JKMSCL

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CORRIGENDUM

In light of the representation(s) submitted by the prospective bidder(s) for the finalization of the Rate Contract for the procurement of "Machinery & Equipment" uploaded vide No. Mach/2025/664 dated 30.06.2025, **the amendments in the technical specifications of the following items** as recommended by the technical experts are annexed herewith:

S.No	Name of the item		Annexure/ Ammendments
1.	**High End ICU Ventilator Adult/Paeditric/Neonatal**		**I (05 pages)**
2.	**Hi End Open Care Warmer**		**II (02 pages)**
3.	**Phototherapy Unit**		**III (01 page)**
4.	**High Flow Nasal Cannula Therapy Device**		**IV (01 page)**
5.	**Echo-Cardigraphy System (additional Vascular Access Probes required)**		
	Vessel	**Preffered Probe**	**Frequency Range**
i.	Radial Artery	Linear	10-15 Mhz
ii.	Femoraal Artery	Linear	7-12 Mhz
iii.	Sub Clavin Vein	Curvilinear or Phased Array	-
iv.	Internal Jugular	Linear	7-15 Mhz

Please Note:

1. *Those bidders who have already uploaded their bids are required to re-upload their bids after amendments and corrigendum issued thereof.*
2. The bidders are requested to keep themselves updated and submit their e-bids through the e-portal as per specifications & BOQs. The amendments/modifications shall be available on the e-portal and www.jkmsclbusiness.com

8/9/25

(Mohd. Ashraf Choudhary) JKAS
General Manager (Adm),
J&K Medical Supplies Corporation Ltd.

No: JKMSCL/Corg/2025/ 5747-50 Dated: 8 .09.2025

Copy to:

1. General Manager (K), J&K Medical Supplies Corporation Ltd.
2. Dy General Manager (Tendering), J&K Medical Supplies Corporation Ltd.
3. P.A. to Managing Director, J&K Medical Supplies Corporation Ltd.
4. Assistant Programmer, JKMSCL for uploading on the web portal.

Annexure I

High End ICU Ventilator Adult/Paediatric/Neonatal

1. Must be microprocessor / Computer-controlled ventilator or latest technology.
2. Should be usable for Adult, Paediatric, Neonates and Preterm babies.
3. Should work on electrical sources: External AC and in-built battery backup for minimum of 60 -90 minutes.
4. The ventilator should run on centralized air supply line and should have standalone compressor/integrated compressor with auto change over facility in case of piped air supply fails and vice versa as air supply line resume. Compressor should be same make as of ventilator.
5. The Ventilator must run on both the air compressor unit and / or on central pipeline air supply (60psig).
6. Must have TFT touch screen of 12 inches or more, showing all the set ventilator and patient parameters, scalars, loops, mechanics etc. on clear displays. The colour touch screen should have the facility for tilt & rotate for better viewing.
7. Should have external interface with RS232 serial port
8. OXYGEN SUPPLY: Must have in-built O2 blender with sensor with display for set and delivered O2 concentration.
9. Should provide O2 enrichment @40 to 60 psi O2 supply source with alarms for low or high pressure supply.
10. Should have provision to work on both pipeline O2 or air supply and high pressure O2 cylinder -based supply.

MODES OF VENTILATION:

11. Should have Assist. Control and SIMV modes, in both pressure and volume modes.
12. Should have provision of Non-invasive ventilation with leak compensation at all user set pressure values and NIV in all volume and pressure modes.
13. Should have additional modes such as pressure Regulated Volume Control (PRVC), APRV, Volume Support, volume guarantee, Bi – level with PS & any other advance modes specific to manufacturer. Beside basic /common modes, should have advanced mode of ventilator (BIPAP / Bi-vent with pressure support, APRV, PRVC and Biphasic ventilation). Hybrid modes such as Auto-mode /ASV/MMV.
14. Must have provision for all the following:

a) Automatic Tube/Circuit Compensation

b) CPAP (0-50 cm H2O).

c) Back-up Apnea ventilation.

d) 100% oxygen for a period of two minutes before disconnection for suctioning or other procedures.

SETTING OF VENTILATOR:

e) Should have at least the following range of settings

a) Should be able to be programmable for Adult, Paediatric & Neonatal separately on switching on the equipment.

b) Setting of modes should be user friendly and have volume based and pressure-based modes separately, along with provision for non-invasive ventilation in pressure and volume modes.

c) Settings should be user friendly-com wheel or touch screen based.

d) Tidal volume from 2-2000 ml (in volume control mode)

e) Respiratory rate- up to 120 bpm.

f) PEEP – 0 to 50 cmH2O

g) FiO2 – 21 to 100%

g) Pressure support – 0 to 100 cm H2O. Rise time 0-2 seconds in fraction of 0.1 second or in %.

j) Inspiration time 0.1 to 10 seconds.

k) Apnea time interval setting from backup ventilation when in spontaneous mode.

l) Flow 2 to 150 L/min or more.

m) I:E ratio – 1:2 – 1:9.

