Republic of Lebanon

Lebanon Health Resilience Project

Procurement and Installation of Pediatric Intensive Care Unit (PICU) and Neonatal Intensive Care Unit (NICU)

Loan No. IBRD-87710; GCFF TF No. TFA5424

LB-MOPH-491946-GO-RFB

Refer to Section III Technical Part -Technical Evaluation (ITB 32.4)- Technical Part Scoring Methodology: **Rated Criteria**

Rated Evaluation Criteria Table – Blood Gas Analyzer

Criterion	Weight of criterion	0–4 Score Guidance
pH Range	5	4: ≥ 6.7–8.0 3: ≥ 6.8–7.9 2: Meets 6.8–7.8 1: Slightly narrower 0: Does not meet
PO_2 Range	5	4: 0–800 mmHg 3: 0–780 mmHg 2: Meets 0–760 mmHg 1: Narrower 0: Does not meet
pCO_2 Range	5	4: 4–110 mmHg 3: 5–105 mmHg 2: Meets 5–100 mmHg 1: Narrower 0: Does not meet
Na^+ Range	5	4: ≥ 95–190 mmol/L 3: ≥ 100–185 2: Meets 100–180 1: Narrower 0: Does not meet
K^+ Range	5	4: 0.8–11 mmol/L 3: 1–10.5 2: Meets 1–10 1: Narrower 0: Does not meet
Ca^{2+} Range	5	4: 0.2–5.2 mmol/L 3: 0.25–5.1 2: Meets 0.25–5.00 1: Narrower 0: Does not meet
Hct Range	5	4: 10–75% 3: 12–72%

		2: Meets 15–70% 1: Narrower 0: Does not meet
Cl^- Range	5	4: 18–210 mmol/L 3: 19–205 2: Meets 20–200 1: Narrower 0: Does not meet
tHb	5	4: 2.5–24 g/dL 3: 2.8–23.5 2: Meets 3.0–23 1: Narrower 0: Does not meet
Additional Calculations	5	4: >4 3: >3 2: >2 1: 1 0: None supported
Optional Analytes	5	4: All 3 integrated 3: 2 integrated 2: 1 integrated 1: External accessory 0: None supported
Analyzing Time	5	4: ≤ 60 sec 3: 61–90 sec 2: 91–105 sec 1: 106–120 sec 0: > 120 sec
Sample Volume	5	4: ≤ 60 µL 3: 61–100 µL 2: 101–150 µL 1: 151–200 µL 0: > 200 µL
Display	5	4: ≥12" touch 3: 10.5–11.9" touch 2: 10" touch 1: 9–9.9 touch" 0: < 9" or no touch

Rated Evaluation Criteria Table – Bilirubinometer

Criterion	Weight of criterion	0–4 Score Guidance
Technology	8	4: Both Xenon & LED 3: High-quality LED/or Xenon 2: Only one available 1: Lower LED 0: Not supported
Linear Range	8	4: 0–35 mg/dL+ 3: 0–32 mg/dL 2: Meets 0–30

		1: Below 30 0: < 25 mg/dL
Accuracy	8	4: ±2% 3: ±3–4% 2: ±5% 1: ±6–7% 0: > ±7%
Alert Function	8	4: Programmable 3: Auto + adjustable 2: Fixed 20 mg/dL 1: Display-only alert 0: None
Result Units	8	4: mg/dL + µmol/L switchable 3: Both units 2: One selectable 1: One fixed 0: Not mentioned
Sample Site	8	4: Forehead, sternum, ear 3: Any 2 of 3 2: 1 site only 1: Limited 0: Unclear
Consumables	8	4: Fully reusable 3: Minimal needed 2: Few required 1: Regularly needed 0: Per reading
Display Size	7	4: ≥ 2" 3: 1.5–1.9" 2: ≥ 1" 1: 1" fixed 0: < 1"
Memory	7	4: ≥ 500 patients 3: 200–499 2: 100–199 1: 50–99 0: < 50 or none

Rated Evaluation Criteria Table – Central Station

Criterion	Weight of criterion	0–4 Score Guidance
Waveforms displayed per patient	4	4: ≥ 4 waveforms 3: 3 waveforms 2: Meets 2 waveforms 1: Only 1 waveform 0: Not supported
Max simultaneous monitors	3	4: > 20 monitors 3: 16–20 monitors 2: 10–16 monitors

