Notice Inviting e-Tender

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Supply and Commissioning of 4(four)different Medical equipment for Burdwan Medical College & Hospital

(Submission of Bid through *online*)

Bid Reference No.: WBMSCL/NIT-236/2023 Dated-11.05.2023

2nd call of Bid Reference No.: WBMSCL/NIT-123/2023 Dated-14.03.2023

AMENDMENT-III

Revised Technical Specification

ITEM-1

CPAP

1. Should have Manual and Auto CPAP mode with advanced sensor technology for tracking respiratory status of the patient.
2. It should be suited for therapy of OSA / Obesity hypoventilation therapy.
3. Should have inspiration trigger for auto start.
4. Should have auto stop option when put-off mask.
5. Should have power connection error display alarms.
6. Should have facility for sensitivity setting.
7. Should have leakage compensation facility.
8. Should have provision of DC Powered humidifier.
9. Should have embedded memory storage for full raw data and facility for longer storage.
10. Should be supplied with standard spares and accessories(Reusable - Nasal Musk -03 small 03 medium and Oronasal Musk 03 small 03 medium)

11. Should have safety certificate from a competent authority CE issued by a notified body registered in European commission / FDA (US) / UK Cert / BIS.

12. Should have ramp settings for CPAP Pressure.

13. Should have mask check feature.

14. Should have CPAP Pressure (4-20) cm of H2O

15. Should have display of at least 2 inches

16. Should have inbuilt power backup port.

ITEM-2
ECT Machine

1. Channels: 6 channels or more (simultaneous ECG, EMG & EEG)

2. CMRR: > 90dB

3. A/D Resolution: 12 bits unipolar.

4. Low-pass frequency (Hz): DC, 0.1, 0.3, 0.5, 1, 3, 5, 7, 10

5. High-pass frequency (Hz): 0.1, 0.3, 0.5, 2, 10, 15, 35, 70, 99

6. Sensitivity (µV): 1, 2, 3, 5, 7.5, 10, 15, 20, 30, 50, 75, 100, 200, 300, 500, 750, 1000, 1500

7. Max. Sampling rate: 256

8. Interface: RS-232 interface

9. Modes: i. Brief pulse mode ii. Sine wave mode

10. Brief pulse: Bi-directional square wave.

11. Brief pulse mode: i. Frequency ii. Duration iii. Pulse width iv. Current selectable by user v. Energy automatically calculated by the micro computer

12. Frequency: selectable 30 Hz-90Hz in 7 steps of 10 Hz each.

13. Pulse width: selectable 0.8 ms-2.0 ms in 7 steps of 0.25 secs each. EP division Running Contract Notice Page 2/4

14. Duration: selectable from 0.5 secs to 2.0 secs in 7 steps of 0.25 secs each

15. Current: 500 mA- 800 mA in 7 steps of 50 mA each

16. Energy: Energy is delivered according to the head impedance calculated and the set parameters.

17. Sine wave i. Current: 650mA (fixed) ii. Frequency: 50Hz (fixed) iii. Duration: 0.5 ms (fixed)

18. Energy: Energy is delivered according to the heard impedance calculated and the set parameter

19. Recording section : The unit is equipped with a two channel monitoring system. EEG/ECG

traces can be run before and after treatment to monitor the patient's EEG &ECG traces.

20. Software features: i. Session wise records are saved for each patient. ii. View/ edit/ delete any session at any time. iii. Search facility should be available for patient's database. iv. All the parameters of a session & shock settings should be saved for review. v. Event marking facility. vi. Automatic report generation. vii. Print preview & print out for waveforms & report. viii. Time measurement tool ix. Peak to peak measurement tool. x. Heart rate measurement tool. xi. Selectable filters, sensitivity, deflection & channel color xii. Raster & continuous viewing of waveforms. EP division Running Contract Notice Page 3/4

21. Standard accessories: i. Rubber strap head band (Velcro type) 1 No ii. Perspex type head band : 1 No iii. Limb electrodes: 4 Nos iv. EEG electrodes: 6 Nos v. EEG paste : 1 Jar vi. KY Jelly : 1 Tube. vii. Earthing cord: 1 No viii. Dust Cover : 1 No ix. Instruction Manual : 1 No

