



الرقم: ش ٤٣/٢٠٢٤/٥٠٠
التاريخ: ١٤٤٥ / /
٢٠٢٤ / / ١٣

السادة : المناقصون
الموضوع : تمديد موعد اغلاق

تحية وبعد ،،،

- اشارة الى : العطاء رقم ش ٤٣/٢٠٢٤/٥٠٠

- مرفق طيه صورة عن محضر اجتماع لجنة مواصفات العطاء بخصوص التعديل على بعض مواصفات و شروط العطاء اعلاه علماً بأنه تم تمديد موعد اغلاق العطاء اعلاه ليصبح الساعة الواحدة من بعد ظهر يوم الاربعاء الموافق ١٠/٧/٢٠٢٤.

- لاجراء اتكم لطفاً .

وتفضلوا بقبول فائق الاحترام

ع / العميد الطبيب
مدير عام الخدمات الطبية الملكية
عقيد صيدلاني علاء الدين خالد أبو رمان

- مطلوب تدريب خارجي لمهندس طبي او فني اجهزة طبية عدد (1) لكامل العطاء .

- بخصوص المواصفة رقم (2d) تعدل لتصبح :

The fetal monitor shall provide digital values and graphical trends for FHR and UA.

بدلا من :

The fetal monitor shall provide digital values and graphical trends for FHR and UA on an LCD touchscreen of size not less than 5.7"

- توضيح بخصوص (Attachment 1) : المواد المطلوبة غير منطبقة على الشرط رقم (٨) من الشروط الخاصة و بالتالي يطلب عليها كفاءة صيانة و تركيب و تشغيل .

• تمديد فترة اغلاق العطاء مدة اسبوعين .

• لا تعديل على باقي المواصفات و الشروط الخاصة .



JORDAN ARMED FORCES

The DIRECTORATE OF ROYAL MEDICAL SERVICES
THE INSTITUTE OF BIOMEDICAL TECHNOLOGY



Item 1	Fetal Monitor (CTG)	Qty. (Fetal Monitor:12) Qty. (Central Station:1)
--------	---------------------	--

IMPORTANT NOTE:

Vendors are required to fill out the product details, compliance information, and brochure reference page number in the columns below

TECHNICAL SPECIFICATIONS:

The unit must meet or exceed the requirements listed in the table below.

Product Details	
Name of Manufacturer	
Model/ catalogue number	
Country of Origin for the offered model	
Country where the manufacturer is based	
Delivery time	
Full warranty period	
FDA clearance OR CE Mark	

	Minimum Requirements	Compliance (Y/N), Notes	Brochure Page No.
1	Durable & heavy duty from a reputable well known manufacturer; The committee has the right to request for a sample of the same offered model at any time during the purchasing process, the sample unit shall be delivered within three weeks from the date of a written notification, any vendor rejects to deliver a sample unit will be eliminated		
2	Fetal monitors		
	a-Each fetal monitor shall be capable of detecting displaying, and printing a record of fetal heart rate (single & twin) and uterine activity		
	b-Capability to monitor and display maternal heart rate, non-invasive blood pressure & SPO ₂		

Handwritten signature and stamp in Arabic, including the text "الطبية" (Medical) and "مادة" (Material).



JORDAN ARMED FORCES

The DIRECTORATE OF ROYAL MEDICAL SERVICES
THE INSTITUTE OF BIOMEDICAL TECHNOLOGY



	Minimum Requirements	Compliance (Y/N), Notes	Brochure Page No.
	c-Each fetal monitor shall have an output connector that allows it to be connected to a central monitoring system.		
	d-The fetal monitor shall provide digital values and graphical trends for FHR and UA on an LCD touchscreen of size not less than 5.7"		
	e-Doppler & TOCO transducers shall include an adjustable elastic strap.		
	f- The fetal monitor digital display and the recorder shall indicate fetal heart rate over range of 50 to 210 bpm.		
	g-Each fetal monitor shall be supplied with a monitor bracket and necessary hardware for mounting on a trolley and a patient cable and lead set. These shall be listed separately as options.		
	h-Built-in multi-channel strip-chart recorder with at least Qty. (5) paper roll with each unit		
	i- Prices of all accessories (including transducers) should be priced separately and <u>fixed as per special terms</u>		
3	Central Station:		
	a- The central station is to be located at the nurse station. Bidders shall quote for a comprehensive offer including network with all required cabling, switches, etc....		

