PT. B.D.SHARMA UNIVERSITY OF HEALTH SCIENCES ROHTAK.
Website: www.uhsr.ac.in and www.pgimsrohtak.nic.in

CORRIGENDUM TO TENDER NOTICE NO.04/2015-16
FOR PURCHASE OF 03 NOS. AMBULANCE FOR PGIMS ROHTAK.

The Closing date to Tender Notice No.04/2015-16 will now be 27.11.2015 upto 12.00 NOON to be opened on the same day at 2.30 PM. All the suggestions/changes (after prebid meeting held on 23.10.2015) have been incorporated and the revised specifications of Ambulances have been uploaded on our above websites. Please follow our above websites for revised specifications of Ambulances. **Only revised specifications of Ambulances will be valid**.

Sd/-
Sr. Professor I/c Purchase

GROUP NO. 01
PURCHASE OF 03 NOS. AMBULANCES---TRANSPORT DEPTT.

Cost of tender form	**Rs.1,000/- in shape of Demand Draft payable to the Controller of Finance University of Health Sciences Rohtak.**
Earnest money	**Rs.40,000/- in shape of CDR/FDR in favour of the Controller of Finance Pt.B.D.Sharma University of Health Sciences Rohtak (Haryana) India**

NOTE: In case Indenting deptt. desires the demonstration to check the quality before comparison of rates, the same will have to be arranged by the tenderers, at the earliest.

AFTER PREBID HELD ON 23.10.2015, THE DETAILED SPECIFICATIONS OF THE AMBULANCES REQUIRED ARE AS UNDER WILL BE APPLICABLE:

Annexure "A"

TECHNICAL SPECIFICATIONS OF ADVANCE LIFE SUPPORT AMBULANCE PRE-FABRICATED FULLY LOADED

General Vehicular Design and Floor Plans

This ambulance should be either of CMVR/equivalent international designated testing authority approvedMonocoque design. The vehicle manufacturer shall provide repair & servicing facilities forthe base vehicle in Rohtak district of Haryana State. (A certificate in this regard from the base vehiclemanufacturer should be enclosed with the technical bid)The ambulance should be designed, built and complete with operating accessories as specifiedherein. The assembly, sub-assembly and equipment should be integrated in such a way so as toenable the vehicle function in a reliable way and in a sustained fashion with durability and ensuringsafety and comfort to patient and team.The design of the vehicle and the specified equipment shall permit accessibility for servicing /replacement and adjustment of components / parts and accessories, with minimum disturbance toother components and systems. Also, the bidder shall ensure that sufficient reinforcement isprovided to protect the components, assemblies, pipelines, tubing, wirings, etc. which aresusceptible to damage / hazards encountered during on-road, off road operations of ambulance.The emergency medical care vehicles, including base vehicle, equipment, devices, medicalaccessories and electronic equipment should be brand new standard commercial products, testedand certified to meet or exceed these specifications. The bidder should enclose all necessarybrochures, certifications and proofs in this regard along with the technical bid. The technical bidevaluation committee shall base its opinion on the enclosed documentary proofs with regard tocompliance with the specifications asked for and may summarily reject the technical bid if adequatesupporting documents are not enclosed with the technical bid or any of the furnished documents arefound to reflect factually incorrect information. The technical bid evaluation committee reserves theright to ask for additional information if necessary including demonstration.

Vehicle Operation, Performance and Physical Characteristics

The complete homologated ambulance with all equipment and fitments loaded should fully complywith all requirements of CMVR (as per the latest amended applicable on the date of submission tothe test agency). A certificate in this regard from any of the testing agencies specified in CMVR,1989 should be furnished at the time of final prototype inspection.(The bidder shall bear all costsrelated to CMVR certification of the complete prototype ambulance.)

The bidder must furnish this tender& a copy of the technical bid document along with the CMVRcertification request letter while submitting it to the testing agency. A certificate should be obtainedfrom the test agency, explicitly mentioning that the vehicle tested for CMVR compliance was anambulance with all equipment and fitments loaded as per the specifications contained herein thistender and all non-medical technical parameters (including those contained herein this tenderdocument in addition to those required for CMVR compliance) have also been duly verified ortested as per the technical bid & the tender documents.To provide for maximum safety, the manufacturer shall locate vehicle mounted components,equipments and supplies in such a way so as to provide a vehicle that is laterally balanced and has front / rear loading that is proportional to axle loading.A tolerance of ±5% shall be permissible in all dimensions / values mentioned in this documentexcept in case of statutory requirements or parameters critical for patient care.

Overall Dimensions

The overall length of the ambulance should **not exceed 5500mm**, excluding rear steps and bumper guard.

The overall width of the ambulance should **not exceed 2000mm**, excluding mirror, lights and safety accessories.

The overall height of the ambulance should **not exceed 2800mm** including roof mountingequipment (viz. A/c etc) and excluding Radio Antenna.

