TENDER SPECIFICATIONS

The object of the tender: ***Medical transport (type B 4x4 ambulances) according to the needs of the IMSP National Center for Pre-Hospital Emergency Medical Assistance and IMSP SCM Gheorghe Paladi (repeated)***
through the procurement procedure: Open tender
Cod CPV 34100000-8

1. Name of contracting authority: CENTER FOR CENTRALIZED PUBLIC PROCUREMENT IN HEALTHCARE

Nr. Lot	Name of offered goods	Unit of measurement/ Quantity	Full technical specification requested by the Contracting Authority	Estimated value
1	Type B 4x4 EMERGENCY AMBULANCES	**40 unity**	Schedule of Requirements and Technical Specifications Type B 4x4 EMERGENCY AMBULANCES 1. GENERAL REQUIREMENTS The ambulance meets the normative requirements for the special vehicles: by type B 4x4 ambulance, it is understood an ambulance of emergency medical service. 1.1 Norms and standards The applied legislation for the elaboration of technical specifications: •Law of the Republic of Moldova about health protection no. 411 from 28 March 1995; •Law of the Republic of Moldova about medical devices no. 102 from 9 June 2017; •Order of the Ministry of Health of the Republic of Moldova no. 739 from 23.07.2012 with regard to the regulation of the authorisation of medicinal products of human use and introduction of amendments post-authorisation, with subsequent amendments; •European Norm EN 1789/2007, A2 edition with regard to medical vehicles and equipment with subsequent amendments; •The medical devices meets the requirements foreseen in the European Directive 93/42/CEE regarding medical devices; •The medical devices fully corresponds to EN 1865 (specifications for stretchers and other equipment for transporting patients by ambulances), when other indications are not given. •The medical devices possess the following: a) declaration of conformity to the European Communities requirements issued by the manufacturer for the produced medical device; b) declaration of conformity to the European Communities requirements in force for produced devices, where appropriate; •The manufacturers of medical devices follow the quality standard ISO 9001/2008 (quality management system) with subsequent amendments. 1.2 Type of the car's body 1.The ambulance will be built from a single piece of van type with an integrated cabin (added containers or compartments for patients are not allowed). The roof-superstructure made of plastic is not accepted. 2. Ground clearence minimum 200 mm. 2.PERFORMANCES 2.1 Engine:	**62 285 600**

			● cylinder capacity 2000-2200 cm3; ● fuel: diesel; ● Euro 6; ● minimum 170 HP; ● the engine ensure enough power so as the ambulance loaded up to a maximum allowed capacity, is able to reach an acceleration from 0 km/h to the 80 km/h within an interval of 30 seconds. 2.2 Security systems: •Anti-lock braking system (ABS). •Electronic Stability Program (ESP). •Assisted servo. •Parking Assist Control. 2.3 Traction: •Manual gearbox, 6+1 speed. •The ambulance has 4x4 manual traction. •The ambulance is equipped with steel wheels, winter/summer tire according to the season when is delivered and spare wheel of normal size. 2.4 External appearance: •The ambulance is in white colour with the following inscriptions and hallmarks: On the front : ”AMBULANȚA”, printed reversed (blue colour with a height of 150mm); the international symbol of Emergency Medical Service ”Star of Life” (six blue arms, height 300 mm and width 90 mm). On the both sides of the car body: 1. The international symbol of Emergency Medical Service „Star of Life” (six blue arms, height 300 mm and width 90 mm); 2. ”ASISTENȚĂ MEDICALĂ URGENTĂ” (height 130 mm, blue colour); 3. National unique number „112” (red colour, height 240 mm); 4. Bands (orange colour, height 150-230 mm each (depending on the height of the ambulance)). On the back : „AMBULANȚA” (blue colour with a height of 150mm); On the window - two international symbols of Emergency Medical Service „Star of Life” (six blue arms, height 300 mm and width 90 mm). The inscriptions are reflective / fluorescent. 3.ELECTRICAL REQUIREMENTS 3.1 System for visual and acoustic alarm. •The ambulance will have both visual and acoustic warning system. •The system will allow the possibility to broadcast the necessary information to the people outside the car by using a microphone from the driver's cabin. •The system will be designed so as the siren will not be operational unless the light bar will be in operation. •The various components of the visual warning system will be electrically powered by means of a general switch, which will connect the alarm system to the electrical system of the vehicle. •The warning system will be operational even if the engine is stopped. •The lights signals will follow the technical requirements stipulated in R 65 CEE - ONU. •The front of the ambulance will be equipped with a blue stroboscopic LED light bar, fixed above the drivers’ cabin.	

