CORRIGENDUM - 03

Name of Project: Uttarakhand Health Systems Development Project [UKHSDP]

Name of Implementing Agency : Uttarakhand Health and Family Welfare Society [UKHFWS] Dandalokhand P.O. Gujrara, Sahastradhara Road, Dehradun, Uttarakhand through its authorized Procurement Agent HLL Lifecare Ltd, #26/4, Tambaram-Velachery Main Road, Pallikaranai, Chennai – 600 100, Tamilnadu, India

Description of Goods/Name of the Work: Setting up of 3 ICUs [10-Bedded each - Total 30 bedded] including supply, installation, commissioning and maintenance of equipment and related services including minor works at Government Medical College, Dehradun as part of covid-19 emergency response

E Tender/Bid No. : 02/NCB/UKHSDP/DMC/ICU/HLL/HCD/2020-21 dated 17.09.2020

Procurement Ref No. IN-UKHFWS-191075-GO-RFB

ICB/NCB :NCB

With reference to our Bid No. 02/NCB/UKHSDP/DMC/ICU/HLL/HCD/2020-21 dated 17.09.2020 uploaded on website https://etenders.gov.in/eprocure/app for Setting up of 3 ICUs [10-Bedded each - Total 30 bedded] including supply, installation, commissioning and maintenance of equipment and related services including minor works at Government Medical College, Dehradun as part of covid-19 emergency response. The Pre-bid queries were received on or before 26.09.2020. The clarifications and amendments are as below:-

Table 1.

Sl. No.	Clause No. of ITB/GCC/ SCC/ Forms	Gist of the Query	Response	Reference to Sl. No. of Amendment [Table 2] wherever applicable	Remarks
1	ITB Clause No. 19	Allow MSME/NSIC registered from exemption of Bid Security	As per IFB, no exemptions are available and the procurement process and bidding conditions provide a level playing field	N/A	-
2	SECTION III, 1.1(b)	Reduce the Average Annual Turnover	Amended	1	-
3	SECTION III, 1.1(b)	Consider to evaluate the experience of JV partners	Amended	2	-
4	SECTION	Consider the equipment	Amended	5	-

Sl. No.	Clause No. of ITB/GCC/ SCC/ Forms	Gist of the Query	Response	Reference to Sl. No. of Amendment [Table 2] wherever applicable	Remarks
	VII Schedule of Requirement No. 3 Technical Specification	certified by USFDA or EU CE/CE or BIS certified			
5	SECTION VII Schedule of Requirement No. 4 Drawing	Drawings must be provided for Quoting items and its installing Area for better price analysis, so as to put a better price for the quoted items.	Proposed architectural drawing is attached for the bidder for preparation of bids accordingly. However if required bidder may also visit the proposed site with approval from the purchaser atleast 3 days prior to bid submission date.	N/A	-

Table 2.

Sl. No.	Clause No. ITB/GCC/ SCC/Forms	As existing	As amended	Reference to Sl. No. of Response [Table 1] wherever applicable	Remarks
	Bid Date Sheet ITB 11.2(j)	Legally valid joint venture agreement. (No of JVs are limited to not more than 3, excluding the bidder who is a lead partner). In JV agreement bidder shall be the lead partner.	Joint Venture is allowed with maximum of 3 partners including the Lead partner. All members of the joint venture shall be jointly and severally liable to the Purchaser for the execution of the entire Contract in accordance with terms and conditions of contract. All the members of JV shall give written notarized Power of attorney to Lead partner to submit the bid security, sign the bids, negotiate and conclude the contract on behalf of JV. The JV agreement shall be notarized. Other terms of Joint Venture are as under: (i) A member of JV Firm shall not be permitted to participate either in individual capacity or as a member of another JV Firm in the same tender. (ii) The constitution of the JV shall not be allowed to be modified after submission of tender bid by the JV. The Lead partner shall continue to be Lead partner of the JV. Failure to observe this requirement would render the offer invalid. (iii) On award of Contract to JV, all the guarantees like Performance Guarantee, etc. shall be submitted by JV. No splitting of guarantees amongst the members of the JV shall be permitted. (iv) On issue of award of contract to JV, the JV Firm shall form a Special Purpose Vehicle for that particular contract and submit the related documents to the purchaser for signing the Agreement within 20 days from the date of award of contract, failing which the award of contract will be terminated, bid security will be forfeited and other penal actions due shall be taken against partners of the JV and the JV. (v) The JV members shall also be liable jointly and severally for the loss, damages caused to Purchaser during the course of execution of the		

