Amendment No. 4

Date: 09.02.2015

Sub: Amendment to Tender Enquiry Document.

Ref: NIT No.: HLL/PCD/GNCTD/27/GBPH/14-15 dated 30.12.2014 read with its amendment no. 1, 2 & 3 dated 28.01.2015, 29.01.2015 & 29.01.2015.

The following changes are incorporated to the tender enquiry for items bearing tender IDs: **2014_HFWD_74190_5 and 2014_HFWD_74190_7**

Section – VII
Technical Specification

Schedule No. 5
Continuous Renal Replacement Therapy Unit

Complete Existing Specification is replaced as under: -

CRRT Specification

1. The system should be capable of providing the following therapies:
a. Slow Continuous Ultra-filtrations (**SCUF**)
b. Continuous Veno-Venous Hemofiltration (**CVVH**)
c. Continuous Veno-venous Hemodialysis (**CVVHD**)
d. ContinousVeno-Venous Hemo-diafiltration (**CVVHDF**)
e. Treatment facility for pediatric (body weight below 20 Kg) patient
f. Therapeutic Plasma Exchange (**TPE**) for both Adult and Peadiatric
g. Hemoperfusion (**HP**) for Adult and Peadiatric

2. The system should contain four pumps to control the flow rates of Blood, filtrate substitute, dialysate.

3. Fluid control: The system should contain four precision scales for monitoring of the volumes of the total filtrate, substitute and dialysis; each scale should have maximum loading capacity of at least 10 kg.

4. The system should have a Syringe pump for extracorporeal blood circuit for continuous heparinization if desired.

5. The syringe pump should have setting for both continuous and bolus delivery

6. The system should have a provision for selecting pre or post dilution and Simultaneous pre as well as post dilution on CVVH and CVVHDF therapy modes

7. The flow rate accuracy should be within 10% of the set rate.

8. Facility to display dose calculation in the machine screen

9. Dialysate flow rates should be in the range of 10-80 ml/min.

10. Replacement flow rate should be in the range of 10-80 ml/min

11. The machine should have facility for monitoring: arterial, venous, pre-filter and effluent pressures trans-membrane and differential pressure

12. Alarms should be present for each of the pressure monitoring parameters

13. There should be a high resolution TFT/LCD display.

14. Should have user interface with graphical treatment parameters on display

15. Should have memory backup of all events occurred for past 2 days.

16. Access to Service menu and therapy unlock facility.

17. The machine should have on-screen user guidance with step-by-step instructions and integrated help function.

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18. Machine should have auto loading, auto priming function

19. The machine should have following safety features:
a) Capable of performing start-up test, prime test, self test (during treatment) to ensure that all functions are works properly.
b) Ultrasonic air detector capable of detecting air bubbles greater than 20 microliter. There should be an alarm system for cautioning against presence of air bubbles. On detection of air bubbles in the venous line the blood pump should shut down.
c) Blood leak detector with alarm.
d) Anti-electrostatic device to avoid ECG interferences.
e) High degree of protection against electric shock
f) Machine should have CE certification or any other equivalent standard

20. Electrical Data
a. The equipment should operate at a mains supply of 220V, 50 Hz single phase a.c
b. Should be provided with a battery backup so that the system can operate and monitor the extracorporeal circuit for at least 15 minutes in case of power failure.

21. The successful bidder must provide on-site clinical training to responsible personnel

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Schedule No. 7
Anesthesia Workstation with Multiparameter Monitor

Existing Specification:
Para 2.1: Anesthesia machine complete and integrated with Anesthesia gas delivery system; Circle absorber system; Precision vaporizers for Isoflurane and Sevoflurane; Anesthesia Ventilator; Monitoring system to monitor Anesthetic gases, ECG, EtCO2, FiO2, Pulse Oximeter, and Airway pressures, NIBP, IBP (Number as required), temperature monitoring, and complete vital signs monitoring solution from a single manufacturer to ensure that all the components work in synchrony.

