Annex 1

Technical Specifications of required equipment for Slobozia, Grigoriopol, Rybnitsa Maternity Unit and Pediatric ICU Tiraspol

Item			Quantity
ITEM 1. TABLE FOR WARMING AND NEWBORN RESUSCITATION			**2**
1.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
1.2.	***Basic Structure***	Height adjustable table	
		Resuscitation Radiant Warmer consisting of:	
		Heat source	
		Bassinet and mattress	
		Mounting column with fixed height	
		System for resuscitation	
		Suction devices for cleaning of the neonatal airways	
		Storage compartments	
1.3.	***Accessories***	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/cm2	
		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: – Manual mode in minimum 5-10 % 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	
		Patient skin probe, reusable – 2 pieces	
		b) Bassinet and mattress:	
		Mattress area minimum: 3,000 cm^2	
		Mechanical or 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	
		Ventilator tube supports	
		c) Mounting column:	
		Fixed height column on mobile castors	

Item			Quantity
ITEM 1. TABLE FOR WARMING AND NEWBORN RESUSCITATION			**2**
1.3.	***Accessories***	Built in rails for accessories – 2 pieces	
		d) Resuscitation module	
		Wall supply pressure 3 - 6 bar	
		Cylinder for oxygean and cylinder for compressed air pressure ~~2,900 psi max (19,994 kPa)~~	
		Adjustable positive end expiratory pressure	
		Pressure (PEEP) 0-25 cm H20	
		Gas bleed 0-15 L/min	
		Precision blender 21-100% O2 +/-3%	
		Mask for resuscitation size 0,1 and 2, two pics. for each size, Circuits T-Pieces	
		e) Storage compartments:	
		Front storage drawers – 2 pieces	
		f) 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	
		g) 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	
1.4.	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 72 hours	
1.5.	***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 2. PEDIATRIC/INFANT VENTILATOR			**1**
2.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
2.2.	***General Characteristic***	This specification establishes the requirements for comprehensive ventilators with the latest technology to ventilate neonates/infants and pediatric patients in Pediatric Intensive Care Units.	
		Be able to ventilate patients with a weight range of approximate 550g to 50Kg in all the ventilation modes.	
		General requirements identify requested functions	
		Electro-pneumatically controlled	
		Built-in graphic display with backlight	
		Microprocessor controlled	
		Electronic blender built-in	
		Dual flow system for independent setting of in - and expiratory flow	
		Proximal flow sensor, reusable, autoclavable	
		Inlet pressures from approximately 1.5 to 6 bar	
		Capable for transports with min. 60 minutes independent from medical air hospital system	
		The ventilator shall provide the following ventilation modes, both invasively and non-invasively for Infant and Pediatric ventilation:	
		– Assist /Control in Volume and Pressure mode;	
		– Time Cycled mode;	
		– Synchronized Intermittent Mandatory Ventilation - in volume and pressure mode;	
		Continuous Positive Airway Pressure with Pressure supported ventilation: – Spontaneous;	
		– Manual Breath;	
		– Inspiration Hold;	
		– Expiration Hold;	
		– Back Up / Apnea Ventilation in all modes.	
		The ventilator shall provide the following breath types for Pediatric and Infant modes:	
		– Pressure Limited Volume Control;	
		– Pressure Control with Volume target;	
		– Pressure Ventilation with alternating baselines (CPAP/PEEP);	
		– Timed Oxygenation (100%).	
		The offered unit shall have automatic switch over to a built in battery unit with a capacity to ensure full functionality of the unit for approximately 2 hours.	
		The offered unit shall have automatic switch over unit that will switch between the piped air and oxygen supply should one of the supplies fail.	
		The offered unit shall have a circuit compliance compensation approximately 0.0 to 7.5 ml/cmH2O and must be automatically measured.	

Item			Quantity
ITEM 2. PEDIATRIC/INFANT VENTILATOR			**1**
		Monitoring and displayed parameters. LCD or LED display	
		The central Control panel will display all instructions in English or Russian language	
		Parameters ***Approximate ranges are indicated, slight variations will be accepted***	
		– Respiratory rate per minute: Pediatric/Infant: 1 to 120 b/min.	
		– Inspiratory Flow: Pediatric/Infant: 0,4 to 100 L/min.	
		– Inspiratory Time: Pediatric/Infant: 0.1 to 3 seconds;. – Time expiratory 0,2-20 s	
		– Pressure Support: Pediatric/Infant: 0 to 50 cmH2O	
		– Pressure Limit: Pediatric/Infant: 0 to 70 cmH2O	
		– PEEP/CPAP: Pediatric/Infant: 0 to 30 cmH2O	
		– I:E 1:4 to 4:1	
		– Flow Trigger: Pediatric/Infant: 0,1 to 20 L/min .	
		– Oxygen Concentration from 21% to 100%.	
		– Leak Compensation: Pediatric/Infant: Up to 8 L/min.	
		– Breathing: Selectable up to 1 to 150bpm.	
		Alarms	
		Both audible and visual alarms shall be available on the following ventilator & patient parameters:	
		– Patient disconnect	
		– Oxygen concentration variation	
		– Over and under patient pressure	
		– Over and under patient volume	
		– High continues pressure	
		– Inverse I:E ratio	
		– Air/Oxygen % deviation;	
2.2.	***General Characteristic***	– Low battery	
		– Power failure	
		– Air and Oxygen supply failure	
		– Air and Oxygen low pressure	
		Graphics Display	
		All parameters and functions of the offered unit shall be available on a graphics screen.	
		Preferable 5 selectable waveforms shall be displayed at any time on the graphic display screen.	
		The graphics display system shall have freeze capabilities.	
		The offered unit shall have the capabilities to display trending of at least 24 hours on parameters of pressure-, flow- and tidal volumes.	
		The offered unit shall offer a graphical display unit that is able to display the following parameters and measurements:	
		– Inspired tidal volume in ml;	
		– Inspired tidal volume in ml;	
		– Spontaneous tidal volume in ml;	

