



## Notice Inviting e-Tender

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Supply and Commissioning of Bone Mineral Densitometer (BMD) Machine for Department of Geriatric at MCH, Kolkata

(Submission of Bid through *online*)

(2<sup>nd</sup> call of bid Reference No.: WBMSCL/NIT-179/2023; Dated-18.04.2023)

Bid Reference No.: WBMSCL/NIT-251/2023	Dated-16.05.2023
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### **AMENDMENT-I**

## REVISED TECHNICAL SPECIFICATION Bone Mineral Densitometer (BMD) Machine

Dual Energy X-Ray Absorptiometry (DEXA) - One Unit (216 detectors):

### 1) Scanner Hardware and Acquisition Technology

- i) Multi-Detector Array Scanning Method
- ii) 216 Multi elements High-resolution Digital Detector Array. Please specify the technology used. Or Narrow fan beam technology.
- iii) High Frequency X-ray Generator
- iv) Fan beam technology for faster acquisition
- v) X-ray System dual-energy for dual energy scanning.
- vi) Indexing Scan Table with Positioning Accessories
- vii) Dynamic Internal Reference System for Continuous Calibration
- viii) Computer Console.

### 2) Quality Assurance

- i) Automatic PASS/FAIL Quality Control
- ii) Express BMD in 10-15 Second Acquisition for spine and hip studies

- iii) Window/Level Control for Image Optimization
- iv) Express Exam Workflow Management (preferable)
- v) One Time Auto Analysis with Histogram. (preferable)
- vi) Capability to draw outline of vertebrae automatically should be available
- vii) Auto Hip Positioning capability
- viii) Reposition/Rescan Feature
- ix) Automatic Scan Comparison for Serial Exams
- x) Least Significant Change Configuration
- xi) Automatic calibration using internal reference system
- xii) Automatic quality control program with multiple-system checks.

### 3) Radiation Dose

- i) < 0.10 mGy

### 4) Clinical Applications

- i) AP Lumbar Spine with Automatic Low Density Analysis and Scoliosis Analysis
- ii) Supine Lateral Spine with Baseline Compensation
- iii) Proximal Femur, Automatic Low Density Analysis and Hip Structure Analysis (HSA) Feature
- iv) Dual Hip Feature
- v) Forearm examination feature
- vi) Whole Body BMD
  - Advanced Body Composition Analysis with Inner Core
  - Visceral Fat Assessment
- vii) IVA HD with Image Pro High Resolution Imaging Capability / equivalent technology
  - Quantitative Morphometry
  - Capability to automatically grade vertebral deformity and communicate this data directly to reporting software.
- viii) Atypical Femur Fracture Assessment (AFF) High, Resolution Imaging Capability
- ix) Analysis for Spine, Femur and Forearm
- x) Whole Body with Body Composition Assessment
- xi) Vertebral fracture assessment ( VFA)
- xii) TBS (trabecular bone score)
- xiii) Paediatric BMD software
- xiv) HIP morphometry software
- xv) Body composition

### 5) Connectivity/Reporting Tools

- i) Report with Rate of Change Assessment
- ii) FRAX 10 Year Fracture Assessment feature
- iii) Dual Hip Report capability
- iv) IVA/VFA

### 6) Reference Data

- i. Reference Data n > 18000
- ii. Default NHANES III Standardized database

iii. Age, Sex and Ethnic matched reference data

**7) Patient Weight Limit :** Minimum 150 kg

**8) Computer Hardware**

- i. Computer Workstation with Dual Core 3 GHz
- ii. Windows® 10 Professional
- iii. 19" Widescreen LCD Monitor
- iv. Colour laser printer
- v. Online 3 KVA UPS with minimum 30 minutes battery backup for the entire system including operation of DEXA machine, computer and printer.

**9) Trabecular bone scoring Software**

Vendor to supply this software to be used for bone micro architecture evaluation from bone densitometry examinations.

**10) Warranty & C-AMC**

- Standard 02 Years Warranty. This will cover all the items including DEXA (including detectors, cable and scanner components), UPS, Computers, Software and all the work done under turnkey. After the warranty over, C-AMC for next 10 years on hospital terms and conditions to be submitted by Vendor.
- Vendor will provide free of cost any .new software available for this platform in the next 10 years.

**11) Application Training**

- On site application training for 05 days

**12) Mandatory Requirement:** Offered model should be USA FDA or European CE(4 digit notified body) or BIS approved.