The finished floor (loading) height shall be a maximum of 750mm while ensuring that one person should be able to load and unload the supplied fully loaded ambulance cot into the ambulance seamlessly without the requirement of physical lifting of the cot at any end.Footsteps should be provided appropriately, if the patient compartment floor is more than 46 cmabove the ground. This step should have transverse length equivalent to the door opening. If there is more than one step, the steps should be equidistant. The steps shall not be located or exposed to the interior of the ambulance, even when the rear door is closed. The step tread shall have minimum clear depth of 130mm and max. depth of 270mm. If the steps protrude more than 18 cm from the rear the vehicle, fold-up steps should be provided. Footsteps if folding in nature must be linked to the respective door of the patient compartment and must fully deploy automatically when the said patient compartment door is opened.

Diesel Engine and Power Train

The diesel engine should meet requirements of CMVR and should be BS IV compliant.It should be possible to maintain a sustained speed of 90 km/hr for the complete homologatedambulance with air-conditioning on &all equipment, fitments & occupants loaded over dry, hardsurfaced, level roads. It should produce minimum 75BHP power and should be able to acceleratethe complete homologated ambulance from 0 km/h to 70 km/h within 40s, when tested inaccordance with IS: 11851-1986 as prescribed in AIS:125.

Steering

Ambulance should be fitted with power assisted steering system, for easy and comfortablesteerability of the vehicle at low and high speeds.

Tyres

The tyres fitted on the ambulance as per the type approval of the designated testing agency at the time of homologation, appropriate for the finished vehicle's load, speed performance and durability.A spare wheel should be housed at appropriate place and indicated. The access to the spare wheel should be from outside the patient compartment. In case the spare wheel is located

below the ambulance floor, a suitable mechanism should be provided to enable quick access without removing the rear footstep.

Suspension
The suspension should be suitably reinforced if required to provide adequate ride comfort for the occupants.

Wireless & GPS System:
Suitable provision to be made for fitment of wireless and GPS equipment on all the vehicles including electrical requirements. The bidder will provide the wireless and GPS instruments to be mounted on the prototype.

Physical Dimension & Electrical requirement of GPS System: -
Dimensions (H x W x D): 60 mm x 185 mm x 175mm, Weight - 1.5Kg, voltage range - 108 to 15.6 V DC, Current consumptions - Idle/Rx/TX - 0.6 / 1 / 1.3, Multi slot PD (4 slot) - 3A,using USB host - adds 0.5A

Body Structure
Ambulances of Monocoque design should have body structure as per CMVR.In case sandwich panels are used in the body structure, the walls, ceiling, flooring and doors shall be made of joint less sandwich elements meeting or exceeding the following specifications:
Outer & Inner Skin- Minimum 1.5 MM Thick, Traffic White (RAL 1016, R-252, G-255, B-255) dyed Glass fiber laminates with high standard gel coat layer based on isophthatic acid with UV stabilizer.
CFC free, high performance, rigid polyurethane block foam/equivalent, minimum 44 mm thickness.
Fire retardant equivalent to IS - 6746 of 1988 or latest equivalent as applicable.

Patient Compartment
Patient Compartment volumetric space shall be sufficient in size to transport occupants and accommodate / store all equipment & fitments specified.The length of the patient compartment measured from partition to the inside edge of the rearloading door at the floor level shall be at least 3100 mm.The length should provide at least 640mm and not more than 760 mm of unobstructed space at the head of the primary patient, when measured from the face of the backrest of theDoctor's/Paramedic's Seat to the forward edge of the stretcher.The minimum width of the compartment when measured at the centre point of the patientcompartment shall be not be less than 1500mm and should provide 460 ± 150mm clear aislewalkway between stretcher / cot and the base of squad bench, with the cot located in the street side (non-centred) position.The patient compartment shall provide at least 1520 mm height over the primary patient area,measured from floor to ceiling panels.
An access window between Driver's Cabin and Patient Compartment should be provided at appropriate location for visual checks and voice communication between the cabin and patient compartment. This window should be latch able from the patient cabin side and should betransparent, shatter proof and shall have adjustable opening.The interior panelling of the patient compartmentincluding sidewalls, partition between patient cabin and driver cabin, roof, door panels and all other surfaces in the patient compartment should be made from long life superior quality UV-resistant **ABS/FRP** unless mentioned otherwise. The **ABS/FRP** should have the following characteristics:
Thickness – minimum 3.0mm
Inbuilt colour

Fire retardant as per IS - 6746 of 1988 or latest equivalent as applicable. Sufficient reinforcement for holding the wall mounted equipment securely while in transit should be present on the side walls. Unobstructed access & full functionality of the fittings/equipment as required for optimal patient care must be ensured in this compartment. Adequate provision for storage of medicines/consumables/equipment should be made by providing lockable cabinets & drawers. These should be made from non-wood & non-ferrous fire retardant material preferably ABS/FRP in sync with the ambulance's internal look and feel. The drawers should be on guide ways &should be provided with appropriate self-restraining mechanism to arrestthe inadvertent opening of the unlocked drawers unless pulled while the vehicle is in motion. The floor (except the wheel humps) should be flat, anti-static & should be finished with minimum 2mm thick two component PU coating with anti-scratch treatment or 2mm thick Anti-skid PVC vinyl matting or FRP / ABS with Anti-skid coating.The ambulance interiors must comply with the requirements of AIS: 047 and should be suitable for easy cleaning, scientific fumigation & treatment with disinfectants. Joints if any should be flushed, seamless, hermetically sealed, waterproof & easy to disinfect. All interior materials shall comply with the fire safety requirements as per AIS: 125.

