

CENTRE FOR CLINICAL SKILLS AND SIMULATIONS

Suturing & Knotting

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to

- Enumerate the different types of suturing & knotting techniques
- understand the principles of suturing & knotting and their application
- Perform various knots & suturing

➤ LOGISTICS REQUIRED

- Knotting pads
- Suturing pads
- Surgical instruments –BP-Knife, Needle holder, scissors, forceps

➤ ASSESSMENT

Practical demonstration of Performing Square, Granny & Surgeon's knots.
Performing simple & mattress suturing.



Surgical skill station



Skin pad

Laparoscopic Skills

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to

- Identify the various instruments used in laparoscopic surgery
- Understand the concepts of hand -eye co-ordination
- Perform various types of laparoscopic exercises
- Perform endo-suturing and knotting techniques

➤ LOGISTICS REQUIRED

- Endo-trainer with accessories

➤ ASSESSMENT

Practical demonstration to perform various endoscopic drills



Intestinal/ Vascular Anastomosis

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to

- Identify the specific instruments used to perform Intestinal /vascular anastomosis
- Understand the techniques of Intestinal/Vascular anastomosis
- Perform the two layer/four layer anastomosis of the intestines

➤ LOGISTICS REQUIRED

- Natural feel simulated bowel
- Natural feel multi caliber arteries & veins

➤ ASSESSMENT

Demonstrating steps of anastomosis



Bowel simulator

Laparotomy and closure

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to

- Identify the various layers of abdominal wall
- Place an incision precisely at different layers abdominal
- able to perform continuous / interrupted / subcuticular suturing
- able to perform layer or mass closure using loop sutures.
- able to insert a Verses needle / Trocar

➤ LOGISTICS REQUIRED

- Abdominal wall simulator
- Surgical instruments

➤ ASSESSMENT

Demonstration of steps of Laparotomy



Abdominal wall simulator

Child Birthing

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to

- To understand the mechanism of child birth
- Perform vaginal examination
- Recognize normal & abnormal FHS
- To demonstrate internal rotation, expulsion, external rotation.
- To perform Leopold's Maneuver.
- To resuscitate the newborn

➤ LOGISTICS REQUIRED

- Maternal & Neonatal Simulated system

➤ ASSESSMENT

Practical Demonstration to conduct normal & complicated labor under different case scenarios



Child Birth simulator

Fracture Fixation

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to

- To identify the various instruments used for fracture fixation of Long bones & Spine
- To familiarize with the concepts of Fracture fixation and stabilization of spine
- To perform intramedullary nailing and plating techniques/spine fixation

➤ LOGISTICS REQUIRED

- Screws & Plates
- Intramedullary Nail
- Drill system
- Pedicle screw instruments

➤ ASSESSMENT

Practical Demonstration of Intramedullary nailing & Spine Fixation



Fracture Fixation station

Examination of EYE

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to

- Practice the use of ophthalmoscope, Examine the fundus & Identify various pathology in the eye

➤ LOGISTICS REQUIRED

- Eye Examination Simulator ophthalmoscope

➤ ASSESSMENT

Practical demonstration to identify various pathology in the eye



Eye Examination

Eye examination simulator

Examination of ear

➤ **LEARNING OBJECTIVES**

At the end of the session the Student/learner should be able to

- Use and handle an otoscope
- Examine the acoustic meatus, tympanic membrane & recognize various pathologies
- Perform ear wax & foreign body removal

➤ **LOGISTICS REQUIRED**

- Ear examination Simulator
- Foreign body removal set

➤ **ASSESSMENT**

Practical demonstration to identify the various pathology of Acoustic meatus & Tympanic membrane



Ear Examination simulator

Lumbar & Epidural Puncture

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to

- Enumerate the steps in identification of Intrathecal and Epidural Space
- Enumerate the different methods of Identification of Epidural space

