

MINISTRY OF HEALTH & FAMILY WELFARE, GOVERNMENT OF INDIA

(Department of AYUSH)

Tender (Third Call)

For

**Package-III (Third Call-Phase-I):
Supply, installation, testing & commissioning of Hospital Beds & related items
including minor civil, electrical, PHE works etc. for All India Institute of
Ayurveda (AIIA), Sarita Vihar, New Delhi**

Volume-III

Specifications

JUNE' 2014



HSCC (INDIA) LTD.

**(CONSULTANTS & ENGINEERS FOR MEGA HOSPITALS &
LABORATORIES)**


E-6(A), sector-1, NOIDA(U.P) 201301 (India)


Phone : 0120-2542436-40



Fax : 0120-2542447


PQ tender No. HSCC/AIIA-AYUSH/Fur/2014

AIIA Sarita Vihar, Specification (Third Call)


	AIIA BOQ	Specification	Pictures are only indicative
1	<p>PATIENT BED WITH MATTRESS</p>	<p>The Bed Should be sturdy and made up of high grade Mild steel with Epoxy Powder Coated.</p> <p>The bed should have Approx (2085-2095) mm L x (1005-1015) mm W x 600 mm H with buffers. (Without Mattress).</p> <p>Bed frame size <i>Approx</i> (2000-2100)mmL x (915-925)mm W</p> <p>Two section top of 18 G thick C.R.C.A. M.S. sheets should be perforated with uniformly spaced holes in each section. Perforation should be Burr free & shouldn't have sharp edges.</p> <p>Outer top frame should be made from 60mm x 30mm x 16 G ERW M.S. rectangular tube</p> <p>The bed should have Manual adjustments : backrest with thrust bearings manouvred by a handle</p> <p>Back rest should be 45% of the total length</p> <p>Outer top frame is mainly made from 60 x30 mm x 1.6 mm Thick ERW tube shall have proper support. This frame shall be fitted on legs fitted with high quality PVC shoes with nylon reinforcement</p> <p>The Head rest and leg side shall be made up of ABS type. The bed shall have easily detachable ABS head and foot side bows. Pre- treated & epoxy powder coated shall be made from M.S. 31.7mm dia x 18 G tube.Both head and the leg bows should have one tubular horizontal support 25mm dia x 18G, M.S. ERW tube and three vertical supports of 15.80mm dia x 18G, M.S. ERW tubes. The bed should have Four corner rubber buffers.</p> <p>There shall be four locations on the bed frame to hold one stainless steel Saline rod 12mm dia shall telescope in SS socket tube 15.8 mm dia x 18G welded on angular base bracket of 14G SS sheet. Nylon bracket provided to prevent colour damage</p> <p>All MS parts are passed through Pretreatment and should be Epoxy powder coated.</p> <p>Finishing & workmanship of the medical furniture is of prime importance and must be of high standard. All corners shall be rounded off so that there shall be no sharp corners. Burr Free holes</p>	



		All Process Parameters to be as per documented IMS Procedures for Quality Assurance (CE Certified). 12mm diameter Stainless Steel Heavy Duty Rod to hold syringe pumps and IV fluid bottles with 2 hooks - 1no. The bed should be supplied with Mattress.	
2	PEDIATRIC BED	<p>The size should be 1475-1485)mm L x (835-845)mm W x 600mm H. (Without Mattress)</p> <p>Bed frame size Should be : Approx. size: (1365-1375)mm L x (755-765)mm W.</p> <p>The bed shall have a bed frame made from minimum 18 G. thickness CRCA Sheet double bent of height minimum 50 mm reinforced with two formed channels of size minimum 47mm web and minimum 24 mm flange welded inside the lengthwise frame bends.</p> <p>Widthwise the bed frame should be provided with 2 Nos. angles stiffener of minimum size 2.5 cm x 2.5 cm x 14 G. and 2 Nos. angle supports one at each head and leg end of size of 35mm x 50mmx 2mm. CRCA sheet top should be uniformly perforated at regular internal with 9.5 mm dia. Perforation & embossed to give depression downwards. Total 8 holes, 4 in each row.</p> <p>Bed fitted with full length drop side rails of height 545 mm out to out made from 19mm x 18G MS. Round tube and 14 nos. of 9.5 mm dia MS. Round tube.</p> <p>Equal size of head bow & leg bow made of 31.7 mm dia x 18G ERW MS tubes of height 1060 mm having 7 vertical stays of 9.5 mm dia round MS bars welded on one horizontal tube of 25.4 mm O.D. X 18 G tube.</p> <p>The legs fitted with high quality PVC shoes with nylon reinforcement. All MS parts are passed through 8 tank Pretreatment and should be Epoxy powder coated.</p>	
3	PATIENT BED (Semi Fowler) WITH MATTRESS	<p>Patient Bed is a fully motorised bed with Backrest, Knee rest and Height adjustment on electromechanical actuators.</p> <p>Overall Dimensions : 220cm (L) X 100cm(W). Height adjustable from 45 to 82 cms.</p> <p>Steeple's Electrical adjustment of : - Backrest :- 0 - 70 Deg. Knee rest - 0- 24 Deg. Height adjustment from 45 - 82 cm.</p> <p>4 section mattress platforms made of removable ABS plastic sections.</p> <p>All metal parts to be powder coated along with additives that prevent spread of bacteria.</p> <p>Removable Head & Foot boards of P.P plastic material with Wall thickness more than 3 mm .</p>	