			It will be visible from the front and the lateral parts of the ambulance. A loudspeaker for siren with a minimum output of 100W, with variable acoustic signal strength. •On the back, the ambulance will be equipped with a blue LED light bar, visible from the back. The operation will be done through the unique button with that of the main light bar. •On the each lateral part, at the top of the ambulance, there will be placed three intermittent, rectangular blue LED lights. The operation will be done through a unique button with that of the main light bar. •Between the main headlamps, embedded in the radiator mask or on the hood, there will be attached two blue LED lights, intermittent, directed towards the front of the vehicle. The operation will be done through a unique button with that of the main light bar. •The lateral right side and the back of the ambulance will each have one LED light bulb, directed towards the ground under 45 degrees angle. The operation will be done through separate buttons for each group (right-lateral and back) placed in the driver's compartment as well as at opening the door. •The siren will be put into operation from the driver's compartment having an on-off general button. Also, it will include an short warning signal, which is put into operation by pressing a button (horn). The power of the siren will be minimum of 100 W, with variable acoustic signal intensity. All warning systems, both acoustic and light, will be controlled from a control panel. •The ambulance will have fog lights installed. 3.2 Battery and alternator • The construction of the battery and all its connections will be designed so as to prevent a short circuit due to lack of attention. • The electrical system must be able to store a reserve of electricity to restart the engine. The ambulance must have installed at least one more battery (additional). • Minimum capacity/power (according to EN 1789, with subsequent amendments). - Starting battery: rated voltage 12 V min. 80 Ah. - Additional battery: rated voltage 12 V min. 80 Ah. - Alternator: minimum power 1500 W/12 V. - Inverter 12V-220V, minimum power 1500W. 3.3 Electrical installation 3.3.1 The ambulance will have in its structure an external connector, with type IP-65 protection degree, to make possible the charging of battery (ies) and other equipment, medical devices, to preheat the engine while the ambulance is parked and to heat the patient's compartment. 3.3.2 The 220V connector will be of “male” type and will be installed on the lateral side of the ambulance on the driver’s side. As well, two connectors of “female” type will be delivered, having an attached cable of at least 20 m in length. 3.3.3 The starting of the engine will not be possible as long as it is connected to an external power 220V source. 3.3.4 The electrical system of the ambulance must contain at least four separate sub-systems as follows: -Basic system for the unequipped vehicle. -Power supply system for medical devices. -Power supply system for patient’s compartment. -Power supply system for communications. 3.3.5 Sockets for consumers supply will be foreseen as follows: -12V sockets for the medical devices in the patient's compartment - minimum 4pieces. -12V sockets in the driver's cabin – minimum 2 pieces.	

			-220V sockets for the medical devices in the patient's compartment - minimum 4pieces which will be powered by a 12V-220V inverter with a minimum capacity of 1500W. 3.3.6 The electrical installations will meet the following requirements: -All circuits in the patient's compartment will have automatic safety devices and/or separated switches designed/foreseen within the construction. -The switches must be properly marked and the function of each circuit will be easily identifiable. -There will be at least two circuits so as the failure of one of the circuits does not switch off all the lights or all connected medical devices. -The wiring must withstand more than the maximum load of the fuses or the switches with at least 30%. -The wiring and the pipelines must withstand vibrations. The cables have to be installed in the pipelines. -The cables will not cross areas where are used the gaseous substances. -The outputs will not be interchangeable there where are different voltage systems. 4. THE BODY OF THE VEHICLE 4.1 Fire safety: All the materials used inside the vehicle must be fire resistant, their firing rate must to be of 100 mm/min, maximum .4.2 Driver's cabin: The cabin will be equipped with the following: - Windscreen de-icing/demister system operating while the ambulance is in motion or parked. - An external windscreen washing system. - Ventilation and air conditioning system. - Two sunshades. - A handhold for the accompanying person placed near by the lower corner of the windscreen and one handhold above the entrance door. - Airbags for the driver and the passengers. - Double bench for the passenger. - Electrically regulated and heated rear-view mirrors. - Radio, Bluetooth. - Navigation system and the software corresponding to the territory of the Republic of Moldova. - Rechargeable and detachable torch. 4.3 Minimum loading capacity: The number of chairs and/or stretchers (except driver): •2 in front with seatbelts; •2 behind (folding). The chairs will have seatbelts in 3 points, integrated in a 180 ° swivel chair, having a headrest, and the seat installed opposite the driving direction has a 2-point seat belt and a headrest. • The stretcher will have the safety belts fastening system, including from the head end of the stretcher over the patient's shoulders. A child set must be included. 4.4 Partition wall: •A partition wall will separate the driver's compartment from that of the patient. A sliding window will be foreseen in the partition wall. The window will allow the direct visual contact with the driver. It will be secured against accidental opening and will have an opaque curtain or other devices, so that the light from the patient's compartment to not disturb the driver. •The parts of walls besides of the windows above the stretcher level (including the cupboards and drawer fronts) will be made of washable material resistant to disinfection.	

