MINUTES OF THE PRE BID MEETING HELD ON 22-09-2025 AT 11:30 A.M. IN THE SYNDICATE ROOM OF THE ADMIN BLOCK IN THE CHILDREN'S HOSPITAL & UNIVERSITY OF CHILD HEALTH SCIENCES LAHORE FOR THE PROCUREMENT OF MEDICAL EQUIPMENT FOR CARDIAC SURGERY (PROJECT INITIATED BY CM PUNJAB) AT THE CHILDREN'S HOSPITAL & UCHS, LAHORE FY 2025-2026

Incompliance to letter No. P.C./51456-61/CH&UCHS dated 20-09-2025 Pre-Bid Meeting held on 22-09-2025 at 11:30 a.m. in the Syndicate room of the admin block The Children's Hospital, University of Child Health Sciences, Lahore regarding the Procurement of Medical Equipment (Re-tender Items) for cardiac surgery (Project initiated by CM Punjab) at the Children's Hospital & UCHS, Lahore for the year 2025-2026.

- Tender uploaded on E-PADS as well as at PPRA website on 15-09-2025.
- As per schedule given in invitation of bid a Pre-Bid Meeting held on 22-09-2025 at 11:30 a.m.
- Meeting started with the recitation of the Holy Quran. It was briefed to the Committee that
 pre-bid meeting scheduled to clarify the queries of the companies in order to avoid any
 misunderstanding during the bidding process. Discussion made on Bidding documents, equipment
 specifications. or any other matter which fascinate the procuring regarding the E-Pad tendering.
- The committee emphasized the importance of incorporating end-user feedback into the final specifications and bidding documents.
- A comprehensive exercise was conducted between the firm representatives and end-users and purchase department to finalize the draft specifications and bidding document.
- End-users provided valuable feedback during the exercise, ensuring that the specifications align with their requirements and usage scenarios.

Decisions were made which are as under.

Sr. No.	Query / Reservation Raised by Vendor	Decision / Clarification by Pre-Bid Committee
1	Requested to replace the 4D TEE probe to 4 D TTE probe	4D TEE probe for pediatrics is an essential requirement for pediatric and congenital procedures; therefore, the request for its waiver cannot be accepted due to critical clinical applications in Pediatric age Group.
2	Requested to split the package of Mobile Echo cardiography and High-End Mobile Echo Cardiography 4D	To ensure the broader participation this suggestion has been accepted.
3	Requested to open the region.	The committee noted that the matter falls under the policy decision of the SHC& MED and, therefore shall delt as per standard bidding Document.
4	Alpha Numeric Key with built-in track ball	An Alpha-Numeric Keypad with Trackball or Keypad both provisions are acceptable.
5.	Capable of performing 4D view (Single beat/single cycle acquisition should be available.	Capable of performing both single and multi-beats 4D view.
6.	1.Pre shipment inspection.	1. No pre-shipment inspection is required by the Procuring Agency as per rule on FOR.

Page 1 of 2

M

Har



MINUTES OF THE PRE BID MEETING HELD ON 22-09-2025 AT 11:30 A.M. IN THE SYNDICATE ROOM OF THE ADMIN BLOCK IN THE CHILDREN'S HOSPITAL & UNIVERSITY OF CHILD HEALTH SCIENCES LAHORE FOR THE PROCUREMENT OF MEDICAL EQUIPMENT FOR CARDIAC SURGERY (PROJECT INITIATED BY CM PUNJAB) AT THE CHILDREN'S HOSPITAL & UCHS, LAHORE FY 2025-2026

