

Corrigendum-I

Bihar Medical Services and Infrastructure Corporation Limited (BMSICL) had invited E-Bids from the interested parties for the procurement, rate contract and the supply of medical equipment for different Govt. Institutions of Bihar vide Notice Inviting Tender No.- BMSICL/2025-26/ME-428. During and after Pre-bid meeting various suggestions were received from different prospective bidders regarding amendment in technical specification of equipment which were discussed and deliberated on by the experts, who after due deliberation recommended certain amendments in the technical specification of the equipment, which are annexed as Annexure-I of this corrigendum. In order to facilitate maximum participation of bidders the tender schedule is being revised as follows:-

Tender Reference No.	BMSICL/2025-26/ME-428
Last date and time of submission of online bids	07th August 2025 till 17:00 Hrs.
Last date and time of submission of original documents of EMD, Tender Fee and Document	08th August 2025 till 14:00 Hrs.
Date, Time and Place of opening of Technical Bid	08th August 2025 (at 15:00 Hrs.) on the website of https://eproc2.bihar.gov.in in the office of BMSICL
Date and time of opening of financial Bids	To be announced later on https://eproc2.bihar.gov.in

Note:-

- 1. Bidders are advised to refer to the Annexure-I of this corrigendum before submission of bid.**
- 2. Those who have submitted their bids are requested to re-submit their bids in accordance with this corrigendum.**

Annexed:- as above

**Sd/-
GM (Procurement)
BMSICL**

Annexure-I		
Name of Equipment:- High End Echocardiography Machine		
SI. No	Technical Specification as per tender	Final Amendment
	Specifications for 2D/3D Echocardiography system High-End	
1	The system must be latest generation technologically advanced Digital 2D Echocardiography system for Transthoracic adult, pediatrics, and neonatal applications and upgradeable to fetal echo.	The system must be latest generation technologically advanced Digital 3D Echocardiography system for Transthoracic adult, paediatrics, and neonatal applications and upgradeable to fetal echo, Mini TEE, 4D TTE with Wider apex. System Should have cSound/nSight Beamformer technology.
2	System must be offered with a minimum of 4 million digital processed channels. Technical data sheet should be enclosed in technical bid to support the number of channels on the systems. If not mentioned, please attach a letter from manufacturer along with the technical bid clearly stating the digital processed channels of the offered system.	System must be offered with a minimum of 7 million digital processed channels. Technical data sheet should be enclosed in technical bid to support the number of channels on the systems. If not mentioned, please attach a letter from manufacturer along with the technical bid clearly stating the digital processed channels of the offered system.
3	System must be offered with a very high dynamic range of at least 280dB to pick up subtle echoes. Dynamic range in Db must be clearly mentioned in the technical quote. System offered lesser than specified parameters will not be considered.	No Change
4	System must be offered with a minimum 21 inch High Resolution Flat Panel Medical Grade Display monitor with nearly infinite position adjustments.	No Change

5	System should have at-least four Imaging universal active probe ports with electronic switching facility from keyboard without probe adapter.	No Change
6	Operating modes B-mode, M-Mode, B/M Mode, Doppler Mode, and Colour flow, Power Doppler, DCA/DPA, Contrast Imaging, B/Colour flow, PW Doppler, CW Doppler.	No Change
7	System should support broad band probes spanning a frequency of 1-22MHz.	No Change
8	B mode & B colour simultaneous should be available side by side real time display of B-Mode & Colour flow. Digital zoom facility for region of interest in real time and frozen images.	2nd generation 4D (live 3D), matrix TEE transducer capable of supporting exceptional 4 D (live3D) Echo, 4D Zoom.
9	Image.storage facility on in build hard disc or MOD/CD/DVD-RW facility should be available. In built hard disk with minimum capacity of 500 GB. System should have extensive image management capability including thumb nail review, Cineloop editing etc.	Image. storage facility on in build hard disc or MOD/CD/DVD-RW facility should be available. In built hard disk with minimum capacity of 1 TB. System should have extensive image management capability including thumb nail review, Cineloop editing etc.
10	Cine loop as well as cine scroll facility in B mode with storage of 1500 or more images should be available. Cineloop frames should also be available for abdominal contrast applications	No Change
11	System must be offered with Speckle Reduction Imaging: Image processing technique to remove speckles and clutter artifacts.	No Change
12	Advanced measurements & calculation package for vascular and cardiac should be available.	No Change
13	System should be capable of scanning depth of 40cms. Scanning Depth should be clearly mentioned in the technical quote If not mentioned Please attach a letter from manufacturer along with the technical bid clearly stating the scanning depth of 40cms in the offered system.	System should be capable of scanning depth of 30cms. Scanning Depth should be clearly mentioned in the technical quote If not mentioned Please attach a letter from manufacturer along with the technical bid clearly stating the scanning depth of 30cms in the offered system.