Door: There shall be a 'two leaf' divided rear door at the rear end of thepatient compartment for entry and exit of personnel as well as loading and unloading of theambulance cot with 260 degree or more of opening . This door shall not be less than 1170mm in height with minimum width of 1120mm and the door opening should be side-ways or bottom to top. Each door should be hinged at least at two places and should have firm latching provision. It shall be capable of being positively restrained in the open position. A "Door-Open" warning device shall signal (indicate in the cab) when doors are not closed. Each door shall have effective compression or overlapping seals to prevent leakage of exhaust fumes, dust, water, and air.
The doors of the patient's compartment shall be fitted with an appropriate mechanism to enable the following:
lock and unlock from inside without use of a key;
lock and unlock from outside with use of a key;
unlock from the outside using a key when the door is locked from the inside

Windows: In the patient's compartment, there shall be a minimum of two external windows. Thereshall be one on each side or one on the side and other at the rear. The windows shall be positionedor screened to ensure patient's privacy when required. Windows shall be fitted with safety glassescomplying with the requirements of IS: 2553 specified under Rule 100 of CMV (A) R, 1989. Atleast one of these windows should have a minimum opening size of 450mm x 550mm to act asemergency exit.

Ambulance Cot as per specifications detailed below:-

- **i)** Roll-in Self Collapsing Ambulance Cot.
- **ii)** The Ambulance Cot including all accessories should be EN 1865 Certified.
- **iii)** The cot should be supplied with an EN 1789 certified fixation system.
- **iv)** The stretcher assembly excluding the mattress & other accessories should be less than orequal to 50kg in weight.
- **v)** The stretcher should load seamlessly and no manual intervention vis-a-vis the locking mechanism, wheels, etc should be required after loading in the ambulance to close the rear doors.
- **vi)** Should have at least three strap-type restraining devices (chest, hip, and knee) to preventlongitudinal or transverse dislodgment of the patient during transit.
- **vii)** Should be supplied with suitable accessories to fix the supplied portable oxygen cylinder.
- **viii)** One number of folding IV Poles should be provided.

ix) The stretcher mattress should be water proof and upholstered with fire proof material.

x) The stretcher should be able to be guided in and out of the ambulance without any part of the stretcher (including the legs) striking any part of the ambulance body including the rear footstep. The loading angle of the stretcher should not be more than 16 degrees. If required, a suitable loading platform (not necessarily be made of ABS) may be provided to ensure the same.

xi) Should be European CE or US FDA certified.

A foldable seat for the Doctor/Paramedic should be installed facing towards the rear of the patientcompartment & it should be near to the primary patient's head for easy accessibility. This seatshould have adequate restrains for the passenger and should be fitted with foldable arm rests.

A Squad bench with backrest suitable to accommodate minimum five sitting patients or folding/scoop stretcher shall be installed along the side wall. A minimum 50mm thick high densitycushion to be provided for comfort. The squad bench should be upholstered with waterproofwashable cover and should have adequate restrains for the sitting patients as well as the stretcher.

Grab Rail made of stainless steel pipe with proper support / fixing, for ease in entering shall be installed in the ceiling. Minimum two IV hooks or holders to be provided at suitable locations to ensure proper patient care.A reliable, robust & easy to use Sterillium/Bactorub/equivalent alcohol based hand rub dispensersupporting standard off the shelf bottles of minimum 500ml capacity should be provided at asuitable location which should be within easy reach of the doctor/paramedic.Concealed portable dust bins for waste disposal should be provided at suitable locations.Two numbers of **multipurpose fire extinguishers of ABC Type** (ISI marked & conforming toBIS: 15683-2006 or latest) duly filled, capacity and quantity as per the provisions of Central MotorVehicle Rules 1989 should be provided. One fire extinguisher shall be placed in the Driver's cabinand the second in patient's compartment, at appropriate location, where it is easily visible andsymbolized.All fitments/equipment/outlets/switches/storage spaces, etc in the patient compartment should bepermanently& clearly labelled in English. The font used should be easily readable and incontrasting colour of the background.