Sr. No.	Query / Reservation Raised by Vendor	Decision / Clarification by Pre-Bid Committee
7.	Request received regarding the relaxation in knock down criteria of DRAP registration	In order to ensure the widest possible competition, the requirement of DRAP registration has been removed. Since the case is on FOR basis, the responsibility of obtaining clearance shall rest solely with the vendor.
8.	Country of Manufacturer As per bidding document section III clause No. 3.2 The country of origin/ manufacturer mentioned in bidding documents was USA, Europe, Japan & Australia	It was accrued due to a typo error to added Australia. Now please read as: The country of Manufacturer read as USA, Europe & Japan
9.	Training of Biomedical Engineer.	Instead of conducting a two-week training program for Biomedical Engineers, it has been decided to arrange one week for High-End Echocardiography systems remaining as per original clause.
10.	Request to remove Pencil Probe to make system cost effective	Pencil probe is not required for Pediatrics patient hence the request is accepted.
	Request to switch the warranty to 3 years instead of 5 years	Keeping in the view of financial constrain it is agreed upon that the warranty of both the system was decrease to 3 years with the condition that after warranty period company is bound to provide the next 5 years post warranty service level agreement at rate of 8% of the contract price with same terms and condition of standard warranty (i.e. batteries, probes, software's along with complete system).
	clause No. 7.1 (Schedule of requirements) without recovery of late delivery charges Delivery period is 45 days or earlier (ii). With recovery of late delivery charges @ 0.067% per day	(i). As per bidding document section VII clause No. 7.1 (Schedule of requirements) without recovery of late delivery charges Please read as Delivery period is 90 days or earlier (ii). With recovery of late delivery charges @ 0.067% per day After 90 days
	(i). Mobile Echo Cardiographymachine (ii). High End Mobile Echocardiography Machine with 4D	Amended specification is attached
14.	Paediatrid Cardia Surgery Instruments as per list (Local) Qty 04 sets	Amended specification is attached

Engr. Muzamil Janjua Bio Medical Engineer/ Technical Officer (Member)

0

Dr. Syed Salman Shah Professor of Cardiovascular syrgery (Member) Engratian Haider
Bio Medical Engineer/
Technical Officer (Member)

Dr. Muhammad Asim Khan Professor/of Cardiovascular Surgery (Member) Dr. Yasir Ali AMS (Purchase) (Coordinator)

Dr. Syed Najam Haider Prof. of Paeds Card ology (Chairman)

Page 2 of 2

Serial No	1		
Estimated Cost	49,000,000	Quantity	02
Generic Name	Mobile Echocardiography Machine (Final Specification After Pre Bid)		
Clinical Purpose	ical Purpose Echocardiogram, often referred to as a cardiac echo or simply an echo sonogram of the heart. Echocardiography uses standard two-dimensional, dimensional, colour Doppler ultrasound to create images of the heart. (1/2) 1B as package)		wo-dimensional, three-

TECHNICAL SPECIFICATIONS

Vendors are required to quote Top of the line system for the said category /specifications.

- 1. A complete dedicated digital Echocardiography unit for wide range of premium performance application of cardiovascular imaging in pediatrics and adolescent.
- 2. Wheel based Mobile Trolley mounted system with user friendly Ergonomics, adjustable Height, and sideways easy maneuverability.
- 3. Built in workstation / data management system for digital acquisition, storage and review of complete cardiac ultrasound studies including static and dynamic clips in DICOM format, read / write zoom.
- 4. Studies can be reviewed, and output should be stored to CD / DVD / USB.
- 5. The machine must have sharp and high-quality image reproduction with heavy duty performance Operating Features and Characteristics:
- 6. Display Resolution: High Definition 1280 x 1024, non-interlaced, flicker free, Tilt-able and Swivelable type
- 7. Minimum Display Size: 21" or better LCD / TFT LCD / LED
- 8. Operating & Display Modes:
- a) 2D B-Mode
- b) 2D M-Mode
- c) 2D-CDI Mode
- d) 2D-CDI -Doppler Mode
- e) 2D Tissue / Mode
- f) Color M-Mode
- g) Anatomical M-Mode
- h) Spectral Doppler
- i) Color Doppler
- j) Velocity Mode
- k) Doppler (PW & CW)
- I) Duplex and Triplex Doppler

- m) CW Doppler Steerable
- n) ECG Gating
- o) PW / HPRF Doppler
- p) Tissue Harmonic Imaging
- q) Myocardial 2D Strain Imaging / Tissue Tracking (Tissue Doppler based / Speckle Tracking based)
- r) Transesophageal Echo
- s) Tissue Synchronization Imaging Mode
- t) Tissue Velocity Imaging Mode / CRT Evaluation Tool / Tissue Doppler Imaging Mode
- u) 2D Angio Flow / Power Doppler Imaging
- v) Color Flow / Color Doppler Imaging
- w) Cardiac Measurements

On Board Review Display Formats:

- 9. Live and Stored Display Format: Full size and split screen
- 10.Post Processing of images and Biometry of Stored images
- 11.Review Image Format: For still and cine, simultaneous capability B+PW, B+CFM/CDI (TVI/
- DI)+PW, CW, B+ or triplex mode, B+ color split screen display