Handwritten signature/initials



JORDAN ARMED FORCES

The DIRECTORATE OF ROYAL MEDICAL SERVICES
THE INSTITUTE OF BIOMEDICAL TECHNOLOGY



	Minimum Requirements	Compliance (Y/N), Notes	Brochure Page No.
	b- Central station must be supplied by the same manufacturer of the patient monitor, locally supplied central stations will be considered as non-conforming.		
	c- The central station monitor shall display digital values and graphical trends for FHR and UA as obtained from each individual fetal monitor:		
	d- Central station monitor, high resolution LCD \geq 32 inches to be capable of displaying data from at least 12 fetal monitors simultaneously.		
	e- Remote record initiation control for all waveforms.		
	f- Audio/ visual alarms		
	g- External Laser printer from well-known manufacturer (HP or equivalent). Data print out is required to be on A4 paper. Locally supplied printer is acceptable		
4	Abroad service training for 1 biomedical engineers/ technicians as per special terms for all the quantity of this item		



JORDAN ARMED FORCES

The DIRECTORATE OF ROYAL MEDICAL SERVICES
THE INSTITUTE OF BIOMEDICAL TECHNOLOGY



SPECIAL TERMS

- *Offers not complying with any of the special terms or the technical specifications shall be considered non-conforming with tender requirements.*
- *Any vendor providing FORGED documents shall be disqualified from the current tender and banned from participating in any future RMS tenders.*
- 1. *All equipment must be the most recently released model/version which is equal to or higher than the range of the specifications of the required system. (low, mid or high) and equal to or higher than the level of technology and required options mentioned in the technical specifications.*
- 2. *Required certificates (must be submitted with the technical offer):*
 - 2.1 *FDA approval & the relevant 510K clearance for equipment of USA origin (Country where the manufacturer is based).*
 - 2.2 *CE certificate with the relevant CE number (Medical directive) for equipment of EU (European Union) origin (Country where the manufacturer is based).*
 - 2.3 *UKCA certificate for Equipment of Great Britain origin (England, Scotland, Northern Ireland, and Wales) (Country where the manufacturer is based).*
 - 2.4 *ENTID (Enterprise Identification) with the relevant ARTG (Australian Register of Therapeutic Goods) number issued by the Therapeutic Goods*

DLH



JORDAN ARMED FORCES

The DIRECTORATE OF ROYAL MEDICAL SERVICES
THE INSTITUTE OF BIOMEDICAL TECHNOLOGY



Administration for Equipment of Australian origin (Country where the manufacturer is based).

- 2.5 *Establishment License with the relevant Device License issued by the Therapeutic Products Directorate for Equipment of Canadian origin (Country where the manufacturer is based).*
- 2.6 *Japanese Pharmaceutical Affairs Law (JPAL) certification or approval for equipment of Japanese origin (Country where the manufacturer is based).*
- 2.7 *Swissmedic (Swiss agency for therapeutic products) certification or approval for equipment of Swiss origin (Country where the manufacturer is based).*
- 2.8 *Norwegian Medicines Agency certification or approval for equipment of Norwegian origin (Country where the manufacturer is based).*
- 2.9 *The vendor is responsible to ensure through official documents that classified medical devices are manufactured in conformity with applicable quality system standards (ISO, IEC); (the international quality systems standard for medical device manufacturing ISO 13485) or ISO9001.*
- 2.10 *Only for class I medical equipment, submission of a copy of Declaration of Conformity certificate for the offered model shall be accepted.*
- 2.11 *With each offer, bidders must provide a formally endorsed document issued by the manufacturer stating that the bidder is the sole certified agent for the offered item.*
- 2.12 *In all of the above cases (except 2.11) certificates must be formally endorsed by JFDA.*
- 2.13 *Any vendor not submitting all required certificates will be eliminated.*

3. *Offered items should be from reputable well known manufacturers and excellent experience in the field which have multiple installations of the same offered model and/ or previous models or previously evaluated in Main Hospitals in Royal Medical*



JORDAN ARMED FORCES

The DIRECTORATE OF ROYAL MEDICAL SERVICES
THE INSTITUTE OF BIOMEDICAL TECHNOLOGY



Services, Otherwise The purchasing committee has the right to request one or all of the following:

- a- *A sample of the same offered model at any time during the purchasing process, the sample unit shall be delivered within three weeks from the date of a written notification; any vendor rejects to deliver a sample unit will be eliminated. Evaluation duration will be determined by the purchasing committee.*

The purchasing committee has the right to require a sample for any equipment previously installed in RMS Hospitals.