Oxygen Delivery System

The ambulance shall have piped medical oxygen system (manifold) capable of storing and supplying medical grade oxygen. The manifold should have two oxygen cylinders which should beat least D-type.The cylinders attached to the manifold should be individually changeable from outside the patientcompartment and a cylinder changing wrench should be housed at an appropriate location. Themanifold should be so designed that it shall ensure proper fixation of cylinders during travel andshould ensure easy cylinder changing and positioning. There should not be any electricalconnection in near vicinity or inside the oxygen cylinder housing, except pressure regulatorintegrated with flow control valve.These cylinders should be individually connected to a pressure regulator each in such a way thatone cylinder acts on duty and the other as a stand-by. Both these regulators should be capable ofreducing the cylinder pressure to a static outlet pressure of 4.12 bars / 60 psi and should include asafety relief valve and a locking mechanism to prevent settings from being inadvertently changed. Itshould maintain accurate readings and calibrations during ambulance operation and not be affectedby the temperature conditions. Changing from one cylinder to the other should not affect thedistribution pressure in any way and this changeover should occur automatically **and** Manually. In caseof manual change over, an audible and visual alarm system to be provided when the duty cylinder isgetting empty.The patient cabin must have a digital/mechanical display for oxygen supply status. The

displaypanel should be certified for use with Medical Oxygen and should have three individual valuesdisplayed so as to constantly indicate the pressure level of both the cylinders as well as thedistribution pressure level.Minimum two medical oxygen outlets for the primary patient, flush with right side wall (distancebetween patient head and oxygen outlets to be less than 890mm) to be provided.These duplex outlet stations should be certified for medical oxygen and should be appropriatelylabeled. Oxygen outlet stations shall be installed with sufficient vertical & horizontal space toaccommodate attachment of flow meters, humidifiers, and nebulizers.
The oxygen outlets should be universal in design to be able to accommodate the probe of the oxygen flow-meter and the probe of the driving gas hose of the ventilator directly in one single action without any intermediate connectors and adapters.

Noise
Noise testing of patient compartment will be as per AIS: 020. Noise level should be less than 80 dB in patient compartment.

Air-Conditioning
The AC unit should be installed at a suitable location in the patient cabin to ensure there is no congestion in the driver/patient cabin. With all windows & doors closed, the system should be capable of lowering the cabin temperature to a maximum of 26 degrees Celsius within 30 minutesfrom 35 degrees Celsius ambient temperature. The gas used for Air conditioning should beenvironment friendly as per International regulatory requirements. The engine idling rpm should beso designed and tuned to fulfil the requirements of AC Unit.To ensureproper ventilation in case of AC failure, at least two of the patient compartment window should be opening outside.

Preferable:-(i) Air conditioning of Driver cabin
(ii) Company fitted AC

Siren
All siren loudspeakers have to be mounted on the front of the vehicle. Hidden installation is allowed. The main sound direction must be in driving direction. Permitted are wail and yelp signalsthat cycle between 10-18 respectively 150-250 per minute at an sound pressure level of 110dB(A)to 120dB(A). The frequency range must be at least one octave and should be between 500Hz and2.000Hz. n additional electronic air horn can be used. Further there should be a public addresssystem that can be worked at all times ergonomically from the driver's seat. The siren switch canonly be used if the warning lights are on.

Exterior Special Lighting and Illumination
In addition to the signalling and lighting requirements as per the CMVR, the ambulance should have the following lighting fitments (12V):
- LED based flashing lights with top red lens having minimum four LED flashers visible on both sides of the ambulance (integrated or enclosed in a light bar) mounted on the roof top. The LED flashers should flash cyclically using appropriate flashers.
- At least two LED flashers & one spot lamp on both sides of the ambulance as well as two flashers& a rear loading lamp on the rear wall of the ambulance mounted at the highest position feasible. (The rear loading light shall automatically be activated when rear doors are opened.)

Interior Patient Compartment Illumination:
There should be diffused flicker free automotive grade (12V, minimum 4000 deg Kelvin) lightingin the patient compartment. All interior lighting shall be flush mounted and should not

get loose orfall down during vehicle movement or vibration. Normal white illumination within the patientcompartment without outside ambient light shall not be less than 100 Lux (lx) when measured alongthe centreline of the clear floor; and 150 lx on at least 90% of the surface area of the primary patientcot. At least one patient compartment light and rear loading lamp shall be automatically activatedwhen the patient compartment rear doors are open.