		1: < 10 monitors 0: Not declared
Main display size and type	3	4: ≥ 27" LED full HD with colored waveforms 3: 25–26" LED with color 2: Meets 24" LED color display 1: < 24" or grayscale 0: No color or < 20"
Number of patients viewable at once	6	4: ≥ 16 patients 3: 12–15 patients 2: 8–11 patients 1: < 8 patients 0: Not mentioned
Central station display type	3	4: Waveforms + numeric + tabular + graphical + calculations 3: Waveforms + numeric + graphical 2: Numeric + waveform 1: Limited display 0: Unclear display
Repeater display	3	4: ≥ 42" screen, clear at >4m 3: ≥ 42" clear at 3–4m 2: 32–41" clear at 3–4m 1: Smaller or unclear 0: No repeater
Full disclosure (waveform recall)	3	4: ≥ 72 hours 3: 48–71 hours 2: Meets 48 hours 1: < 48 hours 0: Not supported
Post-discharge data retrieval	3	4: ≥ 30 days 3: 21–29 days 2: Meets 20 days 1: 7–19 days 0: Not possible
Data storage duration	3	4: ≥ 30 days 3: 15–29 days 2: Meets 7 days 1: < 7 days 0: Not supported
Real-time patient data display	3	4: Instant sync + alerts 3: Real-time synced 2: Real-time only 1: Slight delay 0: No real-time
System license capacity & upgradeability	3	4: ≥ 20 beds & upgradeable 3: 16–19 beds + upgradeable 2: Meets 16 beds

		1: < 16 or fixed 0: Not stated
Hardware – Processor	3	4: ≥ 4.0 GHz with CD/DVD + SSD 3: 3.5–3.9 GHz with CD/DVD 2: Meets 3.5 GHz with CD/DVD 1: Lower CPU or no CD/DVD 0: Not compliant
Hardware – RAM	3	4: ≥ 8 GB 3: 6–7 GB 2: Meets 4 GB 1: 2–3 GB 0: < 2 GB
Hardware – Storage	3	4: ≥ 2 TB 3: 1.5–1.9 TB 2: Meets 1 TB 1: 500 GB–999 GB 0: < 500 GB
Hardware – USB ports	3	4: ≥ 6 USB ports 3: 5 USB ports 2: Meets 4 USB ports 1: 2–3 USB ports 0: < 2 USB ports
Hardware – Printer	3	4: Color laser, A4, duplex + network 3: Color laser, A4, duplex 2: Meets A4 laser 1: Monochrome/small format 0: No printer

Rated Evaluation Criteria Table – Humidifiers Neonatal

Criterion	Weight of criterion	0–4 Score Guidance
Ventilation Modes	10	4: All modes supported & auto switching 3: All modes supported manually selectable 2: Both invasive & one non-invasive supported 1: Only invasive or non-invasive mode 0: Not supported
Design (Compact & Lightweight)	10	4: Ultra-lightweight & compact < 2.5 kg 3: Lightweight < 3 kg 2: Compact but > 3.5 kg 1: Heavy but portable 0: Bulky, not portable

Temperature Display	10	4: Digital display with 0.1°C resolution + trend 3: Digital with 0.1°C 2: °C display, no decimal 1: Basic numeric or analog 0: No temp display
Accuracy	10	4: ≤ ±0.2°C 3: ≤ ±0.3°C 2: ≤ ±0.4°C 1: ±0.5–0.6°C 0: > ±0.6°C
Warm-up Time	10	4: ≤ 15 min 3: 16–20 min 2: 21–30 min 1: 31–40 min 0: > 40 min