			4.5 Emergency exits: •Besides the back door, there will be an alternative exit from the patient's compartment, which would allow the evacuation of the patient (patients) and the team. 4.6 Openings (doors, windows): •Must to exist minimum two exits : -one in the back (swing doors) -one lateral exit (door) at the patient's compartment. Open position: •The rear doors must allow an opening of 250 - 270°. •All openings will be equipped with seals against water infiltration. •The stretcher's loading angle will be of maximum 16º. •The ambulance's doors will be equipped with central locking. •The external doors from the medical compartment must be equipped with security devices according to the requirements: -to be opened and closed from inside without a key; -to be opened and closed with a key from outside the same as when doors are blocked from inside; -the key may be mechanical or non-mechanical, in case if there is a central locking system. • At least two exterior windows should be in the patient's compartment, one have to be on the right side and one on the backside. The window on the lateral side will be a sliding one. •The windows have to be placed so as to ensure patient's privacy, and 1/3 of the top of the windows will allow to see outside. • In case when the doors from the patient's compartment are not completely closed or are opened, an audio and visual signal will alert the driver. 5. PATIENT COMPARTMENT 5.1 General requirements: •The patient's compartment must be designed and built so as to ensure necessary space for the medical devices mentioned bellow. •The ceiling, the inside walls and the doors of the patient's compartment must be made completely from or covered with washable materials resistant to the disinfection. •The material used inside the ambulance (patient's compartment) must to meet the requirements stipulated in the EN 1789 standard. •The compartment of the ambulance must be designed so as 2-4 people to be able to carry out their activity in a vertical position, in comfortable conditions. •The edges of the surfaces must be designed against the ingress of fluids. If the floor does not allow the fluids drain, one or more leaks with stopper/stoppers must be available. •The open shelves must be designed with rounded edges. Drawers must be secured against accidental opening. •The ambulance must be equipped with a compartment for medicines designed with a safety lock. •The ambulance must be designed with one or more handholds positioned above the stretcher on the longitudinal axis. •There must exist 2 handholds positioned near the doors of the patient's compartment: -one handhold installed on the partition wall near the lateral door; -the second handhold installed on the lateral wall near the rear doors. •The entrance into the medical compartment through the rear doors must be facilitated by an installed metal step. •The maintenance equipment (ex. spare wheel or toolbox) will not be accessible from inside of the patient's compartment.	

			Description: Regarding the medical compartment from the rear door the following specifications have to be followed: •The wall on the left side (from the driver's side) will be used for attaching the medical equipment or the holders and chargers for the portable medical equipment such as defibrillator and its annexes, fixed vacuum secretions, automatic electric syringe, oxygen supply system - humidifier flow meter. All devices installed on the left side wall must to be reachable by hand and visible to the person who is sitting on the chair, placed at the stretcher's head. In case when the configuration allows, a cupboard will be placed for sanitary materials. •On the right side wall, at the level of half upper of the stretcher, will be attached a folding seat for the accompanying person with the possibility to spin towards the stretcher, the seatbelt will be attached by the seat. Some immobilization equipment will have the possibility to be attached on this wall behind the seat of the accompanying person. •The ceiling of the medical compartment will be used for attaching the support for infusions. •The partition wall will be used for attaching a chair with its back towards the driving direction. A container for used materials will be placed on this wall, which should be easy to empty. As well, in this zone there will be a special place for storing the suitcase with resuscitation/examination equipment. It will be easily accessible from outside by opening the lateral door. Also, in this zone there will be placed a container for sharp materials, a disinfectant dosing device and one paper towels holder. •The stretcher holder will be placed to the left side of the patient's compartment. •2 attached oxygen cylinders with the capacity of 10 l, each, will be placed in a well-defined place in the medical compartment in a zone which allows their easy change. •2 portable oxygen cylinders, one with the capacity of 5 l will have a special place for attachment to the stretcher, and another will have a capacity of 2 l, foreseen with own carrying bag. •The trolley with wheels and fastening system for the patient will be installed in the back, which is easily accessible. •The floor will be chosen so as to provide an adequate adhesion for the accompanying person, including when it is wet; it has to be resistant and easy to clean. •The interior part of the patient's compartment, fully equipped, will be designed so as to reduce to minimum the risk of injury. 5.2 Dimensions of the patient's compartment •Minimum length: 3000 mm, at the stretcher level from which it is excluded the length of any cupboards, drawers and other furniture placed near the partition wall. •Minimum height: 1750 mm, in the stretcher working zone. • Minimum width: -Total, including cupboards- minimum1600 mm.; -The minimum width of the useful surface - minimum 1400mm (according to EN 1789). 5.3 Requirements for the dimensions of the seats from the patient's compartment: -Height: 400 mm -500 mm from the floor; -Width: at least 450 mm; -Depth: at least 400 mm; •For the backrest of the seat: -Height: at least 450 mm; -Width: at least 450 mm. 5.4 Ventilation system: •A ventilation system will be available, which would ensure a minimum of 20 replacements per hour of the air volume in the patient’s compartment.	

