

Phone: +92-74-9410912, E-mail: suhail.abbasi@smbbmu.edu.pk

No. SMBBMU/PPLO/2017/15/

Dated: October 17, 2017

To,

The Managing Director,

Sindh Public Procurement Regulatory Authority,

Government of Sindh, Karachi.

SUBJECT:

REQUEST FOR THE PUBLICATION OF BID EVALUATION REPORT (BER) FOR TENDER TITLED "ESTABLISHMENT OF CENTRE OF INNOVATION IN MEDICAL EDUCATION (CIME) AT SHAHEED MOHTARMA BENAZIR BHUTTO MEDICAL UNIVERSITY, LARKANA. TENDER # ME/08/2017-18.

Reference: SPPRA website ID # 33891.

The Competent Authority has approved the Bid Evaluation Report of the subject tender. Please find enclosed the complete Bid Evaluation Report along with all necessary documents in <u>original</u> for uploading it on your website.

2. In this regard, I would request you to kindly direct the concerned person to upload Bid Evaluation Report along with all related document on your website.

Planning, Procurement & Logistics Officer

### Copy for information:

i. The Registrar, SMBB Medical University, Larkana.

ii. Webmaster, SMBBMU, Larkana (with request to upload it on university website).

iii. PS to Vice Chancellor, SMBB Medical University, Larkana.

iv. M/S. Shah Co.

v. M/S. Iqbal & Company.

vi. M/S. Khalid Corporation.

vii. M/S Prodigy Healthcare Technologies.

viii. M/S Mediland Pakistan.

ix. M/S Biotech Pakistan.

x. Office Copy.



# SHAHEED MOHTARMA BENAZIR BHUTTO MEDICAL UNIVERSITY LARKANA - SINDH- PAKISTAN.

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## MINUTES OF THE MEETING

Meeting of the Procurement Committee was held on 01-08-2017 for the opening of the Technical Bids of the tender titled "Establishment of Centre of Innovation in Medical Education (CIME) at Shaheed Mohtarma Benazir Bhutto Medical University, Larkana" Tender # ME/08/2016-17 at Syndicate Hall, CMC, Shaheed Mohtarma Benazir Bhutto Medical University, Larkana. Following Procurement Committee members attended the meeting (Attendance Sheet enclosed):

S. #	Name of the Participant	
01	Prof. Dr. K. Das, Professor of Surgery, SMBB Medical University, Larkana.	Chairman
02	Dr. Asadullah Makhdoom, Associate Professor Director SKILL LAB LUMHS, Jamshoro.	External Member
03	Dr. Mansoor Hyder (PhD) Associate Professor ITC Director (C&NS) SAU, Tandojam.	External Member
04	Mr. Sarfraz Ahmed Tunio, Accounts Officer, SMBB Medical University, Larkana.	Member
05	Suhail Ahmed Abbasi  Planning, Procurement & Logistics Officer,  SMBB Medical University, Larkana.	Member & Secretary

Meeting was started with recitation from the Holy Quran. The Chairman of the Procurement Committee welcomed all the members and participated bidders. The Tender Box was opened at 11:00am in front of the committee & participants of the bid. The Committee opened the sealed envelopes of only Technical Bids.

The meeting ended with the vote of thanks to and from the Chair.

Member & Secretary

Suhail Ahmed Abbasi

Member of PC

Mr. Sarfraz Ahmed Tunio

External Member of PC

Dr. Mansoor Hyder

**External Member of PC** 

Dr. Asadullah Makhdoom

Prof. Dr. K. Das

Chairman PC

# SHAHEED MOHTARMA BENAZIR BHUTTO MEDICAL UNIVERSITY LARKANA - SINDH- PAKISTAN.

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# PROCUREMENT COMMITTEE

# ATTENDANCE SHEET

The Committee meeting held on 01-08-2017 at 10:45am for the opening of Technical Bids of the tender titled "Establishment of Centre of Innovation in Medical Education at Shaheed Mohtarma Benazir Bhutto Medical University, Larkana" Tender No. ME/05/2017-18.

Location: Syndicate Hall, CMC at SMBBMU, Larkana.

<b>S.</b> #	Name & Designation	Signature
01	Prof. Dr. K. Das  Professor of Surgery SMBBMU, Larkana.	Celiu
02	Dr. Asadullah Makhdoom, External Member Associate Professor/ Director Skill Lab LUMHS, Jamshoro.	Leur
03	Dr. Mansoor Hyder, External Member Associate Professor ITC, Director (C&NC), SAU, Tandojam.	May
04	Mr. Sarfraz Ahmed Tunio, Member Accounts Officer, SMBBMU, Larkana.	
05	Suhail Ahmed Abbasi Member Planning, Procurement & Logistics Officer, SMBBMU, Larkana.	Sular 1/8/2017



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# ATTENDANCE SHEET OF THE PARTICIPANT OF BIDDERS/REPRESENTATIVES. Tender Opening (Technical Proposal) August 1, 2017 Time: 11:00 am.

Name of Tender: Establishment of Centre of Innovation in Medical Education SMBB Medical University, Larkana. Tender No.

ME/05/2017-18. SPPRA Website Serial ID # 33891

S. #	Company/Firm Name	Tender Fees Pay Order No.	Signature	Remarks if any & cell number
01	M/S 9 gbal and (0	-	Ju-	0313-3097157
02	M/S Prodigy Healthcare Technologies		Drost.	0342-2361/32
03	MIS Biotech Pakistan		SAA	0313-2927799
04	M/s Shah Co		Ass	0301-2617351

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# **Technical Qualification Report**

a) Total Point for Technical Proposal

100

b) Minimum Qualifying Percentage is

75%

S#	Description		M/S Iqbal & Co.	M/S Prodigy Health Care Technologies	M/S SHAH Co.	M/S Biotech Pakistan	M/S Mediland Pakistan	M/S Khalid Corporation
			Points Obtained	Points Obtained	Points Obtained	Points Obtained	Points Obtained	Points Obtained
3.1	Major Installation & Maintenance Experience	20	00	00	00	12	04	00
3.2	Submission of design/3D drawings along with Project Execution Plan.	20	00	00	00	20	04	00
3.3	Financial Status of the Firm	12	12	02	12	12	10	07
3.4	Technical Engineering Capacity	20	20	00	00	20	04	00
3.5	Workshop Services	12	12	00	00	12	05	00
3.6	Spare part and Backup for installed base inventory	08	08	00	00	07	08	00
3.7	Management Systems (Service records/Installed based management/ other) in place.	08	08	00	00	04	08	00
	Total Points Obtained	100	60	02	12	87	43	07

**Member & Secretary** 

Suhail Ahmed Abbasi Planning, Procurement & Logistics Officer SMBB Medical University, Larkana Member of PC

Sarfraz Ahmed Tunio

SMBB Medical University, Larkana

External Member of PC

Dr. Mansoor Hyder (PhD-Germany),
Associate Professor ITC

Director (C&NS)

SAU, Tandojam.

**External Member of PC** 

Dr. Asadullah Makhdoom, Associate Professor/Director, Skill Lab LUMHS, Jamshoro. Chairman PC

Prof. Dr. K. Das,
Professor of Surgery

SMBB Medical University, Larkana.

# SPPRA Website ID # 33891 Tender # ME/05/2017-18

Method and procedure of procurement: **Description of Tender:** 

National Competitive Bidding (Single Stage - Two Envelope)

Establishment of Centre of Innovation in Medical Education (CIME) at Shaheed

Mohtarma Benazir Bhutto Medical University, Larkana.

BIDDERS' ELIGIBILITY/ QUALIFICATION REPORT

Eligibility/ Qualification Criteria:

S. #	Eligibility / Qualification Criteria	M/S Iqbal & Co.	M/S Prodigy Health Care Technologies	M/S Shah Co.	M/S Biotech Pakistan	M/S Mediland Pakistan	M/S Khalid Corporation
1	NTN	Yes	Yes	Yes	Yes	Yes	Yes
2	Sales Tax Registration Certificate	Yes	Yes	Yes	Yes	Yes	Yes
3	Registration with Sindh Revenue Board (SRB)	Yes	No	Yes	Yes	Yes	No
	Qualification Criteria:						
4	Minimum three years' experience of relevant field. (i.e. Human Patent Simulators)	No	No	Yes	Yes	Yes	No
5	Turnover of at least last three years	Yes	No	Yes	Yes	Yes	No
6	Bid is signed, named and stamped by the authorized person of the firm along with Authorization letter.	Yes	Yes	No	Yes	Yes	Yes
7	Technical Points Obtained	60	02	12	84	43	05
8	Supplier Questioner Points	2	0	0	50	0	0
	Qualified/ disqualified	Disqualified	Disqualified	Disqualified	Qualified	Disqualified	Disqualified

**Member & Secretary** 

Suhail Ahmed Abbasi Planning, Procurement & Logistics Officer SMBB Medical University, Larkana Member of PC

Sarfraz Ahmed Tunio

**Accounts Officer** SMBB Medical University, Larkana External Member of

Dr. Mansoor Hyder (PhD-Germany), Associate Professor ITC Director (C&NS)

SAU, Tandojam.

**External Member of PC** 

Dr. Asadullah Makhdoom, Associate Professor/Director, Skill Lab LUMHS, Jamshoro.

Chairman PC

Prof. Dr. K. Das, **Professor of Surgery** 

SMBB Medical University, Larkana.



# SHAHEED MOHTARMA BENAZIR BHUTTO MEDICAL UNIVERSITY LARKANA - SINDH- PAKISTAN.

Phone: +92-74-9410912, E-mail: suhail.abbasi@smbbmu.edu.pk

Method and procedure of procurement:

SPPRA Website ID # <u>33891</u> Tender # ME/05/2017-18

National Competitive Bidding (Single Stage - Two Envelope)

Tender Titled:

Establishment of Centre of Innovation in Medical Education at Shaheed Mohtarma Benazir Bhutto Medical University, Larkana.

## MINUTES OF THE FINANCIAL BID OPENING MEETING

The meeting of the Procurement Committee for the tender titled "Establishment of Centre of Innovation in Medical Education at Shaheed Mohtarma Benazir Bhutto Medical University, Larkana" was held on <a href="September 5">September 5</a>, 2017 time 10:00am at the Office of Planning, Procurement & Logistics Officer for the opening of the Financial Bid of the Technically Qualified Bidder. The meeting was attended by the following members of the Procurement Committee (Attendance sheet of the PC enclosed)

S. #	Name of the Participant	
01	Prof. Dr. K. Das, Professor of Surgery, SMBB Medical University, Larkana.	Chairman
02	Dr. Asadullah Makhdoom, Associate Professor Director SKILL LAB LUMHS, Jamshoro.	External Member
03	Dr. Mansoor Hyder (PhD-Germany) Associate Professor ITC Director (C&NS) SAU, Tandojam.	External Member
04	Mr. Sarfraz Ahmed Tunio, Accounts Officer, SMBB Medical University, Larkana.	Member
05	Suhail Ahmed Abbasi  Planning, Procurement & Logistics Officer,  SMBB Medical University, Larkana.	Member & Secretary

The Financial Bids were opened at 10:00am in the presence of representative of the technically qualified bidder and the rates quoted by bidders were read aloud and encircled by Chairman of the Procurement Committee. All the members of the Procurement Committee signed each and every page of Financial Proposal/ Bid. The bid does not contain any over-writing or cutting. Following is the details of bids announced:

S. #	Name of Bidder	Offered Price	Amount of Bid Security	Pay Order No./ Date
1	M/S BIOTECH Pakistan	Rs. 147,528,814/-	Rs. 4,426,000/-	PO # 01608504
				July 31, 2017

The committee have examined all the bids as per the Qualification/ Eligibility criteria provided in the bidding documents, arithmetical checked and verified the documents. The 3% of the total amount has been submitted by the technically qualified bidder as a Bid Security.

The meeting ended with the vote of thanks to and from the chair.

Member & Secretary

Suhail Ahmed Abbasi

Member of PC

Mr. Sarfraz Ahmed Tunio

External Member of RC

Dr. Mansoor Hyder

**External Member of PC** 

Dr. Asadullah Makhdoom

Chairman PC

Prof. Dr. K. Das



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# ATTENDANCE SHEET OF THE PARTICIPANT OF BIDDERS/REPRESENTATIVES. Tender Opening (Financial Proposal) September 5, 2017 Time: 10:00 am.

Name of Tender: Establishment of Centre of Innovation in Medical Education SMBB Medical University, Larkana. Tender No.

ME/05/2017-18. SPPRA Website Serial ID # 33891

S. #	Company/Firm Name	Tender Amount	Bid Security	Signature	Remarks
01	M/S BIOTECH Pakistan	Rs. 147.6 M	Rs. 4.426 M	3AA	

**Member & Secretary** 

Suhail Ahmed Abbasi Planning, Procurement & Logistics Officer SMBB Medical University, Larkana Member of PC

Sarfraz Ahmed Tunio
Accounts Officer

SMBB Medical University, Larkana

External Member of P

Dr. Mansoor Hyder PhD-Germany),

Associate Professor ITC Director (C&NS) SAU, Tandojam.

**External Member of PC** 

Dr. Asadullah Makhdoom, Associate Professor/Director, Skill Lab

LUMHS, Jamshoro.

Chairman PC

Prof. Dr. K. Das, Professor of Surgery

SMBB Medical University, Larkana.

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# PROCUREMENT COMMITTEE ATTENDANCE SHEET

The Committee meeting held on 09-05-2017 at 10:00am for the opening of Financial Bids of the Technical Qualified Bidder of the tender titled "Establishment of Centre of Innovation in Medical Education at Shaheed Mohtarma Benazir Bhutto Medical University, Larkana" Tender No. ME/05/2017-18.

Location: Office of the Planning, Procurement & Logistics Officer.

<b>S.</b> #	Name & Designation	Signature
01	Prof. Dr. K. Das Chairman Professor of Surgery SMBBMU, Larkana.	attiv
02	Dr. Asadullah Makhdoom, External Member Associate Professor/ Director Skill Lab LUMHS, Jamshoro.	Leve
03	Dr. Mansoor Hyder, External Member Associate Professor ITC, Director (C&NC), SAU, Tandojam.	Male
04	Mr. Sarfraz Ahmed Tunio, Member Accounts Officer, SMBBMU, Larkana.	397
05	Suhail Ahmed Abbasi Member Planning, Procurement & Logistics Officer, SMBBMU, Larkana.	Subar 5/9/2017

# SHAHEED MOHTARMA BENAZIR BHUTTO MEDICAL UNIVERSITY LARKANA - SINDH- PAKISTAN.

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## BID EVALUATION REPORT

1. Name of Procuring Agency : Shaheed Mohtarma Benazir Bhutto

Medical University, Larkana.