Sl. No.	Clause No. ITB/GCC/ SCC/Forms	As existing	As amended	Reference to Sl. No. of Response [Table 1] wherever applicable	Remarks
			contract or due to non-execution of the contract or part thereof. a. Duration of joint Venture Agreement: It shall be valid during the entire currency of the contract including the period of extension, if any and the Defects Liability Period after the work is completed. b. Governing Laws: The Joint Venture Agreement shall in all respect be governed by and interpreted in accordance with Indian Laws. (vi) No member of the JV shall have the right to assign or transfer the interest, right or liability in the contract without written consent of the other members and that of Purchaser in respect of said tender/contract. (vii) Documents to be enclosed by the JV along with the tender: (1). In case one or more of the members of the JV Firm is/are partnership firm(s), following documents shall be submitted: (a). Notary certified copy of the Partnership deed, (b). Consent of all the partners to enter the JV Agreement on a stamp of appropriate value (in original) (c) Power of Attorney (duly registered as per prevailing law) in favour of one of the partners of the partnership firm to sign the JV Agreement on behalf of the partnership firm and create liability against the firm. (2). In case one or more members is/are limited companies, the following documents shall be submitted: (a). Notary certified copy of resolutions of the Directors of the Company, permitting the company to enter into a JV Agreement, authorizing MD or one of the Directors or Managers of the company to sign JV Agreement, such other documents required to be signed on behalf of the company and enter into liability against the company and/or do any other act on behalf of the company. (b). Copy of Memorandum and Articles of Association of the company. (viii) All the members of JV shall certify that they are not black listed or debarred by Purchaser or any other Ministry/Department of Govt. Of		

Sl. No.	Clause No. ITB/GCC/ SCC/Forms	As existing	As amended	Reference to Sl. No. of Response [Table 1] wherever applicable	Remarks
			India/ State Govt. from participation in tenders/contract on the date of opening of bids either in their individual capacity as members of the JV or JV in which they were/are members. (ix) Incase if the JV is foreign firm then the copy of Audited Annual Financial Statements & other documents submitted in bid shall be translated in English language and duly certified true copies, duly signed, dated and stamped by an official, authorized for this purpose in Indian Embassy/High Commission in bidder's country. However, member countries of Hague Convention 1961, supporting document pertaining to Financial BEC certified by 'Apostille affixed by Competent authorities designated by the government of bidder's country' shall also be acceptable		
2	SECTION III, 1.1(a)	If the Bidder is a manufacturer/Non Manufacturer: (a) Financial Capability The Bidder shall furnish documentary evidence that it meets the following financial requirement(s): \ Minimum average annual turnover of INR 21 Crores for Manufacturer/Non Manufacturer Bidder within the last five years (2015-2016 to 2019- 2020). Document Required: Certified copy from Charted Accountant (Audited Balance Sheet Copies) for the last 5 years (2015-2016 to 2019-2020).	If the Bidder is a manufacturer/Non Manufacturer: (a) Financial Capability The Bidder shall furnish documentary evidence that it meets the following financial requirement(s): \ Minimum average annual turnover of INR 21 Crore for Manufacturer/Non Manufacturer Bidder within the last five years (2014-2015 to 2018- 2019). Document Required: Certified copy from Charted Accountant (Audited Balance Sheet Copies) for the last 5 years (2014-2015 to 2018-2019). If a JV, then the Lead partner shall have atleast 50% of the average annual turnover and remaining 50% among the member partners		