Item			Quantity
ITEM 2. PEDIATRIC/INFANT VENTILATOR			**1**
		– Total breath rate in bpm;	
		– Spontaneous breath rate in bpm;	
		– Minute volume in liters;	
		– Spontaneous minute volume in liters;	
		– Peak airway pressure in cmH2O;	
		– Mean airways pressure in cmH2O;	
		– I:E ratio;	
		– Set I:E ratio;	
		– Inspired time in seconds;	
		– Static airways compliance in ml/cmH2O;	
		– Dynamic airways compliance in ml/cmH2O;	
		– Dynamic airways compliance per kg in ml/cmH2O;	
		– Peak inspired flow rate in l/m;	
		– Peak expired flow rate in l/m;	
		– Inspired O2 in %;	
		– Tube leak in %.	
		Humidifier	
		Microprocessor controlled	
		– Heater wire for in-and expiratory limb possibility	
		– Reusable and autoclavable humidification chamber	
		– Dual Servo controlled principle for temperature control	
		Miscellaneous	
		Operating Environment:	
		– Temperature approximately 10 – 40^0 C	
		– Humidity: approximately 10-90 % - non condensing	
		Connectors for medical gases:	
		– All connectors must compatible to EN ISO 7396, DIN 13260 – 2	
		Trolley:	
		– minimum 4 wheels, 2 with brakes	
		– Bracket for humidifier	
2.3	***Accessories and Consumables***	**The following items must be included in the cost of the unit:**	
		Durables	
		Reusable ventilator circuits pediatric, neonatal with heater wire and water traps (in line) and nebulizer circuit -5 pcs	
		Reusable and autoclavable humidification chamber -5 pcs	
		Oxygen sensor 1 pcs/	
		Flow Sensor (reusable) 1 pcs.	
		Consumables	
		Single use circuits pediatric, neonatal with humidification chamber included – 50 pieces	
		External oxygen & compressed air tubing	
		Test lung	
		Shelf – mount kit	
		Spare diaphragm for expiratory valve	
2.4.	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 72 hours	

Item			Quantity
ITEM 2. PEDIATRIC/INFANT VENTILATOR			**1**
2.5.	***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 3. ANESTHESIA MACHINE			**1**
3.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
3.2.	***Basic Structure***	Equipment for mechanical ventilation and anesthesia for neonatal, pediatric and adults	
		Compact mobile inhalation anesthesia machine with integrated ventilator and monitoring for pressure, volume and oxygen; System suitable for low flow and minimal flow anesthesia with re-breathing systems optimized for neonatal to adult patients' Anesthetic ventilator capability to switch from spontaneous breathing or manual to a mechanical one without the need of reconnection.	
		General requirements identify requested functions	
		Basic unit including integrated gas supply consisting of central supply connections for O_2, Air and N_20 and integrated display of central supply pressures	
		Integrated cabinet for covered and protected storage of reserve minimum 5 liter gas cylinders for O_2 and N_20	
		Automatic switch-over to reserve gas cylinders in case of failure of central gas supply	
		Compact breathing system integrated in basic unit	
		Vaporizing system for two vaporizers with interlock system	
		Monitoring and measurement of ventilation parameters and gas parameters integrated in the basic unit	
		Unit for bronchus aspirator	
		Unit for monitoring vital parameters (heart rate, ECG, blood pressure, saturation of oxygen and temperature)	
		Trolley with antistatic casters - two locking, drawers unit	
		Unit shall be equipped with all necessary accessories – min the following: pressure reducers, connecting hoses, reusable breathing hoses , vaporizer, sensors, filters, bronchus aspirator etc, ready to work	
		Integrated anesthetic gas scavenging	
		Auto self check by start routine	
		Uninterruptible power supply 220VAC, 50Hz integrated in the basic unit ~~Battery backup for min 30 minutes~~	
		Technical requirements for breathing system	
		Compact breathing system integrated in the basic unit with	