Control Panel:

- 12. Touch Command Screen Control at least 8" or more LCD / TFT LCD / LED with Accessible Presets and Users selectable Presets with options of Modification of Preset parameters according to user
- 13. Alphanumeric keyboard with built-in trackball/Keypad.
- 14.Direct access to system functions through dedicated keys
- 15.Indicator lights identify activated keys
- 16. Audio volume control with bidirectional / stereo speakers and foot switch
- 17. User selectable image magnification control
- 18. Adjustable transmit focusing control
- 19. Time Gain Compensation controls (6 or more)

Caliper / Measurements:

20.6 to 8 calipers for measurement per screen trace length measurements for distance, angle, Distance depth from Skin Line, Area, Circumferences, Compound / Volume, Slope, Auto Doppler Calculation, Time, Heart Rate, Velocity and Acceleration / Deceleration

Application:

21. Cardiac, Peripheral, Pediatric, Adult Cephalic, Carotids, Peripheral Venous, Vascular, and

y & John

transesophageal with all required software and Hardware for measurements

Frame Rate:

Machine to be quoted with maximum available frame rate.

22. 500 f/sec or more in B-Mode and / or 190 f/sec or more in Doppler Mode

Cine-loop / Cine Memory Per Image Acquisition:

23. Minimum Cine Memory for 1,000 frames or better / 250 Mbs or better

Image Viewing Depth:

24.20 – 280 mm or more for Cardiac Application

Imaging Modes / Techniques:

- 25. 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 quantity myocardial function.)
- 26.Strain Imaging Tools: Doppler (Doppler based as well as speckle tracking base)
- 27. Quantitative Strain Rate Imaging: An advanced quantitative technique of Tissue Doppler Velocity
- 28. Strain Rate (A measure of the contractile motion of Myocardium)
- 29. The software should have the capability to show contrast agent only, tissue only or contrast and tissue displays

30.2D Strain for LV

System Requirement:

- 31. Storage Device: Built-in USB & DVD Drive
- 32. System Dynamic Range: Minimum 250 dB or more
- 33.Communication Software: System should conform to DICOM 3 communication software for Image Storage, Print, Query / Retrieve, Network Communication
- 34.Permanent Licensed DICOM 3 Communication Software must be installable on External Individual Computer

Probes:

- 35 .3 active transducers connectors for Trans-Thoracic, Transesophageal Probes and one for CW pencil Probe
- 36 .Should be light weight, capable of multiple center frequencies on transmit for 2D, color Doppler,

TDI, PW and CW (Steerable) Imaging and to perform Harmonics

Other Parameters:

37 .Operating Requirement: AC 220 V & 50 Hz

Communication:

CS CamScanner

38 .Networking DICOM Enabled: System must be compatible with Picture Archiving Communication System (PACS), Hospital Information System (HIS), Radiology. Information System (RIS).

39.Export Formats: PDF / JPEG, BMP / MPEG, AVI / Window Media, DICOM, RAW DICOM

40.The system must have provision to attach External Monitor via USB or VGA / HDMI /DVI

41. PACS, DIACOM Active (Machine having capability to communicate with the hospital system)

Accessories:

- 1. Complete with all Standard Accessories recommended by the Manufacturer
- 2. Linear Probe Multi Frequency to Cover Frequency of 4.0 15.0 MHz for Vascular access.
- 3. Multi Frequency Phased Array Sector Probe to cover 2.0 / 2.5 4.0 MHz
- 4. Multi Frequency Phased Array Sector Probe to cover 3.0 6.0 MHz / 5.0 8.0 MHz
- 5. Digital B / W Thermal Printer with 50 rolls of papers
- 6. Gel 20 L in bottles as per Manufacturer's Recommendation.
- 7. Patient Couch
- 8. Revolving Chair (High Quality for Echocardiography)
- 9. Computer system (Core i-7 with 1TB HDD), with one computer table,02 chairs.
- 10. Heavy duty Branded printer.
- 11. Online pure Sinewave UPS (Recommended by Manufacturer) with trolley for 60 mins backup time for complete unit including Printer and computer system.
- 12. Operational & Service Manual

Safety Standard:

Must conform to the requirements of ISO 13485:2016 version or above.

