#### Annexure-A

Tender Notice No. RIMS/PUR/EQUIP/TEN-14 (pt-I)

Imphal the 12th March 2015

# Item no.1:- Bedside Monitor/Vital signs Monitor (Multichannel Monitor):-

(All the system should be US FDA/CE certified)

- I. Monitor should have facility for Monitoring the following parameters ECG, respiration, Sp02,NiBp and Temperature & Dual Invasive Pressure.
- II. Monitor should have be Upgradeable to latest EtCO2 module like Mainstream/micro stream.
- III. Monitor should have facility to display at least 6 waveforms.
- IV. Should have Integrated high resolution Backlit LED display. The display size should be more than 10.00 inch.
- V. The monitor should operate on scurfy Optical encoder (Rotary Knob) & Touch pads.
- VI. Weight of monitor should not be more than 4 kg.
- VII. At least one of the keys should be user configurable.
- VIII. Monitor should have ST segment analysis and Arrhythmia Detection facility.
  - IX. Sp02 should be branded High acuity Masimo/Nellcor with facility to display Plethysmograph, Sp02 values and Pulse rate.
  - X. The Monitor should have advanced **A**larm management system with facility to grade the alarm by priority.
  - XI. Monitor should have Reminder alarm and Timer facility.
- XII. Monitor should be able to store & recall trends for at least 160 Hours in both Graphical & Tabular format.
- XIII. Monitor should have facility to store & recall at least 5 pages of ECG for later review.
- XIV. To enable ease of viewing Monitor should have a separate Alarm page for display of at least 30 alarm conditions.
- XV. Monitor should have ease of setting of limits through **A**uto set as well as manually.
- XVI. Invasive Blood Pressure Zeroing should be easy with facility to Zero either from monitor OR from the cable close to the patient.
- XVII. Monitor should have port for connectivity to devices like IABP for easy synchronization.
- XVIII. Monitor should have facility for connecting High resolution Large displays through latest HDMI ports.
- XIX. Should be able to communicate with the central Station in either Wired OR wireless form.
- XX. Monitor should have USB port for ease of Patient data download as well as software uploads.
- XXI. Monitor should have Demo modes for teaching staff.
- XXII. Should have option for WIFI facility.
- XXIII. The company should have local service dealer who can take care of pre & post installation services.

## Item No.2:- Syringe pump (Infusion Pump):-

- I. The unit should be microprocessor controlled and a splash proof design.
- II. It should accept syringe sizes of 5, 10, 20, 30, 50/60 ml with automatic syringe & detection.
- III. It should be compatible with all standard Indian Imported brands of syringes.
- IV. Should be front loading syringe pump.
- V. Loading of syringe should be possible in both Auto/Manual modes.
- VI. It should have flow rate upto 1000ml/hr with password protection for above 200 ml/hr for safety reasons.
- VII. It should have drug library for minimum 80 drugs.
- VIII. It should have manual and automatic Bolus facility for quick delivery of drug in automatic and manual mode.
  - IX. It should have user selectable three levels of occlusive settings.
  - X. Cumulative volume should be displayed during the infusion.
  - XI. It should have KOR/KVO (user selectable) and also facility to disable KOR
- XII. Should have Anti-bolus facility.
- XIII. Should have indication about the drug being infused.
- XIV. Should have keyboard Lock facility.
- XV. It should have audio and visual alarms for the following:
  - a. Infusion end
  - b. Low volume (pre-alarm before syringe empty)-user selectable
  - c. Occlusion
  - d. KOR(KVO)
  - e. Power failure
  - f. System error
  - g. Syringe (not installed or displaced)
  - h. End of stand by
  - i. Preventive maintenance alarm
- XVI. It should work on mains as well as Internal rechargeable battery backup upto 12 Hrs and external DC.
- XVII. The company should have a local service dealer who can take care of pre & post installation services.

## **Item No.3:- PORTABLE EXAMINARTION LIGHT**

- I. The light should be a LED mounted on a castor with 5 wheels with two wheels with brakes.
- II. The light should have a self balancing K arm with a 42" arm range for an extensive reach & easy positioning & should stay in correct position without drifting.
- III. The LED light should deliver natural white light utilizing only 15 Watts & the rating for the LED light should be minimum 40000 burning hours.
- IV. The minimum lux should be around 39000 at distance of 24inch with a color Temperature of 4000 K.
- V. The Colour Rendering Index (CRI) should be around 92.
- VI. The light should have a inbuilt transformer.
- VII. The company should have a local sales and service dealer network who can take care of pre & post installation.

## Item No.4:- OVER BED / CARDIAC TABLE

#### A. Specification (I):

- I. Frame: Tabular mild steel.
- II. Finishing: Epoxy powder coated chrome-plateda adjustable arm.
- III. Table Top: Manual height adjustable from 700mm to 1100mm Table top constructed of laminated fibre board with all round moulded rubber edgings.
- IV. Size: 830mm (L) x 360 mm(W)
- V. Castor: 4x50 mm swivelling type.

