

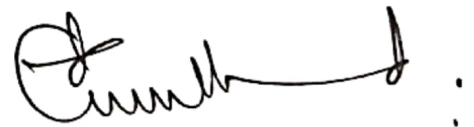
**SHEIKH ZAYED MEDICAL COLLEGE/HOSPITAL, RAHIM YAR KHAN**  
**QUOTATION NOTICE DURING FY 2021-22.**

Sheikh Zayed Hospital, Rahim Yar Khan, invites quotations for provision of following **REFURBISHED** bio medical equipments (Paediatric Echocardiography) for Paediatric Medicine Department during current FY 2021-22 from manufacturers, sole distributors and registered firms. Interested / eligible bidders may submit their quotations (technical if applicable/financial) at once to the Procurement Section of Sheikh Zayed Medical College/Hospital, R.Y.Khan, on or before the date mentioned below: -

<u>Sr. No.</u>	<u>Description</u>	<u>Item</u>	<u>Specifications</u>	<u>Qty</u>	<u>Estimated Cost</u>	<u>Opening date of quotations</u>
1.	Bio Medical Equipments for Paediatric Medicine Department	Paediatric Echocardiography	(Refurbished)	01	1.2 M	25-01-2022 (11:00 A.M)

**Note:**

- All Taxes will be applied as per Government policies.
- Amount for aforesaid items shall not be exceeded to 0.2million.
- One year warranty must require with rates.
- Quotation will be awarded to whom lowest in rates.
- For the sake of transparency in said procurement, a special committee shall be made for execution of procurement.
- The specifications of said refurbished machine are attached with advertisement in accordance with PV.
- Payment will be made out of patient welfare fund.



**(Prof. Dr. Tariq Ahmad)**

PRINCIPAL

Sheikh Zayed Medical College/Hospital

Rahim Yar Khan

<b>Clinical Specialty</b>	<b>Cardiology</b>
<b>Generic Name</b>	<b>Mobile Echocardiography Machine</b>
<b>Clinical Purpose</b>	Echocardiogram, often referred to as a cardiac echo or simply an echo, is a sonogram of the heart. Echocardiography uses standard two-dimensional, three-dimensional, and Doppler ultrasound to create images of the heart.

**TECHNICAL SPECIFICATIONS**

A complete dedicated digital Echocardiography unit for wide range of premium performance application of cardiovascular imaging in pediatrics and adult. Mobile trolley mounted system with built in workstation / data management system for digital acquisition, storage and review of complete ultrasound studies including static and dynamic clips in DICOM format, read/write zoom. Studies can be reviewed and output to CD / DVD/MOD. The machine must have sharp and high quality image reproduction with heavy duty performance. It should have minimum following

specification :

**DISPLAY:**  
High resolution 1280x 1024 non interlaced, flicker free.  
Display size Min. 19" LCD,TFT, tilt able and swiveable type.

**OPERATING MODES:**  
B, 2D M-Mode, Power Doppler, HPRF, Spectral Doppler, Color Doppler, Velocity Mode, Pw, Doppler, Duplex And Triplex Doppler, CW Doppler Steerable and ECG Gating,

**CONTROL PANEL:**  
Alphanumeric keyboard with built-in trackball.  
Direct access to system functions through dedicated keys.  
Indicator lights identify activated keys.  
Audio volume control with bidirectional / stereo speakers and foot switch  
User selectable image magnification control.  
Adjustable transmit focusing control.  
Total and Lateral Gran Compensation controls (5 or more).

**CALIPER / MEASUREMENTS :**  
6 to 8 calipers for measurement per screen trace length measurements for:  
Distance, angle, distance depth from skin line, area, circumferences, compound / volume, slope, time, heart rate and acceleration.

**APPLICATION:**  
Cardiac, Peripheral, pediatric, adult cephalic and transesophageal with all required software for measurements.

**OPERATING MODES:**  
2D tissue, 2D angio flow, color M-Mode, tissue velocity M-mode, tissue strain imaging, continuous wave Doppler, tissue m-mode, pulse wave Doppler, tissue velocity imaging, tissue tracking, tissue synchronization, blood flow imaging, blood flow angio flow imaging.

**DISPLAY MODES:**  
Live and stored display format: full size and split screen. Review image format: for still and cine,

simultaneous capability B+PW, B+ CFM/TVI+PW, CW, B+ or triplex mode, , B+ color split screen display. Tissue Imaging, 2D mode, , M-mode, color Doppler imaging, color flow imaging, color Doppler imaging, color angio, color m-mode, blood flow imaging, blood flow angio imaging, tissue velocity imaging mode/CRT evaluation tool, tissue synchronization imaging mode, PW / HPRF Doppler, CW Doppler, vascular calculations/IMT, cardiac measurements.

FRAME RATE

(machine to be quoted with Maximum available frame rate)

Min. 200fps in B-Mode and 100fps in Doppler mode.

CINE MEMORY

Min. Cine Memory for 1000 frames or 250mb min.

IMAGE VIEWING DEPTH:

20 – 280 mm or more for cardiac application

IMAGING MODES / TECHNIQUES:

Tissue harmonic Imaging, Tissue Doppler Imaging, Color Angio, Tissue Velocity Imaging  
Tissue Imaging (Display real time Doppler shift information from moving tissue to better visualize and quantify myocardial function).

Strain Imaging tools: Doppler(Doppler based as well as speckle tracking base)

Quantitative strain rate imaging; An advanced quantitative technique of Tissue

Doppler Velocity. Strain rate is a measure of the contractile motion of myocardium.

The software should have the capability to show contrast agent only, tissue only or contrast and tissue displays.

Vascular imaging software for carotids/IMT measurement.

STRESS ECHO :

Integrated multi stage stress echo system for advance and flexible stress echo Acquisition and measurement for LV B-Mode imaging.

Quantitative analysis for contrast during stress. examinations

Used with TDI protocols.

STORAGE DEVICE

Built-in CD / DVD Drive WITH 10 DISKETTES.

SYSTEM DYNAMIC RANGE

Dynamic range minimum 160 dB or more

COMMUNICATION SOFTWARE

System should conform to DICOM 3 communication software for:

Image Storage, print, Query / Retrieve, Network Communication.

Probes:

Should be light weight, capable of multiple centre frequencies on transmit for 2D, color Doppler PW/CW (Steerable) Imaging and to perform Harmonics.

PORTS:

Video Output

USB / RS 232

Networking

220-240VAC 50 Hz

Accessories:

STANDARD TRANSDUCERS:

## APPROVED PVMS

Linear Probe multi frequency to cover frequency of 6.0-8.0 MHz.  
Multi frequency Phased array sector probe to cover 2.0/2.5 – 4.0MHz.  
Multi frequency Phased array sector probe to cover 5.0 – 8.0MHz.  
CW Pencil Probe  
Online UPS for 30 min. backup time for complete unit including  
Printer.(Emerson,Liebert,Chloride,MGE & Riello)  
Digital B/W Thermal Printer with 50 rolls of papers.  
Jelly 20 L in bottles.

Optional (If any):  
Digital Color Thermal Printer with 10 Packs of 100.  
Multiplan TEE Transducer (3 – 6 MHz) for adults.  
Multiplane TEE Transducer (4 – 6 MHz) for peads