Sl. No.	Clause No. ITB/GCC/ SCC/Forms	As existing	As amended	Reference to Sl. No. of Response [Table 1] wherever applicable	Remarks
3	SECTION III, 1.1(b)	Experience and Technical Capacity The Bidder shall furnish documentary evidence to demonstrate that it meets the following experience requirement(s): [i] In the last 5 years from 2015-2016 to 2019-2020, the bidder shall have experience of successfully completed and established at least one similar health facilities in public or private sector, as single responsibility contract (ICU/NICU/PICU/BMT/IVF/OT, etc.) covering the major critical care equipment & Minor works with satisfactory performance supported by end user certificate. Document Required : Copies of completion certificate from Owner/Employers and Performance Certificate from Owners/Employers/End-users. The Bidder must furnish details of all such projects related to supply, installation, commissioning and maintenance	Experience and Technical Capacity The Bidder shall furnish documentary evidence to demonstrate that it meets the following experience requirement(s): [i]] In the last 5 years from 2015-2016 to 2019-2020, the bidder shall have experience of successfully completed and established Intensive Care Units of any type aggregating at least 10 ICU beds strength with not more than 3 orders covering the major critical care equipment (ICU Bed, Ventilator, Monitor, Syringe Pump, Infusion Pump, ECG Machine, Ultrasound With Echo) & Minor works with satisfactory performance supported by end user certificate. Document Required: Copies of completion certificate from Owner/Employers and Performance Certificate from Owners/Employers/End-users. The Bidder must furnish details of all such projects related in the public and private sector made by him in the last five years in proforma attached in Section IV. If a JV then lead partner shall have experience of establishing ICU of any type aggregating atleast 7 ICU beds strength with not more than 2 orders covering the major critical care equipment (ICU Bed, Ventilator, Monitor, Syringe Pump, Infusion Pump, ECG Machine, Ultrasound With Echo) & Minor works with satisfactory performance supported by end user certificate. For remaining partners ICU of any type aggregating 3 ICU beds strength shall be submitted as a proof experience by either the member partner or together. [ii] The Bidder must have provided after sales services [including through its authorized agents] satisfactorily to the critical care equipment in last 5 years (2015-2016 to 2019-2020). The after sales service should have been made to end-users and not to dealers/public distributors. There should not be any adverse report regarding quality of service provided for the last 5 years as above. Document Required : The bidder should furnish the information on the		

Sl. No.	Clause No. ITB/GCC/ SCC/Forms	As existing	As amended	Reference to Sl. No. of Response [Table 1] wherever applicable	Remarks
		of ICU/NICU/PICU/BMT/IVF/ OT, etc. in the public and private sector made by him in the last five years in proforma attached in Section IV. [ii] The Bidder must have provided after sales services [including through its authorized agents] satisfactorily to the specific equipment to the extent of at least 50 % of the equipment indicated in the Schedule of Requirements under Section IV in last 5 years (2015-2016 to 2019-2020). The after sales service should have been made to end-users and not to dealers/public distributors. There should not be any adverse report regarding quality of service provided for the last 5 years as above. Document Required : The bidder should furnish the information on the past services and satisfactory performance in the proforma given under Section IV. The proof should be as mentioned in Para [b] [ii] above.	past services and satisfactory performance in the proforma given under Section IV. The proof should be as mentioned in Para [b] [ii] above.		

Sl. No.	Clause No. ITB/GCC/ SCC/Forms	As existing	As amended	Reference to Sl. No. of Response [Table 1] wherever applicable	Remarks
4	SECTION IV Bidding Forms 6.B Joint Venture Agreement		Amended as in Annexure I	-	-
5	SECTION VII Schedule of Requirement No. 3 Technical Specification	Equipment shall have USFDA/CE certification	The equipment shall be certified by USFDA/CE/BIS.	4	-
6	SECTION VII Schedule of Requirement No. 3 Technical Specification		Amended as in Annexure II		

(IN NON JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)

JOINT VENTUREAGREEMENT FOR(*Specify the tender title***)**

This agreement (hereinafter referred as "Agreement") is entered on this the day of_____, 20___by and between;

M/s._____(CIN No……..) having its registered office at_____, incorporated as company under companies Act 1956 (hereinafter referred as "Lead Partner") which the expression shall unless otherwise include all its successors and permitted assigns and represented by_____in the capacity of_____of the FIRSTPART.

AND

M/s._____(CIN No……..) having its registered office at_____, incorporated as company under companies Act 1956 (hereinafter referred as "Member Partner") which the expression shall unless otherwise include all its successors and permitted assigns and represented by_____in the capacity of_____of the SECONDPART.

For the purpose of this Agreement both the "Lead Partner" as well as "Member Partner" are collectively called "Partners" and individually called "Partner".