2. Tender Reference No. : ME/05/2017-18, INF/KRY/3319/2017

3. Name of Tender : Establishment of Centre of Innovation in Medical

Education Shaheed Mohtarma Benazir Bhutto

Medical University, Larkana.

4. Method of Procurement : Single Stage- Two envelop procedure.

5. Tender Published : <u>Daily Dawn, Daily Kawish on 6<sup>th</sup> July 2017, Daily</u>

Jung 7th July 2017, SPPRA Website ID # 33891.

6. Corrigendum : N/A

7. Total Bid Document Sold : <u>Five (07)</u>
8. Total Bids Received : <u>Four (06)</u>

9. Technical Bid Opening Date : 01-08-2017 @ 11:00 am

10. No. of Bid Technical Qualified : One (01)
11. Bid (s) Technically Disqualified : Five (05).

12. Financial Bid Opening Date : September 05, 2017 @ 11:00 am

13. Bid Evaluation Report.

<b>S.</b> #	Name of Firm or Bidder	Cost offered by the Bidder	Ranking in terms of cost	Comparison with Estimated cost	Reasons for acceptance/ rejection	Remarks
0	1	2	3	4	5	6
1.	M/S BIOTECH Pakistan	Rs. 147,528,814.00	Not Applicable	1.744% Higher	Fulfilling all requirements of eligibility criteria as per tender documents.	Recommended for the award of contract.

Member & Secretary

Suhail Ahmed Abbasi Planning, Procurement & Logistics Officer SMBB Medical University, Larkana Member of PC

Mr. Sarfraz Ahmed Tunio,
Accounts Officer
SMBBMU, Larkana.

External Member of PC

Dr. Mansoor Hyder (Pho Germany),
Associate Professor ITC
Director (C&NS)

SAU, Tandojam.

**External Member of PC** 

Dr. Asadullah Makhdoom,

Associate Professor Director (SKILL LAB) LUMHS, Jamshoro. Chairman PC

Prof. Dr. K. Das, Professor of Surgery

SMBB Medical University, Larkana



# SHAHEED MOHTARMA BENAZIR BHUTTO MEDICAL UNIVERSITY LARKANA - SINDH- PAKISTAN.

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# COMMERCIAL OFFER

Establishment of Centre of Innovation in Medical Education (CIME) SMBB Medical University, Larkana. Financial Bid Opening Date: 05-09-2017 at 10:00am.

S#	ITEM CODE	DESCRIPTION	QTY	UNIT PRICE DDP IN PAK RS	TOTAL PRICE DDP IN PAK RS
		EMRGENCY/LIFE SUPPORT ALS/BLS			
01	HALS1000	TETHERLESS PATIENT SIMULATOR	01	4,655,604.80	4,655,604.80
		GENERAL			
		Available in ethnic skin tones			
		<ul> <li>Powered from an internal rechargeable battery or wall outlet</li> </ul>			
		<ul> <li>Simulator receives commands from a wireless tablet PC and operates at distances up to 300 meters</li> </ul>			
		<ul> <li>Use pre-programmed scenarios, modify them or create your own quickly and easily</li> </ul>			
		<ul> <li>Installation and training worldwide</li> </ul>			
		AIRWAY			
		Programmable airway: tongue edema, laryngospasm, and pharyngeal swelling			
		Multiple upper airway sounds synchronized with breathing			
		Right mainstream intubation			
		Sensors detect depth of intubation			
		<ul> <li>Placement of conventional airway adjuncts</li> </ul>			
		<ul> <li>Endotracheal intubation</li> </ul>			
	0	Retrograde intubation			

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- View vocal cords with Sellick maneuver
- Realistic surgical trachea allows tracheostomy or needle cricothyrotomy

#### BREATHING

- Control rate and depth of respiration and observe chest rise
- Select independent lung sounds: upper right front and back; upper left front and back; lower right front and back; lower left front and back
- \* Chest rise and lung sounds are synchronized with selectable breathing patterns
- CO2 on exhalation (4 levels) using replaceable cartridge mounted inside the simulator
- Attach to real mechanical ventilators
- Bilateral chest rises and fall
- Unilateral chest rise simulates pneumothoraxes
- Anterior and posterior auscultation sites
- Bilateral needle decompression at second intercostal
- Dynamic Airway and Lung compliance/ resistance
- Ten levels of static compliance, 15-50 ml/ cm H2O
- · Ten levels of airway resistance
- Holds PEEP from 5 to 20 cmH2O
- Exhales real and measurable CO2
- · Vary lung mechanics throughout scenario
- · Receive real time feedback from real mechanical ventilator
- Capable of assisting the ventilator at variable respiratory rate.
- Compliance and resistance can be varied while connected to the ventilator.

#### CARDIAC

- ECGs are generated in real time with physiologic variations never repeating textbook patterns
- · Heart sounds may be auscultated and are synchronized with ECG
- View dynamic rather than static 12 lead rhythms
- · 12 Lead ECG with integrated MI model

#### CIRCULATION

- Central cyanosis
- Measurable blood pressure by auscultation or automatic NIBP monitor
- · Korotkoff sounds audible between systolic and diastolic pressures
- · Monitor oxygen saturation using your real native oximeter
- · Pulse sites synchronized with BP and heart rate
- Bilateral IV arms with fill/drain sites

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- SubQ and IM injection sites
- Intraosseous access at tibia
- · ECG monitoring using real devices
- · Defibrillate, cardiovert and pace using real devices
- · Multiple heart sounds, rates and intensities
- · ECG rhythms are generated in real time
- · Bilateral carotid, radial, brachial, femoral, popliteal and pedal pulses synchronized with ECG
- Pulses vary with blood pressure, are continuous and synchronized with the ECG even during a paced rhythm

#### INSTRUCTOR OR AUTOMATIC MODE

- · Vital signs are generated in real time
- · Drug library with medications
- · Use of medications change conditions in real time mimicking real clinical situations

#### DRUG RECOGNITION SYSTEM

- · Identifies drug type and volume injected into veins of the right hand and forearm
- · Supplied with 100 syringes having wireless tags
- Use drugs from library or choose to model other drugs using software template

#### NEURAL RESPONSES

- · Eyes are controlled automatically by physiologic model or directly by the instructor
- · Select pupillary response to light

#### SPEECH

- · Create and store vocal responses in any language
- · Wireless streaming audio

#### VITAL SIGNS MONITOR

- · Controlled via wireless tablet PC
- Use selected configuration or create your own configuration to mimic the real monitors used in your facility
- · Share images such as ultrasounds, CT scans, lab results
- · Touchscreen control
- · Monitor can be configured by the instructor to suit the scenario

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Page 3 of 54

		7-52-94 (1530 × 7-11), (1904 × 1905 ×			
		ARTICULATION AND MOVEMENT			
		Realistic joint articulation			
		Supports supine, prone, recumbent, and sitting positions			
		Seizure/convulsions			
		OTHER			
		<ul> <li>Interchangeable male/female genitalia for Foley catheterization</li> </ul>			
		Insert feeding tubes			
		Auscultate bowel sounds			
		USERINTERFACE			
		Manual and Automatic Operating Modes			
		Scenario designer			
		Preprogrammed scenario library     ECPR <sup>TM</sup> — Real-time monitor and trainer			
	1	CONDITION STOCKED STOC			
		12-Lead ECG designer and MI model     Medication library with editor			
		Time stamped event logging			
		Control View Replay (Monitoring manikin)			
		Cond of view Replay (Wolfitoring mankin)			
		MANUFACTURER: GAUMARD SCIENTIFIC, USA			
02	S3040.100.M	TRAUMA SIMULATOR	01	10,211,245.00	10,211,245.00
		The Trauma Simulator must be rugged and resilient human for teaching care on the battlefield, or intense traumatic situations. Must be proven by independent testing in hot and cold conditions; wet and dry environments. Control tablet must work in a distance up to 300 meters.			
		ANATOMY AND CONNECTIVITY			
		• Full body adult 70 inches (178 cm) / 88 lbs. (40 kg)			
		Rugged shoulder and hip joints allow dragging and carrying			
		Splash proof for CBRNe water spray decontamination			
		Self-contained design; all operating components and blood reservoirs stored inside the body			
		Wireless and tether less control; at distances of up to 900ft.			
		Fully operational on battery power for up to 10hrs (AC power supported)			
0	6/	Interchangeable trauma/healthy lower arms and legs			
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- · Designed for fast scenario resets with automatic self-refilling reservoir system
- · Ruggedized for outdoor climate

#### NEUROLOGIC

- · Blinking eyes with reactive pupils.
- · Software controlled fluid secretion at ears, eyes, and mouth
- · Mild and severe convulsions
- Wireless streaming audio; be the voice of Trauma HAL and hear responses at distances up to 150 ft.
- Library of prerecorded responses
- Programmable custom verbal responses in any language

#### AIRWAY

- · Head tilt/chin lift
- · NASO/orotracheal intubation: ETT, LMA, King LT
- · Retrograde intubation
- · Fiber optic intubation
- · Programmable difficult airway: tongue edema and pharyngeal swelling
- · Laryngospasm with tight seal preventing intubation
- · Surgical airway for cricothyrotomy, tracheotomy, and tracheal hook exercises
- · Supports suctioning liquids from the airway and lungs
- · Visible gastric distention with esophageal intubation

#### BREATHING

- · Visible chest rises with BVM
- Ventilation detection
- Shallow and deep needle decompression with audible hiss and needle placement detection up to 3.25in.
- · Unilateral chest rises and right mainstream intubation
- · Spontaneous chest rises and fall with normal and abnormal respiratory patterns
- · Selectable anterior lung sounds
- · Bilateral chest tube insertion

#### CPR

- · Real-time CPR performance monitoring
- Time to CPR
- Compression depth/rate

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- Chest recoil
- · Compression interruptions
- · Ventilation rate
- · Excessive ventilation
- · Time to defibrillation
- · Smart CPR voice coach
- · Real end-tidal CO2
- · Durable chest recoil design

#### CIRCULATION

- · Programmable cyanosis
- · Measure blood pressure using a real blood pressure cuff
- · Detectable oxygen saturation using real OSAT monitors
- · Antecubital IV access
- · Bilateral carotid, radial, brachial (antecubital fossa), femoral, popliteal, and pedal pulses
- · Blood pressure dependent pulses
- · Sternal I/O infusion supports F.A.S.T.1
- Tibia I/O access
- · Bilateral deltoid and quadriceps IM injection sites

#### DIGESTIVE

- · Internal fluid bladder with male genitalia for catheterization
- · Bowel sounds in four quadrants

#### CARDIAC

- · Selectable normal and abnormal heart sounds
- · Preprogrammed ECG rhythm library with customizable variations
- 12-lead ECG monitoring using real equipment
- · Defibrillation and pacing using real energy

#### TRAUMA

- · Quadruple trauma limbs: Interchangeable trauma lower arms and legs included
- · Bleeding axilla and groin wounds detect applied pressure
- · Trauma site arterial bleeding synched with heart rate and blood pressure
- · Blood pressure control bleeding rate
- Arm and legs tourniquet sensors

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		<ul> <li>Pressure on femoral artery reduces or stops distal bleeding in leg</li> </ul>			
		On-board 1.5 Lt. blood reservoir			
		Automatic self-refilling reservoir system			
		On-screen blood loss monitor and reservoir level			
		PACKAGE MUST INCLUDE			
		<ul> <li>Wireless tablet PC, protective "bump" case, and software license</li> </ul>			
		RF Communications Module			
		Battery charger/Power supply			
		L/R Healthy lower arms and legs			
		L/R Trauma lower arms and legs			
		Axilla and groin wound inserts			
		Replacement surgical tracheas			
		Soft carrying case			
		Hands-free blood refill bag			
		User Manual			
		MANUFACTURER: GAUMARD SCIENTIFIC, USA			
03	S300.100	ADULT ADVANCED LIFE SUPPORT TRAINING SIMULATOR	01	2,154,301.60	2154301.60
		Unit should teach ALS skills using realistic code scenarios. Software provided should provide important feedback by monitoring and recording each step of treatment: choice of treatment, amount of time you perform each vital function, and quality of intervention.			
		ANATOMY			
		Full-body, adult male patient simulator			
		<ul> <li>Articulated neck, jaw, arms, and legs</li> </ul>			
		Demonstrates head-tilt, and jaw thrust.			
		Eye lids can be opened or closed			
		<ul> <li>Palpable landmarks including ribs and xiphoidal process</li> </ul>			
		AIRWAY			
		Realistic Airway with tongue, visible vocal cords, trachea, and esophagus			
		Programmable airway sounds synchronized with respiratory rate			
		Perform Sellick's maneuver			
		Perform Bag Valve Mask ventilations			
	-				

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- · Supports oral and nasal intubation
- · Sensors detect and log endotracheal tube placement in the airway
- · Log individual or team participants' actions
- · Create, save, and print performance reports for debriefing

#### CARDIAC

- · Chest Compressions are measured and logged
- · Compressions generate palpable pulses
- · Defibrillate and pace using real devices
- · Programmable heart sounds synchronized with ECG
- · Program and monitor dynamic ECG rhythms using real monitor

#### CIRCULATORY

- · Automatic pulses generated by internal compressor
- · Pulses synchronized with ECG
- · Carotid (Bilateral)
- Brachial
- · Radial
- · Femoral (Bilateral)
- · Take Blood Pressure with included cuff
- · Auscultate Korotkoff sounds
- · Palpate pulse
- · Intraosseous access at right tibia
- · Intravenous Training Arm
- · Detect placement of pulse oximeter
- · Intramuscular injection sites
- · Bilateral Deltoids
- · Bilateral Quadriceps

#### BREATHING

- · Spontaneous breathing generated by internal compressor
- · Programmable chest rises and fall
- · Bilateral lung expansion with bag ventilation
- · Unilateral chest rises with right main stem intubation
- · Programmable lung sounds synchronized with respiratory rate

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Page 8 of 54

· Programmable Cyanosis REAL-TIME CPR FEEDBACK · Monitor CPR quality metrics in real-time · Time to CPR · Compression Depth/Rate · Chest Recoil · Compression Interruptions · Ventilation Rate Excessive Ventilation · Time to Defibrillation GASTRO-INTESTINAL · Practice placement of esophagus/gastric suctioning devices · Gastric distension with excessive BVM ventilation SIMULATOR CONTROL SOFTWARE · Powerful and intuitive software with active 3D patient animation · Edit or create your own scenarios · Remains fully functional even in transit COMMUNICATION AND POWER · Control the simulator from the laptop via included 15' cable · Powered from internal battery or wall outlet · Run simulations for up to 6 hours on the battery power · Code Blue III Adult · Laptop with Controller Software\* (includes 15" Communications Cable) \* · Modified Blood Pressure Cuff · Replacement Intraosseous Bones (7) · IV Filling Kit Charger · Instruction Manual · 20 Inch All-in-One Touch Screen Patient Monitor