		<p>Single wheel castors of 125 mm dia. Reputed make. Anti static and anti marking castors with diagonal braking. Safety covers on brakes for maintaining infection control.</p> <p>Provided with height adjustable S.S 304 steel made Infusion stand.</p> <p>Patient Hand held pendant with under bed light function to be provided.</p> <p>Patient Hand held pendant to have function to raise Backrest & Knee rest simultaneously with a retracting backrest to ease abdominal pressure on patient.</p> <p>Pull to turn side railings on both sides of bed for patient fall protection.</p> <p>Higher ground clearance of 180 mm or more.</p> <p>Safe working load - 250 Kgs or more.</p> <p>Rubber based Corner bumpers on all four corners with good shock absorbing ability</p> <p>PU foam mattress of suitable size without any cross sections. Mattress cover should be water resistant and washable. CE Certified Product.</p> <p>12mm diameter Stainless Steel Heavy Duty Rod to hold syringe pumps and IV fluid bottles with 2 hooks - 1no. The bed should be supplied with Mattress.</p>	
4	<p>PATIENT BED (Full Fowler) WITH MATTRESS</p>	<p>Patient Bed is a fully motorized bed with Backrest, Knee rest, Trendelenberg, Anti Trendelenberg and Height adjustment on electromechanical actuators.</p> <p>Overall Dimensions : 220cm (L) X 100cm(W). Height adjustable from 45 to 82 cms. Integrated bed length extension of 180mm atleast to accommodate taller patients.</p> <p>Steeple's Electrical adjustment of : - Backrest :- 0 - 70 Deg. Knee rest - 0- 24 Deg. TR/ ATR : +/- 16 Deg. Height adjustment from 45 - 82 cms.</p> <p>4 section mattress platform made of removable ABS plastic sections.</p> <p>All metal parts to be powder coated along with additives that prevent spread of bacteria.</p> <p>Removable Head & Foot boards of P.P plastic material with Wall thickness more than 3 mm .</p> <p>Single wheel castors of 125 mm dia. Reputed make. Anti static and anti marking castors with diagonal braking. Safety covers on brakes for maintaining infection control.</p> <p>Provided with height adjustable S.S 304 steel made Infusion stand.</p> <p>Provided with Nurse control panel with Function Lockouts and electrical CPR function to bring bed into flat position.</p> <p>Patient Hand held pendant with under bed light function to be</p>	



