



NOTIFICATION

NO. SO (Stand) 1-30/2020; In pursuance of the recommendations of the notified PVMS Committees and subsequent approval of Departmental Standardization Committee (DSC), the Competent Authority has been pleased to approve the PVMS specification of ESWL Extracorporeal Shock Wave Lithotripter High End (Urology Specialty) for all the Procuring Agencies under the administrative control of SHC & ME Department.

2 The procurement process shall be carried out strictly in accordance with Punjab Procurement Rules-2014 and other relevant rules / regulations / policies.

3 Need of the Procuring Agency for items (main / optional) must be reasonably justified.

4 All Procuring Agencies (Hospitals, Medical Colleges, Universities, and Institutions) under the administrative control of the SHC&ME Department are bound to follow these PVMS Specifications. The previously notified PVMS Specifications for ESWL (Extracorporeal Shock Wave Lithotripter) - Integrated Type - are hereby repealed with immediate effect

SECRETARY
SPECIALIZED HEALTHCARE AND
MEDICAL EDUCATION DEPARTMENT

No & Date Even: -

A Copy is forwarded for information & necessary action to;

1. All VCs & Principals of Medical Health Institutions, SHC&ME Department.
2. All Superintendents of Teaching Hospitals, SHC&ME Department
3. All Head of Special Medical Institutions, SHC&ME Department
4. Director ICT Cell, SHC&ME Department, with the request to upload these PVMS Specification on the Departmental website.
5. PSO to Secretary SHC & ME Department, Lahore.
6. P.S to Special Secretary (D&R), SHC&ME Department.
7. P.A to Additional Secretary (Procurement), SHC&ME Department.

(Handwritten signature)
(ENGR. MUHAMMAD ATEEB)
SECTION OFFICER (STANDARDIZATION)

Clinical Specialty	Urology
Generic Name	EXTRACORPOREAL SHOCKWAVE LITHOTRIPTER - HIGH END
Clinical Purpose	Extracorporeal shockwave lithotripsy (ESWL) is a non-invasive treatment of kidney stones and biliary calculi (stones in the gallbladder or in the liver) using an acoustic pulse. It can also be used for salivary stones and pancreatic stones.

TECHNICAL SPECIFICATIONS

High end Shockwave Lithotripter should be capable for inter-device communication among Shockwave therapy head, C-arm and patient table.

ESWL should be capable for Endo-Urological Procedures and Unified / Integrated – Real Time Communication and Connectivity.

All its components (except Ultrasound Machine), should be supplied/manufactured by the Original Equipment Manufacturer, to optimize the performance of clinical procedures. The ESWL should be dual certified (as per bidding document) and the compatibility of ESWL components should be ensured by the ESWL manufacturer with quality certificate.

It should be capable of treating the urinary stones with other special urological applications by using outline / inline/ free line/isocentric localization system of Ultrasound and C-Arm. It should also be used for diagnostic purposes; the system should be High-End, Latest, available on the global website of the manufacturer, meeting the undermentioned specifications:

The details of the system configuration should be as below:

1. SHOCKWAVE SYSTEM

Type Shockwave generator: Electromagnetic

No. of Shockwave System: One or more

Triggering Method: Auto & Manual

Selection of Energy Variable (As per OEM specification)

Energy Density minimum 0.4 mJ/mm² or better

Energy Density Maximum 0.9 mj/mm² or more

Penetration depth of waves: Min. 170mm or more

Focal Pressure: 55 Mpa or more

Rate of Shockwaves: Variable up to 120 / minute or more

Cooling system: Water Based

Control: Touch Screen Control Panel or Remote

2. IMAGING / LOCALIZATION

Modes: C-Arm and Ultrasound

Localization system Inline /freeline localization/Outline/Isocentric

Control: Touch Screen Control Panel or Remote

Automatic Stone positioning.

a) C-Arm with FPD

Type:	Motorized isocentric C-arm
X-ray Generator:	High Frequency inverter type
Output power generator	15KW or more
Size of FPD:	21x21cm or more
Pickup Detector:	FPD
Pulsed Fluoroscope	up to 15MA or better
Digital Radiography KV	40 – 120KV
Digital Radiography MA	100MA or more
Automatic KV and MA control for optimal image quality.	
X-ray tube focal Spot	Dual 0.3 / 0.6 mm

Anode Heat Storage capacity 300KHU or more

Memory: Last Image Hold (LIH)

b) Ultrasound (DUAL CERTIFIED, as per bidding documents)

Type:	Trolley Mounted
Transducer:	Multi frequency, Convex 3.5MHz (I.O to specify)
Resolution	256 gray levels
Monitor Size	30 cm or more
Depth	24cm or more

3. DIANOSTIC C-ARM:

The C-Arm system will be used for fluoroscopy. The radiation protection measures / accessories must be provided with the system.

LCD Medical Grade (Dual) 46 cm or more

4. PROCEDURE TABLE:-

Type:	Inter-device communicable patient table motorized radiolucent for ESWL and endourology operatable with control panel on table/ Remote.
Height:	Adjustable
Movements:	Four-way movements or better
Patients positioning:	Zero position for lithotripsy applications.
Table top:	Radio translucent

Complete with relevant accessories.

Suitable for Litho & Endo urological and diagnostic procedures.

Table tilting to achieve patient positioning.

Complete with leg holders and tray.

Table should be CPR compatible

Or

In case of non-compatibility of CPR, CPR supporting Table/Stretcher must be provided to perform CPR, in case of any emergency

5. OPERATING CONSOLE:

Control:

Control of all functions must be available on the operating console / remote.

Data storage and analysis:

The data will be stored in the main computer system or on separate PC through dedicated software CD /DVD writing system or USB recording Communication

Software: DICOM

POWER BACKUP:

Compatible UPS along with batteries must be provided, capable for 30 min backup for whole system.

6. POWER REQUIREMENT: -

Voltage: Three phase / Single phase, 50Hz

7. SITE PREPARATION: -

- Bidder Will be responsible for arrangement of all installation requirements, console, Electric DB, Cable trays / trench, lead shielding, UPS Installation (for whole system), Air Conditioning for ESWL Suit, for room finishing / preparation, Water Drainage System (as per I.O. requirements)
- UPS Room, Changing Room, Washrooms and Patients sitting room to be made along with all commodities / Furniture / fittings etc (as per I.O. Requirements)
- Main Room should be suitable for endo urological procedures
- Mobility of Stretcher should be ensured
- Furniture for Console and Main Room to be provided (as per I.O. requirements)

Accessories:

- Lead Aprons and hangers (Size and Quantity as per I.O. requirements)
- Cabinets (as per I.O. requirements)

Optional (if any)

Modes: C-Arm and Ultrasound imaging both in real time.

System should be capable for Pediatric and Neonatal procedures. (Specifically for Children Institutions only)

Note:

The minor variation in specifications according to the type of source quoted by the bidders will be acceptable as per respective manufacturer standard specifications.

APPROVED PVMS 2025