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12 Lead ECG
 CO2 Exhalation

		MANUFACTURER: GAUMARD SCIENTIFIC, USA			
04	S152	PEDIATRIC BLS SIMULATOR TORSO WITH CONTROLLABLE TABLET	02	134,561.70	269,123.40
		FEATURES			
		Fully articulating head and jaw with teeth and tongue			
		<ul> <li>Individual disposable airways to practice hygienic mouth-to-mouth ventilation</li> </ul>			
		Airway blocked when head is forward			
		<ul> <li>Easily accessible chest cavity with molded ribcage, lungs, and heart</li> </ul>			
		Realistic chest rises during ventilation			
		Femoral venous site			
		Carotid and femoral arterial pulse points			
		<ul> <li>Individual disposable airways to practice hygienic mouth-to-mouth ventilation</li> </ul>			
		Soft, lifelike face skin with molded hair			
		<ul> <li>Eyes open and close in realistic eye sockets for ophthalmic purposes</li> </ul>			
		One normal eye and one eye dilated			
		Bends at waist			
		<ul> <li>Jointed elbows, wrists, knees and ankles</li> </ul>			
		Realistic hands, feet, fingers and toes			
		Detachable at waist for easy storage			
		Practice regular or Vest CPR			
		<ul> <li>Monitor/log compressions and ventilations, Wireless Controller Pad. Included.</li> </ul>			
		Exercise suit			
		Custom nylon carrying bag			
		Instruction Manual			
		MANUFACTURER: GAUMARD SCIENTIFIC, USA			
05	S102,250,M	CPR NEWBORN WITH CONTROLLABLE TABLET	02	416,664.80	833,329.6
		FEATURES			
		Fully articulating head and jaw with tongue			
		Safe CPR individual disposable airways to practice hygienic mouth-to-mouth ventilation			
		Controllable Tablet monitors and logs the cadence and depth of cardiac compression and airway			
		ventilation			

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		Arterial pulse points			
		Soft, lifelike face skin with molded hair			
		T-shirt and shorts			
		Instruction manual			
		Custom nylon carrying bag			
		Arterial pulse points			
		Soft, lifelike face skin with molded hair			
		T-shirt and shorts			
		Instruction manual			
		Custom nylon carrying bag			
		MANUFACTURER: GAUMARD SCIENTIFIC, USA			
06	S315.400	ADULT MULTIPURPOSE AIRWAY AND CPR TRAINER	01	479,591.70	479,591.70
		The advanced airway trainer allows learners to practice recognizing and managing a difficult airway via endotracheal intubation or surgical intervention, perform CPR, and treat tension pneumothorax. Should have lifelike features and operate without external power or batteries. Simply pressurize the internal reservoir using a standard BVM and it's ready for use.			
		FEATURES			
		Realistic airway which is manually programmable to include tongue edema, laryngospasm and pharyngeal			
		swelling			
		Use NP/OP tubes, ventilate, and intubate			
		Realistic chest compression/recoil			
		BVM produces realistic chest rise			
		Intubate using conventional adjuncts			
		Inflating lungs produces realistic chest rise			
		Gastric distention			
		Easy neck flexion and extension			
		Unilateral chest rises with right main stem intubation			
		Lungs can be disabled independently			
		Surgical airway procedures such as tracheostomy and needle or surgical cricothyrotomy			
		Supplied with normal and surgical cricoid cartilage inserts, allowing for longitudinal and transverse incisions			
		Bilateral needle decompression at 2nd intercostal space			
		Bilateral drainage at 5th intercostal space using conventional large diameter chest tubes			
		Reneumatic controls powered by internal reservoir charged using supplied manual pump or a			
		A meumatic controls powered by internal reservoir charged using supplied manual pump or a			

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		conventional BVM			
		Multifunctional, compact, portable			
		Eyes may be open or closed			
		Adult male upper body and head			
		Silicone face/head skin for realistic jaw thrust, head tilt/chin lift	1		
		ITEMS INCLUDED			
		Full-size adult male head and torso			
		Ventilation trachea insert			
		Mini hand pump			
		Surgical trachea kit:			
		5 Surgical trachea inserts			
		10 Trachea skin covers			
		10 Simulated cricothyroid membranes			
		Replaceable needle pneumonia. sites			
		Mineral oil lubricant			
		Talcum powder			
		Instructions manual			
		Soft carrying bag			
		MANUFACTURER: GAUMARD SCIENTIFIC, USA			
		MANUTACTOREX, GAUMARD SCIENTIFIC, USA			
07	S300.105	ACLS AND EMERGENCY CARE PEDIATRIC SIMULATOR	01	1,769,839.60	1,769,839.60
		FEATURES:			
		<ul> <li>Vocal responses and sounds include complaints, replies, gagging, cough, gasping, and more</li> </ul>			
		Realistic airway with tongue, visible vocal cords, trachea, and esophagus			
		Supports oral and nasal intubation using an endotracheal tube, and other standard medical			
		devices			
		<ul> <li>Sensors detect depth of intubation</li> </ul>			
		<ul> <li>Unilateral chest rises with right main stem intubation</li> </ul>			
		<ul> <li>Intramuscular injection sites in deltoids and quadriceps for placement exercises</li> </ul>			
		Built-in rechargeable battery			
		■ 15in control laptop with Windows® operating system			
		<ul> <li>Supports Windows® applications, documents, and USB peripherals</li> </ul>			
		Includes USB communications module and cable			
		(CPR) Chest compression and ventilation performance sensors			

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		Realistic chest cavity and recoil			
		Chest compressions generate palpable pulses			
		Bilateral lung expansion and realistic chest rise during bag valve mask (BVM) ventilation  Visible partie distribution with expansion with expansion with expansion list that is a second control of the control of			
		<ul> <li>Visible gastric distension with excessive bagging with esophageal intubation</li> <li>Realistic chest rises and pulses after resuscitation. Internal air reservoir provides continuous</li> </ul>			
		operation for up to 2 minutes			
		<ul> <li>Defibrillate, cardiovert, and pace using real devices and adjuncts</li> </ul>			
		<ul> <li>Connect real electrodes to the conductive skin sites and monitor ECG using real medical equipment</li> </ul>			
		<ul> <li>Palpable carotid, brachial, radial, and femoral pulses</li> </ul>			
		<ul> <li>Auscultate heart and lung sounds</li> </ul>			
		<ul> <li>Programmable central cyanosis simulates hypoxic events and effective interventions</li> </ul>			
		<ul> <li>Measurable blood pressure with audible Korotkof sounds</li> </ul>			
		<ul> <li>Oximeter sensor placement detection on the left index finger</li> </ul>			
		<ul> <li>Intraosseous access at right tibia</li> </ul>			
		IV access for medication infusion			
		MANUFACTURER: GAUMARD SCIENTIFIC, USA			
08	S300.110	NEWBORN ADVANCED LIFE SUPPORT TRAINING SIMULATOR	01	1,385,377.60	1,385,377.60
		N - 1 1 1 17 2 2 - 1 1 1 N - CDD - 1 1 1 1 C - 1 1 C - 1 1			
		Neonatal Advanced Life System is used with New CPR standards have some features like Oral and nasal intubation on a sensible airway with tongue, vocal cords, trachea and esophagus. ET tube or LMA			
		Oral intubation plus suctioning Sensors detect the depth of intubation. Chest rise is unilateral with right			
		main stem intubation; Visible gastric inflation with esophageal intubation; Color reacts to hypoxic events			
		and interventions; It houses aided ventilation; Bilateral lung expansion having realistic chest rise;			
		Gastric distension having unrestricted BVM Ventilation is measured and logged; Conductive skin regions			
		permit ECG monitoring with real equipment; Chest compressions are measured and logged Left side			
		brachial, pedal, popliteal and radial pulse, Umbilical pulse and catheterization; Blood pressure			
		auscultation in left arm Korotkoff sounds which can be heard between systolic and diastolic pressures;			
		Oxygen saturation placement detection is done on the palm of the right hand by using a real monitor.			
		MANUFACTURER: GAUMARD SCIENTIFIC, USA			
09	IW931	INFANT WARMER	01	787,790.57	787,790.57
		Easily transported with an integrated bassinet, with tilt mechanism and transport handle. The bassinet			
		comes with appropriate sized mattress. An X- Ray Tray is fitted at a proximity of the cassette to the			
		bassinet base ensures high quality images. With built in wave length & intensity optimization, even irradiance distribution, efficient head assembly, internal overheat protection, color corrected examination			
		light.			
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ALARMS	MANUAL CONTROL	
	Check Baby	
	See Manual	
	Power Fail	
	High Skin Temperature	
WITH	Prewarm, Baby and Manual Heater Modes	
	2 Procedure Timers	
	Examination Light	
	APGAR Timer	
	Tilt mechanism	
	Transport Handle	
	• 4 x 10cm Lockable Castors	
	Skin Sensor - Reusable	
ELECTRICAL	230 ± 20 VAC	
SUPPLY VOLTAGE	to the state of the contract	
SUPPLY FREQUENCY	50 / 60 Hz	
MATTRESS	Mattress irradiance is 32 MW/cm2 at 100% heat cm	
IRRADIANCE	(26.8") heater grill to mattress distance	
TEMPERATURE RANGE	Set Temp from 34.5°C to 37.5° in 0.1°C steps Displayed	
	Temperature from 4.0°C to 50.0°C	
TEMPERATURE ALARM	± 1°C from Set Temperature	
HEATER HEAD ROTATION	-130° to +130° from center position	
HEIGHT	172 cm (68")	
WIDTH	77 cm (30") -Excluding shelves	
BASSINET SIZE (STANDARD)	65 cm x 65 cm (26" x 26") Standard Mattress size (24" x 24")	
BASSINET TILTING POSITIONS	-10° to +10° in ½° - increments	
CASTORS	4 x Ø10 cm (4") all locking	
MATTRESS HEIGHT	91 cm (36")	
MAXIMUM LOADING	85 kg (187 lb) of accessories - Includes patient 140 kg (308 lb) total weight	
WEIGHT WITHOUT ACCESSORIES	55 kg (121 lb)	

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	MANUFACTURER: FISHER & PAYKEL, NEWZEALAND			
10 ACTILIT	PATIENT BED	04	434,794.84	1,739,179.36
	A High end fully motorized also bed for use in intensive cardiac applications. Features:  W Trendelenburg And Reverse Trendelenburg Height-Adjustable by Tie Rod  Trendelenburg & Reverse Trendelenburg -  Upper Torso Raising and Electric Leg Flexing +  Knee Flexing Fowler Position (Auto-contour)- Cardiac Chair  Electric Feet Rising  Upper Torso Raising with Mattress Platform Extension for Pressure Ulcer Reducing Risks  Bedspring Extension 20 Cm -  Electric Jack Low Tension 24v. IP X4 With Fire  Protection Envelope UL 94 V0  Integrated Battery  Bedding holder extension at bed's feet and 4 ring shaped stops  Technical Specifications:  Minimum height: 450 mm Maximum height: 765 mm Maximum inclined position adjustment (forward / backward): 12° Maximum upper torso raising adjustment: 68° Servo-assisted foot section: 25°  Weight: 120 kg Maximum capacity: 200 kg Supply voltage: 200 V - 50 Hz Operating voltage: 14 VCC IP protection rating: IP 66 Useful area: 2000 x 900 mm Electrical classification: IB  MANUFACTURER: AHF MOBILIER HOSPITALIER, FRANCE			

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PEDIATRIC INJECTION TRAINING ARM	03	46,661.20	139,983.60
The injection training arm and hand simulates that of a 5-year-old, with lifelike venous structure. The dorsum of the hand has two veins for additional intravenous set-up and training. The flexor and lateral sides of the arm contain sites for subcutaneous injection practice. The deltoid contains an intramuscular injection site.		-	
FEATURES  Intravenous injections, infusion, and blood collection training  Subcutaneous injections in both flexor and lateral sides of forearm  Intramuscular injections in deltoid  Lifelike venous structure  Dorsum of hand has two veins for additional intravenous set-up  Squeeze bulb simulating either collapsed or distended veins  Easily replaceable skin and veins that withstand multiple needle sticks			
<ul> <li>Mounted on smoked Lucite® base and supplied with blood bag and stand, synthetic blood concentrate, squeeze bulb, and spare arm skin</li> <li>Soft carrying bag, Instruction manual</li> </ul>			
	01	389,555.30	389,555.30
The Newborn Skills Trainer was designed with anatomic resemblance and realistic articulation to aid educators prepare learners for simulation-based education. Train skills like intubation, ventilation, compressions, IV cannulation, umbilical catheterization and more.  GENERAL  • Full-term neonate of size/weight: 8 lbs 19.5 in/ Smooth, full-body skin  • Realistic resistance and range of joint articulation including flexible spine  • Detachable umbilical cord & Palpable lumbar landmarks for needle insertion  AIRWAY  • Anatomically accurate oral cavity and airway: including gums, tongue, epiglottis, glottis, and vocal cords  • Practice endotracheal intubation with standard adjuncts  • Supports placement of supraglottic airway devices  • Perform Sellick maneuver  • Supports positive-pressure ventilation via BVM, nasopharyngeal, or oropharyngeal intubation  RESPIRATORY			
	The injection training arm and hand simulates that of a 5-year-old, with lifelike venous structure. The dorsum of the hand has two veins for additional intravenous set-up and training. The flexor and lateral sides of the arm contain sites for subcutaneous injection practice. The deltoid contains an intramuscular injection site.  FEATURES  Intravenous injections, infusion, and blood collection training Subcutaneous injections in both flexor and lateral sides of forearm Intramuscular injections in deltoid Lifelike venous structure Dorsum of hand has two veins for additional intravenous set-up Squeeze bulb simulating either collapsed or distended veins Easily replaceable skin and veins that withstand multiple needle sticks Mounted on smoked Lucite® base and supplied with blood bag and stand, synthetic blood concentrate, squeeze bulb, and spare arm skin Soft carrying bag, Instruction manual  MANUFACTURER: GAUMARD SCIENTIFIC, USA  NEWBORN SKILLS TRAINER  The Newborn Skills Trainer was designed with anatomic resemblance and realistic articulation to aid educators prepare learners for simulation-based education. Train skills like intubation, ventilation, compressions, IV cannulation, umbilical catheterization and more.  GENERAL Full-term neonate of size/weight: 8 lbs 19.5 in/ Smooth, full-body skin Realistic resistance and range of joint articulation including flexible spine Detachable umbilical cord & Palpable lumbar landmarks for needle insertion AIRWAY Anatomically accurate oral cavity and airway: including gums, tongue, epiglottis, glottis, and vocal cords Practice endotracheal intubation with standard adjuncts Supports placement of supraglottic airway devices Perform Sellick maneuver Supports placement of supraglottic airway devices Perform Sellick maneuver	The injection training arm and hand simulates that of a 5-year-old, with lifelike venous structure. The dorsum of the hand has two veins for additional intravenous set-up and training. The flexor and lateral sides of the arm contain sites for subcutaneous injection practice. The deltoid contains an intramuscular injection site.  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GENERAL  Full-term neonate of size/weight: 8 lbs 19.5 in/ Smooth, full-body skin  Realistic resistance and range of joint articulation including flexible spine  Detachable umbilical cord & Palpable lumbar landmarks for needle insertion  AIRWAY  Anatomically accurate oral cavity and airway: including gums, tongue, epiglottis, glottis, and vocal cords  Practice endotracheal intubation with standard adjuncts  Supports positive-pressure ventilation via BVM, nasopharyngeal, or oropharyngeal intubation  RESPIRATORY	The injection training arm and hand simulates that of a 5-year-old, with lifelike venous structure. The dorsum of the hand has two veins for additional intravenous set-up and training. The flexor and lateral sides of the arm contain sites for subcutaneous injection practice. The deltoid contains an intramuscular injection site.  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GENERAL  Full-term neonate of size/weight: 8 lbs 19.5 in/ Smooth, full-body skin  Realistic resistance and range of joint articulation including flexible spine  Detachable umbilical cord & Palpable lumbar landmarks for needle insertion  AIRWAY  Anatomically accurate oral cavity and airway: including gums, tongue, epiglottis, glottis, and vocal cords  Practice endotracheal intubation with standard adjuncts  Supports positive-pressure ventilation via BVM, nasopharyngeal, or oropharyngeal intubation  RESPIRATORY

