

Corrigendum

“Complete Cath lab”

Tender no. 24/Cardio/212/2017-Rish(Admn)

Date 30-05-2017

As per schedule, Pre- Bid meeting of “Tender for Complete Cath Lab (turnkey basis) for Department of Cardiology.” was held on 03-05-2017 at 03.00 PM, in the tender office.

After consideration by Store Purchase Committee following modification (deletions/additions/replacements) additions for Tender Enquiry No. 24/Cardio/212/2017-RISH (ADMN) has been made.

Technical Specification at page no. 17:-

1. C-Arm/G Arm Multi Directional floor/ceiling mounted

Point no. 2.

For: All movements should be motorized with C-Arm angulations of minimum RAO/LAO +110 deg. / - 110 deg. CRAN/CAUD +45 deg. At head end position. With 20 deg. / sec. or more speed for LAO/RAO and 15 deg./sec or more speed for CRAN/CAUD.

All movements should be in 1° steps. In addition, motorized movement of the detector on the vertical axis at specified speed must be available.

Read as: All movements should be motorized with C-Arm angulations of minimum RAO/LAO +105 deg. / -105 deg. CRAN/CAUD +45 deg. At head end position. With 20 deg. / sec. or more speed for LAO/RAO and 15 deg./sec or more speed for CRAN/CAUD.

Point no. 8.

For: System should be capable of doing head to toe coverage without repositioning the patient.

Read as: System should be capable of doing head to toe coverage or facility to screen all the extremities like hands, abdomen, bilateral kidneys, neck, carotids, brain, femoral, iliac up to the knee without changing the position of the patient.

Point no. 9.

For: Facility for motorized positioning / rotation of ceiling pivot by +/- 90 degree for improved workflow and for ease of operation from both left and right side of the patient in addition to zero degree normal head end position. Patient access should be possible from either right side or left side.

Read as: Deleted

Point no. 10.

For: Gantry depth should be more than 100 cm for better groin access.

Read as: Gantry depth should be more than 89cm for better groin access.

2. Table at page no. 17:-

Point no. 7

For: Extendable arm rest both sides and Elbow guard.

Read as: Extendable arm rest both sides.

Point no. 15 at page no. 18:-

For: Maximum unobstructed overhang 125cm or more

Read as: Maximum unobstructed overhang 120cm or more

Point no. 18 at page no. 18:-

For: Resuscitation should be possible without having to retract the table back on its base

Read as: Resuscitation should be possible

Point no. 20 at page no. 18:-

For: Thermal mattress & binder for children.

Read as: Thermal mattress & binder for children in addition to one standard mattress.

4. X-Ray Tube at page no. 18:-

Point no. 1 (a)

For: X-ray tube should have secondary grid switching to reduce the soft X-ray to patient and Cardiologist/Operator.

Read as: X-ray tube should have secondary grid switching/generator switching to reduce the soft X-ray to patient and Cardiologist/Operator.

Point no. 6.

For: Maximum continuous heat dissipation rate not less than 3 kW.

Read as: Maximum continuous heat dissipation rate not less than 2.9kW.

5. Radiation Protection

Point no. 1 at page no. 18:-

For: The system must have radiation safety package like Care & Clarity, Allura clarity or equivalent for radiation safety of operator and patient.

Read as: The system must have all the latest radiation safety packages for radiation safety of operator and patient.

OPTIONAL: Price Rate of Allura clarity or equivalent radiation safety technology should be quoted separately in price bid.

7. Digital Imaging System at page no. 19:-

Point no. 2.

For : At least 3 zoom fields, the smallest being 11 cm or less

Read as: At least 3 zoom fields, the smallest being 12 cm or less

Point no. 4.

For: Pixel size not more than 200 microns. Matrix at least 1K x 1K, in 12/14-bit depth

Read as: Pixel size not more than 200 microns. Matrix at least 1K x 1K, in 10/12/14-bit depth

Point no. 8.

