AMENDMENT – II **Dated: - 06.05.2017**

Subject: Amendment to the tender Enquiry Document.

Tender Ref: HSCC/KCGMC/Medical Equipment/2015-06/13 dated 11.04.17

Bidder are requested to note the following technical Amendments:

Item no. 1 Ultrasound Machine - Obs & Gyane

Point No	Tender Specification	Amended as
8	The machine should have digitally controlled, 19-inch Flat Panel monitor with tilt & swivel facility	The machine should have digitally controlled, **17-inch Flat Panel** monitor with tilt & swivel facility **and articulated arm**
15	Following transducers and accessorizes to be quoted as standard: • 3-12 MHz Electronic Broadband Linear Array Transducer	Following transducers and accessorizes to be quoted as standard: • **5-12 MHz** Electronic Broadband Linear Array Transducer. • **5-9 MHz Volume TVS probe for 3D/4D**

Item No. 2 Ultrasound Machine – Radiology

Point No	Tender Specification	Amended as
1	The system must be high end and should be latest **(launched after RSNA 2015)** and state of the art with fully digital technology equipment to incorporate the facility of 2D, M-Mode, CDI, PW Doppler, Power Doppler, all orgarn i.e liver thyroid and ortho etc. directional power angio, Contrast Imaging, Elastography imaging, Real time 3-D(4-D), Imaging for abdomen, obstetrics & Gynae, Cerebrovascular, peripheral vascular, adult trans-cranial & superficial parts imaging like breast, scrotum, thyroid and musculoskeletal.	The system must be high end and should be latest **(launched after RSNA 2014)** and state of the art with fully digital technology equipment to incorporate the facility of 2D, M-Mode, CDI, PW Doppler, Power Doppler, all orgarn i.e liver thyroid and ortho etc. directional power angio, Contrast Imaging, Elastography imaging, Real time 3-D(4-D), Imaging for abdomen, obstetrics & Gynae, Cerebrovascular, peripheral vascular, adult trans-cranial & superficial parts imaging like breast, scrotum, thyroid and musculoskeletal.
5	System should have at-least 4 Imaging universal active probe with electronic switching facility from key board without probe adapter and an extra parking slot would be preferable.	System should have at-least 4 Imaging universal active probe **ports (3 +1)**with electronic switching facility from key board without probe adapter and an extra parking slot would be preferable.

12	System must be offered with Speckle Reduction Imaging .Should demonstrate and show multiple transmitted line of sight in convex, linear and endocavity probes.	System must be offered with Speckle Reduction Imaging .
15	System must be offered with high resolution user interface touch panel which is minimum 11 inch.	System must be offered with high resolution user interface touch panel which is **minimum 9 inch**.
	Transducers	
2	3–(14+/-2)MHz Electronic Linear Array Transducer for Breast, Musculoskeletal, small parts and vascular imaging with capabilities of Elastography imaging. Must have Tissue Harmonic Imaging. Please mention the Elastography technology used in the transducer by attaching technical data sheet of transducer.	3–(14+/-2)MHz Electronic Linear Array Transducer for Breast, Musculoskeletal, small parts and vascular imaging with capabilities of Elastography imaging. Must have Tissue Harmonic Imaging. Please mention the Elastography technology used in the transducer by attaching technical data sheet of transducer. **Shear wave preferred.**
6	Additional requirement	**5-9 MHz volume TVS probe for 3D & 4D**
	Peripherals devices / Software	
	System should be supplied with the following peripheral devices/ Software:	System should be supplied with the following peripheral devices/ **inbuilt software in the machine:**
1	Reputed International make Thermal B/W Printer with 100 rolls of papers and colour DICOM printer is required, one with each system	Reputed International make Thermal B/W Printer with 100 rolls of papers and **colour DICOM inkjet** printer is required, one with each system.
4d	Protocol driven workflow for assessing the fetal heart data set and giving views as recommended by ISUOG Fetal Cardiac Screening Guidelines.	deleted

Item No. 3 Ultrasound Machine – Surgery

Point No	**Tender Specification**	**Amended as**
8	The machine should have digitally controlled, 19-inch Flat Panel monitor with tilt & swivel facility	The machine should have digitally controlled, **18-inch Flat Panel** monitor with tilt & swivel facility **and articulated arm.**