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	Chest tube insertion CARDIAC  Realistic resistance for chest compressions and recoil Palpable pulses generated with manual pressure bulb: fontanelle, umbilical, brachial, and femoral  VASCULAR ACCESS IV cannulation: bolus infusion, and sampling - hand - scalp - umbilicus Umbilical catheterization (UVC/UAC): access, continuous infusion, and sampling Bilateral heel stick with blood draw Lumbar puncture: catheterization, infusion, and sampling Anterolateral thigh intramuscular injection Bilateral intraosseous tibial infusion  GASTROINTESTINAL Allows nasogastric and orogastric intubation Perform feeding and suction through gastric tubes Ileostomy, colostomy, and suprapubic stomas for ostomy care and drainage exercises Interchangeable male and female genitalia Urinary catheterization with fluid return  ACCESSORIES (3) Stomas (3) Umbilical Stumps Umbilical Cord (3) Lumbar Inserts (6) Replacement Intraosseous Tibial Bones (4) Heel Stick Inserts			
	MANUFACTURER: GAUMARD SCIENTIFIC, USA			
13 MW8	TUBE FEEDING SIMULATOR NG, OG AND PEG	02	280,364.00	560,728.00
	Tube Feeding Simulator is an effective training tool for caregivers and healthcare professionals to acquire skills of enteral tube nutrition. The manikin has three routes for EN tubes and allows training with real liquid foods.  Oral/Nasal feeding tube insertion and PEG tube setting.  Tube placement can be confirmed by auscultation.  The transparent structure allows direct observation of progress and placement of the tube.  The manikin can be set at Fowler's position.  Real liquid foods (formulas) can be administrated.			
	<ul> <li>The tube feeding routes panel and the chest sheet facilitate demonstration and anatomical understanding.</li> <li>Includes:</li> <li>1 male torso</li> </ul>			

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		<ul> <li>1 support base</li> <li>1 drain tube</li> <li>1 funnel</li> <li>1 plastic cup</li> <li>1 tube feeding routes panel</li> <li>1 chest sheet</li> </ul>			
		1 instruction manual			
		MANUFACTURER: KOYOTO KAGAKU, JAPAN			
		NURSING STUDENT ROOM			
14	LF01083U	TRACHEOTOMY CARE SIMULATOR	01	101,537.40	101,537.40
		Suctioning techniques, proper cuff inflation, dressing changes. The simulator replicates an adult male containing oral and nasal passages and all appropriate anatomy - pharynx, epiglottis, trachea, esophagus, stoma, cricoid cartilage, and representative cervical vertebrae.			
		MANUFACTURER: LIFE FORM, USA			
15	W44004	INTRAMUSCULAR INJECTION SIMULATOR	01	126,852.00	126,852.00
		A simulated bony structure is embedded in the torso and represents the superior end of the femur, or greater trochanter, the posterior superior and anterior superior iliac spines, and the sacrum. The bony structure provides palpable anatomical landmarks so students can identify proper injection sites: dorsogluteal, ventrogluteal, and vastus lateralis injections.			
		MANUFACTURER: 3B SCIENTIFIC, GERMANY			
16	V400P	CENTRAL VENOUS CATHETER SIMULATOR	02	202,253.30	404506.60
		A lifelike model of the human torso, with detachable right arm, that enables health care providers to learn and demonstrate competency with long term vascular access devices: implanted ports, central venous catheters, and peripherally inserted central catheters. All the vascular access devices used are actual clinical devices. Blood reservoir bag permits fluid infusion or "blood" withdrawal.			
		FEATURES			
		<ul> <li>Simulate wandering or shifting devices, tilting or tipping devices, or deeply placed devices when accessed through the outer tissue flap</li> </ul>			
		Outer tissue flap feels like human tissue. Skin moves when palpated			
		Central venous catheter			
- 6		Peripherally inserted catheter			

		Blood reservoir bags, tubing, talcum powder			
		Soft carrying bag			
		MANUFACTURER: GAUMARD SCIENTIFIC, USA			
17	LF04001U	GERIATRIC NURSING SKILLS MANIKIN	01	382,478.00	382,478.00
		Features the following nursing skills:			
		Normal and Cancerous Mole			
		Stage 1 Sacral Ulcer			
		Dilated and Constricted pupils			
		Reddened Skin Folds			
		Bandaging and Wound Dressing			
		Bed Baths			
		Clothing Changes			
		Denture Placement and Removal, Upper and Lower			
		Ear Canal Irrigation, Otic Drops, and Hearing Aid Placement			
		Eye Irrigation			
		<ul> <li>Finger and Toe Manipulation with Bandaging - Flexible and Individually Molded</li> </ul>			
		Hair Care Washing and Combing			
		Intramuscular Injection Sites: Arm, Thigh, Buttock			
		<ul> <li>Oral and Nasal Hygiene: Lavage, Gavage, and Suctioning</li> </ul>			
		Ostomy Care: Ileostomy and Colostomy Tissue			
		Maintenance and Appliance Application, Lavage, and Suctioning			
		Patient Positioning			
		Patient Transfer Techniques			
		Pedicare			
		<ul> <li>Tracheostomy Care, Lavage and Suctioning</li> </ul>			
		MANUFACTURER: LIFE FORM, USA			
18	MicroLab	SPIROMETER	01	220,162.00	220,162.00
		Color-guided usability			
		<ul> <li>The functions can be easily accessed using the high-definition color touchscreen.</li> </ul>			
		Built-in printing			
		<ul> <li>It offers a built-in high-resolution printer and the option to print on external printers using a USB</li> </ul>			
		connection.  • On-screen convenience			
		Full flow volume and volume time curves let you inspect maneuvers as you follow test-quality prompts			
		on the screen.			
		Full configuration			
1		<ul> <li>The system allows up to 41 indexes to be selected, including predicted values and languages.</li> </ul>			

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	Tests performed Tests: FVC, SVC, optional pulse oximetry FVC, SVC, optional pulse oximetry Forced (FVC): FEV1, FVC, PEF, FEV1/FVC, FEV6, VC, FEV.75, FEV3, FEV.75/VC, FEV.75/FVC, FEV1/VC, (FER), FEV3/VC, FEV3/FVC, FEV.75/FEV6, FEV1/FEV6, FEF25 (MEF75), FEF50 (MEF50), FEF75 (MEF25), FEF25-75 (MMEF), FEF50/VC, FEF50/FVC, MMEF/FVC (FEF25-75/FVC), FIV1, FIVC, PIF, FIV1/FIVC (FIR), FIF25 (MIF75), FIF50 (MIF50), FIF75 (MIF25), R50 (FEF50/FIF50), MET25- 75, FET, MVV (ind) Relaxed (SVC): VT (TV), Ti, Te, Ti/Ttot, EVC, IVC, IC, VT/Ti (TV/Ti), IRV, ERV, FR Volume range: 0.1-8 L (gold standard turbine 0.1-9.99 L) Flow range: 0.2-15 L/s Accuracy: +/-3% to ATS recommendations Spirometry PC software Requirements: Windows® 2000, XP, 7 SpO2 module (not in the U.S.)  General SpO2 range/accuracy: 0-100% ±2 digits Heart range/accuracy: 18-300 BPM ±1 digit Test recording time: 20 sec-60 min Data recording: SpO2: 3x %SpO2 per sec BPM: 3x HR per sec Storage: 2,000+ patient tests including flow/volume loops and			
19 SPOT VS	Power supply: Input: 100–240 VAC 50–60 Hz Output: 5 V 2.0 A Battery pack: Rechargeable lithium polymer 3.7 V 1,600 mAh Dimensions: 10.03" x 4.72" x 1.38" (8 cm x 12 cm x 2 cm) Transducer: 1.9" x 2.36" x 3.54" (50 mm x 60 mm x 90 mm)  Transport and storage conditions Operation temperature: 0–40 °C (32–+104 °F) Weight, excluding transducer: 0.44 lb (200 g) Operating humidity: 30–90%, non-condensing Storage and transport temperature: -20–+70 °C Storage and transport humidity: 10–90% RH  MANUFACTURER: CAREFUSION, USA  VITAL SIGN MONITOR (PULSE OXIMETER)  The Vital Signs monitor provides vital signs in seconds with hospital-grade technology.	05	188,945.00	944,725.00 Page <b>20</b> o

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		<u>FEATURES</u>			
		Lightweight and portable with a variety of mounting options All configurations include NIBP, pulse rate and Nellcor® pulse oximetry (SpO2.			
		SPECIFICATIONS			
		Noninvasive Blood Pressure (NIBP) Cuff Pressure Range 0 to 300 mmHg Initial Cuff Inflation 160 mmHg (adjustable) Systolic Range 60 to 250 mmHg Diastolic Range 30 to 160 mmHg Mean Arterial 40 to 190 mmHg Pressure Range Blood Pressure Accuracy Blood pressure meets or exceeds SP10:1992 AAMI standards Blood Pressure 20-45 seconds typical Determination Time Overpressure Cutoff 315 mmHg ± 15 mmHg Pulse Rate Range 40 to 200 bpm (using BP determination) Pulse Rate Accuracy ± 5% (using BP determination) Temperature Measurement Range 86 °F to 109.4 °F (30 °C to 43 °C) Calibration Accuracy ± 0.2 °F (± 0.1 °C) (Monitor Mode) Determination Time Oral—Approximately 4 seconds Axillary—Approximately 10 seconds Rectal—Approximately 15 seconds Probe Oral/Axillary—Blue cap			
		Rectal—Red cap			
		SpO2 Performance 70% to 100% Measurement Range			
		Pulse Rate Range 25 to 240 bpm			
		MANUFACTURER: WELCH ALLYN, USA			
20	MW12	EAR EXAMINATION SIMULATOR	04	3,066.33	12,265.33
		Safe and reliable skills for examining the external acoustic meatus and tympanic membrane with a direct otoscope. Featured is an alarm if painful insertion is detected.			
0	Br.	FEATURES:  • Suitable for training with all types of direct ophthalmoscopes. The lens-equipped eyeball units reproduce the visual axis close to that of the human eye providing a realistic eye-ground view.  • When the instrument is used improperly, the ocular fundus will not be observed clearly.  • Pupil diameter can be changed.			

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		The depth of the fundus slides can be set in 3 steps, showing differences between hyperopic, normal and myopic views. Red reflex can be seen.  10 cases of fundus slides are provided for training in common eye disease identification. The slides were processed from actual clinical images to reproduce appropriate representative views in the eye unit. Soft and supple manikin material allows hands-on practice of examination procedures, such as raising the eyelid.  Should Include:  1 manikin head and shoulder 1 set of foreign body removal kit simulated ear wax, small toy, small sponge fragments and a spoon  CASES  1. normal 2. serious otitis media (SOM) 3. mucoid oitis media (MOM) 4. chronic otitis media (MOM) 6. cholesteatoma 7. Tympanosclerosis 8. traumatic perforations 9. cerumen block  LEARNING MODES 1. Self-learning mode 2. Instructor/Examination mode  TYPE OF EAR CANAL SIZES 1. Four types of ear units -4 pairs 2. Ear exam: normal / stenosis 3. FB ear: normal / stenosis Instruction Manual			
21	M82	EYE EXAMINATION SIMULATOR	04	1,460.72	5,842.88
	0	An innovative trainer for fundus examination, designed to allow examination of eye grounds with the physician's own ophthalmoscope. Various cases can be set up for trainees using combinations of choice of slides, depth and pupil diameter.  Soft and supple material allows hands-on simulation of real examination procedures, such as raising the eyelid.			