For: System should have capability of ECG display on the live image monitor and archive the ECG display along with angio images on CD, during the acquisition.

Read as: Deleted

Point no. 10.

For: The system should have the facility for storage of fluoroloop scene at least last 10-20 seconds or previous 450 frame once the fluoro switch is off (backward storage); unlimited and continuous forward fluoro storage facility with excellent quality of stored fluoro images. Facility for storage at high, medium or low fluoro.

Read as: The system should have the facility for storage of fluoroloop scene at least last 10-20 seconds or previous 450 frame once the fluoro switch is off (backward storage); Facility for storage at high, medium or low fluoro.

Point no. 12.

For: Dedicated Touch pad for review/zoom, play/pause, previous/next image, store/recall reference images at the table side

Read as: Dedicated Touch pad/table side control for review/zoom, play/pause, previous/next image, store/recall reference images at the table side.

Point No. 14.

For: There should be facility to enter the patient demographics from the examination room or the console room. The full system should have touch screen control at table side.

Read as: There should be facility to enter the patient demographics from the examination room or the console room. The full system should have touch screen/conventional control at table side.

Point no. 18 at page no. 20:-

For: The system should have on-line DSA of excellent quality with bolus chase facility with motorized table moment which can be manually controlled.

Read as: The system should have on-line DSA of excellent quality

Point no. 20 at page no. 20:-

For: The latest complete software and hardware for visualizing stent with extra high resolution from table side control. Should have stent enhancement tool with fade in/fade out facility with all

software, hardware, image processing tools for enhancing visualization of the stent and vessel and should be the latest and most technologically advanced version and capable of placing on a separate screen in examination room.

Read as:The latest complete software and hardware for visualizing stent with extra high resolution from table side control. Should have stent enhancement tool with fade in/fade out facility with all software, hardware, image processing tools for enhancing visualization of the stent and vessel and should be the latest and most technologically advanced version and capable of placing **on a screen** in examination room.

Point no. 21.

For: The System should be capable to do automatic dual-axis rotational Coronary angiography to gather more information with less X-ray and contrast medium dose. The system should acquire simultaneous RAO/LAO cranial-caudal views in just one acquisition run by moving the C arm in a curved trajectory around the patient instead of multiple acquisitions.

Read as: The System should be capable to do automatic **single axis** rotational Coronary angiography to gather more information with less X-ray and contrast medium dose. The system should acquire simultaneous **/single axis**RAO/LAO views in just one acquisition run by moving the C arm in a curved trajectory around the patient instead of multiple acquisitions.

OPTIONAL: Facility for up gradation to dual axis rotational coronary angiography should be there. Price of optional should be quoted separately in price bid.

8. Monitors/ Display at page no. 20:-

Point no. 2.

For: Display in exam room should be single screen 56 inch 8 megapixel or equivalent monitor to display live and reference images, patient hemodynamic monitoring, stent enhancement monitor / EP tracing, 3D image display and IVUS/ FFR imaging.

Read as: Display in exam room should be single screen 56 inch 8 megapixel or equivalent monitor to display live and reference images, patient hemodynamic monitoring, stent enhancement / EP tracing/ 3D image display/ Echo Image/IVUS/ FFR imaging, etc. It should be possible to control the layouts of screen from table side in exam room.

Point no. 3.

For: Two high resolution TFT (Preferably LED) monitors, 19 inch or more for post-processing and reporting in the control room. One high resolution medical grade TFT/LCD monitor for post-processing and reporting in the work station. Another monitor in the console room for live scenes. There should be 2 more monitor in console room for live hemodynamic monitoring & Console Monitor for patient registration.

Read as: One/Two high resolution TFT (Preferably LED) monitors, 19 inch or more for post-processing and reporting in the control room. There should be 2 more monitors in console room for live hemodynamic monitoring and for patient registration.