➤ LOGISTICS REQUIRED

- Lumbar Spinal & Epidural Simulator
- Spinal & Epidural Needles

➤ ASSESSMENT

To demonstrate the technique of Spinal & Epidural anaesthesia



Lumbar & Epidural Puncture simulator

Paediatric Resuscitation

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to

- Initiate CPR
- To give effective breaths & compressions

➤ LOGISTICS REQUIRED

- Baby Anne Manikin

➤ ASSESSMENT

Practical assessment of Steps of Paediatric Resuscitation



Baby Anne

Heart & Breath Sounds

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to

- To identify types of Heart & Breath sounds

➤ LOGISTICS REQUIRED

- Heart & Breath sound Simulator, Stethoscope

➤ ASSESSMENT

Practical assessment for identification of normal and abnormal sounds



Heart & Breath Sounds Trainer

Endotracheal Intubation (Adult/Paediatric)

➤ LEARNING OBJECTIVES

- To do direct laryngoscopy & identify the structures
- To do endotracheal intubation

At the end of the session the Student/learner should be able to

➤ LOGISTICS REQUIRED

- Advanced airway manikin
- Laryngoscope and blades
- Endotracheal tubes

➤ ASSESSMENT

Practical demonstration of Laryngoscopy and Intubation



Advanced airway manikin

Chest Drain

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to

- To identify the intercostal space for paracentesis
- To insert a needle for decompression and use drain for paracentesis

➤ LOGISTICS REQUIRED

- Chest Drain and Needle compression Trainer
- Surgical Blade, Artery Forceps, Needle, ICD set

➤ ASSESSMENT

Practical demonstration of paracentesis and ICD insertion



Needle compression Trainer

Catheterization

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to:

- To adopt aseptic catheterization technique
- Catheter insertion & Withdrawal

➤ LOGISTICS REQUIRED

- Advanced catheterization trainer
- Foley's Catheter with bag

➤ ASSESSMENT

Practical demonstration of catheterization of male & female



Catheterization Trainer (Male & Female)

Venipuncture (Adult)

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to:

- To demonstrate steps in Intravenous access
- To secure IV cannula

➤ LOGISTICS REQUIRED

- Venipuncture Arm manikin, IV Cannula
- Drip Set with IV fluid

➤ ASSESSMENT

Practical demonstration of Venipuncture and fixing of IV cannula



Venipuncture ARM

Central Venous cannulation

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to:

- To Demonstrate the anatomy of Internal jugular veins
- To identify IJV and puncture with needle and secure the CV cannula

➤ LOGISTICS REQUIRED

- Central venous cannulation simulator
- CV cannula
- CV needle
- IV Fluid

➤ ASSESSMENT

Practical demonstration of Central Venous cannulation



Central venous cannulation manikin

Episiotomy

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to

- Perform an episiotomy and systematic closure in layers

➤ LOGISTICS REQUIRED

- Episiotomy model with necessary instruments

➤ ASSESSMENT

Practical demonstration to perform episiotomy & suturing



Episiotomy suturing trainer

Foreign body airway obstruction

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to

- Perform back blow, chest thrust, and Heimlich's maneuver

➤ LOGISTICS REQUIRED

- Choking Charlie
- Baby Anne

➤ ASSESSMENT

Practical demonstration of dislodging of foreign body



The Choking Charlie manikin



Baby Anne

CPCR

Objectives: At the end of this workshop the student should be able to:

- Identify a patient with cardiac arrest & initiate sequence of CPCR in adults.
- Deliver effective chest compressions.
- Maintain patent airway and provide adequate oxygenation by Artificial Respiration.
- Recognize and relieve Foreign Body Airway Obstruction in children and adults.
- Identify the Shockable rhythms and the use of AED.
- Identify Reversible causes of Cardiac arrest and use of Drugs.

