

Annex 1

Technical Specifications of required equipment for Rybnitsa Maternity Unit and Intensive Therapy Care Unit

Item		Quantity
ITEM 1. C.P.A.P. SYSTEM		1
1.1.	Standard requirements	CE Mark ISO 9001: 2000 certified companies
1.2.	Basic Structure	Heated respiratory humidifier Humidifier pole with mobile stand and pole mount bracket
1.3.	Characteristics	<p style="text-align: center;">Heated respiratory humidifier</p> Microprocessor controlled Dual servo control Continuous display of saturated gas temperature Temperature probe Water-out alarm Heated wire adaptor for single patient heated breathing circuits for newborns <p style="text-align: center;">Single use delivery system</p> Input flow range: 5- 15 liters / minute Humidification chamber compressible volume: min. 250 ml Pressure manifold with different ports: <ul style="list-style-type: none"> – oxygen analyzer – port pressure – port inlet and outlet connectors CPAP generator mean pressure: 5-10 cm H ₂ O CPAP generator water container volume: 300ml-500 ml <p style="text-align: center;">Single patient interface</p> Nasal tubing with collapsible extension Nasal tubing flow resistance: 0,50 cm H ₂ O at 6 l/min - 0,55 cm H ₂ O at 6 l/min Latex free nasal prongs with multiple sizes for perfect fit to different sizes of babies Comfortable fit single use nasal prongs Multiple sizes top opened bonnets for perfect fit to different sizes of babies
1.4.	Consumables	<p style="text-align: center;">Nasal CPAP kit</p> a. Single use delivery system composed from: <ul style="list-style-type: none"> – single use patient humidifier chamber – single use patient single heated breathing circuits for newborns – single use patient pressure manifold – single use patient CPAP generator with pressure setting

Item		Quantity
ITEM 1. C.P.A.P. SYSTEM		1
		b. Single use patient interface composed from <ul style="list-style-type: none"> – nasal Tubing – nasal prongs – fixation bonnets
		Starter kit
		25 pcs. complete single use nasal CPAP kits, each kit consisting of: <ul style="list-style-type: none"> – delivery system 1 pc. – nasal tubing 1 pc. – 4 different sizes of bonnets – 2 pc. each – 8 different sizes of nasal prongs – 3 pc. each
1.5.	Warranty and Service Conditions	24 months from the moment of installation Maximum response time at beneficiary site: 72 hours
1.6.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language Training for at least 2 technical personnel on site at beneficiary location in Russian language Installation User manual in English or translated into Russian language

Item		Quantity
ITEM 2. COMPRESSOR FOR VENTILATOR/CPAP		1
2.1.	Standard requirements	CE Mark ISO 9001: 2000 certified companies
2.2.	Characteristics	Compatible with the ventilator or CPAP system specifications Stand-alone medical air compressor Snap fit with the ventilator and CPAP system module to provide medical air Air quality should comply with European Pharmacopoeia compressed air purity class Replacement of internal filters should be performed without removing the compressor Provide at least 5 sets of air filters Power Supply: 220 VAC, 50 Hz
2.3.	Warranty and Service Conditions	24 months from the moment of installation Maximum response time at beneficiary site: 48 hours
2.4.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language Training for at least 2 technical personnel on site at beneficiary location in Russian language Installation User manual in English or translated into Russian language

Item		Quantity
ITEM 3. INTENSIVE CARE MONITOR		2

Item		Quantity
ITEM 3. INTENSIVE CARE MONITOR		2
3.1.	Standard requirements	CE Mark
		ISO 9001: 2000 certified companies
		Color Screen – LCD monitor
		Minimum screen resolution: 800 x 600 pixels
		Screen dimensions: Color screen with at least 300 mm diagonal
		Speed of recording: 6.25, 12.5 or 25 mm/second
		Visible in the same time on the screen: <ul style="list-style-type: none"> – One lead ECG wave form and heart rate value, respiration wave form and respiratory rate; – SpO₂ waveform and value; – non-invasive blood pressure values (Systolic, diastolic and mean) and temperature value
		Central Control panel will display all instructions in English or Russian language
		Measures: <ul style="list-style-type: none"> – heart rate – beats per minute; – respirations – breaths per minute; – SpO₂ – percent; – blood pressure – mmHg; – temperature - °C
		Low weight: approximately 6 kg
		Built-in handle for transportation
		Structure
		Monitor
		Battery
		Patient cables in various lengths e.g. 3 & 8 feet or similar range
		Cable for ECG + electrodes
		Cable for blood pressure + cuffs
		Cable for temperature + sensor
		Cable for pulse-oximeter + sensors
		Control buttons
		On/off
		Alarms – standard
		Stand-by
		Alarms
		System failure
		Battery low
		Apnea
		Bradycardia
		Tachycardia
		Low respiratory rate
		High respiratory rate
		Saturation low
		Saturation high
		Blood pressure low (systolic, diastolic, mean)
		Blood pressure high (systolic, diastolic, mean)
		Temperature low
		Temperature high
3.2.	Characteristics	