DISPLAYS:

15. Must monitor / displays the following set and delivered parameters of ventilator settings:

i. Tidal volume – Inspiratory and expiratory.

ii. Minute volume – Inspiratory and expiratory.

iii. Peak, mean and plateau pressure.

iv. PEEP.

v. I:E ratio

vi. Inspiratory time

vii. Rate total and spontaneous

viii. Compliance, static & dynamic

ix. Resistance

x. FiO2 set and delivered

xi. Must display electrical power source (internal / external) and battery level.

xii. At least 3-4 user selected scalar graphic (flow, pressure and volume over time) should be displayed simultaneously on the screen with set and delivered parameter mentioned above. Should at least display 2 loops and facility of superimposing and saving of reference loop available. Should display 3-4 waveforms and 3 loops simultaneously on screen

xiii. Must have features of expiratory and Inspiratory and Inspiratory hold, occlusion pressure & Vital capacity measurement / WOB. ETCO2 monitoring is optional.

xiv. Should be able to measure and displays PEEPi.

16. Must provide at least 72 hours trending and browsing of monitored parameters. It should have facility to store 40 screenshots and 40 recordings each of 30 seconds and export via USB.

ALARMS:

17. Must provide for user adjustable alarms for the following with built in default setting

i. Respiratory (high and low)

ii. Minute volume (high and low)

iii. Pressure (high and low)

iv. FiO2 (high and low)

v. Apnea

vi. Gas supply failure

18. Must also have warning alarms of both auditory and visual for the following.

i. Low Oxygen pressure.

ii. Patient disconnects.

iii. Check sensor on malfunction for flow and Oxygen sensor.

iv. Low battery.

v. AC disconnects.

19. Should have provision for record of alarm for at least 72 hours or logbook of 2000 events.

20. Must have audible alarms of different tones graded for high priority, immediate priority tones with display of the nature of warning being highlighted on the display. It should display the trouble-shooting of current alarm on-screen.

21. Alarms of importance like disconnection circuit leak or mechanical failure should be activated within 20 seconds & should be loud and well audible.

22. Should have facility to silence alarms for a period of 2 minutes.

23. MISCELLANEOUS:

24. Should have facility to measure inflection point during alveolar recruitment through pressure-volume loop/ Open Lung Tool.

25. Should not involve frequent change of expiratory valve / cassette, Oxygen sensor. The same should be covered under warranty.

i. Should provide autoclavable expiratory cassette/ expiratory valves – 2 nos/ ventilator Flow sensor – If required, autoclavable/disposable/reusable flow sensors (based on hot wire anemometry, differential pressure or any other technology) 100 nos/ventilator Or reusable flow sensors (based on hot wire anemometry, differential pressure or any other technology) – 20 nos/ ventilator and covered under warranty.

ii. O2 sensor to be covered under warranty and CAMC or paramagnetic under CAMC.

26. Should be provided with all accessories.

i. 02 Nos. each set of disposable masks for non-invasive ventilation (Small, Medium, Large)

ii. 20 Nos. HME filters with disposable circuits.

iii. 02 Nos. each autoclavable circuits of Pediatric and Neonatal compatible with humidifiers.

iv. Test lung with each unit.

v. Air (2 nos) and Oxygen (2 no.) high pressure hoses

27. Should be compatible with standard disposable ventilator tubings with separate inspiratory limb having integrated spiral heating coil/ thermistor technology and expiratory limbs with moisture diffusing membrane/ integrated spiral heating coil connected with Y-connectors, with or without water traps and non-invasive ventilation masks available in market. Should be supported with performance and live demonstration is mandatory.

28. Ventilator should be able to accept and work on all commonly used reputed brands of disposable ventilator tubings humidifier assembles disposable or reusable parts. Rates of Disposable Ventilator circuits should be fixed for a minimum of 5 (Five) years.

29. The ventilator should have integrated/in-built nebulizer vibrating mesh technology which is independent of flow. Should be Autoclavable and produce 3-micron size drug particle size.

30. The ventilator should be supplied with USFDA and European CE (with four digital modified body) approved or USFDA and CDSCO or USFDA and BIS certified servo-controlled humidifier MR 950 along with its accessories.

31. Reusable chambers: 02 Nos.

32. Both Ventilator and Compressor should be USFDA and European CE (with four digital modified body) approved or USFDA and CDSCO or USFDA and BIS certified.

33. It should have advanced adaptive closed loop ventilation with continuous automated protocol implementing ability for improved patient ventilator interaction to improve weaning. It should be supported by clinical reference and performance. Should have either of the following automated protocol for automatic weaning of patient along with the consumables for at least 05 Nos. of patient and prices should be quoted separately valid for minimum 05 years.