Note: +,- 1 MHZ frequency is considered as minor variation, All probes must be from same manufacturer.

High End Mobile Echocardiography Machine with 4D (Final Specs After

Prebid)

Generic Name:

4D Echocardiography is an advanced machine which make it possible to view the moving picture of 3D echocardiogram

TECHNICAL SPECIFIACTION:

The high-end machine is defined as the one which has all the latest modalities of Cardiac Echocardiography capabilities defined by the leading International Echocardiography societies. This quoted model for the Echocardiography Machine must be latest and Top End / Top of the Line for the said category / specifications.

- 1. A complete dedicated digital Echocardiography unit for wide range of premium performance application of cardiovascular imaging in pediatrics and adolescents.
- 2. Wheel based Mobile Trolley mounted system with user friendly Ergonomics, adjustable Height, and sideways easy maneuverability
- Built in workstation / data management system for digital acquisition, storage and review of complete cardiac ultrasound studies including static and dynamic clips in DICOM format, read / write zoom.
- 4. Studies can be reviewed, and output should be stored to CD / DVD / USB
- 5. The machine must have sharp and high-quality image reproduction with heavy duty performance Operating Features and Characteristics:
- 6. Display Resolution: Full High Definition 1920 × 1080, non-interlaced, flicker free, Tiltable, and Swivel-able type

Minimum Display Size: 21" or better LCD / LED / OLED

- 8. Operating & Display Modes:
- a) 2D B-Mode
- b) 2D M-Mode
- c) 4D Scan Mode
- d) 2D-CDI Mode
- e) 2D-CDI -Doppler Mode
- f) 2D Tissue / Mode
- g) Color M-Mode
- h) Anatomical M-Mode
- i) Spectral Doppler
- j) Color Doppler

July July

- k) Velocity Mode
- I) Doppler (PW & CW)
- m) Duplex and Triplex Doppler
- n) CW Doppler Steerable
- o) ECG Gating
- p) Capable of Performing both single & multi beats 4D View (Single Beat / Single Cycle acquisition should be available)
- q) Capability to perform 4D view with real time color flow with Transesophageal Echocardiography
- (TEE) and Transthoracic Echocardiography (TTE)
- r) PW / HPRF Doppler
- s) Tissue Harmonic Imaging
- t) Myocardial 2D Strain Imaging / Tissue Tracking (Tissue Doppler based / Speckle Tracking based)
- u) Transesophageal Echo
- v) Tissue Synchronization Imaging Mode
- w) Tissue Velocity Imaging Mode / CRT Evaluation Tool / Tissue Doppler Imaging Mode
- x) 2D Angio Flow / Power Doppler Imaging
- y) Color Flow / Color Doppler Imaging
- z) Cardiac Measurements
- aa) Multi Slice View Imaging
- bb) Board Review Display Formats:
- 9. Live and Stored Display Format: Full size and split screen
- 10.Post Processing of images and Biometry of Stored images
- 11. Review Image Format: For still and cine, simultaneous capability B+PW, B+ CFM / CDI (TVI
- /TDI)+PW, CW, B+ or triplex mode, B+ color split screen display

Control Panel:

- 12. Preferably Touch Command Screen Control at least 10" or more LCD / TFT LCD / LED
- 13. Alphanumeric keyboard with built-in trackball/Keypad.
- 14. Direct access to system functions through dedicated keys.
- 15.Indicator lights identify activated keys
- 16. Audio volume control with bidirectional / stereo speakers and foot switch
- 17.User selectable image magnification control
- 18. Adjustable transmit focusing control
- 19. Time Gain Compensation controls (6 or more)

J. Ju

20. Total and / or Lateral Gain Compensation controls (6 or more)

Caliper / Measurements:

21.6 to 8 calipers for measurement per screen trace length measurements for distance, angle, distance depth from Skin Line, Area, Circumferences, Compound / Volume, Slope, Auto Doppler Calculation, Time, Heart Rate, Velocity and Acceleration / Deceleration

22.Artificial Intelligence (Knowledge Based) / Auto Measurements for 2D, 3D / 4D (Diameters, Areas, and M-Mode Based / Volumetric Ejection Fraction (EF) Calculations) and Doppler Spectrum recognition should be available

Application:

23. Cardiac, Peripheral, Paediatric, Adult Cephalic, Carotids, Peripheral Venous, vascular, Transesophageal, and 4-D Echo with all required software for measurements (Including 4D Image Enhancement Software) (A software and hardware which helps to view acquire high volume rates the 4D images in a better way and more depth creating contrasts and shadows)

Frame Rate:

Machine to be quoted with maximum available frame rate.