· Proposition

		FEATURES:			
		<ol> <li>Suitable for training with all types of direct ophthalmoscopes. The lens- equipped eyeball units reproduce the visual axis close to that of the human eye providing a realistic eye-ground view.</li> </ol>			
		2. When the instrument is used improperly, the ocular fundus will not be observed clearly.			
		Pupil diameter can be changed.			
		<ol> <li>The depth of the fundus slides can be set in 3 steps, showing differences between hyperopic, normal and myopic views.</li> </ol>			
		5. Red reflex can be seen.			
		<ol> <li>10 cases of fundus slides are provided for training in common eye disease identification. The slides were processed from actual clinical images to reproduce appropriate representative views in the eye unit.</li> </ol>			
		<ol><li>Soft and supple manikin material allows hands-on practice of examination procedures, such as raising the eyelid.</li></ol>			
		Should Include:			
		1 manikin head and shoulder			
		o 1 pupil switch: 3 steps (2, 3.5 and 5mm diameter)  M82A: 2 steps (3.5, 8mm diameter)			
		o 1 Slide holder with 3 step depth setting			
		1 side folder with 3 step depth setting     1 set of case slides (10 cases)			
		1 slide duster			
		1 carrying case			
		MANUFACTURER: KOYOTO KAGAKU, JAPAN			
22	M89	ORAL CARE SIMULATOR	04	723.78	2895.11
		Simulator trains for observant and attentive skills for the healthcare provider towards patients. The removable denture set allows for training in maintenance, cleaning and mirror operations inside of the mouth. The life-like texture leads to a realistic training experience for students.			
		<ul> <li>Allows for practicing realistic oral cleaning procedure with simulated residue and dentures.</li> </ul>			
		<ul> <li>Sets in various postures necessary for practicing multiple procedures.</li> </ul>			
		Basics of oral care			
		Maintenance of dentures and tongue			
	<b>V</b>	denture replacement skills			
	0)	Includes:			
2	D	1 oral model with base stand 1 mirror			
,	do D	1 Oral model with base stand 1 mirror			1

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		L to all times			
1		1 tooth brush 1 denture case			
		1 simulated residue			
		MANUFACTURER: KOYOTO KAGAKU, JAPAN			
		MANUFACTURER. ROTOTO REGARCIONIAN			
23	M66	MEDICAL FOOT CARE	04	695.94	2,783.76
		Maintaining a healthy condition of the patients' feet makes a difference in their quality of life and can be critical for people with diseases including diabetes. This model helps training in simple trimming of nails and callosities by healthcare providers, while serving as a useful tool for general education on basic foot care.			
		<ul> <li>Designed to facilitate training in nail clipping, trimming and smoothing away corns and callosities</li> <li>Replaceable nails, corn and callosities set on the life-size foot model provide excellent training opportunities with true-to-life feeling until the trainees build enough confidence to move on to actual patients.</li> <li>Helps to demonstrate anatomical landmarks, foot assessment procedures, foot massaging and other day-to-day treatment</li> </ul>			
		Includes:			
		1-foot model with swivel stand 20 toe nail A: thickened ingrown nail 20 toe nail B: thickened nail with ringworm			
		10 callosity pieces			
		10 corn pieces			
		MANUFACTURER: KOYOTO KAGAKU, JAPAN			
24	M87	STRAP-ON VENIPUNCTURE TRAINER (SET OF 5):	05	399.01	1,995.00
		The Strap-on Venipuncture Trainer for daily training and features a vein tube which makes three lines, two normal and one thin, around the center of the pad. This model has realistic tissue and vein wall resistance, and simulated blood (water) that can be filled and refilled easily using soft plastic bottle that works as a manual pump.			
		Features: This trainer can be strapped onto the upper arm of a SP Realistic tissue and vein wall resistance			
		Vein tube can be refilled easily using a soft plastic bottle that works as a manual pump.  Three vein tubes are embedded: 2 normal and 1 thin.			
		Includes: 5 puncture pads (vein tube embedded) 5 supporting frames			
,	D	with belt 5 injector tubes			
	1	5 injector tubes			

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		5 drain tubes 5 injection bottles			
		MANUFACTURER: KOYOTO KAGAKU, JAPAN			
25	M83	SUTURE PRACTICE TRAINERS	05	1,020.73	5,103.65
		FEATURES:			
		The soft skins are made of durable materials.			
		<ul> <li>You can create an original wound for training. The artificial skin can be cut easily at any site to prepare a novel wound.</li> </ul>			
		<ul> <li>Simple and durable supporters keep the soft skins arched or maintain tension in the tubular models.</li> </ul>			
		<ul> <li>All instruments for the practice session should be included in the package.</li> </ul>			
		<ul> <li>Skills for suture: abdominal skin suture, blood vessel suture, intestinal suture, limbs skin suture</li> </ul>			
		INCLUDES:			
		1 set of simulated skins, ducts and supporters			
		abdomen set: 2 abdominal skins			
		1 supporter			
		blood vessels set: 5 narrow tubes			
		• intestine set: 5 wide tubes, 1 supporter			
		limbs set: 2 narrow skins, 1 supporter 1 set of instruments			
		needle-holders,			
		suture needles,			
		scissors, suture threads and tweezers			
		1 storage case			
		MANUFACTURER: KOYOTO KAGAKU, JAPAN			
26	W44768	PERITONEAL DIALYSIS SIMULATOR - FOR CONTINUOUS AMBULATORY	02	126,852.00	253,704.0
		PERITONEAL DIALYSIS			
		Designed to introduce patients, students, and nurses to the essentials of CAPD procedures and care. Features a method to demonstrate and practice peritoneal dialysis. Complete with indwelling Tenckhoff catheter in a hard storage case.			
7		MANUFACTURER: 3B SCIENTIFIC, GERMANY			
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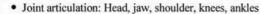
27 W44767	HEMODIALYSIS PRACTICE ARM  Hemodialysis Practice Arm features an established fistula is accessible and the system can be pressurized with artificial blood so that there is an actual flashback when a needle is introduced. The artificial blood approximates the pale shades usually common in dialysis patients. Easily maintained, this simulator is designed with replaceable skin and vascular system.  MANUFACTURER: 3B SCIENTIFIC, GERMANY	02	127,236.40	254,472.80
28 M53B	PROSTATE EXAMINATION SIMULATOR  The Prostate examination simulator provides realistic training in prostate palpation. Soft life-like anus and rectum material allows efficient training in examination skills. Ten types of prostates are placed in the simulator and the trainer can smoothly interchange them using a simple rotating system.  Three patient positions are possible. Compact and space-saving design.  FEATURES  • Built-in prostates can be quickly changed using a simple rotating switch:  • Useful for teaching a group of students and testing their achievement.  • Ten prostate cases for training: two types of normal prostates, two types of prostate-gland enlargements, one prostatitis and five types of carcinomas.  • Soft, life-like material of anus, rectal and lumbar torso provides realistic training in examination procedures, improving skills to diagnose prostate diseases.  • The improved lumbar torso can be placed in three patient positions: supine, prone and lateral position.  • 1 male lumbar torso, 1 rotating unit (10 prostate cases: 2 normal, 2 enlargements, 5 carcinomas and 1 prostatitis), 1 jar of Vaseline, 1 pair of gloves, 1 carrying case	02	318,060.00	636,120.00
	MANUFACTURER: KOYOTO KAGAKU, JAPAN			
29 90031	TRAINING LOCAL ANESTHESIA FOR MINOR SURGERY  FEATURES:  Local Anesthesia for Minor Surgery is designed as a resource to help convey the essential skills and techniques required to perform local anesthesia for minor surgery using ring blocks and various infiltration techniques.  Compact and portable  Computer animations, many with informative voiceovers, demonstrate the principles of the techniques.  Clinical video content shows the techniques being used in a real patient environment.  Video content shows the techniques being carried on the supporting synthetic soft tissue models	02	22,509.10	45,018.20

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		<ul> <li>Contains all the relevant instruments, surgical consumables and soft tissue models' necessary for hands on skills training and reinforcement.</li> <li>Single user license.</li> </ul> MANUFACTURER: ADAM ROUILLY, U. K			
30	GDLV17	NASAL HEMORRAGE SIMULATOR (NOSE BLEED TRAINER):	02	144,584.00	289,168.00
		<ul> <li>Developed in conjunction with the ENT Department of Addenbrooke's Hospital, Cambridge</li> <li>This interactive model provides a practical test of skill for all those who are required to manage severe nose bleeding</li> <li>Strongly recommended for all ENT and Casualty departments</li> <li>For training in cautery and nose packing</li> <li>Success of cautery, at four sites on septum, identified by light panel (battery included)</li> <li>The trainee must identify the bleeding point, clear it by suction and deal with it either by nasal packing or cautery.</li> </ul>	h		
		MANUFACTURER: LIFE FORM, USA		A.	
		EXAMINATION MODEL ROOM			
31	\$222.100.250	ADULT MANIKIN DESIGNED FOR TRAINING GENERAL NURSING CLINICAL SKILLS  Adult manikin designed for training general nursing clinical skills, including IV training, CPR, heart/lung auscultation, blood pressure reading, ostomy care, catheterization, GYN exam, and more. Should include a smart stethoscope and a control tablet which offers real-time CPR quality feedback, virtual patient monitor support, and debriefing tools.  GENERAL FEATURES  Full-body, adult size patient  Built-in wireless connectivity  Supports bathing and bandaging  Eye lids can be opened or closed; one pupil is dilated  Upper and lower dentures for oral hygiene  Supports NG and OG tube feeding and gastric suction  Soft, realistic face, hands, feet, fingers, and toes  Simulated ear canal supports drops and irrigation training  Palpable pulses: carotid (squeeze bulb) and radial (automatic)	01	1,124,633.50	1,124,633.5
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- · Interchangeable male and female organs
- · Realistic urethral passage and bladder for catheterization exercises
- Supports supine and sitting positions
- · Realistic hair for training haircare exercises and surgical draping
- Ulcerated foot
- · Interchangeable decubitus ulcers at gluteal region
- · Enema administration capability

### AIRWAY MANAGEMENT

- · Anatomically accurate airway including tongue, epiglottis, vocal cords and esophagus
- · Supports tracheotomy tube placement
- · Features realistic bronchi and lungs
- · Permits nasal and oral tube placement using standard devices

### CPR TRAINING WITH WIRELESS MONITOR

- · Real-time CPR quality metrics with performance reporting
- · Compression depth and rate
- · Ventilation rate
- · Excessive ventilation
- · No-flow time
- · CPR cycles
- · Realistic internal organs and anatomical landmarks for correct CPR hand placement
- · Realistic bilateral lung expansion with bag valve mask ventilation

### INTRAVENOUS INJECTION TRAINING

- · Advanced training arm and hand for IV, IM, and sub-Q techniques
- · Intramuscular injection sites in arm, thighs, and buttock.

#### HEART AND LUNG AUSCULTATION

- · Smart Stethoscope featuring 40 normal and abnormal heart and lung sounds
- 9 anterior 4 posterior auscultation sites
- · Features external speaker connectivity to listen to sounds aloud

# BLOOD PRESSURE AUSCULTATION

- Programmable blood pressure
- · Blood pressure gauge view lets you evaluate readings in real-time

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		Realistic and dynamic Korotkoff sounds synchronized with blood pressure controls     Automatic return of radial pulse				-
		Includes speakers with volume control for listening to KK sounds aloud				
		STOMA CARE				
		Transverse colostomy and ileostomy stomas support irrigation and cleaning				
		BREAST PALPATION				
		Includes 7 interchangeable breasts featuring varying tumors and diseases				
		Includes male breast inserts				
		GYN EXAMINATION				ì
		Includes set of 6 interchangeable cervices featuring normal and abnormal pathologies				
		Includes transparent uterus for IUD placement training			3	
		<ul> <li>Includes 10-12-week uterus for training palpation of normal and pregnant uteri</li> </ul>				
		Supports bi-manual pelvic examination				
		Supports speculum and uterine sound insertion				
		<ul> <li>Allows vaginal douching and pap smear exercises with realistic vagina and cervix</li> <li>MANUFACTURER: GAUMARD SCIENTIFIC, USA</li> </ul>				
32	S230.40	BREAST PALPATION SIMULATOR FOR CLINICAL TEACHING	01	210,468.30	210,468.30	
		Breast Palpation Simulator for Clinical Teaching combines state-of-the-art materials to create a realistic look, feel, and texture in addition to lifelike softness and durability. The simulator incorporates a combination of left and right breasts, including axilla regions, with a variety of masses that have distinct textures useful in recognizing normal and abnormal conditions. This simulator offers an excellent training platform on which breast examination techniques may be demonstrated.				
		The Breast Palpation Simulator's six interchangeable breasts include a variety of different pathologies for training of breast examination. An assortment of malignant and benign tumors is included within both the mammary and axilla regions.				
		Should Include:				
		3 interchangeable left breasts demonstrating chronic mastitis, benign growth, and cirrhosis carcinoma				
		3 interchangeable right breasts demonstrating carcinoma and the "orange skin"				
		effect, giant sarcoma, and normal breast tissue				
		Lifelike softness				
		Realistic texture and look				
10	$\cap$	<ul> <li>Durable Breasts are attached to adult upper torso and can be easily removed and re-assembled</li> </ul>				
1	60	The trainer can be used in either the upright or reclining position		(		
war (		3 Colin wh				
	l	> What I want			Page <b>29</b> o	f

		Soft carrying bag     Instruction manual			
		MANUFACTURER: GAUMARD SCIENTIFIC, USA		1	
33	S415	BLOOD PRESSURE TRAINING SYSTEM WITH CONTROLLABLE TABLET	01	148,691.50	148,691.50
		The Blood Pressure Training System includes a full-size adult left arm. This is a versatile training tool developed to assist health professionals teach the processes and skills required to perform blood pressure auscultation procedures and techniques.			
		FEATURES			
		<ul> <li>Programmable, palpable radial pulse when cuff pressure is less than the selected systolic blood pressure</li> <li>Korotkoff sounds K1 through K4 (K5 is silence) audible between systolic and diastolic pressures</li> </ul>			
		<ul> <li>Korotkoff sounds automatically silenced if auscultation gap is selected</li> <li>Korotkoff sounds automatically adjusted depending upon selected heart rate and the rate of cuff deflation</li> <li>Conventional stethoscope to auscultate Korotkoff sounds in the antecubital area Programmable</li> </ul>			
		Blood Pressure Auscultation Tutor			
		Adjustable systolic and diastolic pressures     Adjustable auscultation gap			
		Adjustable pulse rate			
		Display tracks cuff pressure     International power supply 100 to 240VAC			
		Optional speakers with volume control allow students to hear what the individual student hears while using the stethoscope     Soft carrying bag			
		MANUFACTURER: GAUMARD SCIENTIFIC, USA			
34	S401.100	ADVANCED MULTIPURPOSE VENOUS TRAINING ARM	02	58,983.70	117,967.4
		FEATURES:			
		Combining all features required for IV, IM, and sub-Q training in a challenging simulator.			
		Connects to all adult simulators			
		Subtle venous network in arm and hand			
		Cephalic, basilica, antecubital, radial, and ulnar veins     Realistic "pop" as needle enters vein			
- 0	$\bigcap$	Intramuscular injection site in deltoid area			
Dow.	60	Subcutaneous injection areas on the volar side of the forearm and the lateral side			
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36	M99	ARTERIAL PUNCTURE TRAINING WRIST	03	2,765.22	8,295.66
		Arterial Puncture Training Wrist should feature palpable arterial pulsation, realistic resistance of tissue and artery wall to injection needle. Natural flashback of artificial blood into the needle can be observed. Puncture skin, pad an artery tube should be replaceable. No puncture trace remains on the injection site. One-touch, leak-free connections. This innovative simulator is designed to provide training in arterial puncture and practicing complete skills ranging from the needle insertion to catheter insertion. This simulator helps to cultivate the skills in this challenging procedure.	10000		
		FEATURES:			
		Arterial pulsation is palpable.			
		Realistic resistance of tissue and artery wall felt with the injection needle.			
		<ul> <li>Natural flashback of artificial blood into the needle can be observed. Radial arterial line placement can be simulated.</li> </ul>			
		<ul> <li>No puncture trace remains on the injection site. Catheter insertion procedure can be simulated. Radial arterial puncture</li> </ul>			
		Artery blood sampling Radial line placement			
		Catheter insertion and placement			
		Includes:  1 wrist and hand model 1 circulation pump  2 sets of puncture skin (inner and outer skin) 4 artery tubes			
		1 silicon tape 1 jar of coloring powder (red) 1 air bulb			
		1 spoon			
		1 plastic jars			
		2 connection tubes			
		1 vinyl sheet 1 carrying case			
		MANUFACTURER: KOYOTO KAGAKU, JAPAN			
		MANOFACTURER: ROTOTO KAGAKU, JAPAN			
37	S230.10	ADVANCED PATIENT CARE SIMULATOR MALE AND FEMALE CATHETERIZATION SIMULATOR:	01	67,363.00	67,363.00
		Simulator should combine the features of a female and male catheterization simulators. Use of this simulator will give your students the confidence required to perform this basic nursing procedure.  FEATURES			
		Complete catheterization training			
	0	Interchangeable, realistic male organ			
الم	- /-	Fully functional stomas connected to removable, replaceable internal tanks			