		<p>provided. Patient Hand held pendant to have function to raise Backrest & Knee rest simultaneously with a retracting backrest to ease abdominal pressure on patient. 4 side boards of plastic material with drop down mechanism for patient safety against fall. Side boards to be completely collapsible to achieve zero transfer gap while patient transfer. Side boards to have angle indicators for back raise and Tilt. Higher ground clearance of 180 mm or more. Safe working load - 250 Kgs or more. Rubber based Corner bumpers on all four corners with good shock absorbing ability PU foam mattress of suitable size without any cross sections. Mattress cover should be water resistant and washable. CE Certified Product. All MS parts are passed through Pretreatment and should be Epoxy powder coated. SS parts finished with Matt Polish. The Bed should be supplied with Mattress.</p>	
5	ICU BED	<p>The Bed Should be sturdy and made up of high grade Mild steel with Epoxy Powder Coated. The Bed Should have Overall Size: Approx (2150 – 2165) mm L x (1010-1025) mm W x (450-810)mm H (Without Mattress). The Bed Should have Platform frame size (2060-2070mm)L x (950-960)mm W The Bed Should have Mattress Platform size (1890-1900)mm L x (855-865)mm W The Bed Should Have Five section Poly Propylene detachable top fitted on four section top bed frame with transverse and raised cup designs to prevent mattress slippage and for easy breathing of mattress. The Bed Should have Backrest, knee rest and height adjustment positions operated by Electro mechanical adjustment through hand set an additional nurses' control hand set, in addition for operating and locking of above functions and shall have trendelenburg/reverse trendelenburg positions . The Bed Should have auto contour function to ensure less pressure on on abdomen and provide comfortable angle between backrest and thigh. Lower leg section should be adjusted by Ratchet Mechanism. The bed should have One touch key for converting bed into a high cardiac chair position of upto 17° on both hand set and the additional</p>	



	<p>nurses' hand set.</p> <p>The Bed should have One touch key for flattening of the bed at the lowest height for 'CPR' on the nurses' hand set</p> <p>The Bed should have One touch key for 'Emergency trendelenburg position' on the nurses' hand set.</p> <p>The Bed should have Battery backup with inbuilt battery charger.</p> <p>The hand set and the nurse hand set should have indications for power on and the battery charge.</p> <p>The Bed should have Manual pull lever on both sides of bed to quickly bring backrest to a flat position</p> <p>The Bed should have Degree indicator required on both the side for backrest, knee rest & Trendelenburg / Reverse trendelenburg positions and I V Rod provision should be on both the angle indicators.</p> <p>All electro mechanical actuators should be compatible with class of IP 54.</p> <p>Backrest and knee rest shall retract as they are individually and simultaneously raised.</p> <p>Bed frame shall be mainly made from 50x25mm x 2 mm thick ERW tube with proper support. This frame shall be fitted on the base frame mainly made of 60 x 30 x 1.6mm ERW tubes on various supporting links.</p> <p>The base frame shall be mounted on 125mm dia non-rusting twin wheel castor with central and directional locking mechanism.</p> <p>Twin wheel castors with castor housing and wheels made from high grade non floor-staining synthetic materials with integrated thread guards. Wheel centre having precision ball bearing to run smoothly.</p> <p>The bed shall have polymer moulded head & foot side panels detachable by hand without need of any tool. Four corner rubber buffers.</p> <p>Bed shall have split type swing down railings, 2 nos on each side (Head & middle section) made from polymer moulded material. These shall be fitted to the mattress support sections and should be able to raise and lock through spring lock mechanism through an operating lever. When put down, they should undergo and level with the bed frame.</p> <p>Railings shall avoid any finger and neck entrapments and comply with IEC standard 60601-2-52</p> <p>There shall be four locations on the bed to hold one stainless steel Saline rod 12mm dia with 31.7mm dia, 18G stainless steel outer covering tube with a knob to mount syringe pump.</p>	
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		<p>Built in bed extension of min 200 mm shall be provided. The bed shall have pullout linen-holder made of S.S rod. Bed should have the provision of night lamp facility. Finishing & workmanship in the medical furniture is of prime importance and must be of high standard. All corners shall be rounded off so that there shall be no sharp corners and holes, should be burr free. All Process Parameters to be as per international IMS Procedures for Quality Assurance & Bed Should be CE certified. Safe working Load should be 240 Kg. M.S. tubular parts, linkages, flats are to be In-house, pretreated, shot blasted and Epoxy powder coated as per ISI standards, 50 to 60 microns. 12mm diameter Stainless Steel SS304 Telescopic Heavy Duty I.V. Rod to hold syringe pumps and IV fluid bottles with 2 hooks - 1 no. (Stainless Steel) with provision to park when not in use. Four Section Mattress with 4" thick PU Foam of 40 Density covered with PVC Rexine</p>	
6	EXAMINATION COUCH	<p>Examination table is with gaslift adjustable backrest. - 0 to 30 deg. Overall Size:- 1950mm (L) X 620 mm (W) X 800 mm (H) Top mattress of 23mm thick PU foam mattress of 50 - 55 density. Understructure made of 1.6 mm thick ERW square MS tube. Swivel tray for BP apparatus, concealable when not in use. Provided with two top drawers for keeping general items. Drawers of volume - 510 mm X 330 mm X 90 mm Provided with single foot step of size 485 mm L X 330 mm W X 200 mm H Foot step top has texture rubber mat to aid climbing. Metal parts to be powder coated along with additives that prevent spread of bacteria. All MS parts to be Pretreated & powder coated & SS parts finished with Matt polish.</p>	
7	ATTENDANT BED	<p>The chair shall have approx overall dimension: 1850mm (L) when unfolded position x 625mm (W) without armrest x 525mm (H). Total width: 785 mm (W) with Armrest. Seat section shall have approx width of 560 mm. PU foam upholstery in three sections with approx thickness of 75mm shall have high resilience.</p>	