Any offered item fail in the evaluation/assessment process will be rejected

- b- *A list of installation basis of the same offered model and/ or previous models in reputable local hospitals.*

List should include: Name of hospital, Model Installed, Quantity, and Year of installation.

The purchasing committee has the right to contact or visit any of the sites where the offered model and/ or previous models were installed and get feedback of these models at these sites from the physicians, operators as well as service engineers.

- c- *Official website of the manufacturer must be provided. The website must clearly demonstrate the history profile and manufacturing features of the company including the same offered model and its brochure.*

In case of inconsistency between the information on the website with the provided information of the local agent regarding any offered product, the committee has the right to eliminate that product from the awarding process.



JORDAN ARMED FORCES

The DIRECTORATE OF ROYAL MEDICAL SERVICES
THE INSTITUTE OF BIOMEDICAL TECHNOLOGY



4. Country of origin:

4.1. *The country of origin of the main part (s) of the system must be one of the following:*

USA, Canada, Japan, UK, Sweden, Finland, Denmark, Switzerland, Belgium, Germany, France, Netherlands, Spain, Norway, Italy, Ireland, Austria, New Zealand, Australia, Czech Republic, Luxembourg & Poland.

4.2. *Accessories and consumables may be manufactured in other countries and/or by different manufacturers and should be approved by the manufacturer.*

4.3. *All offered items must be approved for sale in the same country of origin. An original and officially endorsed free-sale certificate from an authorised body must be included in the offer.*

4.4. *Vendors must specify the origin of all offered items and accessories in the technical offer.*

4.5. *Except for X-ray based equipment, MRI, and nuclear medicine systems, equipment manufactured by reputable companies based in any of the countries mentioned in (4.1) will be taken into consideration regardless of the manufacturing site only:*

a. *If they are approved for sale in the same county of origin (an original and officially endorsed free-sale certificate from an authorised body must be included in the offer.*

OR

b. *If they are approved for sale in at least three of the countries mentioned in (4.1) (an original and officially endorsed free-sale certificate from an authorised body in those countries must be included in the offer).*

5. *Bidders must submit their reservations/queries regarding tender specifications and/or special terms within the first half of the tender closing period starting from the tender announcement date. Reservations/queries submitted after the end of this period shall be rejected.*

6. *Goods are to be brand new; manufacturing date of the delivered products should not exceed 18 months from the date of the final award.*



7. *Delivery period should be mentioned clearly; the purchasing committee has the right to reject any offer with delivery time exceeding 4 months.*

8. *Warranty:*

a- *Offers must include a full warranty for a period of a minimum of 24 months from the date of installation or 30 months from the date of receiving the items at the agreed location mentioned in the final order (whichever comes first).*

Warranty must include corrective & preventive maintenance activities as per manufacturer recommendations including:

- *Required spare parts (free of charge)*
- *Labour*
- *Hardware*
- *Software*
- *Rechargeable batteries*

At the end of the warranty period, the supplier commits to implement final inspection of the submitted goods and submit the reports signed by the site chief engineer stating that the equipment's are working properly as well as all preventive maintenance reports during the warranty period.

Warranty & installation are excluded for items mentioned in Attachment no.1 the purchasing committee has the right to exclude any other item not listed in the attachment and does not required installation and warranty.

b- *In the case where a delay in installation has occurred as a result of the supplier's dereliction and has exceeded a period of one month from the date of receiving the items, the approved warranty period will automatically be considered as 24 months from the date of installation.*

c- *If at any time during the warranty period the item becomes inoperative due to a technical fault the item must then be repaired by the supplier /local agent within a period of 5 working days from written notification, warranty will be extended according to downtime period.*

d- *If the delay exceeds 30 days, the supplier must replace the item with a new identical functioning one (within the same delivery period mentioned in the final offer). In case the item was replaced by a new one, the warranty period*



mentioned in 8.a) above will start from the installation and commissioning date of the new item.

e- Local agent/supplier is committed to transport and install any awarded item during the warranty period on free of charge basis to any location inside the country whenever required by Royal Medical Services, this should not include pre-installation requirements in the new site.