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		Soft carrying bag     MANUFACTURER: GAUMARD SCIENTIFIC, USA			
38	S230.5	ADVANCED PATIENT CARE ENEMA SIMULATOR	01	5,1590.20	5,1590.2
		Modular rectal valve to simulate sphincter mechanism			
		Enema administration kit			
		Smoked Lucite® stand for enema bag Instruction manual     Solver in the second standard			
		Soft carrying bag			
		MANUFACTURER: GAUMARD SCIENTIFIC, USA			
39	S230.11	MULTIPURPOSE MALE CARE SIMULATOR	01	88,886.30	88,886.
		Full size male lower torso			
		Internal bladder for catheterization			
		Four interchangeable prostates depicting moderately enlarged benign prostate, prostate with two			
		<ul> <li>discreet nodules, prostate with easily palpable large mass, prostate with malignant invasive cancer</li> <li>Realistic penis and two scrotal sacks; one scrotal sack is normal, the other contains tumors in</li> </ul>			
		each testicle			
		<ul> <li>No Scalpel Vasectomy kit containing two removable scrotal skins, two testicles and two long vas assemblies that can be advanced as needed for NSV exercises</li> </ul>			
		<ul> <li>Rectum and colon containing benign and malignant masses easily visualized using an appropriate endoscope</li> </ul>			
		Soft carrying bag			
		Instruction manual			
		MANUFACTURER: GAUMARD SCIENTIFIC, USA			
40	ACTILIT	PATIENT BED	01	434,794.84	434,794
		A High end fully motorized also bed for use in intensive cardiac applications.			
		FEATURES:			
		W/ Trendelenburg And Reverse Trendelenburg Height-Adjustable by Tie Rod			
		Trendelenburg & Reverse Trendelenburg -			
, 5	^	Upper Torso Raising and Electric Leg Flexing +			
02000	· BN	Knee Flexing Fowler Position (Auto contour)- Cardiac Chair			
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Sulva		in transit. Immersive and realistic labor and delivery simulation experience.  FEATURES  • Full-term mother with unsurpassed realism and lifelike appearance  • Anatomically correct with realistic proportions  • Innovative realistic skin			Page 34 of
	41 S2200.M	ADVANCED BIRTHING SIMULATOR  Obstetric patient simulation anywhere training needs to take place. Transport simulator from the birthing suite to the operating room without interrupting the flow of simulation and learning. With Victoria, educators can implement simulations for triage, team training and team hand-on and improve performance in areas where mistakes often occur.  Cutting edge manikin with full body supple skin. Seamless joints. Tether less. Wireless. Fully operational	01	10,843,800.00	10,843,800.00
		IP protection rating: Useful area: Electrical classification:  MANUFACTURER:  AHF MOBILIER HOSPITALIER, FRANCE  LABOUR AND DELIVERY			
		Protection Envelope UL 94 V0  Integrated Battery Bedding holder extension at bed's feet and 4 ring shaped stops  Technical Specifications: Minimum height: 450 mm Maximum height: 765 mm Maximum inclined position adjustment (forward / backward): 12° Maximum upper torso raising adjustment: 68° Servo-assisted foot section: 25° Weight: 120 kg Maximum capacity: 200 kg Supply voltage: 200 V - 50 Hz Operating voltage: 24 VCC			
		<ul> <li>Electric Feet Rising</li> <li>Upper Torso Raising with Mattress Platform Extension for Pressure Ulcer Reducing Risks</li> <li>Bedspring Extension 20 Cm -</li> <li>Electric Jack Low Tension 24v. IP X4 With Fire</li> </ul>			

- · Human-like articulation
- · Tether less technology
- Fully operational for up to 10 hours while untethered
- Administer epidurals
- · Wireless speech

#### MONITORING

- Use real medical equipment to monitor mother and fetus: Fetal heart tones and contractions ECG monitor
   Defibrillator Pulse oximeter Automatic blood pressure cu
- · Perform Leopold maneuvers and external version exercises
- · Palpate realistic contractions

#### DELIVERY

- Precision Delivery System allows for: natural fetal movement during birth whisper-quiet and smooth operation - precise repetition of even the most complex delivery scenarios
- · Amniotic fluid reservoir provides realism and lubrication during delivery
- Perform the following delivery scenarios: Normal delivery Breech Shoulder Dystocia C-section -Assisted deliveries with forceps or vacuum devices

### BIRTHING BABY (included)

- · Full-term baby with unsurpassed realism and lifelike appearance
- · Anatomically correct with realistic proportions, size and weight
- · Innovative realistic skin
- · Realistic newborn articulation
- · Tether less technology
- Baby can present the following signs of health or distress: Heart and lung sounds Movement Crying Cyanosis

#### POSTPARTUM

- · Realistic postpartum hemorrhaging with programmable flow control
- · Perform fundal massage or the insertion of a balloon tamponade device
- · Repair 1st to 4th degree episiotomies using real surgical equipment
- Realistic placenta and umbilical cord can be delivered normally, but also allow for the simulation of various complications including: - Nuchal cord - Cord prolapse - Placenta previa - Retained fragments

CONTROL SOFTWARE

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• Pow	verful and easy to use software with active 3D patient animation		
• Con	trol Victoria with a tablet PC from up to 300ft away		
• Com	replete, precise and repeatable control over Victoria, the birthing baby and the labor and delivery process		
• Over	r 30 preprogrammed obstetric scenarios included		
• Edit	or create your own scenarios		
• Auto	omatic Mode and Drug Recognition System		
	nains fully functional even in transit		
INCLU			
•	Package: 12" Touchscreen Windows® Tablet PC preloaded with		
•	Simulator Control Software		
•	Integrated automatic drug recognition		
•	(20) Drug recognition syringes		
•	50 Virtual Medications		
•	Wireless router		
•	Active birthing baby		
•	C-section baby		
•	Palpation abdominal cover		
•	Contraction abdomen		
•	C-section abdomen		
•	Postpartum Abdomen		
•	(2) umbilical cords		
•	(2) precut umbilical cords		
•	Placenta · Epidural insert	- 1	
•	(2) C-section abdominal skins		
•	Healthy PPH perineum		
•	Midline episiotomy trainer		
•	Mediolateral episiotomy trainer		
•	4th degree episiotomy trainer		
•	(2) suppositories		
•	Artificial blood concentrate		
•	Mineral oil		
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Hospital gown
BP Cuff

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		Receiving blanket			
		Delivery ring			
		Birthing baby cradle			
		Delivery rods			
		Fluid filling kit			
		NIBP calibration kit			
		Vein replacement set			
		Spare cervix			
		Spare birth canal			
		Active baby			
		Training Guides			
		MANUFACTURER: GAUMARD SCIENTIFIC, USA			
	HAVE STANDARD			1927 - 204 - 204	Note that the state of the stat
42	Actilit	PATIENT BED	01	434,794.84	434,794.84
		A High end fully motorized also bed for use in intensive cardiac applications.			
		FEATURE			
		FEATURES:  • W/ Trendelenburg And Reverse Trendelenburg Height-Adjustable by Tie Rod			
		Trendelenburg & Reverse Trendelenburg -  Trendelenburg & Reverse Trendelenburg -			
1 1		Upper Torso Raising and Electric Leg Flexing +			
		Knee Flexing Fowler Position (Auto-counter)- Cardiac Chair			
		Electric Feet Rising			
		Upper Torso Raising with Mattress Platform Extension for Pressure Ulcer Reducing Risks			
		Bedspring Extension 20 Cm -			
		<ul> <li>Electric Jack Low Tension 24v. IP X4 With Fire</li> </ul>			
		Protection Envelope UL 94 V0			
		Integrated Battery			
		<ul> <li>Bedding holder extension at bed's feet and 4 ring shaped stops</li> </ul>			
		Technical Specifications:			
		Minimum height: 450 mm			
		Maximum height: 765 mm			
		Maximum inclined position adjustment (forward / backward): 12°			
		Maximum upper torso			
1		raising adjustment: 68° Servo-assisted foot section: 25°			
2					
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		Maximum capacity: 200 kg Supply voltage: 200 V - 50 Hz Operating voltage: 24 VCC IP protection rating: IP 66 Useful area: 2000 x 900 mm Electrical Classification: 1B  MANUFACTURER: AHF MOBILIER HOSPITALIER, FRANCE			
43	FV2	<ul> <li>2 section removable approx. 75mm thick Vinyl PVC cover P.U. foam mattress - Black Color.</li> <li>Height adjustment from 51 to 91 cm</li> <li>Ergonomic upholstery with high comfort, width 700mm, fire retardant,</li> <li>18 colors available for upholstery. Specially developed for a good comfort: (with head rest, lumbar support at the bottom of the back rest)</li> <li>Base in grey color, shaped specially designed for good cleaning, very light and resistant, with two telescopic columns system giving high stability</li> <li>Trendelenburg position</li> <li>Inclination of the seat is electric</li> <li>Back rest adjustment with electric jack</li> <li>Controller: Hand remote with fixation on the right or on the left of the chair, and a pedal controller with a selection button</li> <li>Equipped with a pair of leg rests, a stainless-steel drawer, and 2 lateral side rails to adapt a lot of accessories, a paper roll holder, 4 design double directional antistatic wheels, non-marking, diameter 150mm with a central brake system</li> <li>Load capacity: 200 kg</li> </ul>	01	563,877.60	563,877.60
44	\$502	FAMILY PLANNING EDUCATOR  Our family planning educator is a popular "desktop" simulator for demonstration of introduction and removal of an IUD, diaphragm, and sponge contraception devices. In addition, bi-manual examination technique may be practiced and normal and abnormal uterine positions may be demonstrated. The vulva is made of ultra-soft vinyl to give lifelike feel and flexibility.  Includes:  One ant everted uterus with clear upper half to illustrate correct position of IUD  One uterus to illustrate normal ante version  Cervix with patent so attaches to uterus suspended within pelvic cavity	02	36,638.90	73,277.80 Page 38

		Soft plastic stomach cover     Instruction manual     Soft carrying bag  MANUFACTURER: GAUMARD SCIENTIFIC, USA			
45	S500.300	ADVANCED GYNAECOLOGIC SIMULATOR  The childbirth training torso is designed to aid educators teach labor and delivery management skills to learners of all levels. The anatomically accurate pelvis and full- term neonate allows learners to develop clinical skills transferable to scenario- based exercises.  FEATURES:  Realistic Palpable Anatomy: Palpable pelvic landmarks and dilating cervix for vaginal exam Realistic Fatal Presentation: Illustrate cardinal movements, descent, rotation, and expulsion Removable Abdomen: Visualize and understand the internal view of fatal movements Breech Deliveries: Practice emergency Breech man oeuvres: Pinard's, Mauriceau, Ritgen's, Lovset Forceps Assisted Delivery: Practice force indication, application, and traction techniques Smooth, Supple Neonate Skin: Perform vacuum cup application, suctioning, and traction Realistic Umbilical Cord: Practice realistic clamping and cutting of the umbilical cord Placental Delivery: Placenta with removable cotyledons to practice managing retained fragments Placental and Umbilical Complications: Partial placenta previa - nuchal cord - true knots - cord prolapse  MANUFACTURER: GAUMARD SCIENTIFIC, USA	01	624,340.00	624,340.00
. 0	MW16	LAPAROSCOPIC SUTURE SIMULATOR -ASSESSMENT SYSTEM  Quantitative and Multiple Skills Assessment and Feedback  Laparoscopic Suture (5 Criteria) Skin Suture (6 Criteria) Conventional Training Innovative Assessment Criteria and Quantitative Measurement Provide Objective Feedback to Trainers.  Trainees Personal Skills Assessment Data Can Be Saved for Reviewing and Analysis. True-To-Life Simulated Tissues That Provides Convincing Hands-On Experiences. Laparoscopic Intestinal Suture Three Training Modes Can Be Automatically Switched with Touch Panel Operation. Skin Suture Under Direct Vision Handling of Laparoscopic Instruments	01	4,953,800.00	4,953,800.00

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		<ul> <li>Real Clinical Instruments Can Be Used.</li> <li>A Variety of Training Options.</li> <li>All in One Unit Is Convenient for Training</li> <li>Large Monitor and its Feedback Function</li> <li>Large monitor shows an ongoing demonstration or recorded movie for group learning</li> <li>Sub-monitor shows past assessment data. The trainee's present suture skills can be compared with previous sessions to review and analyze skills development.</li> <li>Integrating Advantages of Different Training Methods</li> <li>Box trainers</li> <li>Wet lab</li> <li>Virtual reality simulators</li> </ul> MANUFACTURER: KOYOTO KAGAKU, JAPAN			
47	W90	CERVICAL DILATION PRODUCT MODEL  3-dimensional, hand painted, easel model shows cervical dilation from 1-8 cm  FEATURES  • Hand painted • Display Cervical Dilation from 1-8 cm • Use as a tabletop display or hang from wall • Includes protective felt cover  MANUFACTURER: GAUMARD SCIENTIFIC, USA	02	28,752.50	57,505.00
48	S2220.M	ADVANCED NEW-BORN PATIENT SIMULATOR WITH ADVANCES LIMB MOTION, TRUE VENTILATION SUPPORT, REAL MONITORING, AND MOBILE:  GENERAL  Age: Full-term newborn  Weight: 8 lbs.  Length: 21 in.  Tether less and wireless; fully responsive during transport  Wireless control at distances up to 100 ft.  Internal rechargeable battery provides up to 8 hr. of tether less operation  Smooth and supple full- body skin with seamless trunk and limb joints	01	10,843,800.00	10,843,800.00
) W	**	Soon While James			Page <b>40</b> (