			5.5 Heating and cooling systems: •Besides of driver's cabin heating, will be available an independent, adjustable, system, to heat the air in the patient's compartment. The system will consists of 2 separated subsystems: -Independent heating aggregate, functional when the engine is on or off. -Heating electric radiator, functional when the ambulance is parked and is plugged to the 220Vpower socket. Those shall be provided with thermostats so that temperature fluctuations not to exceed ± 3ºC. •The system configuration will prevent the entry of exhaust gas in the patient's compartment. •Besides the heating system there will be available an air-cooling system (air conditioning) which will serve the patient's compartment separately. •Heating system of the patient's compartment: -Autonomous heating system in the medical compartment of the vehicle. -The possibility to reach the necessary temperature in 15 min. -To create a temperature of 22°C at the middle of the stretcher in no more than 30 min. -A thermostat must be aviable in order to maintain the temperature with ±3°C. 5.6 Interior lighting •LED lighting of the patient's compartment (light of balanced, natural colour) : -Patient's zone: minim 300 lx (adjustable); -Surrounding zones: minimum 50 lx. 5.7 The level of inside noise •Depending on the running speed, the level of inside noise will be according to the European regulations in force (according to EN 1789). 5.8 Perfusion support system •A folding support for perfusion, mounted on the ceiling, will be able to hold two-three perfusions attached vertically and able to maintain their balance. The support should make maximum use of the vehicle's height above the stretcher. •The support system will have a minimum capacity of 5 kg and will be able to support three bags with liquid, independent one from the other (according to EN 1789). • On the left lateral wall in the proximity of electrical and oxygen sockets there will be installed the bar which will have a sufficient length for mounting the necessary devices. 5.9 Systems for maintaining/attaching the equipment in the patient's compartment (EN 1789 and the subsequent amendments) •Without exception, all materials such as medical devices, the equipment and items that normally are in the ambulance must be attached so as not to be projected when being subjected to a force of minimum 10g (gravitation) horizontally and vertically. •The distance covered by the materials when are subjected to a force does not have to endanger the safety of people in the ambulance. •If they are subjected to these forces, then: -no item will have sharp edges which would endanger the people safety in the ambulance; -the maximum distance of movement of the support or any other attached component and of the fixing system will not exceed 150 mm. 6. MEDICAL DEVICES AND EQUIPMENT 6.1 Endowment with medical devices	

			The ambulance will be designed and built so as to ensure: -The assisted transportation in conditions of maximum safety for the patient and the personnel; -The location and attachment of the medical devices. 6.2 Medical equipment storage •All equipment necessary to perform the standard procedures need to be stored in a place specially designed for this purpose. •The essential equipment needed for an intervention outside the vehicle must be easily accessible through the ambulance's doors. •All equipment will be safely stored by using a fastening system to prevent knocking / injury when the vehicle is moving. 6.3 Requirements for medical devices General requirements: • The equipment will be designed for both, to be used in conditions when the ambulance is in motion as well as to be used to the scene. • If the equipment is designed as "portable" (except the equipment for the patient transportation) it must to: - be carried by one person; - possess own energy source, to be self sufficient, and charged up in the vehicle while it is in motion or is parked; - be used outside of vehicle, independently. • Temperature: - In the absence of other inscriptions on the device, it must to be able to operate within a temperature range of -5ºC - +40ºC. - In the absence of other inscriptions on the device, this must to be able to operate minimum 20 minutes when it is at a temperature of -5ºC. • Attaching of the equipment: - It will be attached inside the vehicle. - The fastening system must to resist to the accelerations of 10G. - Electrical terminals and sockets will not be part of the fastening system of the equipment. • Electrical security: - All equipment must to be selected and installed so as not to damage the equipment supplying electricity. • Interface with the user: - Buttons, switches, indicators and control panels must to be easily accessible. • Maintenance: - The manufacturer must to provide the user and maintenance guides in Romanian and Russian. 7. LIST OF EQUIPMENT 7.1 The equipment for handling and immobilizing the patient: • The support for the stretcher with fastening system with the possibility to place the stretcher laterally or in the middle with the sliding system. • The main stretcher with wheels and fastening system for the patient: Meets the following criteria: - Length 1950mm ±20 mm. - Width 550±20 mm. - Wheel diameter minimum 200 mm.	

			- To follow the requirements of the standard EN 1865-1:2010+A1:2015. - Composed of two removable parts: stretcher and trolley. - EN 1789 testing – the testing certificate must to be available. - Automatic release of the legs of the trolley when unloading from the ambulance. - Height adjustable, minimum 3 positions. - Position Trendelenburg and anti-Trendelenburg when the trolley is on its own wheels. - Adult seat belt system, including over the patient's shoulders. - Child safety belt system. - Folding support for infusions. - Folding lateral handles. - Telescopic handles for the transportation of the stretcher. - Wheel brakes. - System for folding the front and rear legs of the stroller. - Platform and the trolley will support a weight up to 220 kg separately or combined, including when the equipment is on the wheels. - Reusable mattress, made from resistant material, which allows a easy washing and disinfection: - Length 1950mm ±20 mm; - Width minimum 550 mm±20 mm; - Height maximum 100 mm; - Other parameters according to the standard EN 1865. • Rigid adjustable stretcher of shovel type made of aluminium: - With head immobilization system. - Adjustable on its length in at least 3 steps for patients with different heights. - Folding. - Fastening straps for the patient. • Complete rigid stretcher for the spine with fastening system: adult and child. • Head immobilizer device: - Made of plastic material, dense with large ear holes for monitoring the patient; impermeable material, easy to clean and disinfect. • Vacuum mattress - 2 pieces, 1 adult and 1 child: - Includes pump and repair kit. - The pump will have the capacity to reduce the pressure with 500 h/Pa during maximum 4 minute. - The minimum width for the vacuum mattress for the adult is minimum 80 cm, for the paediatric one is minimum 45 cm. - Handles for transport. - Fastening straps for the patient. - Other parameters according to the EN 1865 standard. • Wheel chair, with patient fastening system - supports the patient's weight up to 150 kg. Four wheels, including two wheels with braking system. Fixed to the wall of the ambulance. The surfaces of the backrest, and of the footrest are easily detachable. Chair weight less than 10 kg. • Traction device for femoral fractures with a carrying bag. • Reusable cervical collars adult/child for the cervical immobilization, must allow the intubation, access to tracheotomy and safe medical maneuvers. In the total set of 6 pieces will be delivered: 4 adjustable pieces for adults and 2 adjustable paediatric pieces, with carrying bag.	