Station I-BLS (Adult Manikin)

Station II-Foreign Body- (Choking Charlie and little Anne Manikin)

Station III-ACLS - (Defibrillator and Drugs)

Station IV - Airway-(Guedel's Airways, AMBU, Laryngoscope, LMA, I GEL, and Endotracheal tubes)

Assessment:

- Pre Test
- Practical demonstration of skills of airway, chest compressions, defibrillation, relieving of foreign body in airway
- Post Test.



Mega Kelly

Nasogastric tube insertion and Tracheostomy care

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to

- Place the NG tube at proper levels of the esophagus and stomach
- Perform NG tube irrigation and monitoring
- Insert tracheostomy tube and perform oropharyngeal /nasopharyngeal insertion and suctioning

➤ LOGISTICS REQUIRED

- NG tube and trach care trainer
- NG tube and tracheostomy tube
- Suction tube and lubricant

➤ ASSESSMENT

Practical demonstration of NG tube insertion and Tracheostomy tube insertion and suctioning



NG Tube and Trach Care Trainer

Buttock Injection Simulator

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to:

- To demonstrate steps in Intramuscular injection (I.M) techniques and to locate all necessary intramuscular injection sites.
- To secure Intramuscular Injection under aseptic precautions.

➤ LOGISTICS REQUIRED

- Buttock Injection simulator
- Both audio and visual

➤ ASSESSMENT

Practical demonstration of Intramuscular Injection



Buttock Injection

Intradermal Injection

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to:

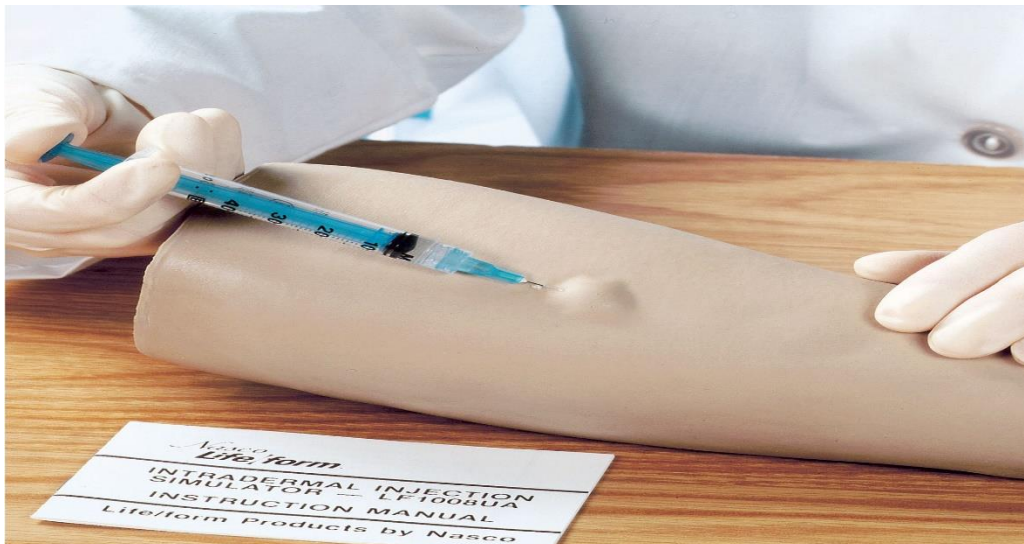
- To demonstrate steps in Intradermal injection (I.M) techniques and to locate all necessary intradermal injection sites.
- To secure Intradermal Injection with all aseptic precautions.