### B. Specification (II):

- i. Laminated board top
- ii. Tubular steel frame work
- iii. Mounted on four 5 cm, Epoxy powder coated
- iv. Top size:  $106 (L) \times 45 (W) cm$
- v. Height: 95cm

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#### Item No.5:- AUTOMATED BLOOD GAS ANALYZER WITH ELECTROLYTES

- The analyzer should be able to measure Blood gas (pH, pO2, pCO2) and electrolytes (Na $^+$ , K $^+$ , CA $^{++}$ , CL $^-$ ).
- II. Samples: By automated probe aspiration through syringe & capillary.
- The instrument should be operated with multiple test cartridge / cassettes.
- The Cartridges / cassettes should have variable pack sizes from sizes from minimum of 25 tests to 300 tests.
- V. Analyzer should have minimum onboard test capacity of 25 tests to maximum 300 tests.
- VI. The cartridge / cassettes should be small and portable and easy to carry.
- VII. Should be operational on power and on battery.
- Analyzer should have automated entry and logging of consumables.
- Analyzer should have a start-up time should be  $8 \sim 10$  minutes.
  - Analyzer should have large touch screen facility and optional for key board operation.
- XI. Analyzer should not use any Gas bottle/tanks / cylinder/for calibration.
- Analyzer should not use any conventional electrodes/conventional individual sensors/Foil pack reagents for Measurement of parameters.
- XIII. Analyzer should have onboard printer.
- Analyzer should have data back-up facility option with USB ports.
- Analyzer should be able to measure all parameters with  $60 \sim 75$  micro L.
- Samples measurements time: max 60 seconds and samples to samples cycle time max 120 seconds.
- Analyzer should have integrated barcode reader to support sample identification.
- The analyzer should perform samples like: whole blood and others fluids.
- Analyzer should have on screen display of Levy-Jennings plot.
- Analyzer should detect air-in samples.
- xxi. The company should have a local sales and service dealer network who can take care of pre & post installation.

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,	No. 6:- ICU Bed Manual	
I	Over all Size: Approx2180mm L x 1010mm W x 490 mm To 710 mm H(Without Mattress).  Bed frame size Approx 2090mm L X 920 mmW	
Ii		
Iii	Four section top of minimum 18 G thick C.R.C.A. M.S. sheets should be perforated with uniformly spaced holes in each section. Holes should be burr free and sharp edges free	
iv	Outer top frame and base frame should be made from 60mm x 30mm x 16 G ERW M.S. rectangular tube.  Manual adjustments: Height, backrest, Kneerest and trendelenberg through four separate Screw systems with thrust bearings individually maneuvered by a single handle.	
V		
Vi	Height raising should be comfortable, by a counter Weight mechanism with a tensio spring 37.7 mm outside dia made of 6mm dia spring steel wire housed in a rectangular telescopic tube boxes.	
Vii	Outer top frame is mainly made from 60 x 30 mm x 1.6 mm Thick ERW tube shall have proper support. This frame shall be fitted on the base frame mainly made of 60 x 30 x 1.6mm ERW tubes on various supporting links.	
Viii	The base frame shall be mounted on 125mm dia non-rusting castor wheels two with brakes and two without.	
Ix	Castor housing and wheels made from high grade non floor-staining synthetic materials with integrated thread guards. Wheels centre having precision ball bearin to run smoothly.	
X	A pair of collapsible type patient safety railing shall cover more than $2/3$ part of top frame made mainly from ERW tube of $25.4 \times 18g/25 \times 6$ flats.	
Xi	The bed shall have easily detachable head and foot side panels shall be made from stainless steel 31.7mm dia x 18 G tube with laminated panels of approx size 810mm L x 140mm wide x 14mm thick on stainless steel bracket.	
Xii	Four corner buffers. There shall be four locations on the bed frame to hold one stainless steel Saline rod 12mm dia shall telescopes in SS socket tube 15.8 mm dia x 18G welded on angular base bracket of 14G SS sheet. Nylon bracket provided to prevent colour damage.	
Xiii	Finishing & Workmanship in the furniture is of prime importance and must be of high standard. All corners shall be rounded off so that there shall be no sharp corners.	
Xiv	Pre Treatment process to be done with Eight Tank Chemical Process & Shot Blasting technologies to be used as Pre Treatment for Tubular Sections of Bed.	
Xvi	Accessories:	
	1	Oxygen Cylinder Cage – 1no.
	2	12mm diameter Stainless Steel Heavy Duty Rod hold syringe pumps and IV fluid bottles with 2 hooks – 1 no.
	3	Urine Bag Holder – 1 No.
	4	Chart Holder – 1 No.
	5	Four Section Mattress with 4" thick PU Foam of 40 Density covered with PVC Rexine – 1No.

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#### Item No.7:- DEFIBRILLATOR WITH CARDIAC MONITOR

- i. Biphasic, Manual and AED with voice prompt, compact and light weight
- ii. Energy selection 5J to 200J in steps.
- iii. Momentary energy selection access on front panel.
- iv. Should have adult and pediatric paddles integrated on same handle.
- v. Momentary charge key on front panel and on the apex hand.
- vi. Monitor should display selected and delivered energy
- vii. Should have disarm facility.
- viii. Energy should be delivered within 30ms after the detected R wave in synchronization mode.
- ix. Charging time maximum 5 sec for 200J.
- x. Should have battery back up for 50 discharges of 200].
- xi. Should have ECG inputs through paddles or 3 lead cables.
- xii. Should have display for selected ECG input source (I, II, III, paddles)
- xiii. Lead off message should appear with alert tone.
- xiv Amplitude gain of ECG waveform should be adjustable
- xv. Should have display for heart rate.
- xvi. Should have alarm for high and low HR.
- xvii. Should have an inbuilt thermal recorder.
- xviii. Should have enable/disable option for printer.
- xix. Should supply 2 bottle of jelly, 12 roll of thermal paper.
- xx. Should supply three pairs of AED pads
- xxi. Should operate on mains 230V, 50Hz

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