Item No. 4 Phaco Emulsification System

Point No	Tender Specification	Amended as
1	Fully programmable, multi processor control, peristaltic system	Fully programmable, multi processor control, peristaltic and venture pump system
2	Flat screen, color 10 inches LCD display or more with touch screen and tiltable	Flat screen, color 17 inches LCD display or more with touch screen and tiltable
3	Voice feedback for function selection	Voice or beep feedback for function selection
7	Should have the ability to drive high performance four crystal handpiece: piezoelectric, slim, and lightweight and autoclavable.	Should have the ability to drive high performance four or more crystal handpiece, should provide 2 hand piece: piezoelectric, slim, and lightweight and autoclavable.
8	Should have non-invasive optical vaccum pressure sensor	Deleted
10	Should also be compatible for phaco through 2.75 mm incision	Should also be compatible for phaco through 2.75 mm or 2.8 mm incision
12	Should have modality of hyper pulses from 0 to 100 pulses /sec with selectable variable on time, duty cycle and burst mode with variable on and off times.	Machine may have pulse, burst and continuous mode
16	Tubings should be preferably reusable and autoclavable	Tubings should be reusable and autoclavable
19	Should have the option for dynamic rise	Deleted
21	Cutter should be reusable guillotine, autoclavable	cutter may be oscillating or gullitone
25	Should preferably have IP, Intelligent energy management system	Deleted

Item No. 5 Phaco emulsification with Vitrectomy

Point No	Tender Specification	Amended as
8	The laser console should be operated from the same such as past victroctomy	The Laser should be made by the same company and may be integrated or separate and may be operated by the same same or different foot switch
9	The equipment should be USFDA and European CE approved	The equipment should be USFDA or European CE approved

Item No. 6 Operating Microscope

Point No	Tender Specification	Amended as
2	Inclinable Binocular tube with 10X or better magnification eye pieces with integrated image inverter facility	Inclinable Binocular tube with 10X or better magnification eye pieces with "integrated image inverter tube" or a third party high quality image inverter
10	Assistant microscope should be with independent 3 step magnification changer, independent fine focusing system, independent optics & inclinable binocular tube.	Assistant microscope should be with independent 3 step magnification changer, independent fine focusing system, independent optics & inclinable binocular tube.Stereo co observation tube should be provided
12	42" LED display unit	36 inches display unit has to be a full HD medical grade monitor and not a commercial TV
13	Should have Provision for attachment of wide angled non-contact viewing system (autoclavable) with aspheric lens 60D at a later a date, if required.	Should provide two high quality contact wide angle viewing lens for vitreoretinal surgery
16	Additional requirement	Online 2 KVA UPS with 2 hours of backup

Item No. 10 OPG Machine

Bidder are requested to note the following revised specification for the OPG machine:

1. Technical Specifications:

1.1 The digital panoramic X-ray unit should have option for recording panoramic radiographs and various cephalograms.
1.2 It should be free standing.
1.3 The unit must have multiple arm joints enabling complicated movements for versatile imaging geometries.
1.4 The generator should be a microprocessor controlled.
1.5 The unit should be compatible with the line voltage of 100-240V~ ±10 %, 50 or 60 Hz and line current of 8 -15A and should have a power factor corrector to compensate the mains voltage fluctuations automatically.
1.6 Low patient radiation dose, minimum of 70% reduction in patient radiation as compared to analogue X-ray film.
1.7 The unit should be fully digital control and re-programmable.
1.8 The unit should have an interactive, informative and intuitive color TFT graphic user interface for technical factors and selected programs digitally displayed and for image preview.
1.9 The unit must have a microprocessor controlled self-diagnostic control system with clear help guiding to correct use and error messages announcing hardware or software problems.

