



**GOVERNMENT OF THE PUNJAB  
SPECIALIZED HEALTH CARE AND MEDICAL  
EDUCATION DEPARTMENT**

**Dated Lahore, the 09<sup>th</sup> Sept, 2016**

To,

**All concerned  
(Vendors/Manufacturers/Sole Distributors of Medical Equipment  
& Machinery / Relevant committees of all Chambers of Commerce in  
Pakistan)**

**Subject: PVMS FEED BACK**

Reference SHC&ME Department Notification NO. SO (Stand) 423/2016 Dated 28.03.16. Committees of eighteen different clinical specialties were constituted to prepare a PVMS of medical equipments.

I am directed to upload the draft PVMS of Endoscopy received from the respective committee and also to append PVMS Feedback Form. Suggestions / Grievances, if any, are invited from all concerned on the appended PVMS feedback form.

In case of deviation from the given format and instructions, the received letter shall not be considered for further process.

The firm's response (Hard and Soft Copy) must reach the office of undersigned within fourteen working days from the date of placement of PVMS of medical equipment on the website of Specialized Health Care and Medical Education Department, Govt of Punjab.

**Engr.Hamayun Sarwar  
SECTION OFFICER (STANDARDIZATION)**

**NO & DATE EVEN**

Copy for information to

1. AS (Staff) to Secretary Health (SH&ME), Govt. of Punjab.
2. PS to Special Secretary Health, (SH&ME), Govt. of Punjab.
3. P.A to Procurement Specialist, (SH&ME), Govt. of Punjab.

**SECTION OFFICER (STANDARDIZATION)**

# PVMS FEED BACK FORM

Clinical Specialty:	
Equipment Name:	
Feature of Specifications to be addressed:	
<b>Sr.No</b>	<b>Suggestion / Grievances</b> ( The firm shall specify that the feedback given is a suggestion or Grievances against every submission)
1.	
2.	
Clinical Specialty:	
Equipment Name:	
Feature of Specifications to be addressed:	
<b>Sr.No</b>	<b>Suggestion / Grievances</b> ( The firm shall specify that the feedback given is a suggestion or Grievances against every submission)
1.	
2.	
Clinical Specialty:	
Equipment Name:	
Feature of Specifications to be addressed:	
<b>Sr.No</b>	<b>Suggestion / Grievances</b> ( The firm shall specify that the feedback given is a suggestion or Grievances against every submission)
1.	
2.	

**Note.**

1. Grievances of firms shall be considered on the basis of credible evidence in the form of technical data sheet / literature attached in support of its feedback, which must be self

explanatory and verifiable. Feed back without authentic technical data sheet shall straightaway be rejected.

2. Suggestions submitted by the firms must be relevant and should be based on scientific and proven clinical grounds, suggestions without having any credible technical or clinical data shall not be considered.
3. Feedback submitted other than this format shall not be considered for further process.
4. It is mandatory to provide the hard copy and softcopy of the feedback. The softcopy shall be forwarded on the email address [sectionofficerstand@gmail.com](mailto:sectionofficerstand@gmail.com) . The softcopy should be on word format.
5. Single letter will be submitted for each clinical specialty which may comprises of different equipment suggestion/ grievances. The subject of email should be in the name of relevant clinical specialty.
6. The firm may point out the items/equipment which has been missed in the process of preparation of specifications related to that clinical specialty with the proposed specifications.