Should adjust the pressure support to the lowest possible limit based on the breath-to-breath analysis of the respiratory rate, tidal volume and ETCO2 or compliance in a particular patient.

OR

Should optimize oxygenation automatically to adjust FiO2 and PEEP to achieve a target SpO2 and the ventilation setting should adjust MV, TV and RR automatically to achieve a target ETCO2.

OR

Should be able to assist ventilation on breath-to-breath basis according to electrical activity generated by the diaphragm.

Mandatory: Physical Demonstration before the Technical Experts.

Annexure II

Hi End open Care Warmer

1. It should be servo and Manual Control open care Warmer
2. It should have Recessed Heater head with no over head heater for better accessibility. makes it easier to observe the patient and perform procedures such as X-ray examinations and even surgery without interrupting the thermoregulation of the baby.
3. It should have reflectors that will provide even heat distribution over the entire bed area.
4. It should have a mechanism to keep babies warm and care giver comfortable over long procedural interventions.
5. It should have translating and 360 degree rotating mattress (optional)/rectangular baby bed.
6. It should have a firm antibacterial, fire retardant high quality soft mattress which allows air to pass through but does not allow water to seep in, and is comfortable for baby on prolonged period of treatment.
7. It should use Ceramic /quartz/ Calrod / Inconel heater with less than 750-watt power consumption while maintaining desired heat with uniformity. The heater should have lifetime warranty.
8. It should have Warm up time greater than 3 minutes with 100% power
9. Temperature in Patient Control (baby) mode: 34© with Resolutions: +- 0.1 Celsius
10. Temperature Measurement Accuracy : +- 0.3 Celsius with Resolution : +- 0.1 Celsius
11. Probe Accuracy : +- 0.1 Celsius within range of Range: 30-42 Celsius
12. It should have Aim able procedure light with intensity of 2000 Lux
13. It should have non-touch based Dimmable Examination Light
14. It should have color display with Temperature monitoring with colour display TFT Screen 7 inches and above centrally located.
15. It should have ±12 degree continuous dampened tilt for jerk free accurate tilting for critical babies.
16. Bassinet with all 4 side Removable side panels to give total accessibility to baby.
17. It should have inbuilt X -Ray Tray to allow taking X-Rays without disturbing baby.
18. RS232 Port for data / Network Connection.
19. It should have twin thermistor probes to improve accuracy of temperature readings.
20. It should have movable drawer.
21. It should have facility to change the height of Bed to Floor for at least 4 positions by press of paddle by motorised method
22. It should comply IEC – 60601 -1 for electrical safety.

23. It should have dovetail side rail system for flexible mounting of accessories as per convenience of clinicians.

24. The equipment must be USFDA and European CE (with four digital modified body) approved or USFDA and CDSCO or USFDA and BIS certified. Certificates to be attached with the technical bid.

25. Company should quote state of the art latest model.

26. The Manufacturer must be ISO 9001 & ISO 13485 certified, certificates to be attached with the technical bid.

27. It should be supplied with Drawer, X Ray tray, Reusable/disposable temperature probe, Dimmable examination light , Almable procedure light, pressure diffusing mattress, IV pole, monitor shelf.

28. It should have optional Facility for

- Resuscitation
- Masimo Pulse Oximetry with Trending
- In bed weighing Scale with trending
- Bed Elevation

29. a) Machine should be supplied with at least one Heated Gel Mattress along with soft bed Mattress as standard.

b) Machine should be supplied with standard 50 each disposable/10 reusable temperature probes.

c) Machine should be supplied with Temperature probe cover at least 50 nos with each unit.

