



**All India Institute of Medical Sciences Bhopal
Saket Nagar, Bhopal – 462020**

Ref. No.: Stores/2018-19/593

Dated: 26/03/2019

Subject: Purchase of” **Manikins For Nursing Training** "on Proprietary basis- **Inviting comments thereon.**

The request received from General Medicine Department, AIIMS Bhopal for the purchase of captioned Item **from M/s Laerdal Medical AS , Norway on Proprietary basi, under the NHM funded project**

The Notice is being uploaded for general information of Aspirant Manufacturer/Dealer/Distributor to submit their objections/proposal, if any, on proprietorship of these items.

In case, the product of any Manufacturer/Authorized distributor/dealer conforms to the enclosed specifications, they may submit their proposal for the supply same Consumables/Analyzers along with the following:-

- (i) Consumable/Analyzers brochure;
- (ii) Point-by-point compliance of the enclosed specifications, along with all relevant documentary evidence;

The objection/ proposal should be sent in sealed cover to, The **I/c Sr. Procurement Officer cum Stores Officer, Hospital Complex Building, Third Floor , AIIMS,Saket Nagar, Bhopal (462020)** so as to reach on or **before 6th May 2019 upto14:00 Hrs.**, failing which it will be presumed that no any other vendor is interested to offer comments/protest and case will be decided accordingly on its merit.

The reference number: Stores/2018-19/593, dated: 26/3/2019, due on 6/05/2019 should be super scribed on sealed envelope.

Yours faithfully,

I/c Sr.Procurement cum Stores Officer.

- Encl: 1. Authorization Certificate**
2. PAC Certificate
3. Schedule of requirement

Authorization Certificate

8th February 2019



Laerdal

helping save lives

To,
The Director
AIIMS Bhopal,
Bhopal 462 024

Laerdal Medical India Pvt Ltd
No.10, 1st Street, Dr Subbarayan Nagar
Kodambakkam, Chennai 600 024
Tamil Nadu, India
Tel: 044-4261 4773
India.CustomerService@laerdal.com
www.laerdal.com
CIN: UB5100TN2010PTC075886

Vendor Authorization Letter

We, Laerdal Medical India Pvt Ltd, having its registered office at No 10, 1st Street, Dr Subbarayan Nagar, Kodambakkam, Chennai 600 024, Tamil Nadu, India, who are wholly owned subsidiary of Laerdal Medical AS, having its registered office in Tanke Svilandsgate 30, 4001 Stavanger, Norway, established and reputable manufacturers of medical products and programs with manufacturing units in Europe, USA and Asia hereby certify that M/s. Global Medical Equipments with registered office 301, New BDA Complex, 7 no. stop, Bhopal-16 is our authorized distributor to supply Laerdal manikins to AIIMS Bhopal Medicine Department.

All aspects of quality control and customer support for the Laerdal products are provided by Laerdal Medical India Pvt Ltd.

This certificate is valid till 31st December 2019.



Unni Silkoset
Regional Director South Asia
Authorised Signatory

JCS
15.02.19

Rohit
15/2/19

S-118
15/2/19

PAC /Proprietary Certificate

Ann
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Laerdal
helping save lives

Date: 7th February 2019

Proprietary Article Certificate - To Whom It May Concern

We, Laerdal Medical AS, having its registered office at Tanke Svilandsgate 30, 4002 Stavanger, Norway, who are established and reputable manufacturers of medical products and programs with manufacturing units in Europe, USA and Asia, certify that the below outlined products are proprietary products of Laerdal Medical.

Product Item	Description	Laerdal product catalogue number
ALS Baby 200 (Complete)	Infant ALS training manikin	08003140
Resusci Anne Advanced Skill Trainer	Advanced CPR manikin	151-27000
Resusci Anne QCPR Torso	Quality CPR manikin	171-00160
SimMan3G Manikina	Advanced patient simulator	212-02350
ALS Baby Intraosseous Trainer	Pediatric leg with intraosseous needle set for intraosseous needle insertion	D80015

The above products are specifically designed to work together as medical device systems as defined by Laerdal Medical. All aspects of quality control and customer support for the above products are provided by Laerdal Medical AS and its subsidiary office in India, Laerdal Medical India Pvt Ltd.

The certificate is valid till 31st Dec 2020.