Whereas –

a. HLL Lifecare Limited (HLL) on behalf of ……. has floated a tender vide Tender No:…….Dtd…… for……. (herein after referred as "Tender")
b. As per the Tender document, bids submitted by any Joint Ventures (JV)will also be considered / permitted; provided such bids fulfill all the specific requirements in that regard

Now the Parties to this Agreement decided to form a JV to participate in the Tender.

c. AND WHEREAS the bid is being submitted based on the JV agreement being these presents and the bid with its bid forms and submission documents in accordance with the requirement of tender document conditions and requirements have been signed by all the partners and submitted to HLL Lifecare Ltd.,

NOW THIS AGREEMENT WITNESSTH HEREIN AS FOLLOWS

1. That the Parties to this Agreement do hereby agrees to participate in the Tender in the name and style of"_____" (hereinafter referred as "JV")as may be mutually agreed between the parties hereto.
2. **Scope:** Purpose of this Agreement is to participate and submit all necessary bid documents against the Tender floated by HLL and in case of award, supply the tendered items listed below and complete the project as tendered.

SI. No.	List of Equipment	Qty in Nos
1		
2		

3. **Tenure:** This Agreement shall be valid till the date of either rejection of the Bid submitted by this JV agreement against the Tender floated by the HLL or till the expiry of the Contract entered between the JV members and HLL in case of award of the Tender to this JV.
4. In consideration of the bid submission by us to HLL, pre-qualification of our technical bid by HLL if considered acceptable, submission of price bid by us and the award of contract by HLL to the JV (if selected by), we the partners to the JV, hereby agree that M/s……. shall act as the Lead Partner for self, and for and on behalf of the other partner / Member Partner and further declare and confirm that_shall be solely bound to HLL for execution of the contract in accordance with the contract terms and shall perform all contractual obligations including technical guarantees. Further, the Lead Partner is authorized to incur liabilities and receive instructions for and on behalf of any or all partners of the JV.
5. All the partners shall be jointly and severally responsible for the works to be undertaken under the tender and Lead partner shall be the nodal point for HLL for queries, purchase orders, installation and payments.
6. In case of any breach of the said Contract by any of the partners of the JV, we hereby agree to be fully responsible for the successful execution/ performance of the Contract in accordance with the terms of the Contract.
7. Further, if HLL suffers any loss or damage on account of any breach of the Contract or any shortfall in the completed work meeting the guaranteed performance parameters as per the technical specifications/ contract documents, the Lead Partner undertakes to promptly make good such loss or damage caused to HLL, on HLL's demand without any demure. HLL shall have the right to proceed against.
8. The financial liability of the partners to this JV Agreement, to HLL with respect to the any or all claims arising out of the performance or non-performance of the Contract shall, however be not limited in any way so as to restrict or limit the liabilities of either of the partner.
9. It is expressly understood and agreed between the partners to this agreement that the responsibilities and obligations of each of the partners shall be as delineated in this agreement. It is further agreed by the partners that the above sharing of responsibilities and obligations shall not in any way be a limitation of the joint and several responsibilities of the partners under the Contract.

10. OBLIGATIONS OF THE PARTNER(s)

a. That, the Partner(s) ensures the procurement and supply of the items listed above.

b. That, the other Partner ensures to provide necessary training to the staffs employed in respective training centers operating under the provisions of the contract signed with Lead partner.

c. That, the other Partner agrees to provide necessary repairers and replacements for supplied items, if any found defective during the tenure of the agreement between the partners and HLL Provided such defects have incurred due to any breakage or manufacturing defect and must be pointed out by the Lead Partner to the Member Partner in writing within 3 days from the date of identification of such defect.

11. This JV Agreement shall be governed, construed and interpreted in accordance with Laws of India. Courts of_____shall have exclusive jurisdiction in all matters arising thereunder.
12. In case of award of contract, we the partners to this JV Agreement do hereby agree that we shall furnish the contract performance guarantee (if any) in favour of the HLL from a bank acceptable/ approved by HLL for a value as stipulated in the Contract Award.
13. It is further agreed that this JV Agreement shall be irrevocable and shall form an integral part of the Contract with HLLand shall continue to be enforceable till the JV members discharges the same. It shall be effective on the date first above mentioned for all purposes and intents.
14. The parties hereby agree that they will abide all the terms and conditions of the Contract if awarded by HLL.
15. The parties hereby agree to authorize the authorized representative of the Lead partner to sign the documents related to the 'Tender' and the contract (if awarded) related communications.
16. In case of award of contract, parties do hereby agree that, the invoice will be raised by and payment shall be released to, the Lead Partner only.
17. Each of the Parties hereto agrees that they shall perform their obligations as set out in this agreement so as to complete the project undertaken as a successful venture.
18. This Agreement represents the entire and integrated agreement between the Parties and supersedes all prior negotiations, representations and agreements, either written or oral. This Agreement cannot be modified without written permission from HLL.
19. The Parties to this Agreement respectively bind themselves, their successors, assigns and legal representatives to the other Party with respect to all covenants of this Agreement;
20. The obligation of each party to contribute in accordance with this Agreement to the satisfaction