➤ LOGISTICS REQUIRED

- Intradermal Injection simulator
- Sealant, syringe

➤ ASSESSMENT

Practical demonstration of Intradermal Injection



Intradermal Injection

CPR Lilly Pro

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to perform adequate:

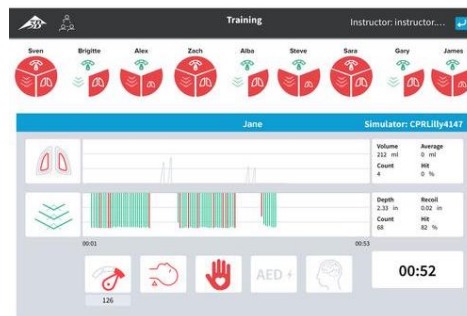
- Compression depth
- Compression rate
- Chest release
- Head tilt and jaw thrust indicator
- Palpable carotid pulse

➤ LOGISTICS REQUIRED

- CPR Lilly PRO+ training manikin
- 1 Tablet, Charger and battery
- 4 Lower face mask (including teeth)
- 25 throat bags
- Manikin Carrying bag

➤ ASSESSMENT

Practical demonstration of skills of chest compressions rate, depth, and position, recoil and chest compression and provides feedback with results.



CPR Lilly Pro with Tablet

Blood Pressure Training Arm

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to:

- To demonstrate steps in Measure Blood Pressure techniques allows for practice of non-invasive blood pressure measurement, Auscultated and Palpation blood pressure simulation.
- To secure Blood Pressure under aseptic precautions.

➤ LOGISTICS REQUIRED

- Blood pressure Arm
- Blood pressure Trainer
- Blood pressure Cuff

➤ ASSESSMENT

Practical demonstration of Blood Pressure techniques



Blood Pressure Training Arm

Child Nursing Training Manikin

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to:

- Basic patient handling
- Oral hygiene
- Oral intubation
- Venous cannulation
- Nasal intubation
- Catheterization skills
- Eye irrigation & ear irrigation
- Colonic irrigation
- Enema simulation
- NG tube insertion, care, removal and med administration
- Lavage/Gavage
- OG tube insertion
- Tracheostomy care and suctioning
- IV infusion
- Subcutaneous and intramuscular injections
- Heart, Breath & Bowel Sound Auscultation
- Vocal Sound capabilities for interpersonal communication skills

➤ LOGISTICS REQUIRED

- Full Body manikin
- Male and female Genitalia
- Urinary valves
- Anal Valves

➤ ASSESSMENT

Practical demonstration of skills from basic patient handling to advanced nursing, including the measurement of noninvasive blood pressure and the auscultation and recognition of normal and abnormal heart, lung and bowel sounds and fetal tones.



Child Nursing Training Manikin

Neonatal Peripheral

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to perform adequate:

- General Handling
- Umbilical Cord
- Manual Umbilical Pulse
- Airway

➤ LOGISTICS REQUIRED

- New Born Anne
- Umbilical pulse bulb
- Umbilical cord
- IV bag connector
- Umbilical clamp

➤ ASSESSMENT

Practical demonstration of skills of chest compressions rate, depth, and position, recoil and chest compression and provides feedback with results.



Neonatal Peripheral

Resusci Anne QCPR

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to perform adequate:

- Compression depth
- Compression rate
- Chest release
- Palpable carotid pulse

➤ LOGISTICS REQUIRED

- Full Body Manikin
- Two extra compression springs
- Manikin Wipes
- USB Cable A-C
- AC Power Adapter
- USB 2A

➤ ASSESSMENT

Practical demonstration of skills of chest compressions rate, depth, and position, recoil and chest compression and provides feedback with results.



Resusci Anne QCPR

Trauma Nursing Manikin

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to perform adequate:

- To demonstrate steps in
- Basic patient handling
- Denture care
- Oral hygiene
- Oral and nasal Intubation
- Eye and irrigation
- NG Tube insertion
- Lavage/Gavage
- Tracheostomy care and suctioning
- IV care and management
- Subcutaneous and intramuscular injection
- Oxygen delivery procedures
- Ostomy irrigation and care
- Catheterization skills
- Enema simulation
- Colonic irrigation
- Wound assessment and care
- Bandaging and dressi

- Post-surgical mastectomy-care procedures
- Recognition of breast disorders, their sizes and relative locations
- Practice of fundus massage skills
- Auscultation and recognition of normal and abnormal heart, breath and bowel sounds and fetal tones