- 9. One set of operation manual(s) and one set of service manual(s) including schematics and a spare-part list must be delivered with each unit, CD/DVD is acceptable. For large tenders, a certain agreed percentage of manuals per item may be agreed upon.*
- 10. Where applicable, pre-installation shall be the sole responsibility of the supplier. Pre-installation shall include removal of old system(s), any civil work, electrical work or site modification(s) necessary to accommodate the new system(s) according to manufacturers' specifications and safety standards in addition to the work required for bringing back the site to the same working conditions as before installing the new system(s).*
- 11. Power requirements: where applicable either single phase 220V, 50Hz or 3-phase 380V. Systems with external transformers are considered conforming only if clearly stated in the technical specifications.*
- 12. Technical offers must include clear original technical brochures/catalogues for all offered items.*
- 13. Offers must include fully detailed technical offers and compliance sheets as a soft copy (either Microsoft office or Microsoft excel format) in addition to a hard copy, mentioning the exact model/catalogue number and country of origin of the offered item(s), full technical description/specifications and any accessories or options included in the offer.*
Offer must clearly indicate the origin of the offered item and the country where the manufacturer of the offered items is based
- 14. Compliance sheets must be as per the tabular format of the technical specifications in the tender documents, listing the required specifications on one column and a*



JORDAN ARMED FORCES



The DIRECTORATE OF ROYAL MEDICAL SERVICES THE INSTITUTE OF BIOMEDICAL TECHNOLOGY

Yes or NO response to each point in the adjacent column, with reference to page and line numbers in the relevant technical brochure. Offers not complying with this term shall be rejected.

15. *Qualifications and after sales service: The technical bid should contain all the necessary documents (training certificates) to prove the capability of the bidders for supplying and installing a trouble free equipment meeting the quality standards and technical specifications of the manufacturer and the ability of the bidders for providing efficient after sales service conducted by authorized certified biomedical service engineers with minimum 2 years experience in the same field.*

16. *Accessories and consumables:*

16.1 *Any accessories and consumable items necessary to operate the offered system must be clearly identified and priced separately.*

All offered accessories and consumables must be approved by the manufacturer.

16.2 *Technical offers must include a priced list for all accessories and consumables related to the required equipment as a hard copy in addition to a soft copy (either Microsoft office or Microsoft excel format) with prices fixed for a period of five years from the date of installation and commissioning with a maximum annual increase of 2%, any essential item not listed will be considered free of charge.*

16.3 *Accessories and consumables must be priced according to their delivery destination either to Queen Alia International Airport or to RMS Main Medical Stores.*

16.4 *Where applicable, a start-up kit of accessories and consumable items must be provided with each system on a free-of-charge basis.*

17. *Spare Parts:*

17.1. *Technical offers must include a comprehensive and priced list of all spare parts related to the awarded equipment (including rechargeable batteries) as a hard copy in addition to a soft copy (either Microsoft office or Microsoft excel format) valid for a minimum period of five years with a maximum annual increase of 2%, commencing at the end date of the warranty period, any essential item not listed will be considered free of charge.*



JORDAN ARMED FORCES

The DIRECTORATE OF ROYAL MEDICAL SERVICES
THE INSTITUTE OF BIOMEDICAL TECHNOLOGY



- 17.2. *Spare parts must be priced according to their delivery destination either to Queen Alia International Airport or to RMS Main Medical Stores.*
- 17.3. *Prices of spare parts should be reasonable and will be taken into consideration during the purchasing process; the purchasing committee has the right to eliminate any offered item with unreasonable high prices of spare parts.*
- 17.4. *Delivery period of required spare parts should not exceed 2 months from the date of the final order.*
18. *Spare parts, consumables and accessories availability must be guaranteed for a minimum period of ten years starting from the date of installation and commissioning.*
19. *Local agent is committed to sign a service contract with Royal Medical Services to perform all relevant maintenance for the awarded equipment (whenever required by DRMS within a period that does not exceed one year from the end date of the warranty period and if mentioned clearly in the specifications) without exceeding the original mentioned cost and as per mentioned terms within minimum required period.*
20. *Tender Awards:*
- 20.1. *For the final list of offers having a chance of winning the award, the awarding process shall be based on the accumulative value of both the offered item and its' running cost (Total Cost of Ownership) over a period of seven years from the date of installation and commissioning. Only offers with the lowest total cost of ownership over a period of seven years from the date of installation and commissioning shall qualify for the award.*
- 20.2. *Running cost includes the value of consumables, accessories needed to operate the system over the same period as well as the cost of any service contract (where applicable).*
21. *For PC/Laptop based systems:*