of all debts and liabilities of the Joint Venture shall survive the termination of contract with HLL.

21. This Agreement shall be governed by the laws of India.
22. In case of any dispute arises between the parties shall be settled mutually between the parties without making HLL as a party to it.
23. This Agreement shall be binding upon the Parties hereto and their successors in title and all the shareholders of the Joint Venture Company and their respective heirs, executors, administrators, successors in title and assigns as the case may be;

IN WITNESS WHEREOF, the partners to this JV agreement have, through their respective authorized representatives, have executed these presents and affixed their hands and common seal of their respective companies on the day, month and year first abovementioned.

For M/s_____ **ForM/s_____**

Authorized Signatory **Authorized Signatory**

Witness

1

:

2.

ANNEXURE – II

SECTION VII – SCHEDULE OF REQUIREMENTS

3. TECHNICAL SPECIFICATION

A) INTENSIVE CORONARY CARE UNIT - 10 BEDDED

GLUCOMETER WITH STRIP

- 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 99
- Should have life time replacement offer
- Should have easy code entry technique
- Battery should be replaceable without using any tools.
- Should have facility to ensure accuracy of measurements.
- Should be supplied with three types of control solutions of each at least 20 ml
- Should be supplied along with 100 strips.
- Should have safety certificate from a competent authority CE / FDA (US) / STQC CB certificate / STQC S certificate or valid detailed electrical and functional safety test

GLUCOSE STRIPS

- Should be able to use capillary blood samples.
- Should have a minimum 4 months shelf life after opening the strip vial.
- All strips should have at least 18months shelf life from the date of supply.
- Strips should be available in the local market.

PORTABLE CARDIO PULMONARY RESUSCITATION DEVICE

- Lightweight, portable and rugged CPR Device should have following features:
- The device should be light weight less than 5 kg and can be strapped on patient chest for delivering chest compressions
- Should have buckle straps so that the device can be hooked up to patient for easy delivery of chest compressions

- Should have patient back support plate with side band for strapping so that device perfectly holds on to patient chest when patient is lied down for CPR
- Should have easy strapping so that it can be applied in 20 to 25 seconds onto the patient
- Should deliver chest compressions at 100 compressions per minute as per Resuscitation guidelines
- It should have additional mode wherein chest compressions are delivered at 30:2 ratio
- Should have built in rechargeable battery backup
- Should function for atleast 30 minutes on patient
- Should have facility to connect to 12 VDC from ambulance / Car supply
- Should be provided with charger for charging the batteries 100
- Should have battery indicator
- Weight < 4 kg inclusive battery.
- Should have design such that it is protected against sparing water Class IP 33 protection
- The equipment should be USFDA/CE approved

TECHNICAL SPECIFICATION for Ultrasound With ECHO

1. The unit should latest state of the art latest digital Color Doppler with broadband beam forming for abdominal, vascular, Obst. &Gynae,Pediatric,musculoskeletal, Echocardiogram and smallparts application. The models with following(or higher) specifications need to be quoted.
2. The machine should be USAFDA and European CE certified.
3. It should have at least 30,00,000 digital channels for high-resolution imaging
4. Acquisition rate of atleast 1400 frames per second.
5. Imaging Modes: 2D, M Mode , color flow imaging , pulse Doppler , continuous wave Doppler, power Doppler and transcranial Doppler
6. The machine should have facility for simultaneous dual/duplex/triplex mode display.
7. Tissue harmonic imaging should be available on phased, linear, 3D and curved array transducers. Tissue harmonic imaging should be available in2D, color flow Imaging, M.mode and 3D rendering modes.
8. The machine should have tissue harmonic imaging in power Doppler Imaging mode for improved sensitivity and specificity in differentiating blood/agent from tissue.
9. Machine should be capable of realtime compound imaging on linear ,curved and mechanical volume arrays The compound imaging should have multiple beam steered lines of sight
10. High dynamic range of 270dB or more.
11. The machine should have 256 Grey shades(8bit)or more.