Rated Evaluation Criteria Table – Infant Radiant Warmer

Criterion	Weight of criterion	0–4 Score Guidance
Swiveling Heater Head + Auto Shutoff	4	4: ±90° + auto shutoff 3: ±75° + auto shutoff 2: ±90°, no shutoff 1: < ±90° or delayed 0: Fixed unit
Modes of Operation	4	4: Servo + Manual + Prewarm (indep) 3: All 3 modes, limited 2: 2 modes 1: 1 mode 0: None
Manual Power Range & Increment	4	4: 0–100% ≤5% incr. 3: 0–100% 6–7% 2: 0–100% 8–10% 1: <100% or >10% 0: Not adj.
Output Power Range	4	4: Up to 650 W 3: Up to 600 W 2: 550–599 W 1: 450–549 W 0: <450 W
Air Temp Control Range	4	4: 30–38°C + fine res. 3: 30–38°C 2: 31–37°C 1: < 30–38°C 0: Not spec.
Temp Accuracy (Air)	4	4: ≤ ±0.2°C 3: ≤ ±0.3°C 2: ≤ ±0.4°C 1: > ±0.4°C 0: Not declared

Skin Sensor Accuracy	4	4: ≤ ±0.05°C 3: ≤ ±0.1°C 2: ≤ ±0.2°C 1: > ±0.2°C 0: Not declared
Bed Tilt	4	4: ±15° trend. & rev., foot pedal 3: ±15° manual 2: ±10° only 1: Non-lock tilt 0: No tilt
Display Size	4	4: ≥ 10" color touch 3: 8–9.9" color touch 2: 8" touch 1: <8" touch 0: Mono/non-touch
Graphical Trends	3	4: ≥ 7 days 3: 5–6 days 2: 3–4 days 1: 1–2 days 0: None
Tabular Trends	3	4: ≥ 40 hrs 3: 24–39 hrs 2: 12–23 hrs 1: <12 hrs 0: None

Rated Evaluation Criteria Table – Infusion Pump

Criterion	Weight of criterion	0–4 Score Guidance
Flow rate range	9	4: 0.1–1200 mL/h or more 3: 0.1–1000 mL/h 2: 0.1–999 mL/h 1: ≥1 mL/h lower start 0: < 999 mL/h
Flow rate increments	9	4: ≤ 0.1 mL/h 3: 0.5 mL/h 2: 1 mL/h 1: >1 mL/h 0: Not adjustable
VTBI (Volume to be Infused)	9	4: 1–10,000 mL 3: 1–9,999 mL 2: Meets 1–9,999 mL 1: < 9,999 mL 0: Not adjustable
Flow rate accuracy	9	4: ≤ ±2% 3: ≤ ±3% 2: ≤ ±5% 1: ±6–7% 0: > ±7%

Max pressure output	9	4: ≤ 700 mmHg 3: 701–850 mmHg 2: ≤ 1000 mmHg 1: > 1000 mmHg 0: Not specified
KVO rate range	9	4: 1–5 mL/h + user deactivation 3: 1–5 mL/h configurable 2: 1–5 mL/h fixed 1: Fixed w/o control 0: No KVO
Screen size	8	4: ≥ 3.5" color 3: 3"–3.4" 2: Meets 2" min 1: < 2" 0: No screen/LED only
Displayed Parameters	8	4: All 6 + trend graph 3: All 6 2: 4–5 parameters 1: 2–3 parameters 0: Fewer/unclear

Rated Evaluation Criteria Table – Neonatal Nebulizer

Criterion	Weight of criterion	0–4 Score Guidance
Device Type	8	4: Both ultrasonic & compressor 3: Selectable ultrasonic or compressor 2: Only one type supported 1: Fixed without choice 0: Not stated
Nebulization Cycle Duration	8	4: 15 min without bottle 3: 15 min optional bottle 2: ~15 min w/ bottle 1: > 20 min 0: No cycle spec
Medication Cup Capacity	8	4: > 6 mL 3: 5–6 mL 2: 2–6 mL 1: 1–2 mL 0: < 1 mL
Nebulization Rate	8	4: > 0.5 mL/min 3: 0.4–0.5 mL/min 2: 0.3–0.39 mL/min 1: < 0.3 mL/min 0: Not specified
Air Flow Rate	8	4: ≥ 7 mL/min 3: 5–6.9 mL/min 2: 4–4.9 mL/min

		1: 3–3.9 mL/min 0: < 3 mL/min
Battery Backup	7	4: ≥ 2 hrs full use 3: 1–2 hrs 2: < 1 hr 1: Mentioned only 0: Not available