Signed:



Name: UNNI SILKOET
Title: REGIONAL DIRECTOR SOUTH ASIA

Duly authorized to sign this Authorization on behalf of: LAERDAL MEDICAL AS

Laerdal Medical AS
Tanke Svilandsgate 30, 4001 Stavanger, Norway. Tel: +47-51511700. Fax: +47-51523557
www.laerdal.com

Schedule of requirement

S.N	Name	Description	Req Qty . Qty
01	ALS Baby 200 (Complete)	Infant ALS Training Manikin	01 No
02	Resusci Anne Advanced skill Training	Advanced CPR Manikin	01 No
03	Resusci Anne QCPR Torso	Quality CPR manikins	01 No
04	Sim Man 3G Manikin	Advanced Patient Simulator	01 No
05	ALS Baby Intraosseous Trainer	Pediatric leg with imtraosseous needle set for introsseous needle insertion	01 No

**** Note: Please don't quote the prices of the above schedule requirement**

Technical specifications for Manikins

Item	Specification
<p>1. ALS Baby 200 (Infant ALS Training)</p>	<ul style="list-style-type: none"> • It should be a portal, real looking three-month-old infant for individual training and realistic airway anatomy with tongue, oropharynx, epiglottis, larynx, vocal cords and trachea • It should allow practicing of advanced resuscitation skills, including airway management, professional rescuer CPR, vascular access, and 4-lead ECG monitoring. • It should allow practicing of bag-valve-mask ventilation, oral and nasal intubation, use of LMA (Laryngeal Mask Airway) and CPR, Ventilation via bag-valve-mask, Endotracheal and nasotracheal intubation, Auscultation of breath sounds • It should be supplied with a battery-powered ECG rhythm simulator designed to provide and train on at least 30 ECG Rhythms. • It should have a feature of intraosseous needle insertion with aspiration of bone marrow and Sellick Maneuver teaching. • It should allow practicing CPR with Bag Valve Mask with Visible chest rise, and Chest compressions. • Should be supplied with 5 leg replacement pads, cleaning kit, airway lubricant, directions for use and a hard-plastic carry case and a rhythm generator • Should be supplied with CPR performance tracking and analysis with a tablet containing software.
<p>2. Resusci Anne Advance Skill Trainer (Advance CPR)</p>	<ul style="list-style-type: none"> • The Training system should be latex free & include Torso Manikin, CPR Feedback system, AED Trainer. Airway must open/close by the following procedures when they are performed correctly as taught as per latest AHA guidelines: • Airway features • Airway occlusion (head tilt/chin lift, jaw thrust) Sellick maneuver. Positive pressure ventilation. Realistic chest rise and fall • Ventilation of the manikin must be possible through the following procedures: Mouth to mouth. Mouth to nose. Mask to mouth (both Pocket Mask and Bag-Valve Mask (BVM)) • Manikin should have realistic anatomy and must show a realistic chest rise during ventilation. Ears must be visible as a landmark for correctly aligning the head to apply a cervical spine extrication collar. • The manikin must be equipped with a bilateral carotid pulse. The

	<p>manikin should have extra springs simulating different chest stiffness.</p> <ul style="list-style-type: none"> • Should have a feedback system which shall measure the Real-Time Feedback: Compression Depth Compression Rates Incomplete Release Incorrect Hand position Ventilation volume Compression and Ventilation counter. The optional feedback system should be able to connect with more than 2 manikins simultaneously to compare the CPR performance of learners. • The feedback system should provide real time feedback on CPR to improve the performance and should provide score at the end of the assessment. It should be upgradable to integrate the optional trauma /rescue limbs and Airway Head. • It should be supplied with 01 Adult manikins, 01 CPR feedback, 2 Decorated Manikin Faces, 2 Disposable Airways, 2 Extra Compression Springs (Hard and Soft), 01 BVM, 01 Kneel mat, 01 Jacket, 50 Manikin Wipes, 01 USB cable, 01 AED Trainer and User Guide
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**3. Resusci Anne
QCPR AED with
Shock line- Torso
Manikin (CPR
Manikin)**

- The manikin should fulfill following standards Teaching Goals –
Mannequins
- Should be a half body manikin with accurate anatomical landmark resembling an adult. Should have nose, eyes, ear canal, articulating mandible to teach the students C-E technique for mask holding.
- The manikin should provide feedback on all 5 key points of CPR that is depth, chest recoil & rate of the compressions; interruption time and ventilation volume.
- The manikin should be able to provide overall CPR performance score and performance de-briefing.
- Should provide visual graphical user-friendly feedback.
- Should allow instructor to monitor multiple students' performance at one time through smart phones.
- Should allow nose pinch technique for mouth to mouth resuscitation. Should have naturally obstructed and the airway to be cleared only when head/tilt or jaw thrust is performed. Should have collar bones to identify shoulder allowing teaching tap and shouting. Should have nipples, sternal notch, belly button and ribs to teach hand placement for chest compression.
- Should have removable face skin and one additional face skin to be provided. 2) Should have one-way non-rebreathing lungs
- Should be portable and light weight 2) Should be able to connect to feedback devices in a wireless manner.