12. One touch image optimization should be available In 2D mode with one button automatic adjustment of TGC and Receivergain and compression curve based on the range of detectable tissue signals.
13. There should be one button automatic adjustment of Doppler PRF, baseline,dynamic range and gain in Doppler mode.
14. Pulsed wave Doppler should be available on all,imaging transducers with adjustable sample volume size:1.0-2.0mm (transducer dependent),simultaneous or duplex mode of operation,simultaneous 2D,color Doppler,pulsed Doppler,high PRF capability in all modes including duplex and triplex and automatic adjustment of scale and base line.
15. System should support broadband/ wideband probes spanning with frequency range from 2-22 MHz (±1MHz).
16. The system should be able to capture all frequencies In a single probe without the need for user selection.
17. High Q automatic Doppler analysis should be available with automatic real time and retrospective tracing of at least six of following user selectable parameters: peak systolic velocity, end diastolic velocity, mean diastolic velocity, volume flow,time average mean velocity, time average peak velocity,resistive index, pulsatility index, systolic/diastolic ratio,acceleration/deceleration times
18. The machine should have builtin ECG and physiologicsignal module providing on screen ECGtrace in B,M and Doppler modes,ECG syncwith PW, CW or M-mode,ECG signal for triggering.
19. Code dexcitation should be available to improve penetration and recover more tissue information for greater detail resolution at extended depths. Alternate technology for tissue attenuation correction is also acceptable.
20. The machine should have cineloop review facility in individual; and mixed modes with memory upto minimum of 400images and 30seconds of Doppler/M mode data.
21. The machine should have facility of direct storage and retrieval of B/W and colorimages(both frozen and cineloop) in the inbuilt hard disk drive In built hard disk storage for Images should be more than 20,000 images or 500 GB atleast.
22. Support atleast three transducers with pinless ports allowing any transducer to be connected to any port.
23. A high resolution fully articulating non-interlaced flicker free, antiglare, flat panel display of 19inches or more, with tilt and swivel facility
24. System should have features including display annotation, patient ID display and alphanumeric keyboard with Track Ball , with provision for reverse,invert faciltty.
25. Computer package for measurement and calculation, provision for distance, area,volume and circumference.
26. Complete obstetric, cardiac ,vascular, renale valuation package should be available
27. Zoom facility (upto 6 times or more magnification) with high resolution results and pan capability in both real time and frozen images with facility of pre and post processing.
28. The system should haveCD-DVD and USS archival (DICOM and PC format)

29. It should be DICOM (3.0 or higher version (readywith print,save,modality work list for connecting to PACS system
30. Unit should have a four caster design with braking system.
31. Image management system along with color laser printer of HP/Canon/Sony/Epson make. Color laser printer to be attached to the machine.Five original cartridges per year per colorlaser printer to be provided for next10years
32. One UPS with 30 minutes bock up time, one each for ultrasound units and computers (of image management system) Alternatively,the machine and / or computer may have in built battery back-up.
33. The unit should have the following electronic probes:
    a. Broadband Convex array transducer 1-8 MHz with biopsy guide oneprobe
    b. Linear array transducer 4-15 MHz.
    c. Endocavitary probe 4-9 MHz with biopsy guide for transvaginal and transrectal imaging-one probe.
    d. Cardiac Probe Band width frequency 1-4 Mhz for Adult Cardiac Applications
    e. System should be upgradable to Live 3D/4D Imaging with Volumetric Convex & Volumetric TVS probes