14	System must be offered with an 2D frame rate of at least 1900 frames/second. Acquisition frame rate should be clearly mentioned in the technical quote If not mentioned Please attach a letter from manufacturer along with the technical bid clearly stating the frame rate of the offered system. Tissue Doppler Imaging should be min 230 fps	System must be offered with an 2D frame rate of at least 2500 frames/second. Acquisition frame rate should be clearly mentioned in the technical quote If not mentioned Please attach a letter from manufacturer along with the technical bid clearly stating the frame rate of the offered system. Tissue Doppler Imaging should be min 230 fps
15	System must be offered with 8 TGC slide pot	No Change
16	System must be offered with minimum 12-inch-high resolution user interface touch panel and dual view facility. The user should be able to view the scanned image on the touch screen while the main display is tilted towards the patient.	No Change
17	System should have THI & should be able to work in combined mode of harmonic imaging and real time compound imaging to get excellent image quality. The system shall offer Tissue Harmonic Imaging in Power Doppler imaging mode for improved sensitivity and specificity in differentiating blood/agent from tissue.	No Change
18	The system should have Contrast Harmonic Imaging and should have optimization settings to detect the Contrast Agents. Please specify other advanced Technologies to perform better Contrast Harmonic Imaging.	No Change
19	2D Quantification Tools:	
	a) Should provide region of interest analysis for contrast imaging, tissue analysis and color Doppler.	No Change
	b). Automated measurements of intima media thickness in carotids and other superficial vessels.	No Change
	c) Automated global and segmental longitudinal strain measurement.	No Change
	d) Strain quantification for measuring the myocardial velocity from Color Tissue Doppler (TDI) dataset and derive the displacement, strain and strain rate along user-defined M-Lines and overlay opening and closing of aortic and mitral valves on SQ curves to display Left Ventricle mechanical events,	No Change
	e) The system should have tools to automatically draw region of interest based on the selectec anatomical view, and generates LV Ejection Fraction (EF), End Systolic Volume (ESV) and Enc Diastolic Volume (EDV). It should also provide an in-depth report displaying areas, volumes and advanced parameters for LV systolic and diastolic function including: LV Ejection Fraction (EF), Peak Ejection Rate (PER), Peak Rapid Filling Rate (PRFR) and Atrial Filling Fraction (AFF).	No Change

	3D Quantification tools: (Online in the system and Offline workstation)	
	a)The system should provide easy access to Live 3D, 3D Zoom, Full Volume and 3D Color data sets. It should Offer viewing, cropping, slicing and quantification including distance measurements, area,Bi-plane LV Volume, Ejection Fraction (EF) and LV Mass calculations.	No Change
	b) 3DQ should also provide Multi-planar Reconstruction (MPR) views for unlimited anatomical planes from 3D volume and 3D slice generation.	No Change
	c) It should provide display dynamic three-dimensional rendering and left ventricular (LV) volumes. Multi-planar Reconstruction (MPR) views to provide unlimited anatomical planes from 3D volume. User should be able to measure LV endocardial volumes, stroke volume (SV) and frue 3D ejection fraction (EF) using a semi-automated border detection in 3D space.	No Change
	d) The system should compute global and regional LV volumes based on ACC 17-segment model. Displays global LV volume waveform should provide selective display of 17 regional volume waveforms. It should offer timing assessment for each 17 minimal regional volumes and determine a synchronicity index for all volume segments or a user-selectable group of volume segments.	No Change
	e) It should provide comprehensive report with summary of synchronicity indexes and displays regional Timing and Radial Excursion Parametric Images in bull's eye representation.	No Change
20	Cardiac Motion Quantification:	
	The system should automatically draw a region of interest based on the selected anatomical view, providing an angle-independent analysis of regional myocardial-tissue velocity, displacement, strain, and strain rate, using the speckle-tracking technology.	No Change
	It should generate measurements of the global and regional functions and reports them in a table, a 17 or 18-segment bull's eye. It should additionally compute LV Ejection Fraction (EF), End Systolic Volume (ESV) and End Diastolic Volume (EDV).	No Change
21	Mifral Valve Navigation:	
	The system should use AI to take a Live 3D volume of the Mitral Valve and turn it into an easy to interpret model in 6 guided steps-providing. access to a comprehensive list of MV measurements and calculations. The tool should guide the operator through the entire process using simple commands and clear graphics making it easy to analyze.	The system should take a Live 3D volume of the Mitral Valve and turn it into an easy to interpret model in 6 guided steps-providing. access to a comprehensive list of MV measurements and calculations. The tool should guide the operator through the entire process using simple commands and

