none"> <li>• All Standard Accessories</li> </ul>			
<b><u>WARRANTY:</u></b>			
5 years comprehensive warranty including all parts and consumables			
<b><u>COUNTRY OF MANUFACTURER:</u></b>			
USA/ EUROPE / JAPAN			