➤ **LOGISTICS REQUIRED**

- Full Body Female Manikin
- Abdominal Surgical Incision Module with Staples and Penrose Drain
- Abdominal Surgical Incision Module with Nylon Sutures and Penrose Drain
- Abdominal Packing and Irrigation Module
- Abdominal Subcutaneous Heparin and Insulin Injection module
- Infected Colostomy Stoma
- Ventral Gluteal Decubitus Ulcer Dorsal Gluteal Decubitus Ulcer
- Below Knee Amputation Stump
- Thigh Packing and Irrigation Module and Suture Module
- Thigh Debridement Module
- Varicose Vein Leg
- Diabetic Foot

➤ **ASSESSMENT**

Practical demonstration of skills of chest compressions rate, depth, and position, recoil and chest compression and provides feedback with results.



Trauma Nursing Manikin

PREMIE Blue Simulator with Smart Skin

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to:

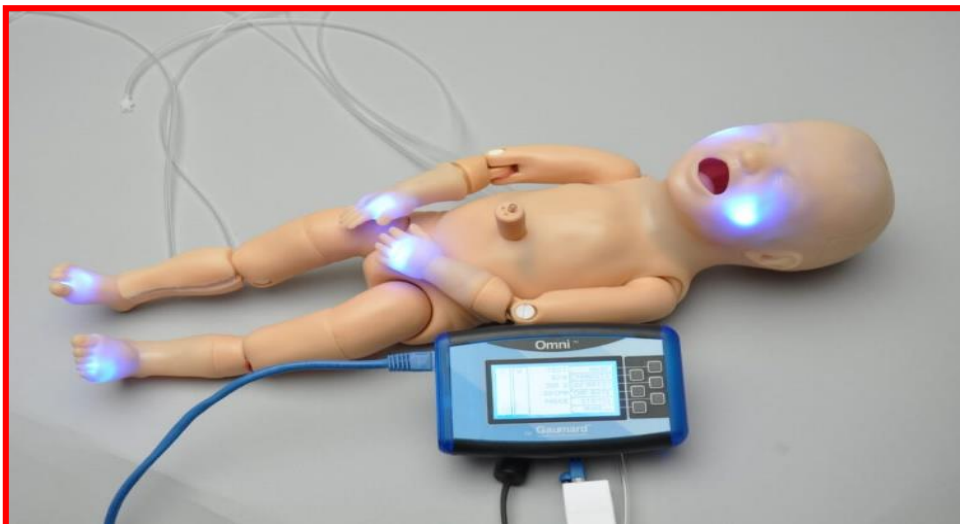
- 28 week articulating PREMIE™
- Realistic airway with tongue, vocal cords, trachea, and esophagus for airway management exercises
- Realistic internal organs for unparalleled CPR performance
- Simulate “heelstick” maneuver for capillary blood sample
- BVM or CPR exercises
- Oral and nasal Intubation
- Simulate suction procedures
- Bilateral lung expansion with realistic chest rise
- View peripheral and central cyanosis as well as healthy skin tone
- Use monitor to select rates of improvement and deterioration
- Watch skin color change in response to the efforts of your student
- Pulse umbilicus using squeeze bulb
- Practice placement of umbilical lines
- Simulate CPR with either two-thumb “encircling” technique or two finger alternate compression method
- Practice delicate intraosseous access
- Practice injection and intravenous techniques

➤ LOGISTICS REQUIRED

- PREMIE™ Blue neonate
- Omni™ Controller for managing cyanosis and monitoring CPR
- Omni™ Code Blue® pack
- International power supply 100-240 VAC
- Connecting cables
- Instruction manual
- Carrying bag

➤ ASSESSMENT

Practical demonstration of PREMIE Blue Simulator with Smart Skin



SUTURE PRACTICE ARM

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to:

- To demonstrate steps in
- Movable fingers for suture training of challenging wounds between fingers
- Skin and subcutaneous tissue differentiated for realistic suture experience
- Wounds can be inflicted by instructor anywhere on the training arm
- Each cut can be sutured several times
- Surgical staples procedure possible

➤ LOGISTICS REQUIRED

- Suture Practice Arm

➤ ASSESSMENT

- Practical demonstration of Suture Practice Arm



SUTURE PRACTICE ARM

WOUND CARE/BANDAGING TECHNIQUE TRAINER

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to:

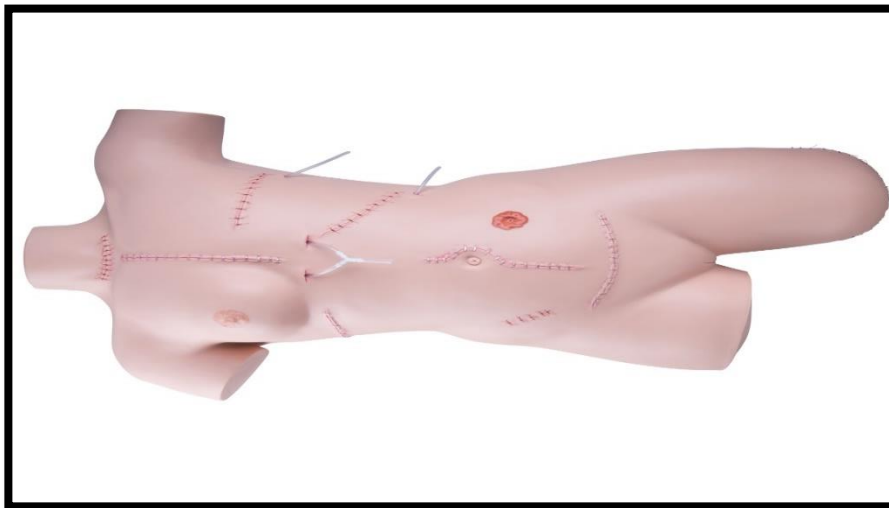
- To demonstrate steps in
- Wound after a thyroidectomy
- Wound after a sternotomy
- Wound after a mastectomy
- Wound after a splenectomy
- Wound after a thoracotomy (pneumonectomy)
- Wound after a median laparotomy (cystectomy)
- Wound after an appendectomy
- Wound after a Pfannenstiel incision (C- section or abdominal hysterectomy)
- Wound after a laminectomy
- Wound after a nephrectomy
- Wound after an amputation
- Colostomy
- Decubitus

➤ LOGISTICS REQUIRED

- Realistic practice of wound care

➤ ASSESSMENT

Practical demonstration of Wound care and Bandaging Techniques



WOUND CARE/BANDAGING TECHNIQUE TRAINER

INFANT AIRWAY MANAGEMENT TRAINER

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to:

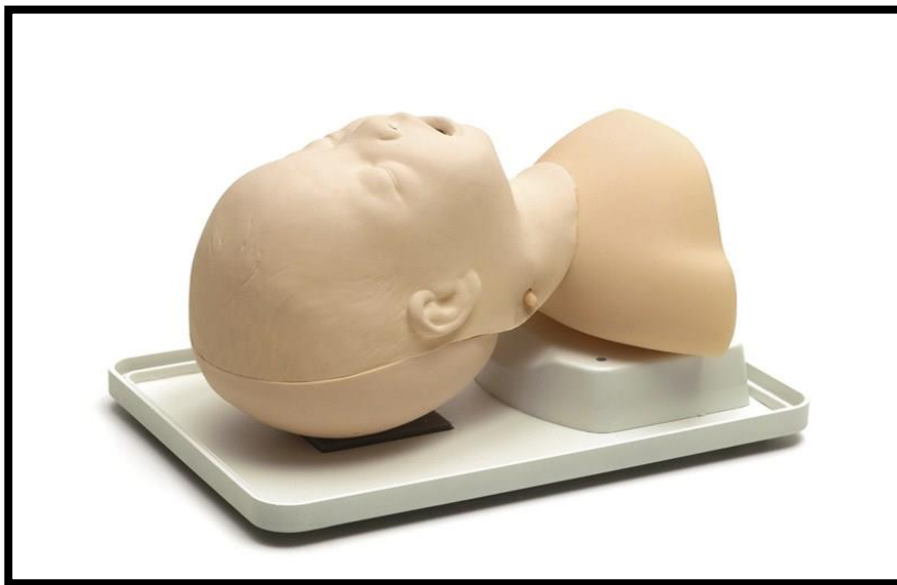
- To demonstrate steps in
- Ventilation via bag-valve-mask
- Endotracheal and nasotracheal intubation
- Bilateral lung movement and stomach distention
- Oral/Nasal Airways
- Insertion of LMA (Laryngeal Mask Airway)