Item			Quantity
ITEM 3. ANESTHESIA MACHINE			**1**
3.2.	***Basic Structure***	integrated infinitely adjustable positive pressure valve	
		Integrated quick vent valve for rapid manual pressure relief of breathing system	
		Integrated pneumatic and electric interface for hoses and cables connection of compact breathing system and basic unit as regards: fresh gas supply, flow and pressure measurement; sample gas return flow and possibility of gas scavenging	
		Possibility for connection for neonates, infant ,pediatric and adult ventilation	
		Standby holder for breathing bag and Y – piece	
		Accessories needed for neonates, infant ,pediatric and adult ventilation	
		Breathing system suitable for: spontaneous breathing	
		Manual ventilation	
		Volume controlled ventilation	
		Pressure controlled ventilation	
		Synchronized volume controlled ventilation	
		Pressure support of synchronized pressure and volume controlled ventilation	
		Pressure support mode with apnea ventilation	
		Requirements for vaporizers connection	
		Connections for vaporizers integrated in the basic unit double plug in system	
		Closes automatically when vaporizer is removed	
		Possibility to change between two volatile anesthetic agents without being necessary to replace the vaporizer	
		Safety device interlock to ensure only one vaporizer operation	
		Basic unit equipped with isoflurane and sevoflurane vaporizers	
		Requirements for fresh gas delivery	
		Integrated in the basic unit with possibility for:	
		Delivery of fresh gas for gas mixtures of O_2 and N_2O or O_2 and Air is controlled	
		Fresh gas adjustments with mechanical-pneumatical or electronic settings	
		Electronic carrier gas switch-over between air and N_2O	
		Regulator to ensure an oxygen concentration in the nitrous oxide-oxygen mix	
		Capability of delivery 21 vol % O_2 when using medical air as gas carrier	
		Electronic regulator to ensure at least 25 vol % or 200 ml/min of oxygen in the nitrous oxide – oxygen mix when delivery gas flow below min 1 L/min	
		N_2O is automatically cut in case of O_2 shortage	
		In case of O_2 shortage, switch over to 100% air is done automatically at constant fresh gas flow - Optional	
		Capability of self resetting O_2 flush with a capacity of max 35L/min for operation from central supply station with a nominal supply pressure of max 5 bar	
		O_2 safety flow-adjustable min range 0 to 10 L/min running through vaporizer	

Item			Quantity
ITEM 3. ANESTHESIA MACHINE			**1**
		The central Control panel will display all instructions in English or Russian language	
		Basic settings of fresh gas quantity and composition can be configured	
		Possibility for patient specific presetting of fresh gas quantity and fresh gas composition in standby mode	
		Audible and visual alarms in case of air and N_2O shortage	
		Audible alarms cannot be silenced in case of O_2 shortage	
		No possibility to increase pressure in vaporizer when O_2 flush is activated	
		Requirements for the ventilator	
		~~No gas needed to drive the ventilator~~ Ventilation electrically driven	
		Suitable for neonates to adults without changing any ventilator parts	
		The system should preferably be able to measure volatile agent and fresh gas consumption per case Suitable for time cycled and volume controlled ventilation	
		Suitable for pressure controlled ventilation	
		Possibility of manual ventilation even if external and internal power supply failure	
		Capability to check system compliance in standby after replacing patient hoses	
		Possibility to configure all basic settings for anesthetic ventilation for each specific ventilation mode	
		Possibility of patient specific pre settings for ventilation parameters in standby mode and prior of changing ventilation mode	
		Adjustment ranges of ventilation parameters in volume mode; approximate ranges slight variations will be accepted.	
		– Tidal volume: 20ml – 1500ml	
		– PEEP: 0 – 20 mmHg	
		– Inspiratory pause: 0 – 60 s	
		– Ventilation frequency: 5- 60 bpm	
3.2.	***Basic Structure***	– I : E ratio 1:3 to 3:1 – T insp 0.5 – 6s	
		– Pressure limitation P max: 5 – 70 cmH2O	
		Preferably to have decelerating flow control	
		Adjustable flow trigger for synchronized volume and pressure controlled ventilation	
		Flow trigger: min range 1,0 – 15 l/min	
		Ventilation parameters and alarm limits retained and presetting determined on the basis of measured variables when switching between ventilation modes	
		Presetting of ventilation parameters and alarm limits are weight based	
		Requirements for ventilation and gas monitoring	
		Ventilation and gas monitoring integrated in anesthesia unit	
		Preferable operating concept screen based for all operational functions	
		The central Control panel will display all instructions in English or	

Item			Quantity
ITEM 3. ANESTHESIA MACHINE			**1**
		Russian language	
		Capability of fully automatic compliance and leak test	
		Display of real time curves	
		Display of airway pressure	
		Display of volatile anesthetic agent concentration	
		Display of Inspiratory and expiratory flow	
		Display of minute volume	
		Capability to register and show on display or printed list, time and event triggered list; please specify the available events triggered.	
		Measuring parameters of the ventilation and gas:	
		– Pressure measurement	
		– Tidal Volume	
		– Minute volume	
		– Measuring of gas concentrations	
		– O2 measurement	
		– CO_2 concentration	
		– Anesthetic gas measurement	
		– N_2O measurement	
		– Measurement of volatile anesthetic agents	
		– Automatic recognition of volatile anesthetic agent and mixtures of different volatile anesthetic agents	
		– Measurement (quantity) of two volatile anesthetic agents in gas mixture	
		Alarms and limit values for ventilation parameters and gas monitoring	
		Alphanumerical plaintext display of measuring parameters and set alarm limit values	
		Audible and visual alarm priority within the alarm levels	
		List of all active alarms in order of priority	
		Configurable basic setting of alarm limits for each specific mode of ventilation	
3.2.	***Basic Structure***	***Requirements for Bronchus aspirator***	
		Bronchus aspirator with integrated ejector, bracket for secretion jars can be removed from basic unit	
		Secretion jar package includes all necessary accessories	
		Integrated manometer for vacuum display	
		Requirements for monitoring the vital parameters	
		Device used for continuous monitoring of vital parameters for neonates, infants , pediatric and adult patients. The device will monitor heart rate, ECG with minimum 3 leads, saturation in oxygen of hemoglobin, noninvasive blood pressure and temperature. Possibility for visualizing the parameters on screen.	
		Alarms for each parameters mentioned above	
		Connectors for medical gases	
		All connectors must be type compatible to EN ISO 7396, DIN 13260 – 2	
		Requirements for uninterruptible power supply	