Rated Evaluation Criteria Table – Bubble CPAP with blender

Criterion	Weight of criterion	0–4 Score Guidance
CPAP Pressure Range	8	4: 3–10 cm H_2O fine-step 3: 3–10 cm H_2O manual 2: Meets 3–10 cm H_2O 1: 4–10 or 3–9 cm H_2O 0: Not adjustable
Output Flow Range	8	4: 3–18 L/min 3: 4–15 L/min 2: 5–15 L/min 1: >5 L/min only 0: Not adjustable
Humidifier Water Chamber	8	4: Auto-fill + manual 3: Auto-fill only 2: Manual refill only 1: Needs external refill 0: Not declared
Temp Display	8	4: Digital + 0.1°C + trend 3: Digital with 0.1°C 2: 0.1°C display 1: No decimal 0: Not displayed
Temp Accuracy	8	4: ≤ ±0.3°C 3: ≤ ±0.4°C 2: ≤ ±0.5°C 1: > ±0.5°C 0: Not declared
Warm-up Time	8	4: ≤ 20 min 3: 21–29 min 2: ≤ 30 min 1: 31–40 min 0: > 40 min
Blender Flowmeter Range	7	4: 0–35 L/min 3: 0–30 L/min 2: 5–30 L/min 1: <30 L/min 0: Not adjustable
FiO_2 Range	7	4: Cont. 21–100% + fine control 3: Cont. 21–100% 2: 21–95%

		1: Stepped/tiers 0: Not adjustable

Rated Evaluation Criteria Table – NICU Patient Monitor

Criterion	Weight of criterion	0–4 Score Guidance
Screen Size	7	4: ≥ 15” LCD medical-grade 3: 13–14.9” LCD 2: 12” LCD (meets min) 1: 10–11.9” LCD 0: < 10” or non-color
Waveform Channels	7	4: ≥ 10 channels 3: 9 channels 2: 8 channels (meets) 1: 6–7 channels 0: < 6 channels
SpO_2 Accuracy	7	4: ±2% 3: ±2.5% 2: ±3% (meets min) 1: > ±3% 0: Not stated
Pulse Rate Range	7	4: 20–250 bpm 3: 30–240 bpm (meets) 2: 35–230 bpm 1: 40–220 bpm 0: < 200 bpm
Pulse Rate Accuracy	6	4: ±2 bpm 3: ±3 bpm (meets) 2: ±4 bpm 1: ±5 bpm 0: > ±5 bpm
Respiration Range	6	4: 1–200 rpm 3: 1–150 rpm (meets) 2: 5–150 rpm 1: 10–150 rpm 0: Not adjustable
Respiration Accuracy	6	4: ±1 rpm 3: ±2 rpm (meets) 2: ±3 rpm 1: > ±3 rpm 0: Not defined
$ETCO_2$ Range	6	4: 0–12% 3: 0–10% (meets) 2: 0.5–9% 1: 1–8% 0: < 8%
$ETCO_2$ Accuracy	6	4: < ±2.5% CO_2 ±1.5 mmHg 3: < ±3% CO_2 ±2 mmHg (meets) 2: ±3.5–4%

		1: ±4–5% 0: > ±5%
Battery	6	4: more than 5 hrs 3: more than 4hrs 2: 2 hrs 1: more than 1 hr 0: < 1

Rated Evaluation Criteria Table – PICU Patient Monitor

Criterion	Weight of criterion	0–4 Score Guidance
Screen Size	6	4: ≥ 15” LCD medical-grade 3: 13–14.9” LCD 2: 12” LCD (meets min) 1: 10–11.9” LCD 0: < 10” or non-color
Waveform Channels	6	4: ≥ 10 channels 3: 9 channels 2: 8 channels (meets) 1: 6–7 channels 0: < 6 channels
SpO_2 Accuracy	6	4: ±2% 3: ±2.5% 2: ±3% (meets min) 1: > ±3% 0: Not defined
Pulse Rate Range	6	4: 25–250 bpm 3: 30–240 bpm (meets) 2: 35–230 bpm 1: 40–220 bpm 0: < 200 bpm
Pulse Rate Accuracy	6	4: ±2 bpm 3: ±3 bpm (meets) 2: ±4 bpm 1: ±5 bpm 0: > ±5 bpm
Respiration Range	6	4: 1–200 rpm 3: 1–150 rpm (meets) 2: 5–150 rpm 1: 10–150 rpm 0: Not adjustable
Respiration Accuracy	6	4: ±1 rpm 3: ±2 rpm (meets) 2: ±3 rpm 1: > ±3 rpm 0: Not declared
$ETCO_2$ Range	6	4: 0–12% 3: 0–10% (meets) 2: 0.5–9% 1: 1–8% 0: < 8%