Feedback System

- It should be microprocessor based with two embedded sensors: one measuring acceleration and another measuring force
- It should help first responders optimize CPR performance by providing real-time feedback on essential parameters of CPR.
- It should be able to provide real-time measured feedback on depth, rate and release of CPR, while also enabling providers to self-evaluate their performance with event statistics on the spot.
- It should offer performance metrics leading to quick feedback and debriefing to improve performance and outcome during actual therapy and training as well.
- It can also be used on patient chest while giving shock during Defibrillation and AED Application.
- Should be able to detect + 1.5kg to -2.0 kg of compression release, and a \geq 50 mm of compression depth. Should have a Low Battery Indicator

**4. SimMan 3G
(Advanced
patient
simulator)**

- The simulator should look realistic and resemble the physic of a normal 80 kg adult.
- The simulator system should be completely wireless, rugged and self-contained internal electrical and pneumatic power, so that it will be easy for operations and can be used for mobile simulation.
- The simulator should have and in built battery backup.

Multiple Airway Skills/Features:

- a) Should have Controllable open/closed airway; automatically or manually controlled
- b) Should allow Head tilt/Chin lift
- c) Should allow Jaw thrust with articulated jaw
- d) Should allow Suctioning (Oral & Nasopharyngeal)
- e) Should allow Bag-mask ventilation
- f) Should allow Orotracheal intubation
- g) Should allow Nasotracheal intubation
- h) Should allow Combitube, LMA, and other airway placement
- i) Should allow Endotracheal tube intubation
- j) Should allow Retrograde intubation
- k) Should allow Fiberoptic intubation
- l) Should allow Transtracheal jet ventilation
- m) Should allow Needle cricothyrotomy
- n) Should allow Surgical cricothyrotomy
- o) Should have Variable lung compliance - 4 settings
- p) Variable airway resistance - 4 settings
- q) Should have right main stem intubation
- r) Should allow Stomach distention during esophageal intubation
- s) Connectivity with third party respiratory simulations
- t) Should have automatic Airway Devices Recognition System
- u) The simulator has RFID antennas for automatic recognition and registration of RFID tagged airway devices. The RFID locations are near the mouth.

Airway Complications:

- a) Should detect proper head position
- b) Should have Can't intubate/ can ventilate conditions.
- c) Should have Can't intubate/can't ventilate
- d) Should allow two degrees of Tongue edema
- e) Should have Pharyngeal swelling
- f) Should have Laryngospasm
- g) Should have Decreased cervical range of motion
- h) Should have Trismus

Breathing Features:

- a) Should have Simulated spontaneous breathing
- b) Should have Bilateral and unilateral chest rise and fall

- c) Should have facility for CO2 exhalation
- d) Should have Normal and abnormal breath sounds 5 anterior auscultation sites 6 posterior auscultation sites
- e) Should have Oxygen saturation and waveform
- f) Should following respiratory sounds coarse crackles, fine crackles, pleural rub, Pneumonia, gurgling rhonchi, Stridor, Wheeze, COPD exacerbation, bronchopneumonia.

Breathing Complications:

- a) Should have Cyanosis when the saturation comes down.
- b) Should have facility for Needle thoracentesis – bi-lateral
- c) Should have facility for Unilateral & Bilateral chest movement
- d) Should allow Unilateral, Bilateral & lobar breath sounds
- e) Should have facility for Chest tube insertion - bilateral

Cardiac Features:

- a) Should have extensive ECG library
- b) Heart sounds – four anterior locations
- c) Heart sounds – Normal sounds, Aortic stenosis, mitral valve prolapse, diastolic murmur, systolic murmur, Aortic insufficiency, pericarditis, combined aortic insufficiency and stenosis.
- d) ECG rhythm monitoring (3-4 wires)
- e) 12 lead ECG display
- f) Defibrillation and cardio version facility
- g) Pacing
- d) **Should also provide a defibrillator with facility for defibrillation, Cardioversion and pacing i.e high end**

Circulation Features:

- a) Should have facility to measure BP manually by auscultation of Korotkoff sounds
- b) Should have Carotid, femoral, brachial, radial, dorsalis pedis, popliteal and posterior tibialis pulses synchronized with ECG
- c) Pulse strength should be variable with BP
- d) Pulse Palpation should be detected & logged

Vascular Access:

- a) Should have IV access
- b) Should have Intra-osseous access (tibia and sternum)
- c) Should have automatic Drug Recognition System
 - The simulator has RFID antennas for automatic recognition and registration of RFID tagged syringes. The RFID locations are near the IV catheter on the right arm and near the mouth.