Item			Quantity
ITEM 3. ANESTHESIA MACHINE			**1**
		Integrated in the basic unit	
		Fully automatic switching to UPS in case of mains failure	
		Autonomy for approximately 60 min	
3.3	***Accessories and Consumables***	Unit shall be equipped with all necessary accessories – min the following: pressure reducers, connecting hoses, reusable breathing hoses , vaporizer, sensors, filters, bronchus aspirator etc, ready to work for	
		– 30 neonates – 75 infant	
		– 400 children	
		– 100 children over 10 years	
		Will be specified all items included in offer	
		Device used for continuous monitoring of vital parameters for the same number of patient neonates, infants, pediatric and adult patients.	
		The device will monitor heart rate, ECG with minimum 3 leads, saturation in oxygen of hemoglobin, noninvasive blood pressure and temperature.	
		Reusable cables for ECG, SpO2, temperature probe ,cuff for NIB for all size, disposable device for ECG,S pO2, temperature	
		Will be specified all items included in offer	
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	
		User manual in English or translated into Russian language	

Item			Quantity
ITEM 4. COMPRESSOR FOR MEDICAL AIR			**4**
4.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
4.2.	***Characteristics***	Compatible with the resuscitation module from resuscitation table ventilator and CPAP	
		Stand-alone medical air compressor.	
		Air Flow >40 L/min	
		Noise <60 dBA	
		adjustable pressure 2-4 bar	
		Snap fit with the resuscitation module from resuscitation table to provide medical air	
		Air quality should comply with European Pharmacopoeia compressed air purity class or ISO 8573	
		Replacement of internal filters should be performed without removing the compressor	

Item			Quantity
ITEM 4. COMPRESSOR FOR MEDICAL AIR			**4**
		Provide at least 5 sets of air filters	
		Power Supply: 220 VAC, 50 Hz	
4.3.	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 48 hours	
4.4.	***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 5. INTENSIVE CARE MONITOR			**4**
5.1.	***Standard requirements***	CE Mark	
		ISO 9001: 2000 certified companies	
5.2.	***Characteristics***	Color Screen – LCD or LED 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: – One lead ECG wave form and heart rate value, respiration wave form and respiratory rate; – $Sp0_2$ 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	
		– heart rate – beats per minute;	
		– respirations – breaths per minute	
		– SpO_2 – percent;	
		– blood pressure – mmHg;	
		– temperature - °C	
		Structure	
		Monitor	
		Battery	
		Patient cables in various lengths e.g. 3 & 8 foots 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	

Item			Quantity
ITEM 5. INTENSIVE CARE MONITOR			**4**
		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	
		All alarms mentioned above are adjustable by the clinician at the bedside	
		All alarms are audio and visual alarms	
		The alarm tones can be regulated (high to low tonality to alarm off at least)	
		Heart rate and EGK	
		One derivation visible all the time on the screen	
		There could be two channels visible optional	
		Limits: low limit at least 20 beats per minute, high limit at least 300 beats per minute	
		Derivations: I, II, III, aVL, aVR, aVF. Optional: V1, V2, V3, V4, V5, V6	
		Possibility to adjust the amplitude of the signal	
		Possibility to choose the lead to be displayed	
		Cable with 3 wires: I, II, III, aVL, aVR, aVF	
		Optional Cable with 10 wires: I, II, III, aVL, aVR, aVF. Optional: V1, V2, V3, V4, V5, V6	
		Respiratory rate	
		Limits: low limit at least 0 breaths per minute, high limit at least 150 breaths per minute	
		Oxygen saturation of hemoglobin	
5.2.	***Characteristics***	O_2 saturation low limit at least 30%, high limit at least 100 %	
		Pulse rate: low limit at least 30 bpm (beats per minute) to high limit at least 250 bpm	
		Adjustable averaging time	
		Signal quality meter on screen	
		Blood pressure	
		Oscilometry measurement	
		Measures and displays systolic and diastolic blood pressures	
		Automatically adjustable intervals of approximately 1 min – 8hours	
		Discriminates between pressure signals and patient movement	
		Display current and previous pressure values (systolic, diastolic)	
		Automatically zeroes prior to each reading	
		Blood pressure cable and cuffs for all age (mentioned above)	
		Temperature	
		Measurement: low limit at least 28°C, high limit at least 42°C	
		Cable for temperature monitoring to be connected with probe and temperature probe or probe incorporated in the cable assembly	
		Mandatory rectal and skin probe	

Item			Quantity
ITEM 5. INTENSIVE CARE MONITOR			**4**
		Other condition	
		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	
5.3.	***Accessories***	Extra battery – 1 piece	
		ECG cables with 3 leads – 2 pieces	
		Cuff set reusable, all dimensions newborn/pediatric and adult– 1set	
		SpO_2 (multisensor) sensor pediatric/adult with cable with approximately 5 foots – 2 pcs	
		SpO_2 sensor newborn with cable with approximately 8 foots (consumables for 500 tests)	
		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	
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 and commissioning	
		User manual in English or translated into Russian language	

Item			Quantity
ITEM 6. PORTABLE PULSE OXYMETER			**6**
6.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
6.2.	***Basic Structure***	Monitor for SpO2 and pulse rate	
		Portable pulse-oxymeter	
		Universal connection for sensors	
6.3.	***Technical Characteristics***	**a) Monitor:**	
		Removable handheld display for SpO2 and pulse rate ensures continuous monitoring	
		Oximetry technology clinically proven to work under motion and poor perfusion conditions	