		<p>Backrest includes pillow, seat section and leg rest shall have approx length of 800 mm, 630 mm and 370 mm respectively. Manually operated Backrest and leg rest. Both shall be working independently that gives either chair or an attendant bed when require. Backrest shall have approx inclination of 65°. No intermediate position for backrest and footrest. Foot section shall go down in a body recess to occupy less space when folded. Two numbers of armrest, one on each side of back section. It shall have collapsible type mechanism mainly made of 19.05 x 1.2 mm square tube to add patient comforts while not in use. Strong armrest shall have 40 x 6mm MS flat support. Armrest shall have upholstery add to patient comfort. Base frame shall be mainly made of 35 x 15 x 1.2 mm ERW oval tubes with horizontal support of 50 x 25 x 2 mm rectangular tube at top and various supporting links. It shall have bottom tray with 650mm (L) x 325 mm (W) made frame 20 G CRCA sheet with uniformly spaced holes. Perforation in tray should be burr free & shouldn't have sharp edges. Backrest shall have hinged on mechanism fitted to base frame and should be able to raise and lock through spring loaded plunger on both side of back section. Hinged support for backrest is of dia 25.4 x 2 mm ERW tube. Backrest and footrest shall be mainly made of dia 25.4 x 2 mm ERW tube and have strong support underneath the individual sections mainly made of ERW oval tube 35 x 15 x 1.2 mm thick. The legs fitted with high quality PVC shoes with nylon reinforcement. All MS parts are passed through 8 tank Pre-treated & powder coated process.SS parts finished with Matt Polish. All Process Parameters to be as per international IMS Procedures for Quality Assurance & Bed Should be CE certified.</p>	
8	FOOT STEP	<p>Overall Size: 510mm Lx 300mm W x 230 mm H Step height 230 mm. Step made of 18G CRCA sheet. Welded on MS. tubular frame of 25.4mm x18G fitted with aluminum tread flats of size: 500 mm L x 32 mm W x 3.4 mm thick, fitted by aluminum pop rivet. The legs fitted with high quality PVC shoes with nylon reinforcement. All MS parts are 8 tank Pretreated & powder coated.</p>	

9	ATTENDANT STOOL	<p>MS Framework, Overall size: 300mm square 18G double bent top of MS, Height 510mm. Framework of MS press bent 25mmx25mmx14G angles and ‘C’ channels riveted to angels made from 14 G. MS. CRCA. Sheet. Legs fitted with rubber angle shoes. All MS parts should be Pretreated & powder coated & SS parts finished with Matt polish.</p>	
10	SALINE STAND	<p>Height adjustable Saline stand from 120 cm to 210 cm. SS Rod with double hooks. Tubular construction base fitted with five 50 mm dia. Non-rusting castors. Pre treated and powder coated. Working in nylon buffers SS parts finished with Matt polish.</p>	
11	Bed Side Locker	<p>Bed Side Locker has one cabinet with lock and one drawer unit with plastic moulded handle. There is a gap between the drawer unit and cabinet, to keep the general items for frequent use. Two lockable Castors are provided for easy handling Overall Dimensions- (L) 490 mm X (W) 410 mm X (H) 921mm. Telescopic ball slides are used for easy and smooth operation of the drawer. Cabinet is provided with a lock. Metal parts to be powder coated along with additives that prevent spread of bacteria. Maximum safe load: 40kg. , All MS parts are passed through Pretreatment and should be Epoxy powder coated..</p>	
12	STRETCHER TROLLY	<p>Overall approx size Should be : 2020mm L x 550mm W x 820mm H. Frame work of ERW M.S. tubular welded with vertical upright of 31.75mm OD x 18G ERW tubes, should be reinforced at bottom with 35mm OD x 18G tube for fitting. 200mm dia swivels castors wheels, all without brake. All horizontal stays shall be of 25.4mm OD x18G tube. Stretcher should be made of 18G aluminum painted sheet dished in the middle & supported horizontally on 25.4mm OD x 14G tubes.</p>	