$ETCO_2$ Accuracy	6	4: < ±2.5% CO_2 ±1.5 mmHg 3: < ±3% CO_2 ±2 mmHg (meets) 2: ±3.5–4% 1: > ±4% 0: > ±5%
Battery	6	4: more than 5 hrs 3: more than 4hrs 2: 2 hrs 1: more than 1 hr 0: < 1

Rated Evaluation Criteria Table –Defibrillator

Criterion	Weight of criterion	0–4 Score Guidance
Manual Energy Selection Range	8	4: 1–200 J, ≤1 J steps, pediatric ≤50 J 3: 1–200 J, 2–5 J steps 2: 1–200 J 1: Only 10 J or fixed steps 0: Not full range
AED Mode for Pediatric	8	4: Full pediatric AED 3: Semi-automated pediatric AED 2: Adult-only AED 1: Manual only 0: Not supported
Charging Time	8	4: ≤ 5 sec 3: ≤ 6 sec 2: ≤ 8 sec 1: 9–10 sec 0: > 10 sec
Display	8	4: ≥ 10" color 3: 8–9.9" color 2: ≥ 7" color 1: 6–6.9"/non-color 0: < 6" or basic
Event Storage Capacity	8	4: ≥ 100 events 3: 75–99 events 2: ≥ 50 events 1: 30–49 events 0: < 30 or none
Battery Monitoring Duration	8	4: ≥ 3 hrs 3: ≥ 2 hrs 2: 1.5–1.9 hrs 1: 1 hr 0: < 1 hr or not stated
Battery Shock Capacity	8	4: ≥ 150 shocks 3: 120–149 shocks 2: ≥ 100 shocks

		1: 80–99 shocks 0: < 80 shocks
Recharge Time	7	4: ≤ 3 hrs 3: ≤ 4 hrs 2: ≤ 5 hrs 1: > 5 hrs 0: Not stated
Operation on Mains without Battery	7	4: Full operation 3: Functional w/ limited display 2: Partial operation 1: Unstable operation 0: Not operable

Rated Evaluation Criteria Table – Portable Ultrasound

Criterion	Weight of criterion	0–4 Score Guidance
Scanning Depth	7	4: ≥ 35 cm 3: 30–34 cm 2: 25–29 cm 1: < 25 cm 0: Not stated
Frame Rate (B & Color Modes)	7	4: ≥ 700 fps (B) & ≥ 350 fps (Color) 3: ≥ 600 fps (B) & ≥ 300 fps (Color) 2: ≥ 500 fps (B) & ≥ 250 fps (Color) 1: ≥ 400 fps (B) & ≥ 200 fps (Color) 0: Below thresholds
Cine Loop Review	7	4: ≥ 90 sec / 1500 frames 3: 60–89 sec / 1000–1499 frames 2: 45–59 sec / 750–999 frames 1: < 45 sec / < 750 frames 0: Not available
Display Screen Size	7	4: ≥ 17” LCD/LED 3: 15–16.9” LCD 2: 13–14.9” LCD 1: ≤ 12” 0: Not color screen
Weight (incl. battery)	7	4: ≤ 10 kg 3: 10.1–12 kg 2: 12.1–14 kg 1: > 14 kg 0: Not stated
Portability Design	7	4: Ruggedized laptop 3: Laptop (meets) 2: Tablet-style

		1: Wheeled trolley 0: Not portable
Active Ports	7	4: ≥ 5 ports 3: 4 ports 2: 3 ports 1: 2 ports 0: < 2 or not mentioned
View Angle	7	4: ≥ 170° 3: ≥ 150° 2: ≥ 120° 1: < 120° 0: Not declared
Storage Capacity	7	4: ≥ 1 TB 3: 750–999 GB 2: 500–749 GB 1: < 500 GB 0: Not available