Item		Quantity
ITEM 3. INTENSIVE CARE MONITOR		2
	<p>All alarms mentioned above are adjustable by the clinician at the bedside</p> <p>All alarms are audio and visual alarms</p> <p>The alarm tones can be regulated (high to low tonality to alarm off at least)</p> <p>Heart rate and EGK</p> <p>One derivation visible all the time on the screen</p> <p>There could be two channels visible optional</p> <p>Limits: low limit at least 20 beats per minute, high limit at least 300 beats per minute</p> <p>Derivations: I, II, III, aVL, aVR, aVF. Optional: V1, V2, V3, V4, V5, V6</p> <p>Possibility to adjust the amplitude of the signal</p> <p>Possibility to choose the lead to be displayed</p> <p>Cable with 3 wires: I, II, III, aVL, aVR, aVF</p> <p>Cable with 10 wires: I, II, III, aVL, aVR, aVF. Optional: V1, V2, V3, V4, V5, V6</p> <p style="text-align: center;">Respiratory rate</p> <p>Limits: low limit at least 0 breaths per minute, high limit at least 150 breaths per minute</p> <p>Oxygen saturation of hemoglobin</p> <p>O₂ saturation low limit at least 30%, high limit at least 100 %</p> <p>O₂ saturation low limit at least 30%, high limit at least 100 %</p> <p>Pulse rate: low limit at least 30 bpm (beats per minute) to high limit at least 250 bpm</p> <p>Adjustable averaging time</p> <p>Signal quality meter on screen</p> <p style="text-align: center;">Blood pressure</p> <p>Oscilometry measurement</p> <p>Measures and displays systolic and diastolic blood pressures</p> <p>Automatically adjustable intervals of approximately 1 min – 8hours</p> <p>Discriminates between pressure signals and patient movement</p> <p>Display current and previous pressure values (systolic, diastolic)</p> <p>Automatically zeroes prior to each reading</p> <p>Blood pressure cable and cuffs for all age (mentioned above)</p> <p style="text-align: center;">Temperature</p> <p>Measurement: low limit at least 28°C, high limit at least 42°C</p> <p>Cable for temperature monitoring to be connected with probe and temperature probe or probe incorporated in the cable assembly</p> <p>Mandatory rectal and skin probe</p>	
3.3.	Accessories	<p>Extra battery – 1 piece</p> <p>ECG cables with 3 leads – 2 pieces</p> <p>Cuff set reusable, all dimensions newborn/pediatric and adult– 1set</p> <p>SpO₂ (multisensor) sensor pediatric/adult with cable with approximately 5 feet – 2 pcs</p> <p>SpO₂ sensor newborn with cable with approximately 8 feet (consumables for 500 tests)</p>

Item		Quantity
ITEM 3. INTENSIVE CARE MONITOR		2
		ECG electrodes newborn/infant – 200 pcs
		ECG electrodes/pediatric/ adult – 500 pcs
		Blood pressure cable 3 ft – 2 pcs
		Temperature cable 3ft – 2 pcs
		Temperature probe covers – 500 pcs
		Blood pressure cuffs Sizes: 1,2, 3, 4, 5 - 6 pcs each
		Power requirements: 220 VAC, 50 Hz
		Autonomy with battery at least 2 hours
		Automatically display of battery status fuel gage while operating on battery power
		Automatic internal recharge when the monitor is plugged into an AC power supply
		Low battery audio and visual alarm
		Capable of recording all numeric and waveform information displayed on the screen for min 24 hours
3.4.	Warranty and Service Conditions	24 months from the moment of installation
		Maximum response time at beneficiary site: 72 hours
3.5.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Installation and commissioning
		User manual in English or translated into Russian language

Item		Quantity
ITEM 4. BASIC INCUBATOR		1
4.1.	Standard requirements	CE Mark
		ISO 9001: 2000 certified companies
4.2.	Basic Structure	Incubator hood
		Temperature controller
		Standard humidity module
		Mobile stand
		a) Incubator hood and mattress:
		Double wall and other parts of incubator easily removable for cleaning
		At least two opposite doors for quick access
		Small range temperature drop with door down
		Front door access
		One iris port on each lateral side, two irises on front and back or doors for access
		Hood can be raised separately from front door
		Mattress with minimum surface of 2,000 cm ²
		Tilting of the mattress
		Tubing access – minimum 4
		b) Temperature controller:
		Microprocessor controlled

