

Medical Items specifications

General requirements

- British three-pin plug
- **Spare parts must be provided/accessible in Tanzania within 90 days.**
- Spares that may be required during the guarantee period will be at the expense of the supplier.
- The supplier must **supply and deliver** the equipment at GIZ Office in Tanga.
- Original manuals in English, in electronic and in book form must be supplied.
- Where equipment operates off 220 Volt, 50 Hz ac. supplier must ensure that the product is fitted with a 13A square main top plug.
- The equipment must be protected against electromagnetic interference where applicable.
- ISO Certification/CE is mandatory for all products: Certificate of compliance of the manufacturer to ISO 13485

SUMMARY OF ITEMS

Item No.	Item Description	Quantity
Lot 1	TRAINING MATERIALS (MANIKINS)	
1	Manikin, birthing simulator	7
2	Manikin, gynaecology simulator	7
3	Pelvis model for IUCD insertion	7
4	Arm model for implant insertion	7
5	Manikin, postpartum uterus trainer	7
6	Manikin, premature baby	7
7	Manikin, resuscitation newborn	7

Lot 2	CRITICAL MNH SUPPORT EQUIPMENT	Quantity
8	Baby bubble CPAP 20 litres	3
9	Portable Air-Oxygen blender with bubble CPAP system	7
10	Medical portable oxygen concentrator	7
11	Pulse oximeter for neonates	12
12	LED Phototherapy unit	3
13	Electrical suction Pump, portable	7
14	Room thermometer	15
15	Glucometer	24
16	Radiator (room Heater)	7
17	Digital Thermometer	30

Lot 3	MONITORING AND ASSESSMENT EQUIPMENT	Quantity
18	Patient monitor	4
19	Oxygen Regulator for anaesthesia	1
20	Cardiotocograph (CTG) machine	2

21	Transcutaneous bilirubinometer	1
----	--------------------------------	---

1. Manikin, birthing simulator	7	Unit Price
<p>Birthing simulator and skills trainer for demonstrating and practising normal and assisted deliveries and management of complications</p> <ul style="list-style-type: none"> • Anatomically correct landmarks. Realistic fetal head, birth canal, and pelvic floor facilitates natural rotation of the head as it descends. • Includes cervix inserts of 4, 6, and 8 cm dilatation and effacement for vaginal examination. • Allows practising skills of normal delivery, vaginal examination, breech delivery, shoulder dystocia, vacuum-assisted delivery • Accommodates various birthing positions. • Can be used worn for role plays or as a tabletop skill-trainer. • Does not require lubricants to simulate birth. • Includes a realistic articulated dark skin tone newborn simulator with a soft head, fontanelles, sutures and the important anatomical landmarks to identify breech and shoulder presentations • Highly durable and consumable-free • Materials: Latex-free • Includes: <ul style="list-style-type: none"> ○ Anatomically realistic umbilical cord/placenta/membranes ○ Ties for umbilical cord ○ Fetoscope ○ Carrying bag 		
2. Manikin, gynaecology simulator	7	
<p>Full-sized, adult female lower torso (abdomen and pelvis) model with relevant internal anatomical landmarks and anatomically accurate female genital organs. Versatile training tool to teach the processes and skills required to perform several gynaecologic procedures.</p> <ul style="list-style-type: none"> • Contains at least: <ul style="list-style-type: none"> ○ Uterus with round ligaments, ovarian ligaments, tubal fimbriae, and ovaries ○ Interchangeable uteri with normal and abnormal external pathologies ○ Early pregnancy uteri ○ Normal and abnormal cervixes • Facilitates the following procedures: <ul style="list-style-type: none"> ○ Bi-manual pelvic examination of normal and pregnant uterus ○ Vaginal speculum examination ○ Visual recognition of normal cervixes and cervical abnormalities ○ Uterine sounding ○ Interval IUD insertion and removal ○ Diaphragm sizing and fitting ○ MVA ○ Laparoscopic inspection and occlusion of fallopian tubes ○ Minilaparotomy (both interval and postpartum tubal occlusion) • Portable; carrying case • Preferably dark skin tone • Removable skin with realistic look, feel and texture 		