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- Programmable movement: blinking, mouth open and close, arm and leg flexion and extension
- · Realistic joint articulation: neck, shoulder, elbow, hip, and knee
- Forearm pronation and supination
- Lifelike umbilicus and post cord detachment navel
- Palpable bony landmarks
- Near-silent operation
- Fetus-Newborn wireless link capability
- Tablet PC preloaded with Wireless Monitors

#### NEUROLOGIC

- Crying/grunting with visible mouth movement
- Blinking eyes
- Seizures/convulsions
- Programmable muscle tone: active, reduced, and limp

#### AIRWAY

- Anatomically accurate oral cavity and airway
- Nontracheal/orotracheal intubation (ETT, laryngeal airway)
- Head tilt, chin lift, jaw thrust
- Supports esophageal intubation
- NG/OG tube placement
- Bag-valve-mask ventilation support
- Neck hyperextension and flexion airway obstruction with event capture and logging
- Intubation depth detection and software event log

#### BREATHING

- Spontaneous, continuous breathing
- Variable respiratory rates and inspiratory/ expiratory ratios
- Programmable unilateral chest rises and fall
- Unilateral lung sounds synchronized with respiratory rate
- Programmable retractions, "see-saw" breathing
- Mechanical ventilation support A/C, SIMV, CPAP, PCV, PSV, NIPPV Supports PEEP (up to 20 cmH2O)
- Dynamic airway and lung controls Variable lung compliance Bilateral bronchi resistance
- Programmable respiratory efforts for weaning/liberation
- Unilateral chest rises with right mainstem intubation (Automatic
- detection and logging)
- Real-time ventilation feedback
- Bilateral, midaxillary pneumothorax sites support needle
- decompression and chest tube insertion
  - Pneumothorax sites feature palpable bony landmarks, realistic skin for cutting and suturing, bleeding,

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Lung

tactile pleural pop, and fluid drain

- Visible chest rises during bag-valve-mask ventilation
- Supports EtCO2 monitoring using real sensors and monitoring devices

#### CIRCULATORY

- Visible cyanosis, jaundice, paleness, and redness with variable
- intensities
- Supports manual capillary refill time assessment on the left foot (Automatic detection and logging)
- Programmable fontanel: depressed, normal, and bulging
- · Palpable pulses: brachial, femoral, and umbilical
- Pulse palpation event detection and logging
- Blood pressure dependent pulses
- Supports blood pressure monitoring using real NIBP cuff
- Audible Korotkoff sounds
- Preductal (right hand) and post ductal (right foot) SpO2 monitoring
- using real devices Cardiac
- Includes comprehensive library of ECG rhythms with customizable beat variations
- Supports ECG monitoring using real devices
- Supports ECG-derived respiration monitoring (EDR)
- Real-time quality feedback and reporting Time to CPR Compression depth/rate Compression Interruptions Ventilation rate
- Excessive ventilation Smart CPR voice coach Chest compression depth sensor.
- Defibrillate, cardiovert, and pace using real devices and energy
- Effective chest compressions generate palpable femoral pulses and ECG activity
- Healthy and abnormal heart sounds
- Supports virtual pacing and defibrillation

#### VASCULAR ACCESS

- IV cannulation: bolus, infusion, and sampling
- Hand Scalp Umbilicus
- Umbilical catheterization (UVC/UAC): continuous infusion and sampling
- Bilateral IO tibia infusion

#### GASTROINTESTINAL

- Programmable abdominal distension
- Urinary catheterization with return
- Normal and abnormal bowel sounds

MANUFACTURER: GAUMARD SCIENTIFIC, USA

Survey Comments

Low

49 S3	WIRELESS ADVANCED PAEDIATRIC SIMULATOR	01	3,902,946.50	3,902,946.50
	Wireless communications, should be fully responsive, even during transport. Wireless stream	ning		
	audio. Automatic or instructor control.	imig		
	Should feature the following:			
	AIRWAY			
	Oral and nasal intubation			
	Use an ET tube or LMA			
	Sensors detect depth of intubation			
	<ul> <li>Unilateral chest rises with right mainstem intubation</li> </ul>			
	<ul> <li>Multiple upper airway sounds synchronized with breathing</li> </ul>			
	<ul> <li>Realistic geometry and larger epiglottis.</li> </ul>			
	<ul> <li>Better visualization of vocal cords as well as easy intubation</li> </ul>			
	<ul> <li>Improved chest wall recoil during CPR</li> </ul>			
	<ul> <li>Lung compliance refined to deliver chest rise when ventilating at 20cm H2O</li> </ul>			
	BREATHING			
	Control rate and depth of respiration and observe chest rise			
	Ventilation is measured and logged			
	Gastric distention with excess BVM ventilation			
	Select independent left and right lung sounds			
	<ul> <li>Chest rise and lung sounds are synchronized with selectable breathing patterns</li> </ul>			
	<ul> <li>Accommodates assisted ventilation, including BVM and mechanical support</li> </ul>			
	Unilateral chest rises and multiple breath sounds			
	VENOUS ACCESS			
	IV training arms			
	IM sites on shoulders and thighs			
	Intraosseous access at tibia			
	SIMULATOR			
	And the state of t			
	• Active eyes			
T A	NG and Otic exercises			

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- Tracheotomy opening
- Interchangeable genitalia
- Enema administration
- Two-way wireless communication
- Internal rechargeable power Control
- Wireless tablet PC with stylus control
- Communication modules are FCC and CE compliant
- Both physiologic modelling and trending
- Comprehensive performance feedback
- Preprogramed scenarios

#### CIRCULATION AND COLOR CHANGE

- Multiple heart sounds, rates and intensities
- Chest compressions are measured and logged
- Blood pressure can be taken bilaterally using a cuff, palpation, or auscultation
- Korotkoff sounds audible between systolic and diastolic pressures
- Color and vital signs respond to hypoxic events and interventions
- Bilateral carotid, brachial and radial pulses operate continuously
- Pulse strengths vary with blood pressure pulses are synchronized with ECG

#### ACTIVE EYES

- Open and close
- Select blink rate
- Select pupillary response to light file

### FILE SHARING

Provide students with images such as x-rays, CT scans, lab results, or even multimedia presentations as the scenario progress

# ACCESSORIES

- 100-240 VAC charger
- Blood pressure cuff Carrying case

# LOG

- Track the actions of up to six care providers using our menu of Reponses or write a narrative
- Links with Pro+ recording and debriefing system integrating the log with cameras and patient monitors

Some Office Come,

		DEFIBRILLATE, CARDIOVERT AND PACE			
		Apply real electrodes and AED pads			
		Use real EMS equipment			
		See electrical interventions on your AED or our monitor  ECG			
		<ul> <li>View ECGs with physiologic variations generated in real-time</li> </ul>			
		Synchronized with pulses			
		Conductive skin regions			
		Apply real electrodes			
		MOTION			
		Fully responsive even when carried			
		Body convulses on command			
		<ul> <li>Eyes open / close and feature slow or rapid blinking</li> </ul>			
		HYPOXIC MODELLING			
		Color and vital signs respond to hypoxic events and interventions			
		SOUNDS			
		Extensive speech library			
		<ul> <li>Heart sounds include a normal heart as well as splits and murmurs</li> </ul>			
		<ul> <li>Respiratory sounds include normal lungs as well as stridor, bronchial, wheezing, pleural friction and crackles</li> </ul>			
		Bowel sounds			
		Donotsound			
		MANUFACTURER: GAUMARD SCIENTIFIC, USA			
50	Actilit	PATIENT BED	01	298,288.64	298,288.64
		TATIENT BED			
		A High end fully motorized also bed for use in intensive cardiac applications.			
		FEATURES:			
		<ul> <li>W/ Trendelenburg And Reverse Trendelenburg Height-Adjustable by Tie</li> </ul>			
		Rod			
		Trendelenburg & Reverse Trendelenburg -			
		Upper Torso Raising and Electric Leg Flexing +      Flexing Flexing - Control Control			
		Knee Flexing Fowler Position (Auto contour)- Cardiac Chair  Floating Fost Piging  Floating Fost Piging  Floating  Floatin			
-		<ul> <li>Electric Feet Rising</li> <li>Upper Torso Raising with Mattress Platform Extension for Pressure Ulcer Reducing Risks</li> </ul>			
0	0	Bedspring Extension 20 Cm -			
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	4	WIND SIN			Page 45 o
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		<ul> <li>Electric Jack Lov</li> </ul>	Tension 24v. IP X4 With Fire			
		<ul> <li>Protection Envelo</li> </ul>	pe UL 94 V0			
		<ul> <li>Integrated Battery</li> </ul>	What Decide Octo Vities.			
			xtension at bed's feet and 4 ring shaped stops			
		I ASSEMBLE AND	UNICA PER PROPERTY AND CAPACITA CONTRACT CONTRACT WE SERVER SERVER SETTING SE			
		Technical Specifications:	(96/96/)			
		Minimum height:	450 mm			
		Maximum height:	765 mm			
		Maximum inclined position				
		adjustment (forward / back Maximum upper torso	ward): 12°			
		raising adjustment:	68°			
		Servo-assisted foot section:				
		Weight:	120 kg			
		Maximum capacity:	200 kg			
		Supply voltage:	200 V - 50 Hz			
		Operating voltage:	24 VCC			
		IP protection rating:	IP 66			
		Useful area:	2000 x 900 mm			
		Electrical Classification:	1B			
			MANUFACTURER: AHF MOBILIER HOSPITALIER, FRANCE			
51	CHS-i1000	INCUBATOR		01	624,340.00	624340.00
			is possible to control temperature and humidity of the hood inside precisely.			
			tion system minimizes the heat loss in the hood by use of double wall structure			
			idity can be adjusted between 30- 90% with a humidity controller. 8 types of			
			tes enable users to identify problems of the infant or Incubator easily, if the			
			its operation. Double safety device makes overheat of heater cannot affect the e comfortable and silent environment for the infant, the noise level of the Infant			
			ower than 47dB(A), which is lower than IEC601-2 standard.		1	
		TECHNICAL SPECIFICA				
		Power Source	120VAC, 50160Hz			
		Power consumption	450W / 60W / 23W			
		Control mode	Air/Skin Mode Warm-Up Time			
		≤25min	All/Skill Wode Warlii-Op Tillie			
			218/ 808/			
		Oxygen Concentration	21%-80%			
		Humidifier	Auto Control			
		SpO2 Display	1%~100%			
1 000		Water Capacity Skin Temperature	1000ml 22 °C ~ 45 °C			
1000						

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	Air Temperature 5° Air Temp Control Range 20 30% ~ 90 % Humidity Mattress Tilting Angle 0 ~ Rotary tilting 0 ~ Noise level in Hood ≤4 Fuse 12 Air Filter 0.5 X-Ray Cassette Tray Fo Weight Approx. 80 Hood System Do Control type Mi Alarms (LED) Po	r 10" x 12"		
		MANUFACTURER: JW MEDICAL, KOREA	4	
52 IW931	with appropriate sized mattress.	ated bassinet, with tilt mechanism and transport handle. The bassinet comes An X-Ray Tray is fitted at a proximity of the cassette to the bassinet base /ith built in wave length & intensity optimization, even irradiance		50
	ALARMS	MANUAL CONTROL  Check Baby See Manual Power Fail High Skin Temperature		
	WITH	Prewarm, Baby and Manual Heater Modes  Procedure Timers  Examination Light APGAR Timer		

Suhar ,	2 Carry Nill	Ř		11 1		
54 1000225	Brain Model (8 Parts)			01	33,932.91	33,932.91
53		RAINING FOR SIMULATION PRODUCTION PRODUCTION OF THE PROPERTY O	- mc 28 ct 48 0 24 7 7 6 4 7 7 7 7 8 4 4 4 4 4 4 4 4 4 4 4 4 4 4	01	492,900.00	492,900.00
	M	IANUFACTURER: FISHER &	PAYKEL, NEWZEALAND			
	WEIGHT WITHOUT ACCESSORIES	55 kg (121 lb)				
	MAXIMUM LOADING	85 kg (187 lb) of accessories - Includes patient 140 kg (308 lb) total weight				
	MATTRESS HEIGHT	91 cm (36")				
	CASTORS	4 x Ø10 cm (4") all locking				
	BASSINET TILTING POSITIONS	-10° to +10° in ½° - increments				
	BASSINET SIZE (STANDARD)	65 cm x 65 cm (26" x 26") Standard Mattress size (24" x 24")				
	WIDTH	77 cm (30") -Excluding shelves				
	HEIGHT	172 cm (68")				
		position				
	HEATER HEAD ROTATION	-130° to +130° from center				
	TEMPERATURE ALARM	± 1°C from Set Temperature				
		Temperature from 4.0°C to 50.0°C				
		0.1°C steps Displayed				
	TEMPERATURE RANGE	Set Temp from 34.5°C to 37.5° in				
		distance				
		(26.8") heater grill to mattress				
	IRRADIANCE	at 100% heat cm				
	MATTRESS	Mattress irradiance is 32 MW/cm2				
	SUPPLY FREQUENCY	50 / 60 Hz				
	ELECTRICAL SUPPLY VOLTAGE	230 ± 20 VAC				
		Skin Sensor - Reusable				