Item		Quantity
ITEM 4. BASIC INCUBATOR		1
4.3.	Characteristics	Automatic test on start-up
		Heat up time to 39°C to be 30 minute or less
		Removable control unit for easy service
		Air flow pattern directed from front to rear of incubator across entire width
		Centralized display for patient, air temperatures control with alarms
		display for function settings, parameters and trending, easy to operate and clean
		Accurate air temperature control using two air probes
		Air temperature range between: 20 and 39°C
		Baby temperature control using reusable skin probe
		Baby skin temperature range between: 35 and 37°C
		Keypad lock function for protection
		Override function at air temperature over 38°C
		c) Standard humidity module:
		Internal reservoir included
		Front mounted for easy accessibility
		All humidifier parts can be completely removed for filling and cleaning
		Humidity range up to 70% RH
		d) Mobile stand:
		Stand on four anti-static wheels, from which two locking
		Height variable 90-110cm or more
		Two front drawers
		e) Alarms:
		audio alarms
		Baby set temperature: + / - 1 ° C
		High/Low air temperature: +3 / -1 ° C or better
		Baby skin temperature probe fail
		Air temperature probe fail
		Power fail
		Air flow fail
		System fail
		f) Accessories included:
		Front drawers – 2 pieces
Mattress – 1piece		
Rails for accessories – 2 pieces		
Patient skin probe reusable –2 pcs		
g) Physical properties:		
Power requirements: 220/240 V, 50-60 Hz		
Ambient operating temperature: minimum 20- 30° C		
Ambient humidity: 0 – 90 %RH		
4.4.	Accessories	Front storage drawers
		Mattress
		Rails for accessories
		Patient skin probe
4.5.	Warranty and Service Conditions	24 months from the moment of installation
		Maximum response time at beneficiary site: 72 hours

Item		Quantity
ITEM 4. BASIC INCUBATOR		1
4.6.	<i>Incidental Services</i>	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Installation and commissioning
		User manual in English or translated into Russian language

Item		Quantity
ITEM 5. TABLE FOR NEWBORN RESUSCITATION		1
5.1.	<i>Standard requirements</i>	CE Mark
		ISO 9001: 2000 certified companies
5.2.	<i>Basic Structure</i>	Height adjustable table
		Resuscitation Radiant Warmer consisting of:
		Heat source
		Bassinet and mattress
		Mounting column with fixed height
		System for resuscitation
		Storage compartments
5.3.	<i>Accessories</i>	Front drawers for storage
		X-Ray tray
		Rails for accessories
		Patient skin probe
		a) Heat source controller and functions:
		Mean irradiance at mattress level: minimum 10 mW/cm ²
		The central Control panel will display all instructions in English or Romanian language
		Control panel located centrally at eye level
		Microprocessor controller with control modes: <ul style="list-style-type: none"> - Manual mode in minimum 5% increments from 0 to 100% - Automatic (pre-warm) mode - Servo (baby) mode
		Servo control temperature range between approximate: 35 – 37 °C
		Display temperature range between 30 and 42 °C
		Examination lamp of minimum 50 W and minimum 1,000 Lux
		Apgar timer integrated
		The heat source head with possibility of moving left or right - 90°
		Patient skin probe, reusable – 2 pieces
		b) Bassinet and mattress:
		Mattress area minimum: 3,000 cm ²
		Hydraulic tilt mechanism for the bassinet at least: +/- 10° minimum
		Mattress thickness: <ul style="list-style-type: none"> - minimum 2 cm - Ray cassette tray to fit under mattress-1 piece
		Four foldable bassinet walls

Item		Quantity
ITEM 5. TABLE FOR NEWBORN RESUSCITATION		1
		Ventilator tube supports
		c) Mounting column:
		Fixed height column on mobile castors
		Built in rails for accessories – 2 pieces
		Resuscitation module
		Wall supply pressure 40-75 psi (275-517 kPa)
		Cylinder pressure 2,900 psi max (19,994 kPa)
		Auto Breath infant resuscitator
		Adjustable breath rate range 18-60 BPM (+/-10% of setting)
		I:E ratio Fixed at 1:2 Nominal
		Adjustable positive end expiratory
		Pressure (PEEP) 0-18 H2O (0-1.77 kPa)
		Gas bleed 5 LPM Max
		Precision blender (optional) 21-100% O2 +/-3% O2
		d) Storage compartments:
		Front storage drawers – 2 pieces
		e) Alarms:
		Audio alarms
		Controller heating alarms
		Check patient 15 minutes in Manual Mode
		Baby temperature +/- 1° C from Set Point
		High temperature Skin Temp. 39.0° C +/- 0.2° C
		Probe Short or open circuit / No probe
		System fail Indicates System Fail
		Power fail AC Power Interruption
		Alarm silence/reset intervals
		Check patient Resets clock for 15 minutes manual mode
		Baby temperature 10 minutes
		High temperature 2 minutes
		Procedural silence Presilences baby temp alarm for 5 minutes
		Alerts
		Manual mode System alerts every 30 seconds > 10 minutes, for 15 minutes
		Apgar timer Alerts at 1, 5 and 10 minutes
		f) Physical properties:
		Total height: maximum 200 cm.
		Mattress height at approximate 100 cm.
		Weight: maximum 100 Kg. (excluding accessories)
		Power requirements: 220/240 V, 50-60 Hz
5.4.	Warranty and Service Conditions	24 months from the moment of installation
		Maximum response time at beneficiary site: 72 hours
5.5.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Installation
		User manual in English or translated into Russian language