9. Work station and Digital Archiving

This point has been renamed as **“Image storage and distribution”**

All the technical Points under this para has been reframed as follows

“System should be supplied with 10 TB RAID image storage server and with five workstations attached to it to fetch old/current/live image data for image viewing and CD/DVD writing. Images from Cath lab should be transferred to this server automatically in background mode”. Vendor will provide fully functional all the five workstations in the designated area with all the accessories.

Rest all the things under this point have been deleted.

10.3D Acquisition and cross sectional Imaging at page no. 21:-

Read as: 3D Acquisition and cross sectional Imaging or CT-like imaging or equivalent (optional). Price should be quoted separately.

Point no. 1 (iii)

For: Rotational angiography facility at a speed of at least 55 degrees per second with acquisition frame rate of at least 25 frames per second in 1 k matrix with facility for display of subtracted and un subtracted images in the examination room. The possibility of acquiring 3D Coronary Arteriography package along with the stent enhancement package. **Stent enhancement with lumen subtraction facility will be preferred.**

Read as: Rotational Angiography facility at a speed of at least 45° per second with acquisition frame rate of at least 25 frames per second in 1 k matrix with facility for display of subtracted and un subtracted images in the examination room.

Point no. 2.

For: The facility should offer auto segmentation of ventricles / vessels of the entire heart (especially the left atrium with visualization of the pulmonary veins) in automatically performed one step.

Read as: The facility should offer auto/manual segmentation of ventricles / vessels of the entire heart (especially the left atrium with visualization of the pulmonary veins) in automatically performed one step

11. Cath lab must have in built (Integrated) latest, high end, FFR measuring capability at page no. 21:-

Additional optional point: Should be upgradable to iFR (optional). Price should be quoted separately for iFR in price bid.

12. Cath lab Recording System/Hemodynamic Recorder

Point no. 1 (b) at page no. 21:-

For: At least 2 pressures with floating inputs

Read as: At least 4 pressures with floating inputs

Point no. 1 (e)

For: Facility to measure oxygen saturation and Hb concentration

Read as: Facility to measure oxygen saturation

Point no. 1 (j)

For: Storage of ECG/pressure recording on CD

Read as: Deleted

Point no. 3 at page no. 18:-

For: 18" or more color wave monitor (TFT, Preferably LED) for patient dialog and real time waveforms with programmable layout and digital monitoring readout...Two such monitor required. One TFT monitor in examination room with ceiling suspension and one in console.

Read as: 18" or more color wave monitor (TFT, Preferably LED) for patient dialog and real time waveforms with programmable layout and digital monitoring readout...Two such monitor required.

Point no. 4 at page no. 18:-.

For: An 18" or more remote color wave form monitor, to be mounted in the examination room with video switch between patient dialog and real time waveforms

Read as: Deleted.

Point no. 7 at page no. 18:-.

For: ECG cables and reusable pressure transducers - 5 each

Read as: Radiolucent ECG Cables, complete set (5 units)

Point no. 9 at page no. 18:-.

For: One work station for off line Angio viewing and recording.

Read as: Deleted

Additional Point: The system should have inbuilt FFR/iFR system and vendor should provide all the accessories required to measure FFR/iFR including 10FFR wires.

13. Electrophysiology Laboratory System

Point no. 1.

For: Minimum of 40 bipolar Intracardiac Channels:

Read as: Minimum of 128 bipolar Intracardiac Channels:

Point No. 3.

For: Review software which can be loaded on any Laptop.

Read as: deleted

Note: E Precorder, Stimulator and Ablator should be from same vendor.

14. Portable Echo

Point no. 5 at page no 23.

For: The system has to have matrix probes

Read as: The system has to have matrix/broadband probes

Point no. 6 at page no. 23.

For: system should not weigh more than 10 kg

Read as: System should be light weight and mobile

Point no. 16 at page no 24.

For: frequency processing facility for the transducers should be 1-15 Mhz

Read as: frequency processing facility for the transducers should be 1-15 Mhz±2

Point no. 30 (iii) at page no 25.