			• KED type extrication device - 1 piece. • Inflatable splints and vacuum for the immobilization of upper, lower limbs - one set each with belts for pelvic immobilization - 1 piece each (set to include additional pump, carrying bag, emergency repair kit). •Set of rigid splints for the immobilization of upper, lower limbs with bag for transport- (2 pieces for the upper limb and 2 pieces for the lower limb). 7.2 Equipment/devices for resuscitation - breathing (minimum requirements) • Fixed oxygen installation: - Oxygen cylinders: 2 cylinders of 10 liters each, with fast interconnection system: - Pressure reducers endowed with manometers for each cylinder. - 2 fast connections standard DIN for respiratory assistance devices, attached on the left lateral wall. - Flow meter with a maximum capacity of at least 15 L/min., with adjusting valve, humidifier, tubing and facial mask. - 1cylinder of 5 litters with stretcher attachment system, with carrying bag for protection and transportation and reducer with flow meter. • Portable oxygen: - 1 cylinder of 2 litters with place for attachment and fixation in the ambulance, endowed with a bag for transport. - Pressure reducer with a flow meter with a maximum capacity of at least 15 l/min with adjusting valve, tubing and facial mask. • Ambu type of ventilation balloon: adult, child, newborn – 3 pieces (1 piece for adult, 1 piece for child, 1 piece for newborn), with a double wall, 100% latex free material, in a kit with a total of 5 masks (adult – 2 pieces, child -2 pieces, newborn -1 piece). - Pressure limiting system for preventing overpressure. - Ventilation balloon for the newborn must to be self-inflating with a capacity of 250-700 ml and to ensure a minimum of 15-25 ml for each ventilation. • Kit for des-obstruction of respiratory tract - 2 piece (1 mouth opener, 1 tongue depressor). • Oropharyngeal pipe kit in dedicated packaging, composed of minimum 6 dimensions adult/child (newborn 40 mm, children 60 mm, adolescent 80mm, adult 90mm, 100mm, 110 mm) 1 piece. • Forceps Magill of various sizes for adult and child - 2 pieces. • Device for mouth insufflations with mask and anti bacterial filter, with unique sense valve, in a carrying box – 1 piece. • Aspirators - 2 pieces: - One attached to the ambulance's wall according to EN 1789; - One portable electrical device, endowed with a bag for transport, with powering and fixation system in the ambulance: - Resistant to fall, blows, water and disinfectants; - With a vacuum regulator incorporated; - Robust, portable, compact; - Electrical operation from the incorporated battery; - Continuous regimen of operation, based on the built-in battery or connected to the power supply. Battery life time is at least 60 minute; - 220V, 12V power supply with adapter; - Maximum free air suction flow 30 L/min, the pressure will be minimum 600 mmHg, the minimum capacity of the reusable reservoir - 1 L; - Alarm and monitoring system for the battery status and connection to the power supply; - There is delivered in a kit with cable for connection at 12V, with minimum 2 reusable silicone tubes of 1,5-2 m in	

			length and with antibacterial filters, minimum 5 pieces. 7.3 Equipment for monitoring/defibrillation/diagnosis • Semiautomatic defibrillator with monitor: General requirements: - Semiautomatic defibrillator with monitor, robust construction, easy to clean the surfaces, easy to manipulate, to use and transport; - Equipped with alarm systems minimum for: - electrodes detachment; - asystole; - tachycardia; - bradycardia; - fibrillation; - With digital adjusting systems for the levels of alarm. - Impermeable bag with interior compartments and adjustable strap. - Vibration according to EN 1789. - Resistant to the impact, according to EN 1789. Delivered configuration: - Defibrillator with Li Ion battery. - Kit of reusable paddles, including adult and paediatric paddles – 1 set. - Kit of disposable paddles adult and child, including the adapter for the paddles use. - Must to possess one terminal designed for the testing of the proper functionality of the paddles. - Kit of cables for 5-lead ECG. - 15 disposable ECG electrodes (3 boxes of 5 electrodes each). - Built-in thermal printer. - Printer paper -5 pieces. - Cable supply to the 220V network and to the 12V network with connector. - Card SD 2 Gb. - Dedicated carrying bag. - Maximum weight with bag 5,5kg. Technical description: - Must to possess an in-built monitor, HD colour of minimum 7 inches. - Must to allow displaying and visual supervision: ECG route, Pacemaker detection, AED mode, SpO2 values, noninvasive blood pressure, battery status, alarm status, day, date, must to count and record each defibrillation shock. - Must to possess a fast and safe access to menu for the options and the shocks power. - Must to possess an in-built Li-Ion rechargeable battery. - The battery must to provide sufficient power for administration of 150 shocks minimum of 200J or no less than 4 hours of ECG continuous monitoring. - The battery life-time is minimum 4 years. - The recharging time is maximum 4 hours. - Must to possess the sound and visual alarming systems regarding the battery discharge;	