Electrical System

The electrical system should be of uniform specification across all ALS Ambulances. Thereshall be two independent forward electrical circuits in the ambulance: the OEM-Base VehicleCircuit and the non-OEM electrical circuit. At no point shall the forward OEM base vehicle circuitbe tampered with to provide for any non-OEM electrical load requirements.Each ambulance should have additional 'supplementary battery(s)' / UPS sufficient enough to power thenon-OEM electrical load requirements of the homologated vehicle. These batteries should belocated at a suitable location outside the patient compartment and should be automatically chargedby the vehicle alternator while the vehicle is on and via 220V external AC supply if connectedwhen stationary. The alternator of the base vehicle should have the current rating which is atleast 10% higher than the peak current consumption of the fully equipped ambulance. (Including current forcharging of the batteries, running of air conditioning system as well as all the medical and nonmedicaldevices, etc.). A permanently fitted automotive grade battery charger should be provided to enable charging of thesupplementary batteries via external 220V AC supply whenever connected. A recessed externalcharge port with spring loaded lid (at least IP65 certified) suitable for connecting the external 220VAC power supply should be provided on the exterior of the vehicle at a suitable place. A 10 Meterlength, Three (3) core, 10 gauge / equivalent charging wire with high quality male three pin ends tobe provided. This wire should be housed at a suitable and easily accessible location in theambulance.There should be a cut-off switch provided at a suitable location outside the patient cabin to isolatethe non-OEM forward electrical circuit. This circuit breaker should be labelled and housed at aneasily accessible location while also ensuring protection against accidental switching off.There should be short-circuiting as well as overload protection through fuses / Mini-CircuitBreakers (MCB) for different segmented electrical installations in the non-OEM electrical circuit.The fuse rating should be mentioned on each fuse and three numbers of each fuse should be housedin the fuse box cover or at an appropriate place.Adequate number of power receptacles / connections should be provided in the patient compartmentto simultaneously power all the equipment's & fitments asked for in this document. The mountingsof all electrical outlets shall be sturdy enough to handle wire/plug pressure and vibrations duringtransit. There should be at least one free automotive grade 12V DC receptacle provided in thepatient & driver compartment each at an easily accessible location.All switches, connectors, end-wiring should be rated to carry out minimum 125 % of theirmaximum ampere load. All wiring should confirm to ISI2645 specification. The wiring shall bepermanently colour coded or marked the entire length of the wire for identification with easilyreadable numbers and letters, or both, and routed in conduit. When cables are supplied by acomponent manufacturer to interconnect system components, these cables need not be continuouslycolour coded/identified. They shall be coded/ identified at the termination or interconnection points.All added wiring shall be located in accessible, enclosed, protected locations and kept at least150mm away from exhaust system components.
Except for those on large wires, such as battery cables, terminals shall be machine crimped to the wiring. A ratchet type hand crimper may be used where it is not possible to use a large machine crimper. Battery cable terminals, component terminals and connectors exposed to the ambient shallbe coated with terminal corrosion preventive compound.Electrical panels that are accessible to accidental contact shall have a protective cover, shield, andso forth, to prevent shorts that can result in injury, fire, or damage to the electrical system.Electrical wiring and components shall

not terminate in the oxygen storage compartment except forthe oxygen controlled solenoid, compartment light, and switch plunger or trigger device. Wiringnecessarily passing through an oxygen compartment shall be routed in a metallic conduit.220V AC supply in patient compartment is not mandatory. However, 220V AC charging circuit forbattery is mandatory.

Radio Frequency Interference (RFI)
The ambulance electrical / electronic and mechanical equipment in running mode / on condition, should meet the Radio Frequency Interference standards [Electro Magnetic Interference (EMI) AIS– 004-1999].

Emblems, Marking &Colour Scheme
Complete body exterior should be uniform white in colour. All external marking should be retroreflectivein nature and materials used for the same should meet or exceed the requirements ofASTM D 4956, Standard Specification for Retro-reflective sheeting for Traffic Control, Section6.1.1 for Type I Sheeting.Guidelines in regards to Emblems and Markings for Ambulances issued by the Government fromtime to time shall be applicable. However, the quality parameters of the markings indicated aboveshall remain constant.

Operating Manuals, etc.
Comprehensive User Manual/s written in simple English with detailed parts description, operatinginstructions, service contact numbers, etc for the Base Vehicle, Patient/Driver CompartmentEquipments, Fittings, etc shall be provided. These should be printed on high quality paperandhoused in water-resistant pouches.Laminated sheets, clearly showing the Patient and Driver Cabin Layout with location of equipment,fittings, switches, consumables, etc suitably depicted should be fixed in the patient and driver cabinat suitable locations. Laminated sheet showing the non-OEM electrical wiring diagram completewith location of various fuses and circuit breakers should be displayed in the vehicle at a suitablelocation.

Quality Assessment and Inspection
One prototype of the ALS Ambulance to be introduced into operations must be approved in a pre-bid meeting beforebeing taken up for serial production. Each ambulance prototype shall undergo a four step inspection and verification process to ensurecompliance with the technical specifications contained herein:

1. **Theoretical compliance** based on documents & drawings furnished along with the technical bid. The ambulance design and layout proposed by the bidder in the drawings submittedalong with the technical bid must be approved by the appropriate purchaser authoritiesbefore commencement of prototype production. The Purchaser reserves the right to ask forappropriate changes in the patient compartment layout if not found suitable.