JORDAN ARMED FORCES

The DIRECTORATE OF ROYAL MEDICAL SERVICES
THE INSTITUTE OF BIOMEDICAL TECHNOLOGY



- 21.1. *Complete restoration medium (CD/DVD/etc.) of the operating system and the application software must be supplied.*
- 21.2. *Purchased licenses, software keys & dongles must be provided at any time during and after the warranty period on free of charge basis whenever required by DRMS for a minimum period of ten years starting from the date of installation and commissioning.*
- 21.3. *Where locally supplied computers or laptops are offered, only computers/laptops from Apple, hp/Compaq, Lenovo, Dell, Fujitsu or Toshiba will be accepted, offered models must be the latest available version upon delivery.*
- 21.4. *Where locally supplied printers are offered only the following types and brands are accepted: HP, SAMSUNG, OKI, CANON, EPSON.*
22. *Pricing must include services of sale, shipment, transportation, delivery from port to site or to Main Medical Stores, installation, pre-installation (if needed), training, commissioning, warranty and bringing the equipment into service.*
23. *Custom clearance of goods shall be the responsibility of the Jordanian Armed Forces (JAF), however, suppliers shall bear all costs incurred by handling charges and any demurrage charges or extra expenses incurred by the port's corporation (including expenses caused by delay in presenting the necessary shipment documents for either clearing or transporting the goods to the required location mentioned in the final order, delivery note issuing charges, unloading charges, local shipping charges etc.). The supplier is also responsible for providing of all relevant shipping documents, together with the delivery order(s).*
24.
 - a. *DRMS has the right to increase the awarded quantities by a percentage not exceeding 35% after the final order notification with the same prices, terms and conditions of the original contract upon DRMS request and approval of the awarded party.*
 - b. *DRMS has the right to decrease the awarded quantities by a percentage not exceeding 50% after the final order notification with the same prices, terms and conditions of the original contract upon DRMS request and approval of the awarded party.*



JORDAN ARMED FORCES

The DIRECTIONATE OF ROYAL MEDICAL SERVICES
THE INSTITUTE OF BIOMEDICAL TECHNOLOGY



25. a. Bidder is not allowed to submit more than one offer for the same item whether that's solely or in coalition or partnership with other bidders.

b. Bidder is allowed to include within their offer optional alternatives for the same offered item from the same manufacturer.

26. The supplier must furnish DRMS with a guarantee stamped and legalized by the Notary Public equals to (115%) of the total value of the awarded equipment valid for twelve months from the date of final acceptance of the equipment by DRMS.

27. Training:

27.1 For items where abroad service training courses are required in technical specifications, offers must include a certified service training program at a reputable center abroad recognized by the manufacturer for at least one biomedical engineer or biomedical technician; all costs inclusive, air tickets, boarding, commuting, accommodation (minimum 3-star hotel on full board basis) and any extra costs.

27.2 For items where abroad user training courses are required in technical specifications, offers must include a certified operator training program at a reputable center abroad recognized by the manufacturer for at least one operator; all costs inclusive, air tickets, boarding, commuting, accommodation (minimum 3-star hotel on full board basis) and any extra costs.

27.3 The period of the training courses must be according to the manufacturer's program excluding traveling days and must be stated clearly in the technical offer.

27.4 Training Programs must conform to the following standards:

- User training must comprise understanding and use of operation manual(s), correct and safe operation of the equipment, as well as user preventive maintenance and calibration.
- Service training must comprise: theory, understanding and use of service manual(s), calibration, preventive maintenance procedure, and practical troubleshooting and repair exercises, and must be conducted by professional instructors employed or authorized by the system manufacturer.



JORDAN ARMED FORCES

The DIRECTORATE OF ROYAL MEDICAL SERVICES
THE INSTITUTE OF BIOMEDICAL TECHNOLOGY



-
- *Service training must be conducted on a system of identical make, model, and configuration to that purchased by DRMS, and designated by the manufacturer or the local agent for training purposes.*
 - *Certificates must be endorsed and officially sealed by the system manufacturer, legally empowering trainees to engage in user and service activities according to operation and service manual(s).*
 - *Where applicable, offers must include an on-site user and service training.*



JORDAN ARMED FORCES
The DIRECTORATE OF ROYAL MEDICAL SERVICES
THE INSTITUTE OF BIOMEDICAL TECHNOLOGY



28 For offers submitted in Jordanian dinars, Payment will be either by wire transfer or by cheque after final acceptance of goods. Any other way of payment will be rejected