			- The system will be able to work both with reusable paddles as well as with disposable paddles, the paddles must to be interchangeable. - The system must to recognize automatically the paddles type. - The system must to recognize and display on the screen the correct position of the paddles on the chest. - The system must to possess a hardware. - The system must to possess the possibility of automatic evaluation of ECG. - Recording: minimum 2 GB of internal memory. - The system must to provide options for: AED included , SpO2 included, NIBP, Wi-Fi (band frequency 2.4 CHz), Bluetooth (version 4.0 or 5.0, band frequency 2.402 GHz-2.48CHz). - Heart frequency range between 30 to 300 bpm. - The system must to be able to function as an external Pacemaker. - The printing will be automatic or manual on the one channel. - The width of the paper is 48 mm or other standard dimensions. - The printing speed is 25,50 mm/sec. - Must to possess alarm systems for: electrode detachment, asystole, tachycardia, bradycardia, fibrillation. ECG monitoring: - 3 channel derivatives. - ECG signal capture can be done through the paddles with defibrillation, disposable or reusable electrodes. - The Pacemaker recognition must be automatic. Technical parameters defibrillation regimen: ◦ Defibrillation type – BTE type wave (biphasic truncated exponential waveform); ◦ Shock power – automatically selected in the standard way from 2 to 200J; ◦ Recharging time for repeated shock administration maximum 8 seconds; ◦ Synchronous discharge for cardioversion. ◦ Automatic system for shock power limitation until 50J when the system recognizes the paediatric paddles; ◦ Automatic cancellation and discharge system of the shocks until 30 seconds in non-usage period. • ECG device with bag for transport: Technical description: - Built-in color LCD screen, available to display 3,6,12 leads. - Multiple linguistic support (Romanian and Russian). - ECG wave preview, self-diagnosis and the possibility to print the results. - To possess a software compatible with PC. - The doctor must to be able to visualize the ECG wave sent from the ambulance to the hospital`s PC station. - USB flash disk – for recording data and back-up. - To possess the calibration system. - Availability of detection and protection systems from the cardiac stimulator and the shock defibrillator. - Functions for Auto Measure and Auto Diagnosis. - Simultaneous recording on 12 channels, amplification and recording. - Built-in thermal printer.	

			- ECG wave editing, receiving, recording speed, patient information and report regarding the performed measurements. - AC and DC power supply. - Rechargeable battery with lithium-ion battery, minimum 2 hours of continuous operation. - Internal memory for 300 ECG waves. - Built-in SD card of 2Gb, which allows to record over 10000 ECG waves. - Online update software available. - Automatic measurement and interpretation, automatic testing, verification of the acquisition channels format3×4, 3×4+1R, 3×4+3R, 6×2, 6×2+1R, 12×1, 12×1+T. - The selectable working modes: manually / automatic / rhythm function. - Notify the connection error of the cables or positioning / detachment of the measuring electrode. - High precision digital filters. - Built-in Wi-Fi mode (2.4 CHz band frequency) that allows the online transmission of ECG waves. - ECG recording channels: standard 3, 6, 12 channels. - Accuracy ±2%. - Calibration Voltage - 1mV ± 1%. - Input Impedance 50MΩ. - Circuit Input Current< 50nA. - Stabilization of the reference base – automatic. - Input / external output: ◦ Input ≥100 KΩ sensitivity10mm/V ±5%; ◦ Output: ≤100Ω, sensitivity 1V/mV ±5%. - Recording speed 25 mm /s 50 mm/s. - Delivered accessories: osupply cable-1pice; opatient cable-1 pice; oreusable chest electrodes of pear type-6 pices; oclips type reusable electrodes for extremity- 4 pces; oprinter paper-5 pices minimum; ogrounding cable-1 piece; oFuses-2 pices; oPC connection cable-1 piece; oSupply cables: AC-1 piece and DC-1 piece. - User guide in Romanian or Russian. - The weight of the device is maximum 3,5 kg together with the transport bag. •Automatic electric syringe with in-built battery Delivered configuration: - Electric syringe; - Li Ion in-built rechargeable battery; - Bar fixing mechanism; - Automatic recognition of mode and of software for syringe; - Supply cable AC - 1 piece; - Kit of syringes for starting and calibration.	

