



Notice Inviting e-Tender

West Bengal Medical Services Corporation Limited

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Supply and Commissioning of Advanced Hemodynamic Monitor with Hypotension Predictor for NRS MCH

(Submission of Bid through *online*)

Bid Reference No.: WBMSCL/NIT-390/2023

Dated-14.07.2023

Amendment-I

REVISED TECHNICAL SPECIFICATION

Advanced Hemodynamic Monitor with Hypotension Predictor

1. It should have a touch screen with active area of 12.1 inch.
2. It displays intermittent & continuous hemodynamic measurement when used with appropriate disposable sensor.
3. It should be able to give continuous Cardiac Output using continuous noninvasive arterial pressure waveform, using "volume clamp and physiological methods", obtained by placing a disposable cuff on an index finger / ring finger / middle finger.
4. The cuff should not be placed on thumb or previously fractured fingers.
5. The Disposable Sensor should be able to give Continuous arterial pressure waveform when connected, on other bedside patient monitors.
6. The disposable finger cuff should be able to noninvasively monitor brachial artery pressure and other key hemodynamic parameters such as Cardiac Output (CO), Stroke Volume (SV), Stroke Volume Index (SVI), Cardiac Index (CI), Stroke Volume Variation (SVV), Pulse Pressure Variation (PPV), Mean Arterial Pressure (MAP), Diastolic Pressure (DIA), and Systolic Pressure (SYS).
7. Real-time brachial Blood Pressure waveform should be displayed on the trend screen.

8. It should have future upgradable facility of Minimally -Invasive Continuous Cardiac Output, Cerebral Oximetry and Pulmonary Artery Catheter Module.
9. It should have Hypotension Prediction Index to measure hypotension probability before the incidents along with provide dP/dt- Systolic slope maximal upslope of the arterial pressure waveform from a peripheral artery. Afterload-Dynamic arterial elastance (E_{adyn}) the ratio of pulse pressure variation to stroke volume-variation (PPV/SW) when appropriate sensors will be connected.
10. The double cuff pressure controller should be able to alternate b/w finger cuff allowing for monitoring in longer surgical cases.
11. IFM out serial port and HL7 connectivity for both minimally invasive and noninvasive technologies.
12. The heart reference sensor should be able to compensate for potential errors due to differences in height b/w finger and heart level.
13. It should be able to give Cardiac output update every 20 Seconds.
14. The system should have a Li-ion internal battery for an uninterrupted power supply. Battery status should be displayed on the monitor.
15. It must have display capacity of at least 4 trend lines and 4 numerical display, optional physiology and physio-relationship screen, graphical trend, tabular trend, big numbers, cockpit screen.
16. It should have the ability to analyze patient's response to specific interventions as fluid challenge, various interventions. All these interventions should be time stamped and stored for retrospective analysis.
17. It should be able to give Continuous Systemic Vascular Resistance, provided a CVP value is manually entered in the system.
18. It must save data for at least 72 hours.
19. Must have screen shot and data download facility through any USB stick.
20. Operating manual should be supplied.
21. Equipment must have US FDA/ European CE (4 Digit Notified Body) / BIS approved.