Item		Quantity
ITEM 6. SYRINGE INFUSION PUMP		4
6.1.	Standard requirements	CE Mark ISO 9001: 2000 certified companies
6.2.	Basic Structure	Heated respiratory humidifier Humidifier pole with mobile stand and pole mount bracket
6.3.	Technical Characteristics	Syringe type infusion pump for constant drug administration Flow rate: min range 0.1 ml – 999 ml/h (max 0.1 ml increments) Possibility of changing the flow rate whilst infusing Syringe loading sensor. The equipment will include KVO function High accuracy over the entire delivery range min +/-5% Accept all standard type syringe from 50/60 ml, 30/35 or 20 ml, 10 ml or 5ml Set-up fast and simple Bolus mode programmable Antibolus system Warns of pressure variation when there is a risk of occlusion or a possible leak in the infusion line Occlusion in preselected mode: three pre-selectable pressure alarm limits (occlusion) Infusion continuity protection Automatic internal battery operation during patient transfer AC power failure Infusion data memorization (flow rate, bolus rate, volume, volume limit, KVO rate) Event logging Electronic pressure management Infusion alarm: Pre-alarm end of infusion Pre-alarm volume limit Occlusion alarm Alarm for the end of infusion Alarm for volume limit Technical alarms: Disengaged driving mechanism alarm Low battery pre-alarm Discharged battery alarm Battery capacity display Unconfirmed programming Main malfunction alarms Syringe position control Syringe barrel clasp check Plunger head detection Occlusion pressure Locking syringe Fixing accessory Power 220 V AC / 50 Hz Battery life: min 3h/charge
6.4.	Consumables	200 connectors from the syringe to the patient for each syringe

Item		Quantity
ITEM 6. SYRINGE INFUSION PUMP		4
		infusion pump
6.5.	Warranty and Service Conditions	24 months from the moment of installation
		Maximum response time at beneficiary site: 48 hours
6.6.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Equipment assembly and installation on site
		User manual in English or translated into Russian language

Item		Quantity
ITEM 7. PHOTOTHERAPY LAMP		2
7.1.	Standard requirements	CE Mark
		ISO 9001: 2000 certified companies
7.2.	Basic Structure	Phototherapy Unit
		Mobile Stand
7.3.	Technical Characteristics	a) Phototherapy Unit:
		- composed of minimum 4 fluorescent tubes with white or blue color
		- therapeutically wave length: 420-480 nm
		- tube average life time: minimum 1.500 hours
		- indications when and what tubes need changing
		- light intensity: minimum 40 $\mu\text{W}/\text{cm}^2/\text{nm}$ at a distance of 40 cm from the lamp
		Supplementary 1 set with white or blue color – reserve
		b) Mobile Stand:
7.4.	Consumables	- height adjustable between: minimum 45 -150 cm.
		- on 3-4 castors with locks
7.5.	Warranty and Service Conditions	Blue / white light fluorescent tube
		24 months from the moment of installation
7.6.	Incidental Services	Maximum response time at beneficiary site: 72 hours
		Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Installation
		User manual in English or translated into Russian language

Item		Quantity
ITEM 8. PORTABLE PULSE OXYMETER		2
8.1.	Standard requirements	CE Mark
		ISO 9001: 2000 certified companies
8.2.	Basic Structure	Monitor for SpO2 and pulse rate
		Portable pulse-oxymeter
		Universal connection for sensors