			Technical description: - The digital control to insure a maximum accuracy and safety; - Compatible with syringes of 10ml, 20ml, 30ml, 50ml/60ml, with automatic recognition; of syringes; to be able to function with syringes of various brands; - To be able to automatically calculate the debit after the introduction of the infused volume and the administration time; - To allow the administration of the infusion in bolus at request, with a preselected volume and the accuracy of minimum +/-2%; - To possess an software, to include the calculation of dosage as well; - To possess a drug library; - Infusion speed is 0.1 -200 ml /hour. -Monitoring system for: ◦ The accumulator`s status; ◦ The connection to the main 220 V power source; ◦ The occlusion pressure level; ◦ The administration profile; ◦ The preselected time; ◦ The operating state; ◦ The unit of dosage/flow measurement; ◦ The infused volume; ◦ The remaining time. - Alarm system: ◦ The preset alarm in case of occlusion, to overcome the pressure; ◦ The alarm for the wrong introduction of infusion solutions; ◦ The device malfunction; ◦ When the alarm is triggered, the injector will automatically stop. • Portable heating system for infusion solutions with supply at 12 V or 220 V : - Allows the heating of at least 3 solution bags of 1 L each or 6 bags of 0,5 L each. - Must to be included a bag for transport, thermally isolated, with shoulder strap. - The thermal isolation is efficient for 2 hours from its disconnection from the power supply. • Digital thermometer: Technical description: - The digital thermometer reads the infrared radiation from the surface of the skin for a accurately calculation of the body temperature; - Touch less: never enter into contact with the patient’s skin, in order to avoid any contamination risk; - Non-invasive: does not require cooperation with patient, recommended for children; - Advanced microprocessor to ensure a high accuracy. Technical specifications: - Measurement limits at the forehead level: 34.0 - 42.5°C; - Measurement limits (besides forehead): 1.0 - 55.0°C;	

			- Measurement limits accuracy: ± 0.1°C; - Operation distance: 3 cm (1.2 inches) determined by the optic and acoustic signal; - Batteries: minimum 4xAAA (1.5V) included. - Weight: not higher than 100 gr. • Portable Pulse Oximeter Description: - Device which non-invasively measures the oxygen level (oxygen saturation) in the capillary blood and heart frequency by using the photometric method; - The heart rate is calculated automatically and is displayed based on the performed measurements; - The pulse oximeter must to insure a high reading accuracy regardless of the patient's type, the skin's condition, even in the conditions of repetitive movements of the arm on which the sensor is mounted or if the infusion flow is low. Parameters: - Compact, portable device, which will be used in the emergency service/ambulance. - Resistant to falls, hits, shock, scratches. -The possibility to be attached in the ambulance, mechanism of attachment included. - Visual and audio alarms. - Audio signal: sensor off, sliding sensor, battery discharge. - The setting of alarm limits. - The total recording time in the memory of 72 hours. - Supply from the battery - accumulator with a lifetime of minimum 60 hours. - Weight maximum 200 g (without batteries). - Operation temperature -20 ˚C - +50 ˚C. - Relative humidity of 15 - 90%. - Patient type: - adult; - child; - newborn. - Sensor SpO2: ◦ Reusable separately, with the possibility of automatic replacement and recognition; ◦ Equipped for utilization with reusable sensors as well as with disposable sensors. - Displays: ◦ LSD or TFT screen, colour minimum 2,8 inches. ◦ Pulse value – yes. ◦ SpO2 wave – yes. ◦ Signal power – yes. ◦ Battery level – yes. ◦ Error message – yes. - SpO2 criteria: - Measurement area 1-100%. - Measurement accuracy ±2%. - Heart rate (HR). - Measurement interval 30-235 beats/min. - Measurement stage 1 beats/min.	

			- Alarms: ◦ Audio and visual. ◦ SpO2 : high level and low level. ◦ Pulse: high level and low level. ◦ Disconnected sensor. ◦ Discharge of the battery. ◦ Stopping of alarm. - To possess the following functions: ◦ Manual or automatic reactivation method. ◦ Volume control. ◦ Self-testing. Delivery: - Internal battery – yes. - Rechargeable with charger – yes. Accessories and consumables: • SpO2 reusable sensor, adult - 1 piece. • SpO2 reusable sensor, child - 1 piece. • SpO2 disposable, adult - 50 pieces. • SpO2 disposable sensor, child - 50 pieces. • User guide (in Romanian and Russian). • Stethoscope: The following configuration: - Double capsule. - Double way. - Tube's length: 45-65 cm. - Diaphragm diameter: 35-45 mm. - Delivered with a set of spare accessories: 2 membranes and 2 olive sets. • Manual tensiometer with minimum 5 cuffs (3 adult and 2 child) with bag for transport. • Lamp for pupils of the eye examination with battery – 1 piece. • Reflex hammer - 1 piece. • The infusion mounting system – 10 pieces. •Refrigerated bag for thermolabile medicines: -Inner dimension (L * W * H): 180 * 100 * 80 mm (+/- 20 mm); -External dimension (L * W * H): 240 * 170 * 195 mm (+/- 20 mm); -LCD temperature display. -Units of measurement: oC and oF -With the possibility to adjust the temperature. -Operating mode between +2 oC and +8 oC; -Possibility to work in the environment with a minimum temperature: +35 oC. -LCD size: min 58 * 18 mm; -Net weight: 3-5 kg; -Volume: min 1.5 L; -Total weight (with accessories): 5-6 kg	