		clear graphics making it easy to analyze.
22	Auto Strain LA &RV should be provided standard.	No Change
23	Automatic real time & frozen tracing of instantaneous peak velocity & instantaneous mean velocity (or frequency) should be available. Triplex Imaging should be standard on the system.	No Change
24. SYSTEM MUST BE THE FOLLOWING TRANSDUCERS		
1	Phased array 1-5 MHz (± 1 MHz) broadband adult Echo Transducer Matrix/Single Crystal for 2D Echo- cardiology with Bi-plane imaging to acquire two simultaneous views for increased throughput. Must have Tissue Harmonic Imaging, must attach original technical data sheet of transducer to specify the above technology used in the transducer.	Phased array 1-5 MHz (± 1 MHz) broadband adult Echo Transducer Matrix/Single Crystal for 3D/4D Echo- cardiology with Bi-plane imaging to acquire two simultaneous views for increased throughput. Must have Tissue Harmonic Imaging, must attach original technical data sheet of transducer to specify the above technology used in the transducer.
2	3-8 MHz(± 1 MHz) Pediatric Echo Transducer for Pediatric and small adult Cardiology imaging. Must have Tissue Harmonic Imaging, must have smaller footprint than the adult echo transducer. Must attach original technical data sheet of transducer to specify the above technology used in the transducer.	No Change
3	Linear Transducer 3-12MHz (± 1 MHz) for Vascular & Small Parts application.	Linear Transducer 3-12MHz (± 3 MHz) for Vascular & Small Parts application.
25 System should be supplied with the following peripheral devices:		
1	KVA ONLINE UPS.	UPS with 30 or higher min back up
2	Thermal Printer	No Change
26. The, below requirement must be quoted separately as field upgrade. (Will be considered for technical evaluation only. Not considered for L1 derivation)		
1	4-12 MHz (± 1 MHz) neonatal Echo Transducer for Pediatric and small adult Cardiology imaging. 'Must have Tissue Harmonic Imaging, must have broadband technology for excellent Image quality. Must have smaller footprint than the pediatrics echo transducer. Must attach original technical data sheet of transducer to specify the above technology used in the transducer.	No Change
2	Transesophageal 2D transducer 3 to 8 MHz (± 1 MHz) operating frequency range Electro cautery suppression with Speckle Reduction, harmonic	No Change

	imaging, M-mode, color M-mode, color flow, PW Doppler, CW Doppler for Pediatric TEE application.	
	Must have smaller footprint than the adult TEE transducer. Must attach original technical data sheet of transducer to specify the above technology used in the transducer.	No Change
3	Transesophageal 2D transducer 3 to 8 MHz (± 1 MHz) operating frequency range with Speckle Reduction, harmonic imaging, M-mode, color M-mode, color flow, PW Doppler, CW Doppler for Neonatal TEE application.	No Change
27	Mandatory certifications:	
	a) US FDA / CE (Issued by notified body)	No Change
Name of Equipment:- ECHOCARDIOGRAM (ECHO) MACHINE		
SI. No	Technical Specification as per tender	Final Amendment
1	Monitor Size should greater than 21" high resolution Flat panel medical grade.	No Change
2	System should have more than 200000 processing channels.	System should have more than 2000000 processing channels.
3	System should have dynamic range 200-250 Db	No Change
4	System should have B- flow	Deleted
5	Should have capability to scan large organ (up to 60 cm) in a stretch	Should have capability to scan large organ (up to 30 cm) in a stretch
6	Should have strain elastography.	Deleted
7	Operating modes B- mode, M-mode, B/M Mode, Doppler Mode, Color Mode, Power Doppler, DCA/DPA, B/Color flow, PW Doppler, CW	No Change
8	Should have TVI, AMM, Auto EF and Stress echo for Cardiac scanning	No Change
9	System should have the capability of processing image raw data post patient scan	No Change
10	System should have capability to compare the current scan with previous scan of the same patients? Scan follow up	No Change
11	System should have capability of real time automatic Doppler calculations	No Change
12	System should have online scan assistant	Deleted
13	System should onboard tutor for learning and enhancing the technical skill for patient scanning? Scan coach	Deleted
14	System should have DICOM 3.0 OR higher version ready for connectivity to any network ,PC in DICOM format.	No Change
15	Should have Frame rate more than 1000-1200 F/ S	No Change
16	Maximum depth of field 0-33 cm	No Change
17	Should have Digital Quard beam forming	Should have Digital beam forming/similar technology
18	Frequency Range should be 1.7 – 18 MHz	Frequency Range should be 1.7 – 18 MHz (± 2 MHz)

19	System should have USFDA / European CE (Issued by Notified body) approved model.	No Change
20	Should support following probes	No Change
a	Linear Probe 5-12 MHZ	Linear Probe 5-12 MHz (± 2 MHz)
b	Adult Cardiac Probe 2-4 MHZ.	Adult Cardiac Probe 2-4 MHz (± 2 MHz)
21 (a)	Online UPS of suitable capacity with 30 min battery back Up	No Change
(b)	Thermal printer with 10 paper rolls.	No Change
	Added:-	Paediatric Cardiac probe 2-4 MHz (± 2 MHz)