		<p>Three additional 31.75 x 6mm flat supports should be welded to support aluminum sheet top from underneath widthwise.</p> <p>Pushing handle at both ends shall be made of 25.4mm x 18G MS ERW tube covered with PVC sleeving.</p> <p>Four stump legs of 25.4mm x 14G ERW tube shall be welded at the bottom of the removable stretcher frame and should be provided with PVC or synthetic material having Nylon reinforced.</p> <p>Finishing & workmanship in the medical furniture is of prime importance and must be of high standard. All corners shall be rounded off so that there shall be no sharp corners.</p> <p>All MS parts are passed through Pretreatment and should be Epoxy powder coated & CE Certified .</p> <p>Rexine covered 25mm thick rubber mattress for stretcher trolley</p>	
13	MEDICINE TROLLEY	<p>Overall size : Size: (675-685)mm L x (445-455)mm W x 900mm H.</p> <p>Stainless steel tubular frame work made of 25.4mm OD x 18 G verticals mounted on 125mm dia non –rusting castor two with brakes.</p> <p>Castor made from high grade non floor-staining synthetic materials with integrated thread guards. Wheel centre having precision ball bearing to run smoothly. Two stainless steel shelves of 20g thickness, with protective railings on three sides. The railing shall be made from dia 10mm S.S.rod.</p> <p>Only 304 grade stainless steel should be used for trolley frame work and burr free SS shelves.SS parts finished with Matt Polish.</p>	
14	WASHBASIN ON STAND	<p>Height 850mm suitable for 375mm SS bowl.</p> <p>M.S. tubular frame of dia 25.4 x 1.2mm tube work mounted on three 50mm dia.Non rusting castor all without brake.SS parts finished with Matt polish.</p>	
15	WHEEL CHAIR (Without folding)	<p>Wheelchair with 24inch rear mag wheels with alloy in the rim.</p> <p>Front wheels are made of PA polymer & outer part is of solid rubber.</p> <p>Arm rest are made of PU mould & base is made of ABS material.</p> <p>Seat is made of leatherite cushion seat which is rigid and durable, yet provided with a hinge in middle for folding. Hand brakes are provided.</p> <p>Handles are made of molded rubber for better grip.</p>	

		<p>Two foldable cast aluminum foot rest and two 200mm dia strong swiveling castor wheels provided in the front. All corners shall be rounded off so that there shall be no sharp corners.</p>	
16	CRASH CART	<p>Overall Size: 960 mm L x 500 mm W X 1545mm H The crash cart should have 25.4mmx18G Stainless steel tubular frame work. Two lockable plastic box units with 3 drawers should measure 305mm L x 380mm D x 320mm H. The emergency equipment cart should have the following facilities: 6 Nos. hand out bins to keep important supplies easily accessible of size approx 110 mm W x 125 mm D x 75 mm H. Light weight 2 nos plastic box with three drawers each to hold emergency medicines, ambu. bags, IV solutions, catheters, etc. separately and methodically in boxes of sizes approx - 85 mm W 85 L 50 mm H – 6 nos., - 85 mm W 175 L 50 mm H – 3 nos. and 85 mm W 255 L 50 mm H – 4 nos. Facility to carry monitors, ECG, suction apparatus on open areas at top centre and bottom shelves. Stainless steel saline rod made of 12 mm dia. 304 grade S.S. approx. 750 mm long and bent at top to have an arm of 400 mm approx. at the end of which of 6 mm dia. S.S. hook shall be welded with TIG process. Crash cart with 125mm dia non-rusting castor two with brakes and two without. Castor made from high grade non floor-staining synthetic materials with integrated thread guards. Wheel centre having precision ball bearing to run smoothly. Provided with round rubber buffer, one on each corner. Pullout cardiac massage board made of MDF of minimum size 670 x 330 x 12 mm laminated on top and bottom of laminate of 1 mm and 0.6 mm respectively. MDF shall have water resistance property and it should be made from eco friendly material. Oxygen cylinder stand epoxy powder coated, on one side. All MS parts are passed through Pretreated & powder coated process. All SS parts finished with Matt Polish.</p>	