Rated Evaluation Criteria Table – Transport Monitor

Criterion	Weight of criterion	0–4 Score Guidance
Trend Storage Duration	7	4: ≥ 300 hours 3: 241–299 hours 2: 240 hours 1: 120–239 hours 0: < 120 hours or none
Battery Duration	7	4: ≥ 8 hours 3: 6–7.9 hours 2: 4–5.9 hours 1: 2–3.9 hours 0: < 2 hours
Screen Size	7	4: ≥ 10” 3: 9–9.9” 2: ≥ 8” 1: 6–7.9” 0: < 6”
ECG Heart Rate Accuracy	7	4: ±0.5% or better 3: ±1% or ±1 bpm 2: ±1.5% or ±2 bpm 1: > ±2 bpm 0: Not stated
SpO_2 Accuracy (70–99%)	7	4: ±2% 3: ±2.5% 2: ±3% 1: > ±3% 0: Not compliant
Pulse Rate Range	7	4: 20–270 bpm 3: 30–250 bpm 2: 35–240 bpm 1: < 35 or > 240 bpm 0: Not specified

Pulse Rate Accuracy	7	4: ±2 bpm 3: ±3 bpm 2: ±4 bpm 1: > ±4 bpm 0: Not declared
Display Type & Input	7	4: Touchscreen + soft keys 3: Touchscreen only 2: Soft keys only 1: Membrane/buttons 0: None/knobs
Temp Range & Methods	7	4: 10–45°C, rectal/axillary/oral 3: 15–45°C + all 3 methods 2: 15–45°C + 2 methods 1: 15–45°C + 1 method 0: < 15°C or single mode
NIBP Ranges (Ped + Neo)	7	4: 10–200 & 10–135 mmHg 3: Meets both specs 2: One range only 1: Partial ranges 0: Not suitable
Battery	6	4: more than 5 hrs 3: more than 4hrs 2: 4 hrs 1: more than 3 hr 0: < 2

Rated Evaluation Criteria Table – Pulse Oximeter(Bed Side)

Criterion	Weight of criterion	0–4 Score Guidance
SpO_2 Measurement Range	9	4: 1–100% with 0.5% or finer 3: 1–100% (1% increment) 2: 2–100% 1: 5–100% 0: Not declared
SpO_2 Accuracy	9	4: ±2% 3: ±2.5% 2: ±3% 1: > ±3% 0: Not stated
Pulse Rate Range	9	4: 20–250 bpm 3: 30–240 bpm 2: 35–230 bpm 1: 40–220 bpm 0: < 200 bpm or not stated
Pulse Rate Accuracy	9	4: ±2 bpm 3: ±3 bpm 2: ±4 bpm 1: ±5 bpm 0: > ±5 bpm or not declared

Display Type & Visibility	8	4: ≥ 3.5” OLED/daylight visible 3: ≥ 3” LCD 2: ≥ 2.5” LCD 1: < 2.5” dim 0: Not stated

Rated Evaluation Criteria Table – Syringe Pump

Criterion	Weight of criterion	0–4 Score Guidance
Flow Rate Range	7	4: 0.01–1500 mL/h 3: 0.01–1200 mL/h 2: 0.1–1000 mL/h 1: 0.5–800 mL/h 0: < 0.5 or > 1500 mL/h
Accuracy	7	4: ±1.0% or better 3: ±1.5% 2: ±2.0% 1: > ±2% 0: Not specified
Max Pressure	7	4: ≤ 800 mmHg 3: ≤ 1000 mmHg 2: ≤ 1200 mmHg 1: > 1200 mmHg 0: Not specified
KVO Rate	7	4: Configurable & programmable 3: Configurable 2: Fixed range 1: Limited preset 0: Not available
Syringe Size Acceptance	7	4: 3–60 mL with auto-recognition 3: 5–60 mL auto-fix 2: 10–50 mL manual 1: 10–30 mL limited 0: Single size only
Event Log	7	4: ≥ 300 events 3: ≥ 200 events 2: 100–199 events 1: 50–99 events 0: Not logged
Screen Size	7	4: ≥ 3” color touchscreen 3: 2.5–2.9” color 2: ≥ 2” (meets spec) 1: < 2” screen 0: No screen
Battery Backup Duration	7	4: ≥ 8 hours 3: ≥ 5 hours 2: 3–4.9 hours