22. Standard Accessories i. Head band: 1 No ii. Electrodes: 10 Nos iii. Disposable electrodes: 20 Nos iv. Paste: 1 Jar v. Conductivity Jelly : 1 No vi. Earthing cord: 1 No vii. User manual: 1 No

23. Should have safety certificate from a competent authority CE issued by a notified body registered in European commission / FDA (US) / BIS

ITEM-3
Ultrasonic Tissue Dissector

1. System should have a with or without universal connector to connect Ultrasonic energy and Advanced RF energy instruments
2. System should have automatic instrument recognition
3. System should have a touch screen display for fast and setup, operation and on-screen diagnostics
4. System should have a high-resolution display with wide viewing angels.
5. System should have the ability for software updates.
6. System should be a single / separate generator that provides Ultrasonic energy and advanced RF energy technology for soft tissue dissection and vessel sealing
7. System should have potential equalization terminal for compatibility with other medical systems requiring such connections.
8. System should conform to the following international standards EN (IEC) 60601-1/ EN (IEC) 60601-1-2 / EN (IEC) 60601-2-2 / EN (IEC) 60601-1-8
9. System should provide Class 1 protection against electric shock
10. System should have a single / separate footswitch for operating ultrasonic energy or advanced RF energy instruments
11. System should have the ability to select hand switch or footswitch activation or both for Ultrasonic and advanced RF energy instruments and the ability to change selection during use.

12. System should have English and other languages as default.
13. System should not have minimal lateral thermal spread more than 1 mm
14. System should not have an auto switch off mechanism
15. System should have standby mode to ensure safety
16. System should come equipped with system diagnostics and troubleshooting guide to pin point any problems in the system
17. System should have onscreen warning display system for generator overheating, generator software upgrade, hand piece errors and instrument errors
18. System should be able to power ultrasonic energy instruments with 55.5 KHz frequency and have the ability to power ultrasonic energy instruments in the frequency range of 30-80KHz in future
19. System should be compatible for open surgery and for laparoscopic surgery
20. System should be compatible with 5mm hand instrument.
21. System should have variable power settings levels with power level display for ultrasonic energy instruments
22. System should be able to power energy instruments with microprocessor controlled bipolar electrosurgical radiofrequency technology with a quasi-sinusoidal forced impedance output.
23. System should be equipped with smart advanced RF energy technology to measure the tissue impedance and control the power delivery.
24. System should be equipped with advanced RF energy technology that can simultaneously seal and transect vessels up to including 7mm, large tissue pedicles and vascular bundles
25. System should be equipped with advanced RF energy technology that provides temperature controlled energy delivery which should maintain tissue temperature approximately at 100 degree Celsius.
26. System should have advanced RF energy hand instruments with a unique electrode configuration to minimize the lateral thermal spread
27. System should have Advanced RF energy hand instruments with technology to deliver high compression uniformly across seal area
28. System should have advanced RF Energy hand instruments that provide tissue/ vessel seal strength to withstand bursting pressure of 3 times or more the systolic pressure
29. All hand probes for open and lap procedures should be able to simultaneously cut and coagulate tissues.
30. System should be able to power advanced RF energy hand instruments of 5mm shaft diameter for both open & laparoscopic procedures in the following shaft length (14cm, 25cm, 35cm & 45cm) and should be both hand & foot activated
31. System should be able to power ultrasonic energy hand instruments of 5mm shaft diameter

for both open & laparoscopic procedure and should be both hand and / or foot activated, with the following specifications

a. Pistol grip Curved Coagulation Shears with ergonomic handle in the following shaft length (36cm). Can seal blood vessels upto and including 5mm in diameter and should have adaptive tissue technology.

b. Pistol grip curved coagulation shear with ergonomic handle with 23 cm with 360 degree rotation.

c. Curved blade and hook having telescopic shaft 4 - 9cm with a allowable variation 10-15% / open radio frequency hand instrument for curved scissor like jaw.

d. Coagulation shears with scissors grip of 9cm and 17cm length

e. RF Vessel sealing Probe which can coagulate up to 7mm vessel in diameter with Shaft length 35CM Long.

i) RF Vessels Sealing Probe with 110 Articulation (55 in each direction) / maryland curved jaw, 360 rotation knob

32. System should comprise of the following

A. Hardware

i) Generator

ii) Footswitch & cable

B. Accessories to be supplied if orders issued

a. Hand piece hand piece atleast 5 nos. for both open and lap. (ultrasonic and RF energy)

b. Transducer- both open and lap and transducer atleast 2 nos each (If both open and lap Transducer accepted with machine should provide only 2 nos. or more which is required for the purpose and the Expert will be satisfied.)

c. Adaptors for ultrasonic and advanced RF energy instruments as applicable to the instrument.