JORDAN ARMED FORCES
The DIRECTORATE OF ROYAL MEDICAL SERVICES
THE INSTITUTE OF BIOMEDICAL TECHNOLOGY



Attachment 1

#	Equipment
1	Adjustable Auto Pipettes
2	Resuscitation Bag
3	Laryngoscope Set
4	Oxygen Flow meter wall type/ single
5	Regulator Suction with canister, wall vacuum outlet
6	Oxygen Regulator for Oxygen Cylinders
7	Pulse Oximeter, Finger type
8	Oxygen Cylinder
9	Doppler, portable
10	Diagnostic set, Portable
11	Direct Ophthalmoscope, Portable
12	Otoscope, Portable
13	Air Mattress System, homecare
14	Stethoscope
15	Aneroid Sphygmomanometer
16	Video Assisted Laryngoscope, portable
17	Scale, Manual
18	Wood's Light
19	Cough Pressure, Normal Saline
20	Rehabilitation Walking Parallel Bars, non-powered
21	Therapy Mat
22	Medical Ball All Size
23	Dumbbells Rack with complete set of dumbbells
24	Crutches
25	Shoulder wheel
26	Mobile Mirror
27	Cuff Weights
28	Walker, different sizes
29	Patient Elbow Stick
	Rehabilitation Training Ladder



JORDAN ARMED FORCES

The DIRECTORATE OF ROYAL MEDICAL SERVICES
THE INSTITUTE OF BIOMEDICAL TECHNOLOGY



31	<i>Rehabilitation Suspension Frame</i>
32	<i>Exercise Band All Size (Theraband)</i>
33	<i>Lens trial set</i>
34	<i>Wheel Chair</i>
35	<i>Commode Chair</i>
36	<i>Bassinet (Baby Cot)</i>
37	<i>Resuscitation Cart (Crash Cart)</i>
38	<i>Medication Cart</i>
39	<i>Cart, Drawers</i>
40	<i>Examination Couch, Manual</i>
41	<i>Gynaecology Examination Table, Manual</i>
42	<i>Examination Table, Neonates, Manual</i>
43	<i>Intravenous Pole, Mobile Stand</i>
44	<i>DDA Cabinet</i>
45	<i>Stainless steel Multipurpose Trolley</i>
46	<i>Cabinet, Instrument, Operation Theatres</i>
47	<i>Dressing Cart</i>
48	<i>Stainless steel wire shelving unit</i>
49	<i>Paper Trolley</i>
50	<i>Stainless Steel Sink (Clean up counter)</i>
51	<i>Scopes Cabinet</i>
52	<i>Mayo Table</i>
53	<i>Table, Instrument</i>
54	<i>Stool, Adjustable, Doctor</i>
55	<i>Stool, Adjustable, Operation Theatres</i>
56	<i>Carts, linen/laundry, soiled, Double</i>
57	<i>Closed distribution trolley</i>
58	<i>Step Ladder, Conductive, Double</i>
59	<i>Step, Surgeon, Single</i>
60	<i>Kick Bucket</i>
61	<i>Mobile Stand for Oxygen Cylinder</i>
62	<i>Stainless Steel Wire Basket, 1 STU</i>
63	<i>Cart, Plaster</i>

دورات الصيانة

تم وضع دورات صيانة خارجية للأجهزة التالية والتي تصان جميعها من قبل كوادر معهد تكنولوجيا الأجهزة الطبية والتي لا تخضع لعقود صيانة وهي أجهزة بحاجة إلى صيانة دائمة ولذلك فإن وجود فرق دعم فني مباشر جاهز للتدخل وحل المشكلات التي يمكن ان يواجهها مثل هذا النوع من الأجهزة المعرضة دائما لشتى انواع الأعطال يعتبر ضرورة وحاجة اساسية لإدامة العمل ولذلك يجب توفير برامج تدريب وتأهيل فني على صيانة هذه الأجهزة في مراكز التدريب العالمية والمعتمدة لدى الشركات الصانعة وحيث يعتبر التأهيل و التدريب الفني لمرتببات صيانة الأجهزة الطبية على صيانة وإدامة هذه مثل هذا النوع من الأجهزة هو مفتاح نجاح عمليات الصيانة و سرعتها وبالتالي تقليل وقت التعطل لأقل قدر ممكن وتقليل كلف عمليات الصيانة للحد الأدنى:

Item	Equipment	عدد الأجهزة	عدد الدورات
Item 1	Fetal Heart monitor with central station	12	1