		1: 1–2.9 hours 0: < 1 hour or N/A
Recharging Time	7	4: ≤ 4 hours 3: ≤ 6 hours 2: ≤ 8 hours 1: > 8 hours 0: Not mentioned

Rated Evaluation Criteria Table – Transport Incubator

Criterion	Weight of criterion	0–4 Score Guidance
Temp Rise Time at Startup	7	4: < 25 min 3: < 30 min 2: < 35 min 1: 35–40 min 0: > 40 min or not declared
Humidity Range	7	4: 50–75% RH programmable 3: 50–70% RH 2: 45–65% RH 1: < 45% or not stable 0: Not present
Oxygen Control Range	7	4: 21–60% 3: 21–58% 2: 21–55% 1: < 21% or non-programmable 0: Not available
Display Parameters	7	4: All 9 parameters 3: 7–8 parameters 2: 5–6 parameters 1: < 5 parameters 0: Minimal or no display
Battery Backup	7	4: ≥ 8 hours 3: > 6 hours 2: 4–6 hours 1: 2–4 hours 0: < 2 hours or not declared
Fast Charging	7	4: ≤ 3 hours 3: ≤ 4 hours 2: ≤ 6 hours 1: > 6 hours 0: Not stated

Rated Evaluation Criteria Table – Tunnel Phototherapy Machine

Criterion	Weight of criterion	0–4 Score Guidance
Treated Infant Weight Capacity	14	4: ≥ 15 kg 3: ≥ 12 kg 2: ≥ 10 kg 1: 8–9 kg 0: < 8 kg or not declared

LCD Display Size	14	4: ≥ 7 inches 3: ≥ 6 inches 2: ≥ 5 inches 1: 3–4.9 inches 0: < 3 inches or none
LED Lamp Life	14	4: ≥ 50,000 hours 3: ≥ 40,000 hours 2: ≥ 30,000 hours 1: 20,000–29,999 hours 0: < 20,000 or not stated
Tunnel Part Flexibility	14	4: Independent upper/lower 3: Controllable together/separate 2: Manual/mechanical split 1: Fixed with minor adjustability 0: Not available

Rated Evaluation Criteria Table – PICU Ventilator

Criterion	Weight of criterion	0–4 Score Guidance
Startup Time	7	4: < 30 sec 3: < 45 sec 2: ≤ 60 sec 1: 61–90 sec 0: > 90 sec or not declared
Display Screen Size	7	4: ≥ 12" 3: ≥ 11" 2: ≥ 10" (meets spec) 1: 8–9" 0: < 8" or not touchscreen
FiO2 Range	7	4: 21–100% with advanced mixing 3: 21–100% with sensors 2: 21–100% basic (meets spec) 1: Fixed step FiO2 or manual 0: No FiO2 control
Tidal Volume Range	7	4: 0–2000 ml 3: 10–2000 ml 2: 20–2000 ml (meets spec) 1: 30–2000 ml 0: > 30 ml min or not stated
Battery Backup	7	4: ≥ 4 hrs 3: ≥ 3 hrs 2: ≥ 2 hrs (meets spec) 1: 1–2 hrs 0: < 1 hr or not declared
Events Storage	7	4: ≥ 2000 events 3: ≥ 1500 2: ≥ 1000 (meets spec)

		1: 500–999 0: < 500 or not available
Humidifier Accuracy	7	4: < ±0.3°C 3: < ±0.35°C 2: < ±0.4°C (meets spec) 1: < ±0.5°C 0: > ±0.5°C or not declared
Waveform Display	7	4: ≥ 6 waveforms 3: ≥ 5 2: ≥ 3 (meets spec) 1: 1–2 0: None or numeric only