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>High Definition Video Gastroscope ( Ultraslim)</b>
Clinical Purpose	To diagnose , Treat , Therapy of Oesophageal , stomach for ulcer,gastric cancer ,biliary diseases,Barret'sesophageal treatment for Peads Patients
<b>TECHNICAL SPECIFICATIONS</b>	
Ultra-Slim Video Gastro Scope with advanced technological features. Transnasal Video Gastroscope	
Field of view	140° or more
Direction of view	Forward viewing
Depth of field	4 - 100 mm or better.
Insertion tube diameter:	5.4-5.9 mm or less
Distal end diameter	5.0-5.9 mm or less
Channel inner diameter:	2.0 mm or more
Working length:	1100 mm or more
Angulations:	Up 210°, Down 90°, Right 100°, Left100° or better
Observation facility for greater contrast of blood vessels and mucosa	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>Video Gastroscope (Slim)</b>
Clinical Purpose	To diagnose , Treat , Therapy of Esophageal , stomach for ulcer,gastric cancer , Biliary Diseases,Barret'sesophageal treatment for Peads Patients
<b>TECHNICAL SPECIFICATIONS</b>	
High Definition Video Gastroscope with CCD / CMOS and advanced technological features	
Field of view	140 degree
Direction of view	Forward viewing
Depth of field	2 -100 mm or better.
Insertion tube diameter:	9.0-9.3 mm or less
Channel inner diameter:	2.8 mm or more
Bending Section:	Up 210°, Down 90°, Right 100°, Left 100° or better
Working Length:	1030 mm or more
Observation facility for greater contrast of blood vessels and mucosa.	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>High Definition Video Gastroscope (THERAPEUTIC)</b>
Clinical Purpose	For the Therapeutic, cutting, treatment, resection, and usage of electro-surgical unit and laser treatment for mucosal and submucosal dissection and diagnosis.
<b>TECHNICAL SPECIFICATIONS</b>	
Field of view:	140° or better
Direction of view	0° (Forward Viewing)
Depth of field	4 - 100 mm or better
Distal end diameter	11 mm or less
Insertion tube diameter	11 mm or less
Channel inner diameter	3.2 mm or more
Angulations:	Up 210°, Down 90°, Right 100°, Left 100° or better
Water Jet Function.	
Observation facility for greater contrast of blood vessels and mucosa	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>Video Gastroscope (Dual Channel)</b>
Clinical Purpose	Dual channel scope can be used as treatment of twin accessories at a same time, or use two different accessories at a same time, for support and resection. or for powerful suction via one channel and to use other channel as a source of treatment /therapy
<b>TECHNICAL SPECIFICATIONS</b>	
Field of view:	140°
Direction of view:	Forward viewing
Depth of field:	4 - 100 mm or better.
Distal end diameter	13.2 mm or less
Insertion tube diameter	12.8 mm or less
Working length:	1030 mm or more
Channel diameter:	2.8 mm & 3.7 mm or better
Angulations:	Up 180°, Down 90°, Right 100°, Left 100° or better
Water jet function.	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>High Definition Video Zoom Gastroscope</b>
Clinical Purpose	To Identify the mucosal layer details under magnification for Endo-Mucosal resection or to treat ulcers on minute details. Zoom scope also help to analyses the minute details of structure.
<b>TECHNICAL SPECIFICATIONS</b>	
Optical magnification for zooming mechanism.	
Direction of view:	Forward viewing
Field of view	140°
Insertion tube diameter	9.9 mm or less
Distal end diameter	10.6 mm or less
Working length	1030 mm or more
Channel inner diameter	2.8 mm or more
Bending Section:	Up 210°, Down 90 degree, Right 100°, Left 100° or better
Water Jet function.	
Observation facility for greater contrast of blood vessels and mucosa	
Accessories:	
Optional (If any):	



## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>High Definition Video Colonoscope (Slim)</b>
Clinical Purpose	Ultra Slim is a small-diameter colonoscope for use in patients with smaller anatomy, such as children and smaller women. It can also help physicians complete procedures rectum-to-cecum in patients with inflammation, obstructions, or colon strictures, such as diverticulitis and post-operative adhesions.
<b>TECHNICAL SPECIFICATIONS</b>	
Direction of view:	Forward viewing
Field of view	140° or better
Depth of field	3 - 100 mm or better
Distal end diameter	9.8 mm or less
Insertion tube diameter	10.5 mm or less
Channel inner diameter	2.8 - 3.2 mm or more
Angulations:	Up 180°, Down 160°, Right 160°, Left 160° or better
Observation facility for greater contrast of blood vessels and mucosa	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>High Definition Video Colonoscope (Therapeutic)</b>
Clinical Purpose	Therapeutic colonoscope used for the hemostasis, resection and ablation of benign and malignant disease, decompression and recanalization of obstructed or dilated bowel, as well as foreign body extraction.
<b>TECHNICAL SPECIFICATIONS</b>	
<p>CCD / CMOS Technology</p> <p>Direction of view: Forward viewing</p> <p>Field of view 140° or better</p> <p>Depth of field 2 - 100 mm</p> <p>Distal end diameter 13.2 mm or less</p> <p>Insertion tube diameter 12.8 mm or less</p> <p>Channel inner diameter 3.7 mm or more</p> <p>Angulations: Up 180°, Down 180°, Right 160°, Left 160° or better</p> <p>Water jet function.</p> <p>Observation facility for greater contrast of blood vessels and mucosa</p> <p>Gradual Stiffness / Graduated Decreasing Flexibility / RIT</p>	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>High Definition Video Colonoscope with Zooming</b>
Clinical Purpose	To Identify the mucosal layer details under magnification for Endo-Mucosal resection or to treat ulcers on minute details. Zoom scope also help to analyses the minute details of structure
<b>TECHNICAL SPECIFICATIONS</b>	
<p>CCD / CMOS Technology</p> <p>Optical magnification for Zooming mechanism.</p> <p>Direction of view: Forward viewing</p> <p>Field of view 140° or better</p> <p>Total Depth of field 4 - 100 mm or better</p> <p>Distal end diameter 13.2 mm or less</p> <p>Insertion tube diameter 13.2 mm or less</p> <p>Channel inner diameter 3.7 mm or more</p> <p>Angulations: Up 180°, Down 180°, Right 160°, Left 160° or better</p> <p>Water jet function.</p> <p>Observation facility for greater contrast of blood vessels and mucosa</p> <p>Gradual Stiffness / Graduated Decreasing Flexibility / RIT</p>	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>DUODENO VIDEO SCOPE</b>
Clinical Purpose	To diagnose and treat conditions associated with the pancreatobiliary system.
<b>TECHNICAL SPECIFICATIONS</b>	
Field of view:	100°
Direction of view	5°-10° or better(Backward Viewing)
Depth of field:	5 - 60 mm or better
Distal end diameter:	13.7 or less
Insertion tube diameter	11.6 mm or less
Working length:	1200 mm or more
Channel inner diameter:	4.2 mm
Angulation :	Up 120° Down 90° Right 105° Left 90° or better
Observation facility for greater contrast of blood vessels and mucosa.	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>ENDOSCOPIC ULTRA SOUND SYSTEM (EUS)</b>
Clinical Purpose	To diagnose sub-epithelial tumors (SETs) and extra-luminal lesions in the gastrointestinal tract.
<b>TECHNICAL SPECIFICATIONS</b>	
<p>High Resolution Digital Color Ultrasound Scanner for endoscopic Examination and Elastography.</p> <p><b>Operating modes</b> 2D. Flow mode and combination, Power Doppler, Pulse wave Doppler and B-mode,</p> <p><b>Image</b> Full / Central screen.</p> <p><b>Computing systems</b> Digital EUS system with alpha numeric keyboard and built in trackball. Freeze facility with key board or endoscope, foot switch Cine memory/frame rate of 600 or more Dynamic range 90dB / 40-100% or more High Definition Medical Grade 26" LED / LCD color monitor or larger Digital acquisition, storage and review of complete ultrasound studies built in hard disk/Internal memory the studies can be stored on to CD or DVD or USB DICOM / Endobase compatible</p> <p><b>Measurements &amp; Soft wares</b> Measurement of length angle distance area circumference velocity and volume tissue harmonic imaging echo endoscopy ultrasonography (EUS) Contrast harmonic endoscopic imaging compound imaging Elastography programmable patient data management software</p> <p><b>Digital Printer</b> Medical grade color printer with 10 boxes of paper roll of High Density Medical grade B/W printer with 20 paper rolls of high density</p>	
Accessories:	
Optional (If any):	



## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>ULTRASONIC LINEAR GASTRO VIDEO SCOPE</b>
Clinical Purpose	To Diagnosis Staging of mediastinal lymph nodes and tumors, Staging of esophageal lymph nodes and tumors, Metastatic celiac adenopathologies at esophageal tumors, Staging of pancreas tumors and lymph nodes, Observation of the malignancy of pancreas tumors, EUS assisted resection Ablation of mucosal lesions (polyps), Resection of submucosal tumors, Puncture of pancreatic pseudo cysts, Injection therapy.
<b>TECHNICAL SPECIFICATIONS</b>	
Field of View:	100° or better
Direction of View:	Forward oblique 40 or more
Distal End Diameter:	14.6 mm or less
Insertion tube:	12.8 mm or less
Instrument Channel:	3.7 mm or more
Display mode:	B-Mode. Color Doppler
Scanning method:	Curved linear Array
Scanning Direction:	Parallel/longitudinal to insertion direction
Frequency:	Multi frequency 5-10 MHz or better
Scanning Range:	120° or more
Connecting Method:	Balloon Method/direct contact
Air water valve for air and water	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>ULTRASONIC RADIAL VIDEO SCOPE</b>
Clinical Purpose	For Diagnostic use in general, no treatment, Examination of esophageal cancer ,Examination of stomach wall, stomach cancer and staging of stomach cancer, Submucosal tumors, Difficult situations at the papilla, Pancreatitis, During pull-out of the endoscope you can examine the entire stomach and stomach wall, from antrum to esophagus and nothing is missed, Observation of pancreatic duct from one side (papilla) to the other (pancreas)
<b>TECHNICAL SPECIFICATIONS</b>	
Radial echoendoscope.	
Scanning range.	360°
Direction of view	55 / forward
Insertion Tube Diameter:	12.7 mm or less
Distal End Diameter:	13.8 mm or less
Channel Diameter:	2.2-2.8 mm or more
Display Mode:	B-mode. Color Doppler
Scanning Method:	Radial Array
Frequency:	Multi Frequency 5-10 MHz
Connecting Method, Balloon Method	
Accessories:	
Optional :	
<b>Ultrasonic Probes for small duct with probe drive unit.</b>	
2.6 mm or less- 12 MHz	
2.6 mm or less - 20 MHz	



## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>SMALL INTESTINAL VIDEOSCOPE (Adult)</b>
Clinical Purpose	Scope must provide push and pull technique and EGD disease diagnosis. Device enables to carry out fast and easy ileoscopy and upper enteroscopy procedures.
<b>TECHNICAL SPECIFICATIONS</b>	
<p>Single or Double (I.O to specify) Balloon Enteroscope System            Efficient hand control &amp; automatic pressure control            Observation Range: 3-100 mm or better            Field of View: 140<sup>0</sup>            Insertion Tube Diameter: 9.3 mm or less            Distal End Diameter: 9.4 mm or less            Instrument Channel: 2.8 mm or better            Angulations: Up / Down: 180<sup>0</sup> / 180<sup>0</sup> , Right / Left: 160<sup>0</sup> /160<sup>0</sup> or better.</p> <p><b>Balloon Controller:</b>            Set Pressure of Balloon: ±5Kpa or more</p>	
Accessories: <b>10 Set of standard Accessories.</b>	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>HIGH DEFINITION VIDEO SYSTEM CENTRE (HD)</b>
Clinical Purpose	It helps in vivo diagnostic ensures faster detection, easier demarcation and characterization of gastrointestinal lesions to support improved patient outcomes.
<b>TECHNICAL SPECIFICATIONS</b>	
HD-SDI and DVI outputs HD Image Quality with 1920x1080 Resolution Programmable functions through endoscope switches White balance adjustment Automatic gain control Freeze screen display Patient data/image storage facility keyboard for data handling Capable for visual enhancement and differentiation of vessels and Capillaries.	
Accessories: Standard Accessories with Leakage Taster.	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>RECORDING SYSTEM/IMAGE CAPTURING DEVICE</b>
Clinical Purpose	To record HD Images and videos of the procedures and can be used for patients records and comparing the studies and teaching purposes
<b>TECHNICAL SPECIFICATIONS</b>	
Separate or built in medical grade digital video HD recorder with hard disc recording and 450GB capacity of built in Recording facility with 500GB Hard drive.	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>XENON LIGHT Source 300W</b>
Clinical Purpose	It enables visualization of gastrointestinal mucosal structures also contributing to clear and more detailed visualization of mucosa.
<b>TECHNICAL SPECIFICATIONS</b>	
Separate or built in advanced light Source for HD Video Scopes Average lamp life, Approx 500 hours Emergency Lamp Halogen or LED. Brightness level adjustable. High intensity mode. Air pump. Monitoring of lamp usage.	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>CO2 REGULATION/CO2 INSUFFLATOR</b>
Clinical Purpose	It provides greater visibility for improved diagnosis and polyp detection. It minimizes patient discomfort associated with bloating and cramping from room air. Reduces the number of patients that need to be seen by physician in recovery.
<b>TECHNICAL SPECIFICATIONS</b>	
For the minimization of luminal with selectable flow rate easy reliable one button start / stop operation 02 different controlled flow rate settings complete with full accessories <b>Including</b> Cylinder hose Gas Tube	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>LED / LCD HIGH DEFINITION COLOR MONITOR</b>
Clinical Purpose	To display the clinical findings.
<b>TECHNICAL SPECIFICATIONS</b>	
26" or more Medical Grade Wall mounted for teaching Aspect ratio of 16:9	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>BATTERY BACKUP</b>
Clinical Purpose	For Battery Backup.
<b>TECHNICAL SPECIFICATIONS</b>	
Built in or Separate battery backup for whole system with minimum 30 minutes battery backup.	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>WATER PUMP</b>
Clinical Purpose	Used with water jet for cleaning the lens of scope.
<b>TECHNICAL SPECIFICATIONS</b>	
Water jet / Flushing pump for scopes, compatible with all scopes.	
Accessories:	
Optional (If any):	



## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>WORKSTATION (DEDICATED for Endoscopy)</b>
Clinical Purpose	To disinfect the endoscope from viral and bacterial discontinuation and to clean for the reuse.
<b>TECHNICAL SPECIFICATIONS</b>	
Trolley based Workstation. Swivel arm for monitor. Electrical wiring with sockets and isolation transformer Sliding Keyboard shelf / tray. Drawer for storage. Placement provision of printer. Software for recording and reporting	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>ENDOSCOPIC WASHER &amp; RE-PROCESSOR (IMPORTED)</b>
Clinical Purpose	To disinfect the scope from viral and bacterial contamination.
<b>TECHNICAL SPECIFICATIONS</b>	
Automatic High Pressure Washing & Cleaning capability Free standing type Applicable scopes, Flexible endoscopes Number of reprocessed scopes • 02 at a time Number of washing basin 01/02 Cleaning time setting, 1-10 minutes Disinfection time setting 5-60 minutes Display of Parameters Compatible with quoted scopes Complete with all accessories. Ready to use	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>ENDOSCOPIC WASHER &amp; RE-PROCESSOR</b>
Clinical Purpose	To disinfect the scope from viral and bacterial contamination.
<b>TECHNICAL SPECIFICATIONS</b>	
Local Made as per standard.	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>Sucker Machine Heavy Duty</b>
Clinical Purpose	Suction machine used for the suction of debris , clinical pathologies and mucus from the abdominal part.
<b>TECHNICAL SPECIFICATIONS</b>	
Heavy duty autoclavable. Aspiration rate up to 50-60 liters/minutes at 650-900mm.Hg Vacuum continuously adjustable 10X bacterial filter Explosion proof footswitch Complete aspiration set Over flow safety device 220v/50 Hz. I Phase Noise Level should not more than 50 dB.	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>DIATHERMY MACHINE</b>
Clinical Purpose	To cut , coagulate the lesion and resect the lesion via High frequency.
<b>TECHNICAL SPECIFICATIONS</b>	
<p>Microprocessor based Solid State Electrosurgical unit Separate controls for Monopolar and bipolar coagulation</p> <p>RF power for Monopolar cutting not below 120watts</p> <p>Output Power for Monopolar cut 120Watt or better</p> <p>Output Power for Monopolar Coagulation 120Watt or better</p> <p>At least 2- blend modes</p> <p>Output Power for Bipolar coagulation 120 watt or more</p> <p>Spray coagulation 120 watt or better</p> <p>Earth free patient circuit.</p> <p>Complete with foot switch, Patient plate.</p> <p>All electrosurgical unit to conform to I.E.C-601-1 standard.</p> <p>Local trolley with imported lockable wheels.</p> <p>The system must have Automatic self-test.</p> <p>220V 50 Hz I Phase.</p> <p>The Machine must have a <b>GASTROCUT / ENDOCUT</b> Function.</p>	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>GASTROESOPHAGEAL HIGH RESOLUTION SOLID STATE MANOMETRY</b>
Clinical Purpose	To find the parameter via pressure for esophageal reflux diseases.
<b>TECHNICAL SPECIFICATIONS</b>	
<p><b>Modules:</b></p> <ul style="list-style-type: none"> <li>• Manometry Module.</li> <li>• Interface cable</li> </ul> <p><b>Trolley:</b></p> <ul style="list-style-type: none"> <li>• With computer and color Laser Printer with 24" Monitor LCD.</li> </ul> <p>Analysis Software:</p> <ul style="list-style-type: none"> <li>• Esophageal catheter with Software. 32- 36 Pressure channel Catheter with 12-16 Impedance channel.</li> <li>• Anorectal Catheter with software with Bio-feedback Pelvic floor reconstruction. 20 Plus channel for HRAM.</li> <li>• ODDI Sphincter of ODI with software and catheter. Patient database software + Ph analysis software + Impedance software</li> </ul> <p><b>Ph Monitoring:</b></p> <p><b>Ambulatory PH-RECORDER</b></p> <ul style="list-style-type: none"> <li>• Flash Card / Wirless blue tooth / USB Cable and dongle for Pc.</li> <li>• 6 or more impedance channel + 1 PH. 10 Qty.</li> <li>• 6 or more Impedance channel + 1 Ph 10 Qty.</li> </ul> <p>Complete with standard accessories.</p>	
Accessories:	
Optional (If any):	

## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>ENDOSCOPY SIMULATOR</b>
Clinical Purpose	To train end-user on the latest techniques and therapies of simulator.
<b>TECHNICAL SPECIFICATIONS</b>	
<p>Interventional simulation where virtual reality, haptics, and real patient cases push the limit of medical simulation. One simulator for both gastrointestinal and bronchial training.</p> <ul style="list-style-type: none"> <li>▪ Simulator with integrated haptic / virtual technology</li> <li>▪ Endo software</li> <li>▪ Two – 24” inch or more flat screen monitors</li> <li>▪ Simulator and monitors configured to a height adjustable rolling cart</li> <li>▪ Computer and keyboard with trackball mouse</li> <li>▪ Oral and lower GI anatomy plates</li> </ul> <p>Features</p> <p>The endoscopic simulation platform provides realistic, procedure-based content for cognitive and motor skills training. The system contains an extensive library of modules.</p> <p>Upper Gastrointestinal (GI) Tract-</p> <ul style="list-style-type: none"> <li>- Esophagogastroduodenoscopy (EGD)</li> <li>- Endoscopic retrograde cholangiopancreatography (ERCP)</li> <li>- GI bleeding</li> </ul> <p>Lower Gastrointestinal (GI) Tract</p> <ul style="list-style-type: none"> <li>- Introduction to sigmoidoscopy</li> <li>- Focuses on learning to manipulate and operate a flexible sigmoidoscope to conduct a complete examination of the colon.</li> <li>- Introduction to colonoscopy: biopsy</li> <li>- Introduction to polypectomy</li> <li>- Sigmoidpscopy</li> <li>- Colonoscopy</li> </ul> <p>Accessories:</p> <p>Optional (If any):</p>	

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<b>PVMS OF MEDICAL EQUIPMENT</b>	
Clinical Specialty	Endoscopy
Generic Name	<b>CABINET FOR SCOPE HANGING</b>
Clinical Purpose	For the proper storage of the scope so to avoid fungus infection.
<b>TECHNICAL SPECIFICATIONS</b>	
State-of-the-art Endoscope Storage and Drying Cabinets with <b>full traceability</b> for the safe storage of endoscopes.  Storage of up to 5 or 10 endoscopes Up to 31 days storage HEPA-filtered air supplied to each endoscope ensures channels are dried within 3 hours Secure mounting for endoscope control and light guide plug	
Accessories:	
Optional (If any):	



## PVMS OF MEDICAL EQUIPMENT

Clinical Specialty	Endoscopy
Generic Name	<b>COMPUTER SYSTEM FOR RECORDING AND PATIENT REPORTING</b>
Clinical Purpose	To manage the data for clinical symptoms.
<b>TECHNICAL SPECIFICATIONS</b>	
<p>Desktop Latest Computer. Core-i7 6<sup>th</sup> generation, 4GB RAM, 1T Hard Drive, USB port. 17" LCD / LED Monitor. Key Board, Mouse Trolley based Workstation. Computer trolley. Color Printer. Software for endoscopic video recording. Accessories and connecting cables from endoscopic system to computer.</p>	
Accessories:	
Optional (If any):	

As Per Notification No. SO(Stand) 423/2016, Government of The Punjab, Specialized Healthcare and Medical Education Department, Dated: 28.03.2016, following PVMS committee is hereby constituted to prepare PVMS(Product Vocabulary of Medical Store) of Health Department related to Endoscopy (Gestro-Entrology).

**Engr. Ameer Ali**  
Biomedical Engineer  
Children Hospital, Lahore  
**(Member)**

**Engr. Abid Mehboob**  
Biomedical Engineer  
COVAS/Mayo Hospital  
**(Coordinator)**

**Prof. Dr. Altaf Alam**  
Professor of Gestrology  
Sheikh Zaid Hospital, Lahore  
**(Member)**

**Prof. Dr. Arif Sidique**  
Professor of Gestrology  
Allama Iqbal Medical College, Lahore  
**(Member)**

**Prof. Dr. Ghias-un-Nabi Tayyab**  
Professor of Gestrology  
Lahore General Hospital, Lahore  
**(Member)**

**Prof. Dr. Aftab Mohsin**  
Principal  
Gujranwala Medical College, Gujranwala  
**(Convener)**