B) MEDICAL INTENSIVE CARE UNIT - 10 BEDDED

TECHNICAL SPECIFICATION for Ultrasound With ECHO

1. The unit should latest state of the art latest digital Color Doppler with broadband beam forming for abdominal, vascular, Obst. &Gynae, Pediatric, musculoskeletal, Echocardiogram and small parts application. The models with following(or higher) specifications need to be quoted.
2. The machine should be USAFDA and European CE certified.
3. It should have at least 30,00,000 digital channels for high-resolution imaging
4. Acquisition rate of atleast 1400 frames per second.
5. Imaging Modes: 2D, M Mode , color flow imaging , pulse Doppler , continuous wave Doppler, power Doppler and transcranial Doppler
6. The machine should have facility for simultaneous dual/duplex/triplex mode display.
7. Tissue harmonic imaging should be available on phased, linear, 3D and curved array transducers. Tissue harmonic imaging should be available in2D, color flow Imaging, M.mode and 3D rendering modes.
8. The machine should have tissue harmonic imaging in power Doppler Imaging mode for improved sensitivity and specificity in differentiating blood/agent from tissue.
9. Machine should be capable of real time compound imaging on linear ,curved and mechanical volume arrays The compound imaging should have multiple beam steered lines of sight
10. High dynamic range of 270dB or more.
11. The machine should have 256 Grey shades(8bit)or more.
12. One touch image optimization should be available In 2D mode with one button automatic adjustment of TGC and Receiver gain and compression curve based on the range of detectable tissue signals.
13. There should be one button automatic adjustment of Doppler PRF, baseline, dynamic range and gain in Doppler mode.
14. Pulsed wave Doppler should be available on all, imaging transducers with adjustable sample volume size:1.0-2.0mm (transducer dependent),simultaneous or duplex mode of operation, simultaneous 2D,color Doppler, pulsed Doppler, high PRF capability in all modes including duplex and triplex and automatic adjustment of scale and base line.
15. System should support broadband/ wideband probes spanning with frequency range from 2-22 MHz (±1MHz).
16. The system should be able to capture all frequencies In a single probe without the need for user selection.
17. High Q automatic Doppler analysis should be available with automatic real time and retrospective tracing of at least six of following user selectable parameters: peak systolic velocity, end diastolic velocity, mean diastolic velocity, volume flow, time average mean velocity, time average peak velocity, resistive index, pulsatility index, systolic/diastolic ratio, acceleration/deceleration times

18. The machine should have built in ECG and physiologic signal module providing on screen ECG trace in B,M and Doppler modes, ECG sync with PW, CW or M-mode, ECG signal for triggering.
19. Code dexcitation should be available to improve penetration and recover more tissue information for greater detail resolution at extended depths. Alternate technology for tissue attenuation correction is also acceptable.
20. The machine should have cine loop review facility in individual; and mixed modes with memory upto minimum of 400images and 30seconds of Doppler/M mode data.
21. The machine should have facility of direct storage and retrieval of B/W and color images(both frozen and cine loop) in the inbuilt hard disk drive In built hard disk storage for Images should be more than 20,000 images or 500 GB atleast.
22. Support atleast three transducers with pinless ports allowing any transducer to be connected to any port.
23. A high resolution fully articulating non-interlaced flicker free, antiglare, flat panel display of 19inches or more, with tilt and swivel facility
24. System should have features including display annotation, patient ID display and alphanumeric keyboard with Track Ball , with provision for reverse, invert faciltty.
25. Computer package for measurement and calculation, provision for distance, area, volume and circumference.
26. Complete obstetric, cardiac ,vascular, renale valuation package should be available
27. Zoom facility (upto 6 times or more magnification) with high resolution results and pan capability in both real time and frozen images with facility of pre and post processing.
28. The system should have CD-DVD and USS archival (DICOM and PC format)
29. It should be DICOM (3.0 or higher version (ready with print ,save, modality work list for connecting to PACS system
30. Unit should have a four caster design with braking system.
31. Image management system along with color laser printer of HP/Canon/Sony/Epson make. Color laser printer to be attached to the machine .Five original cartridges per year per color laser printer to be provided for next10years
32. One UPS with 30 minutes bock up time, one each for ultrasound units and computers (of image management system) Alternatively,the machine and / or computer may have in built battery back-up.
33. The unit should have the following electronic probes:
    a. Broadband Convex array transducer 1-8 MHz with biopsy guide oneprobe
    b. Linear array transducer 4-15 MHz.
    c. Endocavitary probe 4-9 MHz with biopsy guide for transvaginal and transrectal imaging-one probe.
    d. Cardiac Probe Band width frequency 1-4 Mhz for Adult Cardiac Applications
    e. System should be upgradable to Live 3D/4D Imaging with Volumetric Convex & Volumetric TVS probes