1.10 The unit should be based on concept of open positioning i.e. free view to the patient from all directions, **user friendly and patient friendly positioning system**; easy access also for wheelchair patients, and motorized patient positioning and temple supports.
1.11 The unit should have focal spot size of 0.5 x 0.5mm approximately, automatic four blade primary collimator, optimised image geometry and constant magnification (It should be adjustable form of focal trough), option for automatic compensation for the cervical vertebrae shadow.
1.12 There should be autofocus feature for making the positioning of the focal layer automatically. Also there should be option so that the user can monitor the suggested focal layer adjustment both on the control panel and on the image acquisition preview.
1.13 The unit should have **two separate inbuilt sensors**, one for panoramic imaging and one for cephalometric imaging. The sensor should be either CCD or CMOS with pixel size 40-50µm and the image pixel size should be in the range of 40 -100µm. The spatial resolution should be in the range of 5-15 line pairs/mm for panoramic images and 5–10 line pairs/mm for cephalometric images.
1.14 There should be provision of Automatic Gain Control (AGC) to produce excellent image quality regardless the patient's tissue and bone thickness and Dental Image Contrast Enhancement (DICE) option to adjust and optimize the contrast of the image automatically and to bring out image details on the entire grey scale. The imaging software should be DICOM compatible.
1.15 The system should have fully automatic and software controlled soft tissue filter, automatic alignment for cephalometry and horizontal scanning.
1.16 The imaging programs should include **various TMJ programmes along with basic panoramic programs.**
1.17 There should be an option for up-gradation of the unit to the 3D cone beam computerized tomography.
1.18 The cephalostat should have automatic alignment of radiation source, functionally designed and easy-to use head positioner, swivelling nasal support, low absorption carbon fibre ear posts, magnification scale etc.
1.19 There should be a x- ray remote control for radiological image acquisition via the exposure button from outside the x-ray room.
1.20 Computer with LCD color monitor 20 inch screen with latest central processor, DVD-RW, 500 GB HDD, 4 GB RAM and an UPS (1.5 KVA).
1.21 **Should be supplied with a movable lead shield, lead apron and thyroid collar.**
1.22 **The installation work would include all civil and electrical works and AERB approval as well**. The vendor may inspect the installation site for various civil works to be done. Board details are:

- Room Size 13 feet x 7 feet
- A Partition with Lead lining of 2 mm thickness Lead, to be constructed. This will make an OPG chamber of dimension 7 feet x 7 feet. A Door of 3 feet width & 7 feet height will be available for patient entry in OPG chamber. The door will have 2 mm Lead barrier in it. This partition wall will have lead glass of 2 feet x 2 feet. All painting and finishing , civil, electrical HVAC work inside the room will be the responsibility of the vendor.

1.23 The equipment must carry **2 years warranty and subsequently 5 years of comprehensive maintenance contract (CMC).** The price for each major part should be quoted separately.

2. Dry imager (for film printing)
2.1 The panoramic X-ray unit should be supplied with dry imager.

2.2 The dry imager should have spatial resolution of atleast 300-500ppi/dpi.
2.3 It should have contrast resolution of atleast 12 bits/pixel or more.
2.4 It should have atleastone online media size for 8" x 10" and 10" x 12" but there should be provision to upgrade into two online media sizes of 8" x 10" and 10" x 12".
2.5 Access time for first film should be less than 90 seconds.
2.6 The imager should be of DICOM compatibility.
2.7 The imager should be compatible with the line voltage of 100-240V~ ±10 %, 50 or 60 Hz and line current of 8 -15A.
2.8 There should be a monitor displaying the status of printing related information.

3. Power Supply
3.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug.
3.2 The supplier should provide a UPS along with the OPG machine and the UPS should provide a power back up for atleast 10-15 minutes for whole system.

4.Standards, Safety and Training
4.1 Should be US-FDA/ CE approved product.
4.2 Manufacturer/ Supplier should have ISO certification for quality standards.
4.3Installation and regular service and maintenance in every 3 months must be carried out through company trained / certified engineers.
4.4 Electrical safety for Panoramic x-ray unit should conforms to standards for electrical safety IEC-60601 / IS-13450
4.5The company trained / certified engineers have to train the technician and other staff members of the user department for atleast 3 days following installation of the machine.

5. Documentation
5.1 User/Technical/Maintenance manuals to be supplied in English.
5.2 List of important spare parts and accessories with their part number and costing
5.3 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineers should be clearly spelt out.

Bid sale, submission and opening date for all items has been extended as per details given in Table -1:

Table -1

Sl. No.	Description	Revised Schedule
i.	Sale date of the tender	15.05.17, 3.00 P.M.
ii.	Closing date & time for receipt of tender	15.05.17, 3.30 P.M.
iii.	Time and date of Opening of Tenders	15.05.17, 4.00 P.M.

s/d
CGM, HSCC India Limited
For and on behalf of DGMER, Panchkula