24.2,000 f/sec or more in B-Mode and / or 400 f/sec in Doppler mode

Cine-loop / Cine Memory Per Image Acquisition:

25.Minimum Cine Memory for 4,000 frames or 800 Mb or 60 seconds or better Image Viewing Depth:

26.20 - 280 mm or more for Cardiac Application

Imaging Modes / Techniques:

27. 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 quantity myocardial function.)

28.Capability to display time difference in myocardial motion in color for CRT (Cardiac Resynchronization Therapy)

29. Quantitative Strain Rate Imaging (Doppler & Speckle Tracking Rate): An advanced quantitative technique of Tissue Doppler Velocity of all chambers

30.4D Quantifications as per need(Specialized 3D /4D quantification tools for congenital & structural heart disease, Stores be offered auto 4D Image acquisition).

31. Strain Rate (A measure of the contractile motion of mayocardium)

33. Contrast Harmonic Imaging capability

I dela

System Requirement:

- 33. Storage Device: Built-in USB / CD / DVD Drive
- 34. Dynamic Range: Minimum 280 dB or more
- 35. Communication Software: System should conform to DICOM 3 communication software for Image Storage, print, Query/Retrieve, Network Communication.
- 36. Permanent Licensed DICOM 3 Communication Software must be installable on External Individual Computer

Probes:

- 37.4 active transducers connectors for Trans-Thoracic, Transesophageal Probes. and one for CW Peneil Probes.
- 38. Should be light weight, capable of multiple center frequencies on transmit for 2D / 4D, Color Doppler PW, CW (Steerable) Imaging and to perform Harmonics.

Other Parameters:

- 39. Operating Requirement: AC 220 V & 50 Hz
- 40.Communication:
- 41.Networking DICOM Enabled: System must be compatible with Picture Archiving & Communication System (PACS) / Hospital Information System (HIS) / Radiology Information System (RIS) (The Procuring Agency and End-user to decide)
- 42. Export Formats: PDF / JPEG, BMP / MPEG, AVI / Window Media, DICOM, RAW DICOM
- 43. The system must have provision to attach External Monitor via USB or VGA / HDMI/DVI.
- 44. High End foreign service training of 01 Biomedical Engineer for One week
- 45. PACS, DIACOM Active (Machine having capability to communicate with the hospital system)

Accessories:

Complete with all Standard Accessories recommended by the Manufacturer.

- 1. Multi Frequency Phased Array Sector Probe to cover 2.0 / 2.5 4.0 MHz for Adolescents (Single Crystal / Matrix).
- 2.Multi Frequency Phased Array Sector Probe to Cover 5.0 8.0 MHz for Paeds
- 3.4D TEE Probe for Paeds (Single Crystal / Matrix)
- 4.4D TEE Probe for Adult (Single Crystal / Matrix)
- 5. Digital B / W Thermal Printer with 100 rolls of papers
- 6.Gel 20 L in bottles as per Manufacturer's Recommendation
- 7. Online pure Sinewave UPS (Recommended by Manufacturer) with trolley safe for Operation for 60 mins backup time for complete unit including Printer and computer system.

- 8. Patient Couch
- 9. Revolving Chair (High Quality for Echocardiography)
- 10. Computer system (Core i-7 with 1TB HDD), with One computer table, Two chairs.
- 11. Heavy duty Branded printer.
- 12. Digital Color Thermal Printer with 10 Packs of 100 Sheets
- 13. Offline workstation with provision to fascilate all feature as per system along with the original license from manufacturer for life time.
- 14. Operational & Service Manual.

Warranty:

03 year comprehensive warranty including probes and all third party equipment including Batteries, probes, software's along with complete system.

Safety Standard:

Must conform to the requirements of ISO 13485:2016 version or above.

