PHILIPPINE HEART CENTER
East Avenue, Quezon City

SUPPLEMENTAL BID BULLETIN No. 025-2021

SUBJECT : Revisions in the Bidding Documents

PROJECT/S : **Revised Technical Specifications of 1 Lot Cardiac Monitoring System - ITB No. 032.21**

****

To ensure that the transactions are comparatively advantageous to the interests of the PHC, the originally pre-issued bidding documents as mentioned above, revisions are hereby introduced:

ONE-LOT CARDIAC MONITORING SYSTEM

(2 Central Monitors, / 16 Cardiac Monitors / 2 Defibrillator with Pacer and Trolley, 2 ECG / 2 Transport Monitors with Trolley)

A. GENERAL SPECIFICATIONS FOR CARDIAC and CENTRAL MONITORS

QUANTITY: 16 units cardiac monitor 2 units transport monitor with trolley	1. Data should have all the following basic parameters: ○ Electrocardiogram (ECG) ○ Respiratory Rate ○ Pulse Oximetry (SPO2) ○ Temperature ○ Non-Invasive Blood Pressure ○ **$ETCO_2$ (end tidal CO_2)** ▪ With adaptor attached to mechanical ventilator tubings with provision of at least 5 pcs each unit and with availability for at least 5 years in the market 2. All units of cardiac monitors should have internal storage capacity of data. 3. All units of cardiac monitors should be able to do inter-bed display within the unit simultaneously 4. Local supplier to issue a duly notarized certification regarding: All units of cardiac monitors should have at least 30mins UPS **that can sustain operation for at least 30 mins.** 5. Data display should be easily readable: font size adjustable accordingly

6. Screen for Cardiac Monitor should be:
    - Touch Screen Operation
    - LCD or LED color display with minimum resolution ≥ 1024 x 768 pixels

7. All units of cardiac monitors should have color-coded waveforms for easy identification

8. All units of cardiac monitors should have adjustable audible and visual alarm system for all the following items:
    - Low or high Cardiac Rate
    - Arrhythmia
    - Low or high Respiratory Rate
    - Low or high Blood Pressure
    - Low level Oxygen Saturation
    - Lead disconnection

9. Local suppliers to issue a duly notarized certification regarding: Duly licensed software upgrades should be available (free of charge)

10. Plugs fitted to PHC electrical outlet auto-voltage range from 100-240 volts, **or 220-240 voltage range,** 60Hz.

11. With internal battery that can sustain power for at least 1 hour

12. Cardiac monitor screen should be at least 15 inches (38.1cms) and bedside monitors.

13. Installation of monitors and brackets (wall mounted) to be shouldered by the bidder.

14. Each cardiac monitor must have the following Non-invasive Blood Pressure cuffs for the following age groups:
    - (1 unit) Neonates and premature infants
    - (1 unit) Infants
    - (1 unit) Older children
    - (1 unit) Small adult
    - (1 unit) Adult
    - (1 unit) Large adult
    - (1 unit) Adult thigh

    with their respective properly labeled arm/thigh circumference ranges for each age group

15. Pulse Oximetry (SPO2) sensor reusable and waterproof. Sizes available for neonates, children and adult respectively for each bedside monitor.

16. Two units trolley for transport monitors

17. Quality Standard – ISO 13485

B. SPECIAL REQUIREMENTS

QUANTITY:
8 units

AREAS:
Code Area

1. Should have two (2) invasive pressure monitoring capable :
   - Arterial Blood Pressure (ABP)
   - Pulmonary Artery Pressure (PAP)
   - **Thermodilution**

2. Should be able to provide dynamic measures for preload responsiveness assessment:
   - Pulse Pressure Variability (PPV)
   - Systolic Pressure Variability (SPV) or
   - Stroke Volume Variability (SVV)

   - **esCCO based on PWTT parameters (Pulse Wave Transit Time)**

3. All 8 units bedside monitors should have End-Tidal Carbon Dioxide (ETCO2) monitoring with respective cables

4. Local suppliers to issue a duly notarized certification regarding: equipped with clinical decision-making tools / algorithms for cases eg: Myocardial Infarction in the software upgradable when necessary..