33. Should have safety certificate from a competent authority CE issued by a notified body registered in European commission (4 digit notified body) & FDA (US) / BIS

ITEM-4
Automated RT-PCR Machine

a. Real Time PCR System for measuring Real-time amplification of DNA/RNA from purified samples, application include Quantification assays, Qualitative assays, SNP, HRM, Gene Expression, Any published protocol or chemistry should be reproduced.
b. System should have a port for USB Drive for uploading and downloading data and programs.
c. Dedicated Peltier-based Real time Thermal cycling system, 96-well block can accommodates both 96 well PCR plates as well as 8-Tube Strips with clear caps.

d. System should have a temperature accuracy of ±0.2 °C and well to well Temperature Uniformity of ±0.4 °C
e. System should have Gradient function for the temperature programmable of 20 °C gradient range.
f. System should allow Optimum reaction volumes of 10µl to 50µl or more
g. System should have sample ramp rate more than 4 °C while heating and less than 2.2°C while cooling.
h. System to provide on line Cycle by Cycle monitoring with continuous display of readings for Fluorescence, Temperature changes and progression of amplification and detection simultaneously on all 96 wells on the plate without any moving parts.
i. RT PCR system should have fiber optics for high accuracy and easy multiplexing on probed assays.
j. System should have individual well to well excitation and emission for better sensitivity for capturing the signals without any edge effects.
k. System should have broad range high-intensity white LED as a excitation source
l. Working Programmable range 37 to 99 °C, Sensitivity from 1 copy detection and dynamic range of 10 orders of magnitude.
m. System should be compatible with all kind of chemistry Syber green and Hydrolysis probe and compatible with all kind of kits in market. Should be open system for both reagents & disposable plastic consumables.
n. System should use cooled CCD camera/ CMOS / Photodiode for detection without any moving detectors or scanning detectors
o. Instrument filters should be divided based on the wavelength starting from 450 to 750 nm.
p. System should have a minimum of eight filters, Four Excitation filters (450 to 750 nm) and Four Emission filters (450 to 750 nm) to cover majority of the commercially available dyes
q. Multiplexing capacity: true 5 colors or more multiplex analysis without any passive reference dye.
r. System should be calibrated for Detection Dyes: SYBR, FAM, VIC, Hex, Texas Red, Rox and Cy5. Any new dyes should be used within the filter settings.
s. System should be free of passive reference dye.
t. System should be capable of Simultaneous data acquisition for all positions in 10–1000 ms (dynamic mode)
u. Fast run time, Runtime < 40 min for 3-step 40 cycles PCR
v. Should have preferably 10 inch colored LCD touch Screen display for smooth operation while standalone usage and online fluorescence display.
w. The real time PCR software should allow the user to do the analysis of all type of application like,
    a. Absolute quantitation
    b. Advanced Relative quantitation
    c. Multiplex-PCR allelic discrimination (SNP)
    d. Tm Calling (Melt curve Analysis – Sybr)
    e. Endpoint Genotyping
    f. Qualitative Gene detection
    g. High Resolution Melting curve analysis (HRM) for mutation studies
    h. Pathogen detection and plus/minus assay.

x. Necessary control / QC kits for installation should be supplied along with instruments
y. Software should be compatible with Win 7 to Win 10 with future up gradation
z. RT PCR software should be of multi user installation facility and allow the user to design the

experiment or plate layout conveniently.

a. Software should allow to import / export formats like Txt export, Charts: Data and image.
b. System software should support remote access for trouble shooting.
c. Software should have the provision to use barcode scanner and import / export option for plating layout to reduce the time in plating layout.
d. Should provide online UPS of appropriate capacity
e. Should provide Equipment user list in India
f. A laptop/ desktop PC with good configuration should be supplied
g. Should guarantee availability of spares and service for minimum 7 Years
h. Quality and standard certification: CE-IVD or US FDA or BIS/ UK Cert