Note: +,- 1 MHZ frequency is considered as minor variation, All probes must be from same manufacturer

LIST OF ONE SET SURGICAL INSTRUMENTS FOR PEDIATRIC CARDIAC SURGERY

1	ITEMS	DEMANI
	SPONGE HOLDERS 9 1/2"	2
2	LUNG HOLDING FORCEPS 7 1/2"	2
3	LUNG RETRACTOR 10"	1
4	CHEST SPREADER (SMALL)	1
5	CHEST SPREADER (MEDIUM)	1
6	DEBAKEY FORCEPS 7 1/2"	3
7	DEBAKEY FORCEPS 7 1/2"	3
8	DEBAKEY FORCEPS 8"	3
9	NEEDLE HOLDER 5" DIAMOND BUST	3
10	NEEDLE HOLDER 6" DIAMOND BUST	3
11	NEEDLE HOLDER 8" DIAMOND BUST	3
12	TOP END RETRACTOR 7"	1
13	NERVE HOOK (SMALL)	2
14	RIGHT ANGLE RETRACTOR (SMALL)	2
15	RIGHT ANGLE RETRACTOR (LARGE)	2
16	US ARMY NAVY RETRACTOR	2
17	TOWEL CLIPS 13CM	10
18	WIRE CUTTER 7" CVD	2
19	WIRE TWISTER 7"HEAVY	2
20	MAYO SCISSORS 8" CVD	2
21	METZENBAUM SCISSORS 7" CVD	2
22	POITNING SCISSORS (SMALL) 5"	111
23	POITNING SCISSORS (MEDIUM) 7"	1
24	POITNING SCISSORS (LARGE) 8"	1
25	ALLIS TISSUE FORCEPS 6"	10
26	TUBING CLAMPS (LARGE) 7"	10
27	KOCHER FORCEPS STRAIGHT 6"	12
28	ARTERY FORCEPS CURVED 5" MOSQUITO	60
29	ARTERY FORCEPS CURVED 10CM MOSQUITO	50
30	ARTERY FORCEPS CURVED 12CM MOSQUITO	10
31	KNIFE HANDLE No. 3, (6 INCH)	2
32	KNIFE HANDLE No. 7, (6 INCH)	2
33	SUCTION YANKAUER SMALL	2
34	ROBERTS CLAMPS 8"	4
	SAMSY FORCEPS LARGE 8"	2
36	SAMSY FORCEPS MEDIUM 7" FINE	2
	CHEST SPREADER 4 BLADES, 5" BLADE	2
	UNIVERSAL SCISSORS (SMALL) 7" TC	2
	UNIVERSAL SCISSORS (LARGE) 9" TC	2
	STERNUM SCISSORS (LARGE) 8"	2
	STERNUM SCISSORS (MEDIUM) 7"	2
	LIGA CLIP APPLICATOR (SMALL)	2
	LIGA CLIP APPLICATOR (MEDIUM)	2

Sr. No.	ITEMS	DEMAND
44	LIGA CLIP APPLICATOR (LARGE)	2
45	KIDNEY TRAY (12 INCH)	2
46	KIDNEY TRAY (16 INCH)	2
47	BOWEL (4 INCH)	4
48	INSTRUMENT HANGER CLIPS LARGE	10
49	INSTRUMENTS BOX (LARGE)	1
50	INSTRUMENTS TROLLEY S.S.	5
	FINE INSTRUMENTS	
51	CASTRO NEEDLE HOLDER 5/0 2MM TIP W/LOCK ROUND HANDLE DIAMOND DUST 8"	4
52	CASTRO NEEDLE HOLDER 6/0 LOCK ROUND HANDLE DIAMOND DUST 8"	2
53	CASTRO NEEDLE HOLDER 7/0 LOCK ROUND HANDLE DIAMOND DUST 8"	2
54	VASCULAR CLAMPS CURVED 8"	2
55	VASCULAR CLAMPS CURVED 6"	2
56	C CLAMPS 4 1/2"	2
57	DEBAKEY FORCEPS FINE ROUND HANDLE 8"	2
58	CROSS CLAMP (MEDIUM) 3 1/2"	2
59	CROSS CLAMP (LARGE) 6"	2
60	POTTS SCISSORS (FORWARD) 25°, 7"	4
61	POTTS SCISSORS (BACKWARD) 125°, 7"	2
62	FINE HOOK 7"	2
63	BULLDOG FORCEPS STRAIGHT 6CM	4
64	BULLDOG FORCEPS CURVED 6CM	4
65	RIGHT ANGLE RETRACTOR FINE 7"	2
66	VEIN RETRACTOR 9"	2

Man de la companya della companya de