Item		Quantity
ITEM 8. PORTABLE PULSE OXYMETER		2
8.3.	Technical Characteristics	a) Monitor:
		Removable handheld display for SpO2 and pulse rate ensures continuous monitoring during transport
		Oximetry technology clinically proven to work under motion and poor perfusion conditions
		Patients perfusion level display
		Sensor signal quality indicator to ensure best sensor position placement
		Full patient alarms including high and low saturation and pulse rate
		Downloadable 72 hour memory at 2 seconds resolution with the ability to review trend data on screen
		Fast time to initial reading after sensor placement
		Probe off detection system to alert user of probe displacement
		High sensitivity mode for improved performance on poorly perfused patients
		LCD waveform display
		User selectable averaging time
		SpO2 range: 1÷100%
		Pulse rate: approximately 0 ÷250 bpm
		Perfusion (optional): 0.02% ÷ 10%
		Saturation accuracy in motion for infant: ± 3 digits
		8 hour battery life for the portable display
		Configurable display, including big numbers option
		On screen alarm values
		Alimentation with power cord for 220 V
		b) Sensors:
		Availability of complete range of adhesive and reusable sensors for all patient weights
		Sensors with recessed photo detector to reduce ambient light and electromagnetic interference
		Extended adhesive sensor life by use of rejuvenatable adhesive
		Low weight adhesive sensors, <5gms
		Single patient use with proven clinical lifetime of minimum 8 days
Adhesive sensors manufactured from durable, moisture resistant material		
8.4.	Accessories and Consumables	Interconnection cable 1 pcs
		1 SpO2 sensor reusable for adults (finger)
		1 SpO2 sensor reusable for children over 10 kg
		50 single patient use SpO2 sensors for infant
		30 single patient use SpO2 sensors for neonates lower than 2 Kg
8.5.	Warranty and Service Conditions	24 months from the moment of installation
		Maximum response time at beneficiary site: 72 hours
8.6.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language

Item		Quantity
ITEM 8. PORTABLE PULSE OXYMETER		2
	Installation and commissioning	
	User manual in English or translated into Russian language	

Item		Quantity
ITEM 9. SUCTION UNIT		3
9.1.	Standard requirements	CE Mark
		ISO 9001: 2000 certified companies
9.2.	Basic Structure	Monitor for SpO2 and pulse rate
		Portable pulse-oxymeter
		Universal connection for sensors
9.3.	Technical Characteristics	Portable suction unit
		Suitable for adult and pediatric use
		Vacuum range: between around -20 and -300 mmHg, adjustable from a button
		Vacuum indicator
		Fast aspiration: at around 10-30 lpm flow
		Sealed water resistant unit
		Control panel tilted for easy viewing of the controls
		Main body made of durable and resistant material
		LED indication for bad battery
		Indication for battery charge status
		Remote internal AC charger for battery
		Charging circuit capable of running on low battery
		Power supply: 220VAC, 50Hz
		Rechargeable battery:
		12 volt DC rechargeable battery
		Battery: rechargeable
		Long operating time at full vacuum (uninterrupted min 40-60 min)
		Low charge time: max 6-8 hours
		Fast charging: runs at least 1 hour after it is charged for 2 hours only
9.4.	Accessories and consumables:	Reusable collecting container: min 1500 ml.
		Disposable hydrophobic bacteria filters – 3pcs.
		2 auto-clavable silicon suction tubes
		Carrying case with shoulder strap and handle – 1pc.
9.5.	Warranty and Service Conditions	Period: 24 months from the moment of installation of the equipment
		Battery warranty : at least 6 months
		Maximum response time : 72 hours
9.6.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Installation and commissioning
		User manual in English or translated into Russian language

Item		Quantity
ITEM 10. FETAL HEART DETECTORS		1
10.1.	Standard requirements	CE Mark ISO 9001: 2000 certified companies
10.2.	Characteristics	Compact, lightweight and portable device complete with carrying case, rechargeable batteries, gel and optional head-set if any Specify measurement method Audible and visible heart beat indication Fetal Heart rate calculation and display
10.3.	Technical Requirements	Specify FHR range [bpm] Display size Indicate displayed parameters Speaker yes/no Power Requirements: VAC 220, 50Hz / Plug Type F CONTROLS: ON/OFF Volume Audio mute Calibration Easy to clean Waterproof / fluid resistant Battery operation Rechargeable standard batteries With integrated battery charger or ext. charging station Consumables if any covering 1200 patients
10.4.	Warranty and Service Conditions	24 months from the moment of installation Maximum response time at beneficiary site: 72 hours
10.5.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language Training for at least 2 technical personnel on site at beneficiary location in Russian language Installation User manual in English or translated into Russian language

Item		Quantity
ITEM 11. ELECTROCARDIOGRAPH (ECG)		1
11.1.	Standard requirements	CE Mark ISO 9001: 2000 certified companies
11.2.	Characteristics	12 channel ECG with 12 leads Minimum 6 Number of traces to be displayed simultaneously Preferable touch screen Resolution at least 640/480 pixels Possibility of introducing for each patient the following data: name, date of birth, date of recording, weight, age, diagnosis and comments The central Control panel will display all instructions in English or Romanian language