2. **Preliminary Prototype Inspection:** This shall be done after the prototype production iscomplete and the vehicle is ready to be sent for CMVR Homologation & other tests. Thisinspection shall be conducted by a multi-disciplinary committee formed by the Purchaser.This shall be done at the work unit where the ambulance is manufactured. All costs relatedto this inspection shall be borne by the Purchaser for the first visit. In case the vehicle isrejected in the first instance, all subsequent inspections shall be at the cost of the suppliersubject to a maximum of two [1st Inspection + 2] additional opportunities to address thenon-compliances identified. Inspection team will consist of 5 (five) to 7 (seven) members.Expense will be to & fro economy air fare, local conveyance, boarding and lodging of theinspection team for the inspection period.

3. **CMVR Compliance** certification & all other tests on the vehicle required to verifycompliance with the tender document for the complete homologated ambulance with allequipments and fitments loaded. These reports shall be obtained by the bidder from any ofthe testing agencies specified in CMVR, 1989 & the bidder shall bear all costs related with the same.

4. **Final prototype inspection for verifying compliance with all non-CMVR & other special requirements** specified herein this tender document. This inspection shall beconducted by a multi-disciplinary committee formed by the purchaser. This inspectionmaybe conducted at the testing agency or at another location decided by the Purchaser. Allcosts related to this first inspection shall be borne by the Purchaser. In case the vehicle isrejected in the first inspection, all subsequent inspections shall be at the cost of the suppliersubject to a maximum of two [1st Inspection + 2] additional opportunities to address thenon-compliances identified. Inspection team will consist of 5 (five) to 7 (seven) members.The bidder will furnish all necessary documents, test reports and compliance certificates tothe inspection committee. The decision of this Committee shall be final and binding in allrespects and is not subject to dispute. In case the final prototype is not approved by thetechnical committee.The tenderer has to take written approval of the final prototype approved from the purchaserbefore going for serial production of ambulances. This final approved prototype shall beretained by the supplier till the end as a reference and will be the last ambulance to be rolledout to complete the order. All supplies are to be made as per the prototype finally approvedby the purchaser.Standard quantity of consumables coming with the equipment package should be supplied ifnot mentioned in the tender enquiry. However, purchaser is not bound to purchase theconsumables from the bidder only.

5. Fully fabricated Ambulance should be ARAI certified.

Annexure "B"

MEDICAL EQUIPMENTS FOR ALS AMBULANCE

Technical Specifications

(All Equipment should be CE/US-FDA certified, Manufactured in ISO 13485 certified facility)

1. Automatic Collapsible Stretcher cum Trolley

- Multifunctional automatic stretcher with varied positions outside the ambulance. Using the most advanced technical skills to finish pulling the ambulance stretcher up to the ambulance automatically. It can easily adjust to various positions for emergency treatment under any complicated situations, especially compatible with ambulance environment.
- Should be made of high strength Aluminum alloy.
- Should be able to convert into stretcher from trolley automatically with levers manually.
- Provision for head end elevation adjustable. Sitting posture for breathless patients - Maximum Angle of the Back 60°
- Should have side Railings to prevent fall of patients either side and to hold medical equipment
- IV fluid holding rod to go with the Stretcher
- Sufficient straps in number to restrain the patient.
- Fixing devices to secure the stretcher in place not allowing side to side or vertical movements in the ambulance while on run.
- Gross weight should not be >50 kgs
- Bearing Pressure or minimum load: 150 Kgs.
- Product dimensions: Should not be less than 1950mm X 510mm X 960mm (Max.)
- Product dimensions: Should not be less than 1950mm X 510mm X 320 mm (Min.)
- Complies with EN 1789

2. Scoop Stretcher

- Should be light weight, safe and reliable.
- Should be X-Ray compatible
- Clutch Design/Locking device should be positioned off centre to allow easy closure from the patient head.
- Adjustable length according to patient's height.
- Easy to lock and unlock
- Minimum 3 Quick release buckle belts
- Net weight: not more than 10Kgs
- Load capacity : I50kgs

- Complies with EN 1789

3. Spine board with straps with head immobiliser

- High Density Polyethylene - Single piece
- Rigid, Light &.Floatable
- Resistant to bumps and corrosion
- Non absorbent, immune to infiltrations
- Easy to clean
- X ray & MRI compatible
- Net weight: 9Kgs
- Load Capacity: 150 Kgs
- L x W x H: 1750mm x 400mm x 50mm
- Fixture and device complies with EN 1789

4. AC/DC– Suction Pump Portable

- Body should be made of lightweight ABS Plastic
- Flow Rate : 0 to 20 LPM on mains/ Battery
- Aspiration should be adjustable from 0.5 to 760 mm Hg with a valve control
- Collection bottle 1000 ml capacity autoclavable
- Overflow protection ensured
- Net Weight should not be more than 5.5 Kgs
- Complies with EN 1789

5. Ambu Bag Adult – Silicon 2 Nos.

- 1600ml adult self inflating double ended silicone bag with mounts
- Siliconised
- Side feed oxygen inlet
- Type "L" non-rebreathing valve
- Size 4 Clearhood facemask with silicone cuff
- 1.5 mtrs oxygen enrichment tubing
- Carrying case

6. Ambu Bag Child- Silicon 2 Nos.

- 500ml Self inflating double ended silicone bag with mounts
- Side feed oxygen inlet
- Type "L" non-rebreathing valve with pressure limiting device 40 cms of water
- Size 0& 00 Circular Paed. All Silicone facemask

- Reservoir Hose with Adaptor to provide higher oxygen & 1.5 mtrs oxygen enrichment tubing
- Carrying case.