Item			Quantity
ITEM 6. PORTABLE PULSE OXYMETER			**6**
		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 min.24 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: 30 ÷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:	
		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	
		Single patient use with proven clinical lifetime of minimum 8 days	
		Adhesive sensors manufactured from durable, moisture resistant material	
6.4.	***Accessories and Consumables***	Interconnection cable 1 pcs	
		1 SpO2 sensor reusable for adults (finger)	
		1 SpO2 sensor reusable for children	
		100 single patient use SpO2 sensors for neonates	
		30 single patient use SpO2 sensors for neonates lower than 2 Kg	
6.5.	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 72 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	
		Installation and commissioning	
		User manual in English or translated into Russian language	

Item			Quantity
ITEM 7. SUCTION UNIT			**11**
7.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	

Item			Quantity
ITEM 7. SUCTION UNIT			**11**
7.2.	***Basic Structure***	Portable suction unit	
		Suitable for adults and neonates 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	
		Automatic float shut-off to prevent overflow into the unit	
		Preferable Integrate bacterial filter	
		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:	
		Battery: rechargeable	
		Long operating time at full vacuum (uninterrupted min 40-60 min)	
		Low charge time: max 6-8 hours	
7.3.	***Accessories and consumables***	Reusable collecting container: min 1000 ml. 1 pcs	
		Bacterial filter – preferable reusable. Please specify type of filter. (For single use filters provide 50 pcs)	
		2 auto-clavable silicon suction tubes	
7.4.	***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	
7.5.	***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 8. BASIC INCUBATOR			**3**
8.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
8.2.	***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	

Item			Quantity
ITEM 8. BASIC INCUBATOR			**3**
		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 cm2	
		Tilting of the mattress	
		Tubing access – minimum 4	
8.3.	***Characteristics***	**b) Temperature controller:**	
		Microprocessor controlled	
		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:	
8.3.	***Characteristics***	Internal reservoir included	
		Front mounted for easy accessibility	
		All humidifier parts can be completely removed for filling and cleaning	
		Humidity range up to 0-80% 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	

Item			Quantity
ITEM 8. BASIC INCUBATOR			**3**
8.4.	***Accessories***	Rails for accessories – 2 pieces	
		Patient skin probe reusable –2 pcs	
		g) Physical properties:.	
		Interior Noise level <60dB	
		Interior Aer flow <35m/s	
		Power requirements: 220/240 V, 50-60 Hz	
		Ambient operating temperature: minimum 20- 30° C	
		Ambient humidity: 0 – 90 %RH	
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	
		Installation and commissioning	
		User manual in English or translated into Russian language	

Item			Quantity
ITEM 9. SYRINGE INFUSION PUMP			**11**
9.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
9.2.	***Basic Structure***	Equipment for iv administration of drugs at controlled quantity and time	
9.3.	***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: min. 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	
		Fixing accessory for IV pole	
		Infusion alarm:	
		Pre-alarm end of infusion	

Item			Quantity
ITEM 9. SYRINGE INFUSION PUMP			**11**
		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	
9.4.	***Consumables***	200 connectors from the syringe to the patient for each syringe infusion pump	
		200 syringe 20 ml for each syringe infusion pump	
		200 syringe 50 ml for each syringe infusion pump	
9.5.	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 48 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	
		Equipment assembly and installation on site	
		User manual in English or translated into Russian language	

Item			Quantity
ITEM 10. PHOTOTHERAPY LAMP			**3**
10.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
10.2.	***Basic Structure***	Phototherapy Unit	
		Mobile Stand	
10.3.	***Technical Characteristics***	**a) Phototherapy Unit:**	
		Light characteristics:	
		LED lamp technology	
		The possibility of adjusting the angle	
		Irradiance >20 µM/cm2	
		Bulbs / tubes / lamp characteristics:	
		Estimated life time >30000 h	
		Specify the field size [cm] -Diameter	

Item			Quantity
ITEM 10. PHOTOTHERAPY LAMP			**3**
		Low energy consumption	
		Fault protection (specify)	
		Maintenance free operation	
		Easy light source replacement	
		Eye protection 3 pics.	
		b) Mobile Stand:	
		– height adjustable between: minimum 45 -150 cm.	
		– on 3-4 castors with locks	
10.4.	***Consumables***	lamp 1 set	
10.5.	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 72 hours	
10.6.	***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 11. LARINGOSCOPE			**4**
11.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
11.2.	***Technical Characteristics***	**Fiber optic laryngoscope:**	
		Laryngoscope handle	
		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 0, 1, 2, 3,4 - 2 pcs.	
		Miller type, size 00,0 1, 2, 3 – 2 pcs.	
		One piece stainless steel	
		Charger for battery: 220VAC, 50 Hz	
11.3.	***Warranty and Service Conditions***	Period: 24 months from the moment of installation of the equipment	
		Maximum response time : 48 hours	
11.4.	***Incidental Services***	Training for at least 2 medical and technical personnel on site at beneficiary location in Russian language	
		Installation	
		User manual in English or translated into Russian language	