Item		Quantity
ITEM 11. ELECTROCARDIOGRAPH (ECG)		1
		2 leads ECG: limb derivations: I, II, III, aVL, aVF, aVR; precordial derivations: V1, V2, V3, V4, V5, V6
		Manual selection for any 12-lead
		Graphic LCD viewing area for life 3-channel display with patient information
		Indicator for faulty leads
		Digital filters for all possible interferences. <i>Please specify which types of filters</i>
		Calibration 1mV test
		Sensitivity and Frequency response test
		Sensitivity adjustment - 5, 10 and 20 mm/mV
		Gain adjustment - x 1/2, x 1 and x 2
		Full screen preview to determine quality of ECG
		ECG interpretation with interpretation statements
		Low battery check and alarm
		Optional: indication of bradycardia and tachycardia
		Printer
		Printing speed 25 mm/s or 50 mm/s
		Recording paper - thermal - A4 size
		Printout of patient ECG with patient information
		Storing at least 100 records (at least 10 seconds long strips)
		Defibrillation protection
		Pacemaker detection
		Built in accumulator. At least 2 hours autonomy
		The accumulator is re-charging automatically
		Thermal paper rolls – 50 pcs
11.3.	Warranty and Service Conditions	24 months from the moment of installation
		Maximum response time at beneficiary site: 72 hours
11.4.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Installation
		User manual in English or translated into Russian language

Item		Quantity
ITEM 12. HOT AIR STERILIZATION		2
12.1.	Standard requirements	CE Mark
		ISO 9001: 2000 certified companies
12.2.	Characteristics	Hot air sterilizer with chamber volume: min 50 liters
		Chamber made from stainless steel
		Door with lateral opening with handling for safety against the accidental opening
		Selected programs for sterilization, heating or drying of materials
		Min 3 working programs
		Ventilation air system in spiral way to assure the temperature in

Item		Quantity
ITEM 12. HOT AIR STERILIZATION		2
		chamber
		Control panel and LED display
		Display of temperature and time
		Indication of the already done and current sterilization phase
		RS 232 – interface for printer or PC – communication
		Acoustic alarm for overtake of programmed temperature or other error
		Precise control of the sterilization cycle parameters with microprocessor
		Delayed heating start and stop function
		Temperature sensor
		Chrome plated trays – 2 pcs.
		Working temperature: at least from 10°C above ambient to 250°C
		Time required to reach 250°C: max 60 min
		Weight: max 75 kg
		Power:
		Maxim power consumption: 1.5 kW
		Power supply: 220 VAC, 50 Hz
12.3.	Warranty and Service Conditions	24 months from the moment of installation
		Maximum response time at beneficiary site: 48 hours
12.4.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Installation
		User manual in English or translated into Russian language

Item		Quantity
ITEM 13. OXYGEN HOOD		2
13.1.	Standard requirements	CE Mark
		ISO 9001: 2000 certified companies
13.2.	Basic Structure	Transparent oxygen hood for neonates with head / waist aperture
		2(two)sliding doors
		Silicone flap in the head / waist aperture
13.3.	Technical Characteristics	Suitable for neonates and infants
		Fits into all incubators and open care beds / tables
		Allows consistent and even oxygen flow to the baby
		Manufactured from food-grade polycarbonate
		Easy access on each side for I.V. lines, oxygen analyzers or ECG wires
		Big clear sliding doors
		Raked head aperture
		Soft material in the aperture for maintaining oxygen and humidity
		Interior gas deflection system for preventing baby's cooling

Item		Quantity
ITEM 13. OXYGEN HOOD		2
		Possibility to measure the interior temperature
13.4.	Warranty and Service Conditions	Period: 24 months from the moment of installation of the equipment
		Maximum response time : 72 hours
13.5.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Installation
		User manual in English or translated into Russian language

Item		Quantity
ITEM 14. RESUSCITATION BALOON		2
14.1.	Technical Characteristics	Silicone resuscitation balloons for providing fast, simple, and effective ventilation to non-breathing patients, self-inflating bags in three sizes: adult / pediatric / neonatal
		System assists the rescuer through :
		Pop-off pressure release valve which opens at pressures more than 20-40 cm H ₂ O
		Pressure manometer
		Valve system respond to the rescuer and the patient
		Visual alert of the pressure applied or for incorrect operation
		Audible overpressure alert
		Auto-clavable
		Oxygen reservoir system for each of the resuscitators
		Inspiratory resistance: 3-3.5 cm H ₂ O
		Bag volume : between 500 ÷ 750 ml
		Expiratory resistance: 2-2.5 cm H ₂ O
		Dead space: max 8 ml
		Reservoir volume: 500÷750 ML
		Manual flow rate: min 35-45 l/min
		Demand flow rate: min 0-150 l/min
		Input pressure: 50 PSI
		Pressure relief valve: 40 cm H ₂ O
		Patient connection: 15mm (newborns) and 22 mm
		Low weight (for easy operation)
Operating temperature range: min. -10°C to 50°C		
Storage temperature range: min. -40°C to +60°C		
14.2.	Accessories	Neonatal use masks – 6 pcs (2 of each size)
		Children use masks –6 pcs (2 of each size)
		Adult use masks – 6 pcs (2 of each size)
14.3.	Warranty and Service Conditions	24 months from the moment of installation
		Maximum response time at beneficiary site: 48 hours
14.4.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Installation