3. Pelvis model for IUCD insertion	7	
<p>Tabletop IUCD demonstration model for client education – female pelvic organs</p> <p>Features:</p> <ul style="list-style-type: none"> • Coronal section of uterus • Ovaries and fimbriae • Uterus covered by clear plastic window to permit easy viewing of correct IUCD placement. • Lightweight and portable • Instruction manual in English 		
4. Arm model for implant insertion	7	
<p>Representation of an upper left arm to train insertion and removal of implantable hormonal contraceptives.</p> <ul style="list-style-type: none"> • Realistic upper left arm on a base • With soft foam insert to simulate soft arm tissue • Dark skin tone • Supplied with: <ul style="list-style-type: none"> ○ Tubular inserts ○ Extra latex skin • Instruction manual in English 		
5. Manikin, postpartum uterus trainer	7	
<p>Model representing a postpartum uterus.</p> <ul style="list-style-type: none"> • Has all relevant anatomical features: fundus, cervix, and perineum along with the possibility to extend the uterus (relevant for insertion of postpartum IUCD) • The uterine angle can be changed by applying pressure to the model • Visual access of the uterine cavity and adjustable vagino-uterine angle • Supports skills training in management of PPH (e.g., uterine balloon tamponade insertions, bimanual compression), postpartum family planning (PPIUCD insertion), other postpartum uterus interventions, counselling, and respectful care. • Portable, carrying case. • Durable materials like neoprene, nylon and polyester • To be used as a tabletop model for task training, or inside a delivery manikin for a complete birth simulation • Allows to see if the IUCD was placed correctly which provides feedback during hands-on practice 		
6. Manikin, premature baby	7	
<p>Simulator of premature baby for demonstrating and practising scenarios of care for small and sick newborns.</p> <ul style="list-style-type: none"> • Realistic size and appearance for a preterm baby (at least 1.6 kg, 32 weeks gestational age) • Supports training in Kangaroo Mother Care, breastfeeding, nasogastric and orogastric tube placement and feeding, and cup feeding. • Easy to set up by filling the body with water, air, or dry rice. • Dark skin tone • Supplied with: <ul style="list-style-type: none"> ○ Carry bag ○ Nasogastric tube ○ Syringe ○ Training stethoscope 		

<ul style="list-style-type: none"> • Instruction manual English 		
7. Manikin, resuscitation newborn	7	
<p>Simulator of newborn baby mainly for demonstrating and practising of newborn resuscitation</p> <ul style="list-style-type: none"> • Inflatable simulator to teach neonatal resuscitation skills. • Realistic size and appearance for a newborn baby • Visible chest rise with the correct ventilation technique • Features for simulating spontaneous breathing and palpation of umbilical pulse. • Easy to set up by filling the body with water, air, or dry rice. • Dark skin tone • Supplied with: <ul style="list-style-type: none"> ○ Carry bag. ○ Umbilical cord with connector ○ Cord ties ○ Newborn ventilation bag (normal type, not upright) and masks ○ Penguin sucker ○ Training stethoscope • Instruction manual English 		
8.CPAP (Baby bubble CPAP 20 litres)	3	
<ul style="list-style-type: none"> • Nasal bubble CPAP apparatus, which must be pneumatically powered and electronically controlled. • Self-contained unit with inbuilt generation of oxygen and medical air (independent from external oxygen and air sources) • Twin flowmeter (one flowmeter for oxygen and one for air) • Oxygen concentration: 21 – 95 % • Oxygen flow capability: 10 l/min • Air flow capability: 10 l/min • Maximum blended gas flow: 20 l/min • Pressure (PEEP): 1 – 10 cmH₂O • Must include and be fitted with a humidifier, which includes all the necessary accessories. • Alarms: Power failure, low oxygen concentration, high and low pressure, no flow • Mobile, mounted on 4 antistatic castors. • Power: 240 VAC, 50 Hz • Supplied with: <ul style="list-style-type: none"> ○ 3 sets of silicone nasal prongs/masks in four (4) sizes (size 0, 1, 2 and 3) and silicone neonatal circuits ○ Supplies for adequate fixation of the prongs/masks on the neonate's head. 		
9.Portable Air-Oxygen blender with bubble CPAP system	7	
<ul style="list-style-type: none"> • Air-oxygen blender using the Venturi principle (to be connected to an external source of oxygen that can provide at least 20 PSI outlet pressure, preferably 50 PSI) • PEEP bottle, humidifier bottle and bacterial filter to pressurise, humidify and filter breathing gases • Provision of adjustable concentrations of air-oxygen mix (30 – 100 %) • Breathing pressure from 4 – 10 cmH₂O • Provides flow rates appropriate for patients from neonate to 5 years old 		