For: 2-7 MHz Broadband Matrix multiplane Trans-esophageal Transducer with for Adult applications with Electrocautery Suppression.

Read as: 2-7 MHz Broadband/Matrix multiplane Trans-esophageal Transducer with for Adult applications with Electrocautery Suppression.

15. Echo Integration (Optional) at page no. 25:-

Read as: Echo Integration

For: Portable Echo Integration feature has to be provided to easily and efficiently integrate ultrasound into the cathlab. The Echo image should be available on the additional display. The Cathlab tableside interface (touch screen) should be used to remotely controls specific echo modes and functions

Read as: Portable Echo Integration feature has to be provided to easily and efficiently integrate ultrasound into the cathlab. The Echo image should be available on the additional display. The Cathlab tableside interface (touch screen) should be used to remotely controls specific echo modes and functions

23. Pacemaker at page no. 26:-

For: Dual chamber temporary Pacemaker (USFDA approved) (1 in no.) along with 5 compatible reusable temporary pacemaker leads

Read as: Dual chamber temporary Pacemaker (USFDA approved) (1 in no.) along with 5 compatible reusable/disposable temporary pacemaker leads

25. Anaesthesia machine with inbuilt ventilator at page no. 26:

Additional Points:

- Should have integrated/inbuilt monitor
- Facility to measure anaesthetic gases and ETCO₂ for patient safety.
- Provision for two different vaporizers (1 sevoflurane vaporizer and 1 isoflurane)
- Monitor should have RR, BP, PR, Temperature, ECG, SPO₂, IBP, NIBP, ETCO₂ and Non-invasive/minimally invasive cardiac output monitoring modules.
- Machine connectivity from cylinder pressure reducing valve and high pressure tubing for Oxygen and N₂O.
- Pipeline connectivity between Anaesthesia machine and central pipe line system.
- Patient breathing circuit 1 adult and 1 paediatric of silicon.
- Bain's circuit for adult and Ayre's T piece for paediatric.

28. Essential Accessories to be supplied

Point no. 11 at page no. 27: -

For: State of the art High Pressure Injector compatible with the machine – One (along with 5 reusable & 200 disposables, 150 ml syringes)

Read as: State of the art High Pressure Injector compatible with the machine – One (along with 200 disposable/reusable, 150 ml syringes)

Additional Point no. 17: ETO sterilizer of at least 4.5 cubic feet of reputed company should be provided along with packing material for 500 items. The ETO machine should be high quality, conforming to international standards and should be in use in more than 10 reputed hospitals like AIIMS, PGI, SGPGI, Fortis, Max hospitals, etc.

Note:

1. Total O₂ unit refrigerator should be provided as per specification asked.
2. Total one online UPS should be supplied as per specification asked.
3. The turnkey work including installation, commissioning of all the turnkey items should be completed within four months from the date of site handover or opening of LC whichever is later.

*site layout has been attached as annexure-I

The Turnkey Scope of Work-Complete Cath Lab centre

19. Furniture at page no. 33:-

For 6. q) :-Dehumidifier for cath lab room – **02 nos.**

Read as (6. q):- Dehumidifier& fumigator for cath lab – each 2 in no.

20. Miscellaneous at page no. 34:-

xviii. LED projector with wall screen – 1 No.

Additional points:

- Should offer 4 K
- Wired & Wireless (Wi-fi connection)
- Should have HDMI connection
- Should be no image lag
- 3D-compatible.
- Should offer $\geq 1,00,000: 1$ contrast ratio.
- Should have self-adjusting auto iris, & Top-notch lens.
- LED Projector should be of reputed brand & of top-of end of highest quality.
- High quality Wall Screen.

- **Note:** Last date of submission of bids in respect of aforesaid tender is hereby extended till **22-06-2017** at 03:00 PM and Technical bid will be opened on same day at 03.30 PM.