Item		Quantity
ITEM 14. RESUSCITATION BALOON		2
	User manual in English or translated into Russian language	

Item		Quantity
ITEM 15. LARINGOSCOPE		2
15.1.	Standard requirements	CE Mark ISO 9001: 2000 certified companies
15.2.	Technical Characteristics	Fiber optic laryngoscope: Laryngoscope handle Fiber optic laryngoscope blades – 2 pcs each size (adult, pediatric and neonatal) Rechargeable battery Knurled finish for sure grip Blade with fiber optic for cool light Halogen or xenon light for true tissue color Long lasting illumination Removable fiber optic light pipe for instant replacement Fiber optic resistant about 1000 cycles of sterilizations Blades: McIntosh type, size 1, 2, 3 Miller type, size 1, 2, 3 One piece stainless steel Wireless blades eliminate electrical contact Charger for battery: 220VAC, 50 Hz
15.3.	Warranty and Service Conditions	Period: 24 months from the moment of installation of the equipment Maximum response time : 48 hours
15.4.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language Training for at least 2 technical personnel on site at beneficiary location in Russian language Installation User manual in English or translated into Russian language

Item		Quantity
ITEM 16. BILIRUBINOMETE CUTANEOS		3
16.1.	Standard requirements	CE Mark ISO 9001: 2000 certified companies
16.2.	Technical Characteristics	Non-invasive fast measurement Measurement position forehead or sternum Easy to read display - Specify type and range Printer (preferably integrated) and paper rolls Alarms Measurements error Low battery Others (specify)

Item		Quantity
ITEM 16. BILIRUBINOMETE CUTANEOUS		3
		Technical Requirements
		Power Requirements: VAC 220, 50Hz / Plug Type F
		Battery (rechargeable) and mains operation
		Charging device (220V)
		Carrying case
		Consumables for 200 patients
16.3.	Warranty and Service Conditions	Period: 24 months from the moment of installation of the equipment
		Maximum response time : 72 hours
16.4.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Installation
		User manual in English or translated into Russian language

Item		Quantity
ITEM 17. NEBULIZER FOR DRUGS		3
17.1.	Standard requirements	CE Mark
		ISO 9001: 2000 certified companies
17.2.	Technical Characteristics	Equipment for broncho-pulmonary pathologies: asthma, pneumopathies, cystic fibrosis
		Dedicated for all medicines: bronchodilators, antibiotics, corticoids, and mucolytic
		Running mode: the aerosol is produced continuous
		Auto-clavable up to 134°C
		Preferable reusable accessories (tubes, masks)
		Nebulizer:
		Container capacity: approximately 5 ml
		Equipped with tube with length approximately 1m
		Multi position mask for adult and pediatric
		Equipped with mouth end-piece and flask for dosage
		Compressor:
		Oil free
		Maintenance free
		Small dimensions (portable device)
		Low weight (portable device)
		Low noise device: approximate 30 dB
		Pressure adjusted to 0.5 bar
		Possibility to be fed by an oxygen central source: compressor flow in charge with minimum 5l/min
		Medical device from electrical class I
		Level of protection: IP 30
17.3.	Accessories and Consumables	Mouth end-piece – 5pcs
		Nose plug – 2pcs
		Nose piece – 2pcs
		Masks adult – 2pcs

Item		Quantity
ITEM 17. NEBULIZER FOR DRUGS		3
		Masks pediatric – 5pcs
17.4.	Warranty and Service Conditions	Period: 24 months from the moment of installation of the equipment
		Maximum response time : 72 hours
17.5.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Installation
		User manual in English or translated into Russian language

Item		Quantity
ITEM 18. GLUCOMETER		1
18.1.	Standard requirements	CE Mark
		ISO 9001: 2000 certified companies
18.2.	Technical Characteristics	Whole blood measurements
		Measurement range: min 10 – 700 mg/dl
		No light influence
		Compensated with temperature influence
		Serial imprecision: max 4 %
18.3.	Consumables	Strips for 500 of tests open market not limited to one company
18.4.	Warranty and Service Conditions	Period: 24 months from the moment of installation of the equipment
		Maximum response time : 72 hours
18.5.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Installation
		User manual in English or translated into Russian language

Item		Quantity
ITEM 19. CLASSICAL TABLE FOR GYNECOLOGY AND OBSTETRICS		2
19.1.	Standard requirements	CE Mark
		ISO 9001: 2000 certified companies
19.2.	Characteristics	Non-electric delivery bed
		Robust, mobile delivery bed on castors with breaks
		Easy adjustable sections (with handle). <u>Specify number of sections</u>
		Height adjustable (with handle). <u>Specify range</u>
		Trendlenburg and reverse Trendelenburg position easy adjustable with handle. <u>Specify range</u>
		Shoulder and head rest
		Supplementary table completely recessable underneath the