<ul style="list-style-type: none">• Independent of electricity• Independent of compressed medical air• Simple and low-cost device <p>Complete set with Venturi-blender, humidifier bottle, PEEP bottle, bacterial filters, in- and expiratory tubing, nasal prongs and all connecting tubings</p>		
10. Medical portable oxygen concentrator	7	
<ul style="list-style-type: none">• Suitable for item number 9 above• Approx 2 –10 LPM• Oxygen purity: 93 % ± 3 %• Alarms audible and visual high/low pressure, low flow, low oxygen, power fail, oxygen sensing device• Four castors• Oxygen MFR method: PSA• Airflow outlet: Approx. 3 ± 1.5 l/min (standard atmospheric pressure)• Oxygen density: 30 % ~90 %, adjustable• Outlet pressure: At least 20 PSI +/- 1 PSI (138 kPa)• Running noise (dB): ≤ 55• Rated voltage: 220-230 V, 50-60HZ• Operating environment: 5 to 40 °C, up to 95 % humidity• Supplied with:<ul style="list-style-type: none">○ 1 x main oxygen concentrator○ 1 x nasal cannula each (paediatric and neonate)○ 2 x humidifier bottles○ 1 x spare dust filter <p>1 x power cord (at least 200 cm long)</p>		
11. Pulse oximeter for neonates	12	
<ul style="list-style-type: none">• Compact handheld pulse oximeter with LCD display• Must provide the latest motion artefact detection software (e.g., Massimo)• Continuous monitoring of SpO2 (arterial blood oxygen saturation), pulse rate and signal strength/plethysmograph waveform.• Design enables use in demanding environments, e.g., shock, vibration.• Automatic correction for movement and ambient light artefacts.• Suitable for detection in low perfusion conditions down to perfusion index of 0.1 %.• Measuring range: SpO2: 30 to 100 %, minimal graduation 1 %. Pulse rate: 30 to 250 bpm, minimal graduation 1 bpm.• Accuracy SpO2: 50 to 69 % (± 3 %), 70 to 100 % (± 2 %).• Audible adjustable bleep for heartbeat.• Display shows SpO2 (%), HR (bpm) and signal quality.• Large display readable from distance, display cover durable plastic.• User pre-set of high/low alarms on SpO2 and pulse rate monitoring.• Audio and visual alarm for SpO2 and pulse rate in case measurements are outside pre-set range.• Silencing feature for audio alarm.• Display reports system errors, probe failure and built-in battery status.• Rechargeable battery on main power supply or charge docking station.• Automatic switch from mains to batteries in case of power failure.• Case and probe suitable for cleaning and disinfection with hospital-grade cleaning products.		

<ul style="list-style-type: none">• Operating conditions: 5 to 40 °C, 10 to 90 % relative humidity non-condensing.• Supplied with:• 5 x durable reusable SpO2 sensors neonate, wrap around type (including connection cable)• 1 x spare rechargeable battery• Charger docking station and/or power cable for charging		
12.LED Phototherapy unit	3	
<p>A simple to use and durable model, operating system should not be too sophisticated.</p> <ul style="list-style-type: none">• Heavy sturdy mobile stand phototherapy unit• 3 or 4 antistatic castors, 2 with breaks• Single head, surface size approx. 0.50 x 0.75 m• Head height adjustable, approx. 1.40 to 1.75 m• Bottom view irradiance: > 50 $\mu\text{W cm}^2/\text{nm}$ at 45 cm from the light unit• Adjustable intensity (high, medium & low)• Wavelength: 440-470 nm• Free of UV and IR radiation• Lamp type: Light emitting diode (LED) for minimum 30,000 hours providing the same intensity level.• Time totalizer for the LED running time (non-resettable)• Therapy timer for the treatment time (resettable)• Examination lamp: LED light that provides normal light.• Made of anticorrosive materials: Stainless steel or epoxy coating for scratch and rust prevention• Supplied with spare LED light source		
13.Electrical suction pump, portable	7	
<ul style="list-style-type: none">• Portable suction pump with at least 1 litre plastic jar• Dismountable for easy cleaning, jar autoclavable.• Shock resistance protects from dropping.• Jar with plastic cover, gasket, and overflow valve• With suction regulator, vacuum gauge.• Voltage: AC 220 V \pm 10 %, 50 Hz \pm 2 %• Noise: \leq 65 dB• Max negative pressure value: 0.075 Mpa• Pumping rate: minimum 17 l/min• Continuous working time: minimum 0-30 min• Supplied with:<ul style="list-style-type: none">○ 1 x set of silicone rubber suction tubing, approx. diameter 10 mm, approx. length 1.5 m.○ 1 x spare at least 1 litre jar with cover <p>1 x spare set of fuses</p>		
14.Room thermometer	15	
<ul style="list-style-type: none">• Analogue room thermometer<ul style="list-style-type: none">○ For wall mount,○ With glass rod,○ Measuring unit centigrade,○ Temp range 0-50 centigrade		