CPR:

- a) Should be Compliant with 2015 Guidelines and should be able to upgradable newer AHA guidelines (2020)
- b) CPR compressions should generate palpable pulses, blood

- pressure wave form, and ECG artifacts
- c) Should have Realistic compression depth and resistance
- d) Should have facility to provide feedback on depth, release and frequency of compressions, ventilation volume.
- e) Should provide real time feedback on quality of CPR

Eyes:

- a) Should have blinking - slow, normal, fast and winks
- b) Should have Open, closed and partially open
- c) Should have papillary accommodation:
- d) Synchrony/asynchrony
- e) Normal and sluggish speed of response

Other Features:

- a) Should have Seizure/Fasciculation
- b) Should allow Bleeding
Should simulate bleeding at multiple sites.
- .
- Arterial and venous
- Vital signs should automatically respond to blood loss & therapy
- Should have various wound modules & moulage kits
- c) Urine output (variable)
- d) Foley catheterization
- e) Should have Secretions at Eyes, Ears, Nose, Mouth with Blood, Mucous, CSF, etc.
- f) Should simulate Diaphoresis
- g) Should have Bowel Sounds – four quadrants
- h) Patient Voice
Pre-recorded sounds
Custom sounds
Instructor can simulate patient's voice wirelessly
- i) Instructor Communication
 - Multiple instructors communicate using integrated voice over IP

Pharmacology (In Auto Mode)

- a) Simulator should have automatic Drug Recognition technology which identifies drug & dose
- b) Should have extensive drug formulary
- c) Should have automatic or programmable physiological responses
- d) Should have drug formulary on 108 RFID Tags

System Features:

- a) Should have wireless tablet PC controls simulator remotely
- b) Should control simulations from anywhere on your network
- c) Should have facility for multiple interfaces can control/observe a single simulation
- d) Intuitive software interface with 3 flexible operating modes

I) Auto Mode

Physiological & pharmacological models run pre-packaged simulations
Unique, simple controls increase/decrease difficulty & pace

II) Instructor Mode

Precise control “on the fly” Direct control of the simulator
Run pre-packaged scenarios (at least 6 prepackaged clinical Scenarios: as per requirement of purchaser.

III) Pre-Programmed Mode

Easy to Use Scenario Editor

Create custom events **Simulation controls:**

Fast forward

Pause Rewind

Save/Restore Profile Editor

Future prediction & patient outcome display

Integrated video debriefing

Data logging

Instructor comments

Patient Monitor: • Wireless

• Highly configurable Includes:

⇒ ECG (2 traces)

⇒ SpO2

⇒ CO2

⇒ ABP

⇒ CVP

⇒ PAP

⇒ PCWP

⇒ NIBP

⇒ TOF

⇒ Cardiac Output

⇒ Temperature (core & peripheral)

⇒ Additional and programmable parameters

X-Ray Display

12 Lead ECG Display

Custom Image Display

Custom Video Display

Ultrasound features -

a) The simulator should have integrated ultrasound simulation platform.

b) The simulator should have intergraded chest and abdominal skin to perform ultrasound.

c) The Ultrasound should be available with focused assessment with

	<p>sonography for trauma care (eFAST) and rapid ultrasound for critical care (RUSH) and cardiac resuscitation training with at least 10 inbuilt scenarios on each.</p> <ul style="list-style-type: none"> • Extended Warranty for two years
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<p>5. Pediatric Leg with interosseous needle set for Inter-osseous needle insertion</p>	<ul style="list-style-type: none"> • Designed for training in infant intraosseous infusion techniques. • Provision for Intraosseous needle insertion. • Provision for Simulated tibia and anatomical landmarks at the tibial tuberosity and medial malleolus. • Provision for Fluid that may be infused for realistic flashback. • Provision for Drain in heel connecting to reservoir bag. • The unit shall be capable of operating continuously in ambient temperature of 10 degree Celsius to 50 degree Celsius and relative humidity of 15% to 90%.
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