Item		Quantity
ITEM 19. CLASSICAL TABLE FOR GYNECOLOGY AND OBSTETRICS		2
		main bed
		Standard side rails to fix accessories
		Detachable, adjustable (height and width) leg support
		Detachable, adjustable (height and width) knee crutches with pads, cover and strap
		Easy to clean, water and stain proof mattress. <i>Specify material and cleaning detergent used</i>
		Drain pan to collect physiologic and irrigating fluids
		Waste receptacle with drainage hose
		Auxiliary side-arm board with pad, swiveling
		Auxiliary height adjustable infusion pole
19.3.	Warranty and Service Conditions	Period: 24 months from the moment of installation of the equipment
		Maximum response time : 72 hours
19.4.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Installation
		User manual in English or translated into Russian language

Item		Quantity
ITEM 20. RADIANT TABLE FOR NEWBORN		1
20.1.	Standard requirements	CE Mark
		ISO 9001: 2000 certified companies
20.2.	Basic Structure	Height adjustable table
		Radiant Warmer consisting of: <ul style="list-style-type: none"> - Heat source - Bassinet and mattress - Mounting column with fixed height - Storage compartments
		a) Heat source controller and functions:
		Mean irradiance at mattress level: minimum 10 mW/cm ²
		The central Control panel will display all instructions in English or Russian language
		Control panel located centrally at eye level
		Microprocessor controller with control modes: <ul style="list-style-type: none"> - Manual mode in minimum 5% increments from 0 to 100% - Automatic (pre-warm) mode - Servo (baby) mode
		Servo control temperature range between approximate: 35 – 37 °C
		Display temperature range between 30 and 42 °C
		Examination lamp of minimum 50 W and minimum 1,000 Lux

Item		Quantity
ITEM 20. RADIANT TABLE FOR NEWBORN		1
		The heat source head with possibility of moving left or right - 90°
		Patient skin probe, reusable – 2 pieces
		b) Bassinet and mattress
		Mattress area minimum: 3,000 cm ²
		Hydraulic tilt mechanism for the bassinet at least: +/- 10° minimum
		Mattress thickness: minimum 2 cm
		Ray cassette tray to fit under mattress -1 piece
		Four foldable bassinet walls
		c) Mounting column
		Fixed height column on mobile castors
		Built in rails for accessories – 2 pieces
		d) Storage compartments
		Front storage drawers – 2 pieces
		e) Alarms
		Progressive audio alarms
		Check patient
		Baby temperature deviation: +/- 1° C
		High temperature with heater shut off
		Probe fail
		Power fail
		System fail
		f) Physical properties
		Total height: maximum 200 cm
		Mattress height at approximate 100 cm
		Weight: maximum 100 Kg. (excluding accessories)
		Power requirements: 220/240 V, 50-60 Hz
20.3.	Accessories	Front drawers for storage
		X-Ray tray
		Rails for accessories
		Patient skin probe
20.4.	Warranty and Service Conditions	Period: 24 months from the moment of installation of the equipment
		Maximum response time : 72 hours
20.5.	Incidental Services	Training for at least 2 medical personnel on site at beneficiary location in Russian language
		Training for at least 2 technical personnel on site at beneficiary location in Russian language
		Installation
		User manual in English or translated into Russian language

Item		Quantity
ITEM 21. MEDICATION / INSTRUMENT TROLLEY		2
21.1.	Standard requirements	CE Mark
		ISO 9001: 2000 certified companies
21.2.	Basic Structure	Stainless steel emergency trolley

Item		Quantity
ITEM 21. MEDICATION / INSTRUMENT TROLLEY		2
		Work top
		Double hook IV-pole
		Defibrillator platform with straps
		Antistatic ball bearing castors
		System waste container
		Rubber bumpers
		Minimum 2 (two) drawers
21.3.	<i>Physical properties</i>	<p>Stainless steel structure</p> <ul style="list-style-type: none"> – Maximum height: 1600 mm – Maximum length: 700 mm – Maximum width: 650 mm – Castors diameter: min.120 mm
21.4.	<i>Technical Characteristics</i>	<p>Work top in plastic ABS</p> <p>Colored strips for drawers</p> <p>Effective security system of the emergency medication</p>
21.5.	<i>Accessories</i>	<p>Catheter basket</p> <p>Internal drawer organizer</p> <p>Stainless steel holder for oxygen bottles with capacity 3-5 liters</p>
21.6.	<i>Warranty and Service Conditions</i>	<p>Period: 24 months from the moment of installation of the equipment</p> <p>Maximum response time: 72 hours</p>
21.7.	<i>Incidental Services</i>	<p>Training for at least 2 medical personnel on site at beneficiary location in Russian language</p> <p>Training for at least 2 technical personnel on site at beneficiary location in Russian language</p> <p>Installation</p> <p>User manual in English or translated into Russian language</p>