NICU Ventilator

Criterion	Weight of criterion	0–4 Score Guidance
Startup Time	7	4: Startup Time 3: < 30 sec 2: < 45 sec 1: ≤ 60 sec 0: 61–90 sec
Display Screen Size	7	4: Display Screen Size 3: ≥ 12" 2: ≥ 11" 1: ≥ 10" (meets spec) 0: 8–9"
FiO2 Range	7	4: FiO2 Range 3: 21–100% with advanced mixing 2: 21–100% with sensors 1: 21–100% basic (meets spec) 0: Fixed step FiO2 or manual
Tidal Volume Range	7	4: Tidal Volume Range 3: 0–2000 ml 2: 10–2000 ml 1: 20–2000 ml (meets spec) 0: 30–2000 ml
Battery Backup	7	4: Battery Backup 3: ≥ 4 hrs 2: ≥ 3 hrs 1: ≥ 2 hrs (meets spec) 0: 1–2 hrs
Events Storage	7	4: Events Storage 3: ≥ 2000 events 2: ≥ 1500 1: ≥ 1000 (meets spec) 0: 500–999
Humidifier Accuracy	7	4: Humidifier Accuracy 3: < ±0.3°C 2: < ±0.35°C

		1: < ±0.4°C (meets spec) 0: < ±0.5°C
Waveform Display	7	4: Waveform Display 3: ≥ 6 waveforms 2: ≥ 5 1: ≥ 3 (meets spec) 0: 1–2

Openable Incubator

Criterion	Weight of criterion	0–4 Score Guidance
Air Temp Range	6	4: 25–38°C 3: 26–38°C 2: 27–38°C 1: Narrower than 28–38°C 0: Not declared
Skin Temp Range	6	4: 34–38.5°C 3: 34.5–38°C 2: 35–38°C 1: <35°C or <38°C max 0: Not declared
Mode Switch Function	6	4: Auto & manual, seamless 3: Auto/manual with delay 2: Only manual 1: Manual with infant transfer 0: Not available
Radiant Warmer Output	6	4: 800–1000 W 3: 700–800 W 2: 600–700 W 1: <600 W 0: Not declared
Humidity Control Range	6	4: 40–90% RH 3: 45–85% RH 2: 50–80% RH 1: <50% or fixed 0: Not adjustable
Chamber Tilt Control	6	4: ±8° or better 3: ±6°–7° 2: ±5° 1: Fixed/incline only 0: Not provided
Access Ports	6	4: ≥ 4 ports (with iris or combo) 3: 3 ports with iris 2: 3 basic ports 1: 2 or less 0: Not declared
Battery Backup	5	4: ≥ 2 hrs full system 3: 1.5 hrs 2: 1 hr

		1: < 1 hr 0: Not provided

Closed Incubator

Criterion	Weight of criterion	0–4 Score Guidance
Air Temp Control Range	5	4: 20–39°C 3: 21–38°C 2: 22–38°C 1: Narrower than 22–38°C 0: Not compliant
Temperature Accuracy	5	4: ±0.1°C 3: ±0.2°C 2: ±0.3°C 1: ±0.4°C 0: >±0.4°C
Humidity Control Range	4	4: 30–85% RH 3: 35–80% 2: 40–75% 1: Narrower 0: Not compliant
Humidity Increment	2	4: ≤ 5% steps 3: ≤ 10% 2: ≤ 15% 1: Fixed only 0: Not adjustable
Humidity Recovery Time	2	4: ≤ 10 min 3: ≤ 15 min 2: ≤ 20 min 1: ≤ 30 min 0: > 30 min
Humidity Accuracy	2	4: ≤ ±5% 3: ≤ ±8% 2: ≤ ±10% 1: > ±10% 0: Not stated
Oxygen Control Range	3	4: 21–60% 3: 22–58% 2: 23–55% 1: Narrower 0: Not supported
Display Range	2	4: 20–70% 3: 22–65% 2: 25–60% 1: < 25–60% 0: Not stated
Oxygen Control Accuracy	2	4: ≤ ±3% 3: ≤ ±5% 2: ≤ ±7% 1: > ±7% 0: Not accurate

Rise Time	2	4: <10 min 3: <15 min 2: <20 min 1: <30 min 0: >30 min
Recovery Time	2	4: < 5 min 3: 5–7 min 2: 8–10 min 1: > 10 min 0: Not stated
Access Ports	2	4: ≥4 w/ 2 Iris 3: ≥4 basic 2: 3 ports 1: 2 ports 0: <2 ports