<ul style="list-style-type: none"> ○ Display analogue scale, ○ Dimensions 25 x 175mm 		
15.Glucometer	24	
<ul style="list-style-type: none"> ○ Available in Tanzania market (MSD) ○ Display: LCD with backlight ○ Dimensions & Weight <ul style="list-style-type: none"> • 3.2" x 1.9" x 0.8" (LWH) • 49 g (with batteries) ○ Battery: Two, 3-volt coin-cell batteries (CR2032) ○ Ports: Micro USB ○ Accuracy & Results: Results in less than 4 seconds with 10/10 accuracy: 95% of measured glucose results shall fall within ± 10 mg/dL of lab reference value for blood glucose concentrations < 100 mg/dL and within 10% for blood glucose concentrations ≥ 100 mg/dL. ○ Memory: 720 diary records and 32 control results ○ Connectivity & Compatibility: Bluetooth connectivity ○ Supplied with 100 compatible test strips ○ 		
16.Radiator (room heater)	7	
<ul style="list-style-type: none"> • Light Source: LED • Oil filled column radiator. <ul style="list-style-type: none"> ○ Electrically operated. ○ Thermostatically controlled (to set required room temperature) with built-in room sensor with accuracy of ± 1 °C. ○ Adjustable heat setting ○ Heat output from approx. 1000 to 2500 W ○ VAC: 220/240 - ~50/60 Hz ○ Wheels for convenient moving ○ Standard warranty: Minimum 12 month 		
17.Digital thermometer	30	
<ul style="list-style-type: none"> • Digital thermometer Celsius scale <ul style="list-style-type: none"> ○ Safe to use, atraumatic, no glass, no mercury. ○ Measurement range: 32 °C – 43 °C (+/- 2) ○ Accurate measurement: +/- 0.1 between 35 °C to 41 °C ○ Liquid crystal display, easy to read. ○ Beep sound and switch off. ○ Waterproof for ease of cleaning ○ Battery powered, the kind of battery depending on the offered product. ○ Low battery indicator ○ Supplied with: 1 x battery 		
18.Patient Monitor	4	
<ul style="list-style-type: none"> • Suitable for Paediatric/neonates • TFT LCD colourful screen with 12.1 Inches • Parameters • ECG (HR), RESP, NIBP (SYS, DIA, MAP) SpO2 (pulse rate, saturation) 		

<ul style="list-style-type: none"> • Dual temp, • IBP with thermal printer -adjustable audible and visual alarms, • RESP measurement range approximately 0-200 breathe per min • Speed approx..3,6.25,12.5,25,50mm/sec, • Temp measurement range approx. 15-500c accuracy 0.1 to 0.20C • ECG input 5 leads, ECG electrodes heart rate range for Pead and neonates approx. 15-350bpm. • Manuals automate and STAT mode measurement range auto mode • Memory more than 500 patient information. • Interface -measurement link (MSL) • Power supply AC 220V, 50HZ. • Internal rechargeable battery operating time > 4hours changing time >2 type 		
19.Oxygen regulator for anaesthesia	1	
<ul style="list-style-type: none"> • Dual gauge oxygen pressure regulator for anaesthesia machine. • Inlet pressure (gauge1) - 25Mpa. • Outlet pressure (gauge 2) - 2.5Mpa (PSI - 350) • 		
20.Cardiocotograph (CTG) machine	2	
<ul style="list-style-type: none"> • Foetal monitoring capable of tracking • foetal heart rate (FHR1, FHR2) • Maternal uterine activity (UA) with ultrasonic and pressure transducer. • Displays data alphanumerically, with alarms, signal quality indicators and automatic transducer detection. • Include remote event marker, audible feedback, battery feedback (>2hours) and auto -self test. • Measures foetal heart rate (50-240bpm), UCs (0-100units). • Integrated thermal printer offers adjustable or fixed paper scales • Multiple print speed and alarms for paper end. • Operates to 100-240V, 50/60HZ. • Compatible with z-Fold thermal paper. • Provides high reliability for clinical use. 		
21.Transcutaneous bilirubinometer	1	
<ul style="list-style-type: none"> • Measure the transcutaneous bilirubin level of the newborn with measurements up to a minimum of 40 mmol/l. • Handheld and lightweight in order to facilitate measurements to be carried out within a baby bed. • Operates off a rechargeable battery/battery pack and a charger must be supplied. • Measurement probe must be built onto the unit and the measurement must be by means of a simple technique. • Reusable tip must be cleanable with alcohol wipes, no need for disposable tips. • The measured value is clearly displayed under all lighting conditions on a three-digit numerical display and provides measurement values equivalent to laboratory values for serum bilirubin levels. • Accuracy of typically minimum +/- 5 % at a reading of 0 to 529 mmol/l and an accuracy of minimum +/- 10 % at a reading of 530 – 684 mmol/l 		

<ul style="list-style-type: none"> • The unit must be provided with a known test measurement value to confirm the calibration accuracy. • Light source life at least for 100,000 measurements • All essential accessories in order to put the unit into operation immediately must be supplied. • A protective carry case must be supplied 	
--	--