Item			Quantity
ITEM 12. RESUSCITATION BALOON			**5**
12.1	***Standard requirements***	CE Mark	
		ISO 9001: 2000 certified companies	
12.2.	***Technical Characteristics***	Silicone resuscitation balloons for providing fast, simple, and effective ventilation to non-breathing patients, self-inflating bags in three sizes: adult / pediatric /pre term	
		Adult model - over 25 kg.	
		Pediatric model - 2.5 - 25 kg.	
		Preterm model - under 2.5 kg.	
		Adult bag with a minimum of 2 different size masks, patient valve and supplementary oxygen admission system with reservoir and valve	
		Pediatric bag with a minimum of 3 different size masks, patient pop-off valve and supplementary oxygen admission system with reservoir and valve	
		Preterm bag with a minimum of 2 different size masks, patient pop-off valve and supplementary oxygen admission system with reservoir and valve	
		Standard connections between the different components	
		Pop-off pressure release valve	
		Valve system respond to the rescuer and the patient	
		Possibilities to adapt to a pressure manometer	
		Audible overpressure alert	
		Extension tube for patient connection	
		Operating temperature range: min. -10°C to 50°C	
		Storage temperature range: min. -40°C to +60°C	
12.3.	***Accessories***	Pediatric/ Neonatal mask 3 different size – 2 pcs. of each size	
		Pre term mask 2 different size -2 pcs of each size	
		Adult mask 2 different size – 2 pcs	
12.4.	***Warranty and Service Conditions***	24 months from the moment of installation Maximum response time at beneficiary site: 48 hours	
12.5.	***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 13. OXYGEN HOOD			**6**
13.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 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***	Suitable for neonates and infants	

Item			Quantity
ITEM 13. OXYGEN HOOD			**6**
	Characteristics	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	
		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. FETAL HEART DETECTOR			**4**
14.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
14.2.	***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	
14.3.	***Technical Requirements***	FHR range 0 - 210 bpm	
		Large Display	
		Weight <700 g	
		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	

Item			Quantity
ITEM 14. FETAL HEART DETECTOR			**4**
		With integrated battery charger or ext. charging station	
		Consumables if any covering 1200 patients	
14.4.	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 72 hours	
14.5.	***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 15 CARDIOTOCOGRAPH			**3**
15.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
15.2.	***Characteristics***	***Standard requirements***	
		Fetal monitor for prenatal, labor and delivery monitoring	
		LCD or LED display	
		Built-in thermal recorder and printer	
		Dual Ultrasound Twins available for reliable non-stress testing and routine labor monitoring	
		Color display and keyboard or similar for entry of patient name and ID with numerical presentation of FHR and UA	
		Tachycardia and bradycardia alarm management	
		Adjustable alarms	
		Water-proof ultrasonic transducers	
		Backup memory	
		Fetal Heart Rate Monitoring	
		Ultrasonic measurement for fetal hear rate (FHR) with pulse Doppler technology	
		Audible alarm and visual messages based on physiological alarms	
		Transmitter frequency minimum 1 MHz	
		Maximum constant intensity: < 15mW/cm2	
		Heart rate fetal counting range between approximately 60-200 BPM	
		Automatic detection of fetal movement	
15.3.	***Accessories***	***Uterine Activity***	
		Uterine activity (UA) measurement with toco-transducer	
		Measurement range between: 0-100 relative units	
		Manual or auto zero adjust	
		FHR transducers- 2 pieces, with connection devices	
		TOCO transducer- 1 piece, with connection devices	
		Fetal monitor paper- minimum 6,000 sheets	
		Table top or roll stand support for monitor and transducers- 1 piece	

Item			Quantity
ITEM 15 CARDIOTOCOGRAPH			**3**
15.4.	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 72 hours	
15.5.	***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 16. DELIVERY TABLE			**4**
16.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
16.2.	***Technical Characteristics***	Non-electric delivery bed to accommodate pregnant women in various comfortable positions during labour and birth giving, and for resting after the delivery in maternities of the first health care level.	
		Robust, mobile delivery bed on castors with breaks	
		Easy adjustable sections (with handle)- ≥ 3 sections	
		Height adjustable (with handle)- 55-90 cm	
		Trendlenburg and reverse Trendelenburg position easy adjustable with handle	
		Shoulder and head rest	
		Supplementary table completely recessable underneath the main bed	
		Surface covered with soft material washable, resistant to chemicals	
		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	
		Drain pan to collect physiologic and irrigating fluids	
		Waste receptable with drainage hose	
		Weight user ≥180kg.	
		Auxiliary side-arm board with pad, swiveling	
		Auxiliary height adjustable infusion pole	
16.3	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 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. MOBILE EXAMINATION LIGHT			**6**
17.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
17.2.	***Technical Characteristics***	Optical lighting system reflector for optimum illumination of the operation light field, cool, white light, free from deep shadows. Adjustable height and articulated arm.	
		LED lamp technology	
		Light-field size >120mm	
		Low power consumption: max 150VA	
		On-off switch	
		Lamp life: min. 20000 hours. Please specify	
		Light characteristics: Lux: approx. 15,000 at 1m,Color temperature: approx. 4,300°K	
		Mobile stand with 5 castors at least 2 with breaks	
		Lamp must be water proof and fluid resistance for cleaning purposes.	
17.3	***Accessories***	Spare lamp – 1 pcs (if applicable)	
17.4	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 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. INSTRUMENTS TABLE			**8**
18.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
18.2.	***Technical Characteristics***	Stainless steel instrument table with shelf and four castors	
		Rubber coated swivel castors, at least two lockable	
		Top and shelf strong enough to place heavy materials	
		Dimensions approximately: -Width 120cm -Height 90cm -Depth 60cm -Distance between shelves 50cm	
18.3.	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 72 hours	
18.4.	***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 18. INSTRUMENTS TABLE			**8**
		User manual in English or translated into Russian language	