55	1000303	Stomach (3 Parts)	01	37,017.72	37,017.72
56	1000250	Ear Model (4 Parts)	02	37,017.72	74,035.44
57	1000256	Eye (7 Parts)	02	71,978.90	143,957.80
58	1013282	Male Pelvis (7 parts)	01	96,657.38	96,657.38
59	1000281	Female Pelvis (2 Parts)	01	28,791.56	28,791.56
60	1000217	Head Model (6 Parts)	01	64,781.01	64,781.01
61	1008548	Heart (7 Parts)	01	48,328.69	48,328.69
62	1020176	Skeleton Model with Muscles and Ligaments	01	101,798.73	101,798.73
63	1000188	Unisex Torso (16 Parts)	01	83,495.52	83,495.52
64	1001236	Life size Muscle Torso Model (27 Part)	01	679,071.43	679,071.43
65	1000291	Skin, Block Model	02	86,374.68	172,749.36
66	4000060	Skull with Jaw and Teeth	01	5,573.80	5,573.80
67	1000243	Lower Twin-Root Molar	01	15,952.60	15,952.60
68	1005532	Intestinal Villi	01	87,402.95	87,402.95
69	1005531	Nose and Olfactory Organ,	01	112,081.43	112,081.43
70	1005553	Motor Neuron Diorama	01	160,410.12	160,410.12
71	1000331	Pregnancy Series (5 Models)	01	76,091.98	76,091.98
72	1000254	Nose with Paranasal Sinuses	01	45,243.88	45,243.88
73	1000272	Larynx	01	38,045.99	38,045.99
74	1000295	Basic Kidney Section	01	14,395.78	14,395.78
75	1000317	Dual Sex Urinary System	01	71,156.28	71,156.28
76	1000177	Hip joint (7 Part)	01	46,272.15	46,272.15
77	1000163	Functional Knee Joint	01	12,544.89	12,544.89
78	1000145	Thoracic Spinal Column	01	12,133.59	12,133.59
79	1000146	Lumbar Spinal Column	01	12,133.59	12,133.59
80	1000136	Sternum with Rib Cartilage	01	3,701.77	3,701.77
81	1000253	Life-size Auditory Ossicles	01	12,750.55	12,750.55
82	1020181	Skull with Facial Muscles	01	46,066.50	46,066.50
83	4006701	The Female Genital Organs Chart	01	1,322.34	1,322.34
84	4006702	Female Urinary Incontinence	01	1,953.71	1,953.71
85	4006707	Birth Control	01	1,953.71	1,953.71
86	1018312	How to Perform Breast Self-Examination (BSE)	01	4,524.39	4,524.39
87	4006715	Allergies Chart	01	1,953.71	1,953.71
88	4006693	Hepatitis Chart	01	1,953.71	1,953.71
89	4006694	Diabetes Mellitus Chart	01	1,953.71	1,953.71
90	4006699	Kidney Chart	01	1,953.71	1,953.71
91	1002301	Adipose Chart	01	3,290.46	3,290.46
11				-	

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4006652 4006664 1018427 4006526 4006541 4006676 4006722 4006547	Muscle Tissue Chart Human Muscle Chart Sports Injuries Chart Intramuscular Injection Sites Poster Chart Intestinal Parasites I Chart Bacteria Chart	01 01 01 01 01	3,290.46 1,953.71 1,953.71 4,935.70 3,290.46	3,290.46 1,953.71 1,953.71 4,935.70
1018427 4006526 4006541 4006676 4006722	Sports Injuries Chart Intramuscular Injection Sites Poster Chart Intestinal Parasites I Chart Bacteria Chart	01 01	1,953.71 4,935.70	1,953.71 4,935.70
4006526 4006541 4006676 4006722	Intramuscular Injection Sites Poster Chart Intestinal Parasites I Chart Bacteria Chart	01	4,935.70	4,935.70
4006541 4006676 4006722	Intestinal Parasites I Chart Bacteria Chart			
4006676 4006722		01		3,290.46
4006722			3,290.46	3,290.46
	Pneumonia Chart	01	1,953.71	1,953.71
1006547	HIV and AIDS Chart	01	1,953.71	1,953.71
4000547	The Birth Process Chart	01	3,290.46	3,290.46
4006704	Childbirth Chart	01	1,953.71	1,953.71
4006706	Breastfeeding Chart	01	1,953.71	1,953.71
4006671	Respiratory Tract Infections Chart	01	1,953.71	1,953.71
4006677	Asthma Chart	01	1,233.92	1,233.92
4006678	COPD Chart - Chronic Obstructive Pulmonary Disease	01	1,953.71	1,953.71
4006666	Diseases of the Eye Chart	01	1,953.71	1,953.71
4006669	Rhinitis and Sinusitis Chart	01	1,953.71	1,953.71
4006670	Diseases of the Middle Ear Chart	01	1,953.71	1,953.71
4006653	Osteoporosis Chart	01	1,953.71	1,953.71
4006654	Arthritis Chart	01	1,953.71	1,953.71
4006655	Rheumatic Diseases	01	1,953.71	1,953.71
4006663	Deformities of the Feet	01	1,953.71	1,953.71
X885ix/885ix-		04	39,750.00	159,000.00
The state of the s	30		557 500 00	4 442 000 00
85JU7000	4k 3D Smart Flat UHD LED TV	02		1,113,000.00
Haier HLM - 210 B	Water Dispenser	03	31,800.00	95,400.00
HP OfficeJet Pro 8710 e-All- in-One	Heavy Duty Laser Jet Color Printer	02	55,650.00	111,300.00
HP DeskJet Ink Advantage 2130	Printer	10	19,080.00	190,800.00
Dell 4320	Multimedia /Projector	03	127,200.00	381,600.00
WRT1900ACS	Wi-fi AP Linksys	05	15,900.00	79,500.00
HP ELITE Desk 800 CI-7	Desktop Ci-7 latest generation	22	95,400.00	2,098,800.00
	Strip Mall Levy			Page 50
	4006677 4006678 4006666 4006669 4006670 4006653 4006654 4006655 4006663  X885ix/885ix-SMP Samsung 85JU7000 Haier HLM - 210 B HP OfficeJet Pro 8710 e-All- in-One HP DeskJet Ink Advantage 2130 Dell 4320 WRT1900ACS	4006671 Respiratory Tract Infections Chart 4006677 Asthma Chart 4006678 COPD Chart - Chronic Obstructive Pulmonary Disease 4006666 Diseases of the Eye Chart 4006669 Rhinitis and Sinusitis Chart 4006670 Diseases of the Middle Ear Chart 4006653 Osteoporosis Chart 4006654 Arthritis Chart 4006655 Rheumatic Diseases 4006663 Deformities of the Feet  MANUFACT  ELECTRONIC ITEMS  X885ix/885ix/885ix- SMP Samsung 85JU7000 Haier HLM- 210 B HP OfficeJet Pro 8710 e-All- in-One HP DeskJet Ink Advantage 2130 Dell 4320 Multimedia /Projector WRT1900ACS Wr-fi AP Linksys HP ELITE  Deskton G-7 latest generation	4006671   Respiratory Tract Infections Chart   4006677   Asthma Chart   01     4006678   COPD Chart - Chronic Obstructive Pulmonary Disease   01     4006666   Diseases of the Eye Chart   01     4006667   Rhinitis and Sinusitis Chart   01     4006670   Diseases of the Middle Ear Chart   01     4006653   Osteoporosis Chart   01     4006654   Arthritis Chart   01     4006655   Rheumatic Diseases   01     4006663   Deformities of the Feet   01     4006663   Deformities of the Feet   01      X885ix/885ix-SMP   SMART Board® Interactive, Whiteboard System   04     Samsung 85JU7000   Haier HLM-210 B   Water Dispenser   03     HP OfficeJet Pro 8710 e-Allinin-One   HP DeskJet Ink Advantage 2130   Printer   10     HP OfficeJet Pro 8710 e-Allinin-One   HP DeskJet Ink Advantage 2130   Multimedia /Projector   03     WRT1900ACS   Wi-fi AP Linksys   05     HP ELITE   Deskton Ci-7 Intest gappration   22	4006671   Respiratory Tract Infections Chart   01   1,953.71   4006677   Asthma Chart   01   1,233.92   4006678   COPD Chart - Chronic Obstructive Pulmonary Disease   01   1,953.71   4006666   Diseases of the Eye Chart   01   1,953.71   4006669   Rhinitis and Sinusitis Chart   01   1,953.71   4006670   Diseases of the Middle Ear Chart   01   1,953.71   4006653   Osteoporosis Chart   01   1,953.71   4006655   Rheumatic Diseases   01   1,953.71   4006655   Rheumatic Diseases   01   1,953.71   4006663   Deformities of the Feet   01   1,953.71   4006663

121	APC USA	UPS	01	127,200.00	127,200.00
122	DANYO ASIA PTE LTD DF- 0270K	Heavy Duty Generator	01	954,000.00	954,000.00
123	DP-8060 (60 CPM)	Copiers: Panasonic Heavy Duty Commercial Type Photo Copier	01	556,500.00	556,500.00
124	Atlas AS-LM2- P36F6.	Laminating Machine	01	79,500.00	79,500.00
125	Casio K-120	Sticker Machine	01	79,500.00	79,500.00
126	Brother QL- 700 High-Speed Professional Label Printer	Label Printing Machine	01	79,500.00	79,500.00
127	Kobra 240 SS5	Shredders Turbo (Strip Cut) Paper Shredder	01	47,700.00	47,700.00
		MEDICAL SUPPLIES			
128	Mixta MMM 2180	Stainless Steel Mayo Stand / Height-Adjustable / On Casters	01	54,766.67	54,766.67
129	Mixta MSK 7001	Double Basin Stand / Stainless Steel	02	37,857.14	75,714.29
130	Mixta MPCK 1110	Pedal-Operated Waste Bin	02	53,000.00	106,000.00
131	Welch Allyn 7670-01	Aneroid Sphygmomanometer	02	33,314.29	66,628.57
132	Welch Allyn DS44	Hand-Held Sphygmomanometer	02	36,342.86	72,685.71
133	Mixta MAM 2122	Instruments Trolley 70x50x80 3 Shelves Stainless Steel	02	53,000.00	106,000.00
134	Welch Allyn 5079-122	Stethoscope	05	18,171.43	90,857.14
135	Welch Allyn 12851	Ophthalmoscope Set	05	63,600.00	318,000.00
136	Welch Allyn 22841	Otoscope Set	05	57,542.86	287,714.29
137	Welch Allyn 69696	Laryngoscope with Blade	03	54,514.29	163,542.86
138	7E-A, Life- Care (Imported)	Suction Apparatus	03	68,142.86	204,428.57
139	CareVision	Stretcher-local	08	98,428.57	787,428.57
140	Model 801, (Imported)	Wheel Chair	04	36,342.86	145,371.43
141 г	Mixta MSA 4060	I/V Pole	15	27,257.14	408,857.14

Shear. MSA 4000

142	Flamingo (Imported)	Cervical Collars	03	27,257.14	81,771.43
143	Spine LP (Imported)	Lumber Puncture Needle	10	18,171.43	181,714.29
144	Geotech, Turkey	Aspiration Needle	10	18,171.43	181,714.29
145	Hosi Tech (Imported)	Trocar and Cannula	15	15,142.86	227,142.86
146	BE-1303, (Imported)	Ambu- Bag	10	12,114.29	121,142.86
147	Beurer Digital Baby Scale JBY 80	Weighting Machine (Infant)	01	18,171.43	18,171.43
148	Camry ZT-160 Weight Scale	Weighting Machine (Adult)	01	18,171.43	18,171.43
149	107BN (Imported)	Binocular Microscope	05	181,714.29	908,571.43
150	MicroLoop Carefusion	Spirometer	02	189,285.71	378,571.43
151	PharmChem (Imported)	Test Tube Holder	05	1,514.29	7,571.43
152	PharmChem (Imported)	Test Tube Brush	05	908.57	4,542.86
153	PharmChem (Imported)	Test Tube Stands	05	1,817.14	9,085.71
154	Surgi Med, Imported	Mouth Gag	05	1,211.43	6,057.14
155	PharmChem (Imported)	Needle Cutter	02	1,817.14	3,634.29
156	Beurer Infrared Lamp - IL-11	Heating Lamps	01	9,842.86	9,842.86
157	Beurer HK Comfort Heating Pad - White	Electric Heating Pads	01	5,148.57	5,148.56
158	UVCN (Imported)	Infrared Lamp	01	6,360.00	6,360.00
159	FreeStyle Blood Gluco Meter by Abbott	Ultraviolet Lamp	01	5,905.71	5,905.71
160	7E-A, Life- Care (Imported)	Glucometer	02	12,114.29	24,228.57
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Schart. (Imported)

161	Mindray VS 900	Suction Machine	01	68,142.86	68,142.86
162	Spine LP (Imported)	Pulse Oximeter	01	143,857.14	143,857.14
200		FURNITURE			
163	Qumun Furniture (Imported)	Chairs	150	5,250.00	787,500.00
164	Qumun Furniture (Imported)	Table	50	60,000.00	3,000,000.00
165	Qumun Furniture (Imported)	Stools	25	2,250.00	56,250.00
166	Qumun Furniture (Imported)	Cabinets	16	22,500.00	360,000.00
167	Qumun Furniture (Imported)	Shelfs	40	24,000.00	960,000.00
168	Qumun Furniture (Imported)	Doors	35	5,250.00	183,750.00
169	Qumun Furniture (Imported)	Lockers	06	97,500.00	585,000.00
170	Qumun Furniture (Imported)	Partitions	10	18,750.00	187,500.00
		CIVIL WORKS (Dept. Theme)			
171	171-A	RENOVATION OF DEPARTMENTS = MASONARY AND FINISHING WORK		6,525,000.00	6,525,000.00
	171-B	MECHANICAL, ELECTRICAL AND PLUMBING	One Job	2,900,000.00	2,900,000.00
	171-C	SANITARY COMPONENTS, FLOORING, CEILING, LIGHTING		5,075,000.00	5,075,000.00
		HVAC			
172	Fuji Therma	Air-cooled electric operated, Reversible Type condensing outdoor units, high C.O.P efficiency (T-3 Series) inverter base compressor with Black Fins condenser, vibration isolators, factory wired weather proof cabi-net type control center, atmosphere friendly refrigerant etc. Complete with safety controls and accessories as per specification and drawings. (Note: each unit shall have minimum three separate refrigerant circuits with	01	21,600,000.00	

Suleans. Salin Mill Louis

	THS-36	separate refrigerant & separate isolation valve.) UNIT-01 25 TR Capacity. (Connected Load) UNIT-02 32 TR Capacity. (Connected Load) UNIT-03 36 TR Capacity. (Connected Load)		Wallington
173	Fuji Therma	Indoor units complete with automatic and safety controls and accessories as per drawing and specification.  40 Cassette Units	01	
174	Fuji Therma	Supply, installation of Integrated Centralized Remote Controller with Software for Remotely Operation of the Indoor & Outdoor Units. Digital Controllers with all Parameters complete with all respect.	01	
175	Imported	Imported fitting and components (Y-Branches & control wiring) complete with all respects.	01	
176		Supply, Installation, Testing & Commissioning of Copper Piping with Isolation valve & 3/4" thick foam insulation, cladding, pipe supports & pipe sleeves complete with all respects as per drawings & specification.	01	
		equipment+ Engineering, Installation, and Integration cost with ree years warranty.		Rs. 147,528,814/=

M/S BIOTECH Pakistan qualified technically hence recommended for the award of contract.

Member & Secretary

Suhail Ahmed Abbasi Planning, Procurement & Logistics Officer SMBB Medical University, Larkana Member of PC

Sarfraz Ahmed Tunio
Accounts Officer
SMBB Medical University, Larkana

External Member of PC

Dr. Mansoor Hyder (PhD-Germany),
Associate Professor ITC
Director (C&NS)
SAU, Tandojam.

**External Member of PC** 

Dr. Asadullah Makhdoom, Associate Professor/Director, Skill Lab LUMHS, Jamshoro. Chairman PC

Prof. Dr. K. Das, Professor of Surgery SMBB Medical University, Larkana.