7. Mouth to Mouth ventilation devise Adult, child and neonate of reputed manufacturer 1 each

8. Needle & Syringe Destroyer - Manual

- Maximum weight 2.5 Kgs
- Motion Tolerant

9. Syringe Pump 2 Nos.

- Flow rate programmable from 0.1 to 900 ml/hr or more with user selectable flow set rate
- Bolus rate should be programmable to minimum 400-500ml/hr with infused volume capacity
- Audio alarm after every .5ml delivered bolus
- Save last Bolus/infused rate even on power failure/switch off
- Display of drug name with provision of memorizing at least 5-10 drugs names
- KVO must be available with user selectable KVO
- Various occlusion pressure triggers levels
- Should work on commonly available syringe from 10-50 ml
- Automatic detection of syringe size
- Should alarm for wrong loading of syringe OR flanges out of slots etc.
- Should have inbuilt battery backup for at least 4 hours
- Should have comprehensive alarm package for OP limit exceed, Near end infusion, volume limit, KVO rate flow, Low battery, AC Failure

10. Defibrillator

- Bi-Phasic with 3/5 lead ECG, light weight and latest model
- Low Energy Biphasic defibrillator with recorder having capability to arrest all arrhythmia, with energy or 150-200 joules.
- Work on Automated External Defibrillation (AED) mode.
- Built in 50 mm strip printer/thermal recorder.
- Battery backup for a minimum of 90 minutes
- Wall mount for installation in Ambulance
- Complies with US-FDA

11. Multi Para Monitor

- Should monitor ECG, Respiration Rate, SPO_2, NIBP with adult, pediatrics & neonatal reusable cuffe (2 each), Pulse & Heart Rate
- Should have colour TFT/ LCD display of size 8” or more

- Wall mount for installation in Ambulance
- Battery backup for a minimum of 90 minutes
- Complies with European CE/US FDA.

11. Nebulizer

- Atomizer (ultrasonic's) electric aspirator, Compressed air nebulizer
- Motion Tolerant and for continuous use in Pre Hospital.
- Operating voltage: 230 V AC with (preferred with Battery backup (with minimum 60 minutes backup)
- Maximum pressure 3.5 bar
- Air power: 14 liters per minute
- Aerosol output: 106 µl per minute
- Residual volume: 1.24 ml
- Droplet size: MMAD 3.3 microns
- Filling volume : maximum 7 ml
- Noise level: 55 dBA
- In built thermal cut off systems may be desirable.
- Provision for fixing/mounting in the Ambulance desirable.

13. Hand held Glucometer – Reputed Manufacturer make

14. Multiple stiff neck adjustable Collars (Quantity - 10 nos.)

15. Vaccum Splints

- Shall be of 3 sizes
- Malleable
- X Ray translucent, MRI compatible
- Medical grade, non absorbent, closed cell foam padding on one side and High quality, resilient open cell foam padding on the other side
- Shall offer immobilization support in favorable anatomical positions

16. Emergency Kits (Spencer or equivalent)

Should have following items

- Manual Suction pump (foot operated)
- Oxygen cylinder – lightweight aluminum (2 lit and 5 lit water capacity: 1 each)
- Oxygen regulator
- Resuscitator bag
- Laryngoscope – standard – Infant, paediatric and adult
- Magill forceps
- Endo tracheal tubes

- Oral Airway
- Sphygmomanometer with reusable BP cuffe infant, pediatric & adult 2 each
- Stethoscope
- Digital Thermometer
- Diagnostic hammer
- Penlight
- Tongue Depressor
- Syringe infusion set (100 cm extension tubing + 11 cm extension tubing with 3 way stop cock
- I.V. Cannula
- Tourniquet
- First aid surgical devices -
- Elastic bandage
- Sterile Gloves
- Adhesive plaster

17. Extrication Equipment & Others

- 12" Wrench Adjustable Open End
- 12" Screw Driver Standard Square Bar
- 8' Screw Driver Philips Head # 2
- Hacksaw with 12" Carbide Wire Blade
- Vise Grip Pliers 10"
- 5 lb Hammer with 15" Handle
- Fire Axe Butt 24" Handle
- Wrecking Bar with 24" Handle
- 51" Crowbar Pinch Point
- Bolt Cutter with 1" To ¼" Jaw Opening
- Shovel with Pointed Blade
- Tin Snips - Double Action 8" Minimum
- Gauntlets
- Ropes 5400 lb Tensile Strength in 50' Length in Bag
- Mastic Knife
- Spring Load Center Punch
- Goggles
- Pruning Saw

- Fire Extinguisher 5kg ABC based
- AC/DC Rechargeable search light

18. **Oxygen Cylinders:**
    2 Nos. of D-type oxygen cylinders
19. **Transport Ventilator**
    Wall Mounted pneumatic transport ventilator EN 1789 certified mount suitable for adults, Children's & infants up to 10 kg.