			-Accessory: • Internal battery (16000mAh) - 2 pcs; • Car adopter - 1 piece; • Charger - 1 pc; • Adjustable shoulder strap - 1 piece; • Cover for accessories - 1 piece; -Power: AC: voltage: 100V-240V, DC: Voltage: 12V, Battery: Voltage: 7.4V, Capacity (lithium battery) - min 16000 mAh; Input / output voltage (adapter) AC100V-240V / DC9.0V; Voltage (lithium battery) - DC 7.4V; Battery working time: min 6 hours; -Support AC110 ~ 240V, DC12V. -The interior will be equipped with a horizontal dividing support for medicines of 1-10ml (min 20 amp.) -With special place, well fixed in the patient's compartment with the possibility of 220V or 12V power supply. 7.4 Sanitary materials (minimum requirements): • Minitracheostomy kit-1 piece. • Mattress with handles for patients transfer, made of washable material, minimum width 80 cm -2 pieces. • Kit for amputated limbs + container for replanting with maintaining of the internal temperature at -2 - +4°C, for at least 2 hours -1 pice. • Bag /rucksack for portable equipment made of impermeable textile, easy to clean, with reflective strips, foreseen with a spacious compartment divided by removable separators. On the exterior it has 2 lateral and 1 frontal pockets, support with the handles and adjustable shoulder strap with the pad. Composition: - Type AMBU balloon (1 adult, 1 child) with 5 masks (3 adult, 2 children); - Kit of oropharyngeal pipes, minimum 6 sizes; - Reusable Laryngoscope with blades of various sizes adult and child – 1 piece; - Magill forceps, 2 sizes adult and child; - Mechanical manual vacuum, 1 piece; - Tensiometer with stethoscope, 1 piece; - Manual tourniquet system – 1 piece. It must to be easy, portable, to possess a manual pump with manometer in the set with a reusable cuff for adult and child, with a connection tube of minimum 1m (in length), with dedicated bag. - Rechargeable oxygen cylinder 1 L, with the reducer and flow meter - 1 piece. The kits mentioned above will be attached in the place where they will be easily accessed, but without affecting the working space around the patient. Their location will be discussed with the beneficiary before the final execution of attachment works in the patient’s compartment. 7.5 Auxiliary materials and devices: • Safety belts cutting device– 1 piece. • Medical scissors of type „safety boy” – 1 piece. • Reflective triangle- 2 pieces. • Flexible projector – 1 piece, able to be connected at 12 V in the driver's cabin.	

			• Rechargeable portable lantern - 1 piece. • Hammer to break the window - 2 pieces, (one in the driver's cabin and another in the patient's compartiment). • Extinguisher - 2 pieces, minimum 2 l, each. • Rubber mats set in the driver's cabin. • Traction belt of 5000kg, minimum. • Set of non-skid chains. • User guide in Romanian and Russian. 8. GUARANTEE All the equipment is guaranteed for a minimum of 36 months from the date of the signature of the minutes of reception. The vehicle must to have a minimum guarantee of 200.000 km or 24 months, whatever will be first achieved. 9. SERVICE AND MAINTENANCE All bidders will examine the existence of technical facilities necessary for the servicies both for ambulances as well as for medical equipment, according to the general guarantee conditions and the user guide of the manufacturer. Maximum time for technical intervention – 48 hours from the moment of requiest. Maximum duration of remedial measures, a total of 72 hours. The technical service and current repair will be performed as a priority. The winer economic agent, will ensure technical service and maintenance of ambulances on the entire territory of the country, including zones – North, South and Centre – ensuring the remedial measures (repair) up to 14 calendar days, regardless of the type of repair(s) . The temporary replacement of the equipment has to be ensured according to the periods mentioned above. During the guarantee period, at the reasonable request of the user, repairs, adjustments and maintenance of the medical equipment and vehicles, according to the specifications of manufacturers' guides, will be done free of charge. The spare parts and workmanship are free of charge, with the exception of consumables for vehicles established by the manufacturer. 10. AVAILABILITY OF SPARE PARTS Each bidder assumes under own responsibility to ensure the availability of spare parts, accessories and consumables for all offered positions on the market of the Republic of Moldova, free of charge or against payment as follows: spare parts free of charge, including the workmanship for the guaranteed period. For the rest of time-against payment. 11. GUIDES It is necessary to provide with a technical and user guides. All guides will be available in Romanian and Russian. 12. TRAINING At the delivery, the bidder will ensure the training of the technical and medical staff for the ambulances (vehicle and	

			equipment) and will develop a theoretical and practical training for the professional staff of the Ambulances' medical teams, for good knowledge and skills. 13. VEHICLE REGISTRATION The Seller will provide to the Buyer all documents and permits necessary for the registration of each vehicle at the Public Services Agency of the Republic of Moldova. 14. DELIVERY The ambulances will be delivered in DDP conditions, according to INCOTERMS 2020. The ambulances will be delivered as a functional unit (fully equipped ambulance), by detailing all equipment and devices, according to the giving /receiving act. Until the delivery of ambulances, the winner, will organize the presentation on the territory of the Republic of Moldova of one sample of assembled and equipped ambulance in order to verify its compliance with the schedule of requirements and technical specifications. The cost of the offer includes the devices, packing and transportation to the beneficiary's place, installation and commissioning, technical training regarding the operation and maintenance, training of the medical staff. The cost of consumables, spare parts and workmanship, periodic maintenance during the guarantee period are according to the schedule of requirements and technical specifications. 15. When presenting the offers, the bidders will send a catalogue with coloured photos and/or sketches, which will reproduce the requested configuration according to the schedule of requirements and technical specifications 16. The requirements mentioned in the schedule of requirements and technical specifications are considered mandatory.	

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