5. **Each unit of bedside monitors should have reusable temp probes**
   - **(1) rectal**
   - **(1) oropharyngeal**
   - **(1) skin probe**

C. SPECIFICATIONS FOR CENTRAL MONITORS

AREA :
Nurses' Station

QUANTITY:
2 units

1. Two central monitors should have the following:
   - Display at least 20 patients with either single or dual display
   - Capability for printing events
   - Automatically / Manually compute for Qtc

2. Should be able to store at least 48 hours of data for rhythm analysis, events, trends, vital signs, ST analysis

3. Should be able to display the following:
    - At least 2 ECG leads in real-time on display simultaneously
    - 12-Lead Electrocardiogram (ECG) capable record , analyze and document studies from all ECG-capable monitors

4. Plugs fitted to PHC electrical outlet auto-voltage range from 100-240 volts **or with 220-240 voltage range**, 60Hz, UPS for the Central Monitor that can sustain operation for at least **30 minutes.**

5. Screen for Central Monitor should be:
    - Touch Screen
    - LCD or LED color display with minimum resolution $\geq$ 1024 x 768 pixels

6. Monitor fixed at nurses' station and screen should be at least 24 inches (60.96 cms)

7. Installation to be shouldered by the bidder.

D. SPECIFICATIONS FOR DEFIBRILLATORS WITH PACER AND TROLLEY

QUANTITY:
2 units

1. Capable of data storage for minimum of 48 hours

2. Biphasic technology

3. Color LCD Screen at least 6.5 inches display with a minimum resolution of 640 x 480

4. With color-coded 3-6 ECG lead wires

5. Monitoring parameters:ECG, SPO2, NIBP and Capnography
    a. Capnography: warm up time at least less than 10 seconds; capable for intubated and non- intubated patients (accessories provided)

6. AED mode capability

7. External pacer capability for pedia and adult.

8. External cable paddles for both adult and pedia, with indicator demonstrating good contact; with discharge buttons

	9. Output energy; 2 joules to 360 joules; adjustable settings 10. Charge status indicator 11. Fast-charging, in 5 seconds or less for energy of 200 joules 12. As defibrillator, it should be capable of at least 100 shocks at a minimum 200J at fully charged battery a. Quick recovery ECG baseline at least less than 3 seconds 13. Automatic disarm feature 14. Monitoring Parameters Alarms: setting adjustable 15. Recorder of parameters printed on thermal paper 16. Monitoring cart/trolley; 4 wheel caster with brakes 17. With built in handle 18. Lithium-ion battery or Ni-MH; with battery indicator 19. Power supply: 110-220 volts; **or with 220-240 voltage range** or 60 Hz 20. Electrical plug compatible with PHC set socket- provided certification 21. Quality standard: ISO 13485 22. Free regular quarterly preventive maintenance for 2 years 23. Warranty of 3 years for all parts, labors and accessories

E. SPECIFICATIONS FOR ECG MACHINE	
QUANTITY: 2 units	1. Should be 12-channel device 2. ECG reports – 3x4, 3x4 1R, 3x4 3R, 3x4 1R plus ST maps, 6x2, 12x1, Standard and Cabrera formats, plus Pan 12 Cabrera or its equivalent 3. Standard measurements – Ten-interval, duration, and axis measurements / Configuration QT correction method

4. Rhythm strips – Up to 12 configuration leads

5. Report format in both XML and PDF

6. Disclosure – Five minute history of all 12 leads

7. Built-in training mode for easy learning

8. Must detect wrong lead placements

9. Must be compatible and capable for uploading in Hospital Information System of the Philippine Heart Center

10. Screen – touch screen or touch panel

11. Keyboard – standard full alphanumeric keyboard

12. Battery – Lithium ion

13. Battery capacity – Typically 30 ECGs or 30 minutes of continuous rhythm recording on a full charge. No fail operation during ECG printing

14. Battery recharge – 4 hours to full capacity

15. Power requirement – 220-240 volts, 60 Hz

16. Lead wires must be attached to bulbs and clamps for more stable acquisition of the ECG signals

17. Must provide ECG cart per ECG machine

18. Supplier must submit notarized certification of good standing to end PHC user

19. Quality Standard – ISO 13485

This Supplemental Bid Bulletin is hereby issued to modify the original parameters as stated therein. All other requirements previously stated on the bid documents must be complied.

Please be guided accordingly.

Approved. Done this 24th day of June 2021, BAC Office.

MARIETTA A. VELASCO, RN, MAN.
Chairman, BAC for Pharma Supplies and Med Equipment