C) NEONTAL INTENSIVE CARE UNIT - 10 BEDDED

Heated Humidified High Flow Nasal Cannula(with integrated humidifier)Specifications:

1. Equipment shoulddeliver heatedhumidifiedairoxygenblendedgas.
2. It shouldhave HD LCDDisplay with touchScreen,Screensize≤4.3",Can beusedforAdultandpediatrics.
3. It shouldbe with Lowpowerconsumption≤200W,
4. It Shouldnotbeheavy in weight ≤ 4Kgformachineonly.
5. AirOxygenmixtureshouldbebyproportionalvalve&fittedwithUltrasonicSensor-noneedforcalibration.
6. Itshouldbecapabletodeliverairflowswithflowsettingsofforlowflow2 to25L/min&ForHighFlow10-80L/Min
7. High flowmeterforsettingrangeofFiO2andflowsettings, Digitaldisplaymenuformonitorof FiO2&temperature.
8. Inbuiltheated humidifier to deliverwarmandhumidgasestoairway.Humidificationchambershouldhavedualfloat with autofeedsystem.
9. The tubingshouldlightweight andflexible.
10. Displayto monitor/Settemperatureof humidifiedgas,flowrateandFiO2
11. Should have low oxygen and High oxygenAlarm
12. Visualandaudible alarmindicationfor:tubesdisconnect, leaks, tubeblockages,andwateroutTemperature&powerfailurealarm.
13. Should besupplied withoriginalpole& trolleytoinstallthemachine.
14. ThesystemshouldbesuppliedwithlatestOzonedevice-rechargeable Disinfectiondevice -to disinfect internallythemachine.
15. Disinfectiontimecan'tbemorethan30Min
16. Electricalrating:50-60Hz; 100-220V ~2.2A (2.4Amax).
17. Sound shouldbe low
18. Consumables/OptionalAccessoriescostto be quoted include
19. Equipmentwarmuptime shouldnot bemorethan15-20 Minutes
20. Shouldbesuppliedwith3-SetsofChamber&Circuit,3-SetsofHFNCCannula
21. Itshouldhave ClinicalSettingOn/Off-tolocktheparameters
22. Itshouldmeet with internationalstandardsIEC60601 andISO13485/EuropeanCE

TECHNICAL SPECIFICATION for Laminar Airflow Cabinet

- **Size (WDH): 1210 x 600 x 600 mm (4 x 2 x 2 feet)**
- Model**: Vertical type**
- Body: Mild Steel powder coated
- Working Surface: AISI SS 304 grade stainless steel
- Filter & pre-filters: Minipleat HEPA & Fine filters
- Filtration Size: Down to 0.3 microns
- Filter Efficiency: ~99.997%
- Lights: Fluorescent and UV
- Petcock for water or gas (1 no.)
- Provided with Magnehelic Gauge

- Extra electrical point, 15amp, Multi-pin Socket
- Double foldable transparent scratch resistant front panel sheet of 6mm thickness
- Transparent scratch resistant side panels sheet of 6mm thickness
- Castor wheels for easy movement
- Power requirement : 220-240V, 50-60Hz

NEONATAL INCUBATOR

- Should have advanced servo controlled micro processor based system.
- Should have both skin and air modes of operation.
- Should have user friendly touch sensitive control panel with large easy to read LED displays for air and skin temperatures.
- The probes should be detachable type and should be interchangeable.
- Should have memory back up to retrieve set data against power failure
- Should have calibration free temperature sensors.
- Should have humidity chamber and humidity measurement.
- The air distribution system should have micro air filter
- Should be provided with X-ray cassette holder.
- Should have elbow operated ports.
- The baby tray should have externally controlled up and down tilting facility and the tray should be withdrawable type.
- The canopy should be hinged type.
- Should have temperature low/high, probe failure, power failure, heater failure, air failure alarm.
- The heater should automatically cut off at 39 degree Celsius irrespective of the set parameters.
- Should have IV stand and observation lamp.
- Should be mounted on four smooth running swiveling casters with integrated brakes.
- The unit should be made of mild steel tubular structure pre-treated and powder coated.
- Should operate on mains supply 200 to 240V ac, 50 Hz
- Should have safety certificate from a competent authority CE / FDA (US)

All other terms & conditions shall remain same.

DATE: 10.10.2020 **DEPUTY VICE PRESIEDNT (HCD)**