Read as:
Para 2.1: Anesthesia machine complete and integrated with Anesthesia gas delivery system; Circle absorber system; Precision vaporizers for Isoflurane and Sevoflurane; Anesthesia Ventilator; Monitoring system to monitor Anesthetic gases, ECG, EtCO2, FiO2, Pulse Oximeter, and Airway pressures, NIBP, **4 channel IBP**, temperature monitoring, and complete vital signs monitoring solution from a single manufacturer to ensure that all the components work in synchrony.

Existing Specification:
Para 2.4: The system should have minimum of 60 min battery backup for the entire unit.

Read as:
Para 2.4: The system should have minimum of 60 min battery backup **through UPS for the entire unit**

Existing Specification:
Para 3.15 : Should have target controlled settings for oxygen and anesthetic agent based on continuous of patient's end tidal oxygen and end tidal anesthetic agent values to reduce agent consumption in low and minimal flow anesthesia

Read as:
Para 3.15: **Deleted**

Existing Specification:
Para 6.8: Ventilator shall have gas composition correction capability

Read as:
Para 6.8: **Deleted**

Existing Specification:
Para 6.12. d: Positive End Expiratory Pressure (PEEP) : off, 4-30 cm of H2O

Read as:
Para 6.12. **d**: Positive End Expiratory Pressure (PEEP) : off, 4-30 cm of H2O **or 0-20 cm H2O**

Existing Specification:
Para 7.4: It should be modular in design with module rack

Read as:
Para 7.4: It should be modular in design with modular rack**/pods system /new modular**

Existing Specification:
Para 7.5: It should have module for Automatic identification and measurement of inspired and expired concentration anesthetic agents and gases. i.e, CO2, O2 (paramagnetic) and N2O. Facility to measure MAC value and balance gas.

Read as:
Para 7.5: It should **have provision to mount gas** module for Automatic Identification and measurement of Inspired and expired concentration anaesthetic agents and gases. i.e. CO2, O2 (paramagnetic) and N2O. Facility to measure MAC value and balance gas. **The same should be either available on Anesthesia Machine or Monitor**

Existing Specification:
Para 7.6: SPO2 measurement by nellcor or masimo

Read as:
Para 7.6: SPO2 measurement by nellcor or masimo **or equivalent**

Existing Specification:
Para 7.8: It should have depth of Anaesthesia Monitoring by means of BIS.

Read as:
Para 7.8: It should have depth of Anaesthesia Monitoring by means of BIS **/ Entropy**

Existing Specification:
Para 8.12: BIS - 25 Nos. of disposable sensors per monitor

Read as:
Para 8.12: **25 Nos. of disposable sensors for every BIS module**

Existing Specification:
Para 8. 14: IBP : 4 transducers with reusable connecting cable & 50 transducer domes.

Read as:
Para 8. 14: **IBP : 4 reusable connecting cable & 50 nos. disposable transducer domes**

Existing Specification:
Para : Comprehensive Warranty should include consumables, parts having limited life and non-consumables parts like probes, metal/ plastic/ rubber/ glass parts, expendable/ non expendable/ disposable/ non-disposable items/ electrical circuits/ electrical parts

Comprehensive warranty should cover each and every part of the equipment. The hospital is not liable to pay any charges on any account during the comprehensive warranty period of 5 years, for continuous running of the equipment.

Read as:

Para: Comprehensive Warranty is expected to include each and every part of the equipment. Understandably it will not include consumables like breathing circuit, soda lime, reservoir bags, water traps. It will also not include parts which are subject to normal wear and tear like ECG cable and wire set, SpO2 probe, temperature probe. However the vendor shall provide the cost of such items which shall be used for five years. If there are any other components (other than the above mentioned), the cost and likely frequency of failure/ replacement of such components shall be quoted. All such costs will be considered to arrive at the total cost of ownership of the equipment for a period of five years. It shall be noted that all third party items which are part of the standard equipment like vaporisers, UPS etc are covered under the comprehensive warranty and the vendor shall be the point of contact for fulfilling the warranty terms for these items.

Note:

Prospective Bidders are also advised to check the website regularly prior to the closing date and time of online submission of tenders.