Annexure III

Phototherapy Unit

1. It should be LED based only
2. LED should last for at least 50,000 or more hours as a lamp life
3. Light unit should be made of easily cleanable plastic material
4. Spectral Irradiance of minimum 30 $\mu W \cdot cm^{-2} \cdot nm^{-1}$ at 45 cm distance between bed and light unit.(for effective PT through closed incubator)
5. Should have multilevel intensity control to a minimum intensity adjustment of 30 $\mu W \cdot cm^{-2} \cdot nm^{-1}$
6. At the tilted position, the irradiance should be at least 30 $\mu W \cdot cm^{-2} \cdot nm^{-1}$ at 45 cm distance between bed and light unit.
7. Wavelength should be of 450 – 460 nm, and should be free from UV and IR radiation.
8. Effective surface area should be at least 175 *375 mm or more.
9. Digital (LCD) Timer for monitoring therapy hours & lamp usage hours
10. It should be a fan less technology
11. Light head should be compact to use along with the Radiant warmer & should be provided with tilting facility so that the unit is not coming directly under warmer.
12. Smooth Height adjustment mechanism & Adjustable height
13. Minimum height should be at least 900 -1200 ± 20 mm from the floor to use near the mother bed
14. Maximum height should be at least 1500-1700 ± 20 mm from the floor to use with the incubator
15. Coating: Epoxy/powder coated body for scratch and rust prevention and
16. PU (Poly Urethane) coating for plastic
17. Mobility: Three / Four castors; two or more castors provided with brakes
18. The base of the unit should be such that it will go beneath any Incubator/bed/trolley, with minimum of 100 mm floor clearance
19. The manufacturer should be ISO 9001:2008 and ISO 13485:2003 certified
20. Product should be USFDA and European CE or USFDA and CDSCO or USFDA and BIS certified and certificate should be submitted
21. Power supply - Power input to be 220-240VAC, 50Hz
22. Items covered under warranty/CMC
    a) Prices of consumables and accessories should be quoted separately in the financial bid. The company should ensure the supply of consumables and accessories for a period of 5 years.
23. Environmental factors:
    a) The unit shall be capable of being stored continuously in ambient temperature of 0-50° Celsius and relative humidity of 15-90%
    b) The unit shall be capable of operating continuously in ambient temperature of 10-40° Celsius and relative humidity of 15-90%

Annexure III

Technical Specifications of High Flow Nasal Cannula Therapy Device

1. Suitable for treatment of Hypoxemic patients with respiratory distress.
2. Suitable for use in ICU, wards, emergency department and home oxygen therapy.
3. One system for treating Infants, Paediatric and Adult patients.
4. Inbuilt flow generator capable of delivering wide range of flows: 2- 70 litres in Neonatal, Paediatric & Adult
5. Inbuilt Air/O2 blending and FiO2 monitoring. Facility to deliver wide range of oxygen concentrations (FiO2) from 21 to 100%.
6. Inbuilt heated humidifier.
7. Colour display more than 4" touch screen to monitor humidity setting, flow, FiO2 and faults. FIO2 should be titrated directly from device.
8. Visual and audible alarm indication for:
   Tubes disconnect Leaks, tube blockages, and Water out and hard ware fault with error codes. Audible power failure alarm
9. Disinfection mode with heated disinfection tube for Sterilization of the device after patient use.
10. Each machine should be supplied with 10 units of disposable Air Spiral Technology Circuit with Humidifier Chamber and compatible with vibrating mesh nebulizers. The Price must be freezed for min 5 years and to be quoted separately.
11. Each machine should be supplied with 20 units of HFNC cannula assorted sizes. The Price should be freezed for min 5 years and to be quoted separately.
12. Compatible for use on tracheotomy patients Optional.
13. The machine should have integrated and battery backup of more than 30 minutes or more with Lithium Ion (Li-Ion) battery with output power of 80W or more.
14. The device should have dual-input manifold to ensure a smooth transition to portable oxygen for patient transfer. Should have dual-input manifold to ensure a smooth transition for patient transfer.
15. The machine should have the option for future upgradable to Pulse Oximeter.
16. USFDA and European CE approved.
17. Compliant with international safety standards and regulations.
18. Company owned Service centre in India.

Annexure II
-N.O. JKMSCL

Department Of Cardiology

Government Super Speciality Hospital, Shireen Bagh, Srinagar J&K

An Associated Hospital of Government Medical College Srinagar, J&K

2/9/2025

To
The Principal
Government Medical College
Srinagar

Subject: Submission of Amendments In Technical Specifications of Echo-Cardiography System (NIT/JKMSCL/M&E/2025/664 dated 30.06.2025)

Respected Madam,

In reference to your communication No. PS/DGM(T/L)/JKMSCL/3781-89 dated 25.07.2025 regarding the review of technical specifications of the Echo-Cardiography System invited vide NIT/JKMSCL/M&E/2025/664, the observations have been examined in this department. Accordingly, the following amendments/additions are proposed in continuation to the earlier specifications .

Additional Vascular Access Probes Required:

Vessel	Preferred Probe	Frequency Range
Radial artery	Linear	10–15 MHz
Femoral artery	Linear	7–12 MHz
Sub Clavian vein	Curvilinear or Phased Array	—
Internal jugular	Linear	7–15 MHz

These probes are essential for vascular access guidance and should be considered as mandatory supply along with the echocardiography system.

This is submitted for your kind perusal and for onward transmission to JKMSCL for necessary amendment in the NIT specifications.

Yours faithfully,

GOVT MEDICAL COLLEGE, SGR.
Receipt 4562
Date 02-09-25
Enclosure

Professor & Head
Department of Cardiology
GMC Srinagar

No: Cardio/SSH/2025/ 2998-99

Dated: 02/09/2025

Copy to:

1. General Manager (Adm.), JKMSCL, Jammu/Srinagar – for information and necessary action.
2. Office file.