17	MAYOS TROLLY	<p>Adjustable height of SS tray from approx 760 mm to 1270 mm. Tray size approx : 560 mm L x 400 mm W. SS tubular frame mainly made of 31.7mm dia x 18G round tube. Tray made from 0.9 mm thick S.S. 304 grade sheet. Tray frame made from 25 x 5mm, a cantilever of 10 mm dia SS 304 grade rod and SQ. bar of 16mm S.S. 304 Q mounted on four swivel, twin wheel non rusting castors, 50 mm wheel dia All without brake.SS parts finished with Matt Polish. Supplied in SKD condition.</p>	
18	KICK BUCKET	<p>Stainless steel bowl of approx.dia 375mm. SS tubular framework fitted with three 125mm dia non-rusting castor wheels, all without brake. Castor made from high grade non floor-staining synthetic materials with integrated thread guards. Wheel centre having precision ball bearing to run smoothly. Frame work made of 25.4mm dia x 18G verticals stainless steel tubes, upper ring made of rod dia 10mm S.S. rod and tubes shall be of 304 grades. SS parts finished with Matt polish.</p>	
19	DOUBLE FOOT STEP	<p>Overall Size: 510mm L x 300mm W x 230 x 450 H First step height 230 mm & second step size 450 mm. Step made of 18G CRCA sheet. Welded on MS. tubular frame of 25.4mm x18G fitted with aluminum tread flats of size: 500 mm L x 32 mm W x 3.4 mm thick, fitted by aluminum pop rivet. The legs fitted with high quality PVC shoes with nylon reinforcement. All MS parts are 8 tank Pretreated & powder coated.</p>	
20	CARDIAC OVERBED ADJUSTABLE TABLE	<p>Food Table is an Over Bed Table for Patient, Height adjustable by Gas lift. Overall Dimensions - (L) 875 mm X (W)555 mm X (H) Adjustable from 850mm to 1100mm. MDF top with membrane press gives anti scratch Property with good surface finish, Also to provide Glass Holder on to it to prevent spillage of liquids Metal parts to be powder coated along with additives that prevent spread of bacteria. Plastic handle with SS rod insert for a strong and provides the wide grip. Smooth functioning crank handle with adjustable</p>	

		<p>height and consistent motion during operation. Provided with castors for easy mobility. All MS parts are passed through 8 tank Pretreatment and should be Epoxy powder coated. All Process Parameters to be as per Quality Assurance.</p>	
21	Oxygen Cylinder trolley	<p>Trolley used for carrying Oxygen cylinder is mounted on castors for ease of movement. Overall Sizes L. - 320 mm x W. 330 mm x H. 1160 mm. Base Frame made of M.S 20 x 20 1.6 mm Rod. Oxygen cylinder trolley is mounted on castors for ease of movement Maximum safe load: 50 Kg. Sturdy base for resting the cylinder For ease of movement. All MS parts are passed through Pretreatment and should be Epoxy powder coated. All Process Parameters to be as per Quality Assurance.</p>	
22	Dressing Trolley	<p>Thin S.S. Sheet provided at the top for the placement of the instruments being used & used for easy portability. Overall Dimension: 1157 (L) mm x 525 (L) mm X 915 (H) mm. Thin S.S. Sheet, provided at the top for the placement of the instruments being used. Provided to support the entire structure. Welded with legs to provide protection at the sides. Provided to support the Bowl Ring. Welded with legs and provided to support bucket holding ring. S.S. (Buffed) to Glossy Mirror Finish S.S. SHEET - 1 mm Thin S.S. Sheet, provided at the bottom for the placement of the instruments being used. Maximum safe working load: 40 kg. All MS parts are passed through Pretreatment and should be Epoxy powder coated. All Process Parameters to be as per Quality Assurance.</p>	