Item			Quantity
ITEM 19. NEONATAL MATTRESS HEATER			**4**
19.1.	***Standard requirements***	CE Mark	
		ISO 9001: 2000 certified companies	
19.2.	***Technical Characteristics***	Equipment used for compensation of heat losses in neonates	
		Complete unit, microprocessor controlled functions for temperature, set values, etc.	
		Temperature setting range	
		Main mode from 35,0 to 37,0	
		Additional mode from 37,1 to 39,0	
		Accuracy of temperature control ± 1,0	
		Maximum deviation of mattress surface temperature after switching to maximum temperature mode ± 1,0	
		Switch off temperature of the heater when there is inadmissible overheating of the mattress surface,	
		Heating time, not more than 20 min	
		Alarms	
		Alarm signaling OVERHEATING	
		Main mode at temperature within, °C 38,0±0,4	
		Additional mode at temperature within, °C 40,0±0,4	
		Other malfunctions are indicated by alarms	
		Mattress	
		Overall dimensions of the mattress, mm, not more than	
		– Height 20	
		– Width 600	
		– Length 750	
		Mattress cover antimicrobial, fire retardant, fluid-proof.	
		Control unit	
		Display with LED	
		Built in handle	
		ON/OFF	
		Display the temperature	
		Alarm ON/OFF	
19.3.	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 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. BRONHOSCOP			**1**
20.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
20.2.	***Characteristics***	Medical device – diagnosis of lung and airways and remove foreign bodies in the airway	
		Pediatric rigid bronchoscope for pediatric cases consisting of:	
		Rubber telescope guide for telescopes	
		Telescope: angle of view: 0^0, diameter: between 2,7 - 2,9 mm	
		Telescope: angle of view: 0^0, diameter: between 2,8 – 3 mm	
		Bronchoscope tubes and foreign body alligator extraction forceps	
		Bronchoscope tubes for neonates and foreign body alligator extraction forceps suitable for the bronchoscope:	
		– Size: between 3,3 – 4,3 mm – Length: between 180 - 200 mm	
		Bronchoscope tubes for infants and foreign body alligator extraction forceps suitable for the bronchoscope:	
		– Size: between 4,2 – 5,1 mm – Length: between 250 - 265 mm	
		Bronchoscope tubes for small children and foreign body alligator extraction forceps suitable for the bronchoscope:	
		– Size: between 4,9 – 5,5 mm – Length: between 290 - 310 mm	
		Bronchoscope tubes for children under 10 years and foreign body alligator extraction forceps suitable for the bronchoscope:	
		– Size: between 5,9 – 6,9 mm – Length: between 290 - 310 mm	
		Bronchoscope tubes for children over 10 years and foreign body alligator extraction forceps suitable for the bronchoscope:	
		– Size: between 7 – 7,9 mm – Length: between 390 - 405 mm – Light deflector for the described tubes	
		Suction pump	
		Instrument guide for suction catheter	
		Rigid suction tubes of approximate 35 cm length and 3mm diameter with rubber tip, straight and curved.	
		Adaptor for respirator	
		Sealing plug for respiration catheter	
		Adaptor	
		with sliding glass window plug, sealing cap, notched lens and keyhole opening, moveable	
		Cold light fountain	
		lamp lifetime: min. 500 h; Please specify	
		Fiber-optic light cable, length between 290 – 300 cm, between diameter 3,4 – 3,6 mm	
20.3.	***Accessories Consumables***	Forceps, pointed, serrated, for coins and flat foreign bodies, double-action jaws, sheath diameter, compatible with bronchoscope 1 pcs.	

Item			Quantity
ITEM 20. BRONHOSCOP			**1**
		Forceps, for peanuts and soft foreign bodies, double-action jaws, sheath diameter compatible with bronchoscope 1 pcs.	
		Bacterial filter 4 pcs.	
20.4.	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 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 and commissioning	
		User manual in English or translated into Russian language	

Item			Quantity
ITEM 21. ECG			**1**
21.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
21.2.	***Technical Characteristics***	Equipment for recording heart electrical activity	
		12 channel ECG with 12 leads	
		Minimum 6 Number of traces to be displayed simultaneously	
		Preferable touch scree. LCD or LED	
		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	
		12 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. Please specify which types of filters.	
		Calibration 1mV test.	
		Sensitivity and Frequency response test.	
		Working frequency 0.67-150 Hz	
		Band Filters: muscle, low frequency, high frequency, 50 Hz	
		Sensitivity adjustment - 5, 10 and 20 mm/mV.	
		Gain adjustment - x ½, 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.	