Modes of ventilation:

- Spontaneous
- CMV
- PEEP
- Drive Source: - Compressed air/oxygen
- FIO2: 100% Oxygen & air mix mode (with approx. 45% to 100%)

Equipment should be supplied with integrated carrying bracket for ambulance mounting as well as on ambulance cot, patient circuit, driving gas hose, peep valve & breathing valve (Transport ventilator kit).

Should have airway pressure monitor & disconnect / flow pressure/high pressure alarm / battery discharge or low.

MRI Compatible

Optional: ETCO2 monitoring.

Battery back-up for at least 1 hour.

Should be European CE or US FDA certified.

EQUIPMENT FOR ALS AMBULANCE

- All equipment & accessories being used in the ambulance including those in the Oxygen Delivery System should be US Food and Drug Administration (FDA) or European CE certified (where ever mentioned in the Technical Specification & Copy of the certificate to be enclosed along with the technical bid). Wherever EN certified equipments mentioned in the technical specification, copy of certificates should be enclosed. Any wall/floor/roof mounted medical equipments to be fixed on OEM approved EN 1789 certified mounts (where ever mentioned in the Technical Specification above), must accompany with copy of individual certificates along with the technical bid & their positions should be clearly highlighted in the 3D drawings. Price list of all consumables, accessories & spares valid for a period of 2 years must be furnished along with the technical bid. (These prices will not be taken into account during the technical or financial bid evaluation) Unless specified otherwise, all the above equipment have to be supplied in ALS Ambulances. If multiple makes & models are quoted in the technical bid for any item, all makes & models must be fully compliant with the tender specifications, failing which, the technical bid shall be summarily rejected.

All the above 19 items should be able to withstand the rugged condition of the emergency usages, and should be durable, even after repeated use.

The warranty of the equipment should include free replacement of battery on as and when required basis.

Additional Requirements:

It is obvious that some minor modifications in the design and layout may be required by the user department and such changes should be incorporated in the final installation at no extra cost.

IMPORTANT NOTE FOR ALL ABOVE ITEMS:

1. Tenderer should not be black listed by any State or Central Govt. An affidavit to that effect will have to be submitted along with the tender
2. The tenderer should furnish performance bank guarantee of 10% of the total value of the tender before the supply order is issued.
3. The bidder will provide demonstration of the following equipments to the technical team at the consignee site:-
   - Syringe pump
   - Defibrillator
   - Multipara monitor
   - Ventilator
   - Automatic collapsible stretcher cum trolley.
   - Scoop stretcher.
   - Nebulizer
     (European CE/FDA certificates of the quoted model of the above mentioned items to be provided along with the tender).

   The demonstration is compulsory and that too should be within two weeks from the date of tender opening. The total cost of the demonstration will be borne by the bidder.
4. The bidder shall be responsible for satisfactory installation of all equipments in the ambulance on consignee's site.
5. In case of imported equipments, the equipments will have to be got cleared from the customs authority by the tenderer at his own expenses. Custom duty (Counter veiling duty, special additional custom duty) etc., if any, levied by the Govt. will be paid by tenderer. No demurrage charges will be paid by the indenting organization for the delay in clearance.
6. Warranty of 2 years will have to be given for equipments and for fabrication of the vehicle. **Vehicle should be Stage-IV BS, having warranty for either 2 years or 1,50,000 KM which ever is earlier.**
7. **Vehicle should be on the name of "Director PGIMS' Rohtak with temporary registration.**
8. The bidder will submit catalogue of the equipments along with the tender.
9. The firm will submit the cost of CMC for a period of 8 years after the expiry of warranty. The cost of CMC will be considered for the evaluation of the bid.
10. The evaluation will be carried out on the basis of life cycle for the tender, considering CMC cost at the time of evaluation. The quantity may be increased and decreased before order is placed.
11. 100% payment will be made within 30 days after satisfactory installation of equipments at the consignee destination.
12. In case of any complaint/ defect in the equipments during the warranty period / CMC period the firm must attend the same within 24 hours from the date of lodging of first call (i.e. the response time) and must repair the same within 72 hours and in case of delay penalty @ 0.5% of the CMC value per day up to one week and @1% of the CMC value per day for subsequent period would be applicable and no CMC would be payable for the breakdown period on pro-rata basis.

Sd/-
Sr. Professor I/c Purchase