Item			Quantity
ITEM 21. ECG			**1**
		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 (or other system) – 20 pcs	
21.3.	***Accessories and Consumables***	Thermal paper rolls (or other system) – 20 pcs	
		ECG cables and electrode reusable for adults and disposable for 150 patients (infant and small children)	
21.4.	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 72 hours	
21.5.	***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 22. HOT AIR STERILIZIATION			**6**
22.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
22.2.	***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 chamber	
		Control panel and LED,LCD display	
		Overheating protection system	
		Display of temperature and time	
		Accuracy ± 3 C	
		Indication of the already done and current sterilization phase	
		RS 232 – interface for printer or PC – communication - Optional	
		Acoustic alarm for overtake of programed 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 10^0C above ambient to 250^0C	
		Time required to reach 250^0C: max 60 min	

Item			Quantity
ITEM 22. HOT AIR STERILIZIATION			**6**
		Weight: max 75 kg	
		Power:	
		Power supply: 220 VAC, 50 Hz	
22.3.	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 48 hours	
22.4.	***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 23. NEBULIZER FOR DRUGS			**5**
23.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
23.2.	***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	
		Autoclavable 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	
23.3.	***Accessories and Consumables***	Mouth end-piece – 5pcs	
		Nose plug – 2pcs	
		Nose piece – 2pcs	
		Masks adult – 2pcs	
		Masks pediatric – 5pcs	
23.4.	***Warranty and Service***	Period: 24 months from the moment of installation of the	

Item			Quantity
ITEM 23. NEBULIZER FOR DRUGS			**5**
	Conditions	equipment	
		Maximum response time : 72 hours	
23.5.	***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 24 GLUCOMETER			**3**
24.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
24.2.	***Technical Characteristics***	Whole blood measurements	
		Measurement range: min 10 – 700 mg/dl	
		No light influence	
		Compensated with temperature influence	
		Serial imprecision: max 4 %	
24.3.	***Consumables***	Strips for 500 of tests open market not limited to one company	
24.4.	***Warranty and Service Conditions***	Period: 24 months from the moment of installation of the equipment	
		Maximum response time : 72 hours	
24.5.	***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 25. SPHYNGOMANOMETER			**12**
25.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
25.2.	***Characteristics***	Digital Blood Pressure Monitor--Sphygmomanometer Upper Arm, for neonates, infant, children and adults	
		Four mode for adult, pediatric ,infant, and neonatal selectable	
		Measures systolic, diastolic pressure, and pulse	
		Fully automatic one-touch operation	
		Automatic inflation and deflation	
		High resolution, large LCD display panel shows readings of blood pressure, pulse rate	
		Optional 50 memories	

ITEM			Quantity
ITEM 25. SPHYNGOMANOMETER			**12**
		Cuff size	
		Neonate cuff size	
		Infant cuff size	
		Pediatric cuff size	
		Adult cuff size	
		AA Size Alkaline Battery and AC/DC Adapter	
25.3	***Accessories***	All cuff size neonates, infant, children and adult 1 pcs for each size	
		Other accessories and consumables if needed	
25.4.	***Warranty and Service Conditions***	24 months from the moment of installation	
		Maximum response time at beneficiary site: 48 hours	
25.5.	***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 26 REFRIGERATEUR			**6**
26.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
26.2.	***Technical Characteristics***	Standard refrigerator	
		Capacity – 50 - 150 l	
		Built in single door	
		Temperature 0-4 C	
		Low power consumption	
		Electrical power connector should be standard type	
		Power supply 220V AC, 50 Hz	
26.3.	***Warranty and Service Conditions***	Period: 24 months from the moment of installation of the equipment	
		Maximum response time : 72 hours	
26.4.	***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 Russian language	

Item			Quantity
ITEM 27. STANDARD HOSPITAL BED WITH MATTRESS			**20**
27.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	

Item			Quantity
ITEM 27. STANDARD HOSPITAL BED WITH MATTRESS			**20**
		ISO 9001 certified companies	
27.2	***Technical Characteristics***	Standard hospital bed	
		Size approximately: 2000-2030/900-910/500 cm	
		Steel /Iron frame painted in electrostatic field with powder paint,	
		Stainless steel head and foot ends with vertical bars,	
		Mounted on protective stumps	
		Weight user max. ≥180kg.	
		2 section easy adjustable with handle	
		– back section lifting angle 75-80 grade	
		– foot section lifting angle 45 grade	
		Mattress compliant with bad size	
		Bed mattress cover antimicrobial, fire retardant, fluid-proof.	
27.3.	***Warranty and Service Conditions***	Period: 24 months from the moment of installation of the equipment	
		Maximum response time : 72 hours	
27.4.	***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 Russian language	

Item			Quantity
ITEM 28. HOSPITAL BEDSIDE CABINET			**20**
28.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
28.2.	***Technical Characteristics***	Dimensions approximately:	
		– width: 400mm	
		– depth: 500mm	
		– height: 650mm,	
		1 drawer and 1 storage cabinet	
		Build in metal painted in electrostatic field	
		Color withe	
28.3.	***Warranty and Service Conditions***	Period: 24 months from the moment of installation of the equipment	
		Maximum response time : 72 hours	
28.4.	***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 Russian language	

Item			Quantity
ITEM 29. DIGITAL WEGHING SCALE FOR NEONATES			**10**
29.1.	***Standard requirements***	1.Compliant to EU Medical devices Directives CE Mark 2. Compliant to IEC 60601 and amendments for Medical electrical equipment	
		ISO 9001 certified companies	
29.2.	***Technical Characteristics***	Digital Baby Scale for weighing neonates	
		Weigh up to 500 gr. to 10 kg./20 kg	
		Accuracy +/- 3%	
		Auto zero and auto off functions	
		Large LCD display	
		Operates on 120V/230V and rechargeable battery	
29.3.	***Warranty and Service Conditions***	Period: 24 months from the moment of installation of the equipment	
		Maximum response time : 72 hours	
29.4.	***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 Russian language	