➤ LOGISTICS REQUIRED

- Infant Airway Management trainer manikin

➤ ASSESSMENT

Practical demonstration 3-month-old infant for teaching and practicing basic and advanced airway management skills.



INFANT AIRWAY MANAGEMENT TRAINER

INFANT MALE & FEMALE CATHETERIZATION TRAINER

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to:

- To demonstrate steps in
- Practice insertion, position, catheter balloon inflation and deflation
- Feel resistance and pressure as with a real patient
- Urine flows when catheter is in proper position
- Practice both male and female infant catheterization training
- Anatomically realistic with both male and female genitals
- Genitals made of soft, lifelike material
- Replaceable male and female genitals
- Lower half of infant only
- Design for use with a standard 8 French latex or silicone intermittent catheter

➤ LOGISTICS REQUIRED

- Infant torso
- Female genitals set
- Male genitals set
- 4-oz. squeeze bottle

➤ ASSESSMENT

Practical demonstration of Infant Male and Female Catheterization Trainer is an inexpensive 2-in-1 trainer that provides realistic practice of this difficult skills procedure.



INFANT MALE & FEMALE CATHETERIZATION TRAINER

ADVANCED GYNAECOLOGICAL EXAMINATION TRAINER

➤ LEARNING OBJECTIVES

At the end of the session the Student/learner should be able to:

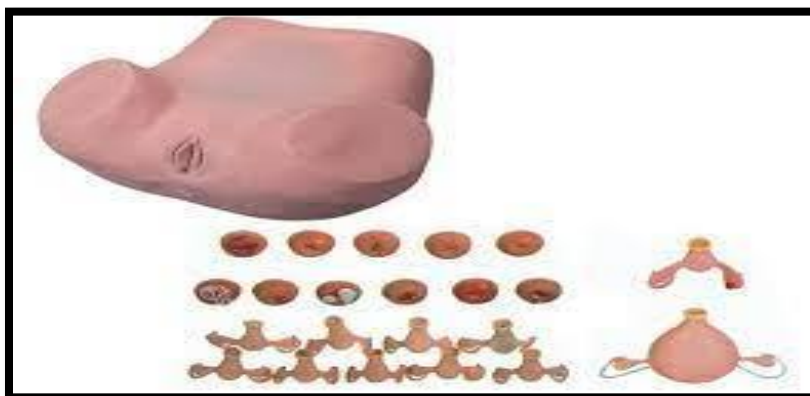
- Full-size adult female lower torso with standard lithotomy;
- Relevant internal anatomy includes uterus, ovary, fallopian tubes and round ligament;
- External pelvic measurement; Bimanual examination;
- Rectal-vaginal examination (including insertion of speculum and colposcopy);
- Analysis of cervical lesions;
- Placement and removal of IUD;
- Normal transparent uteri with uterus round ligament, one anteverted and the other retroverted;
- Normal uterus with moderate retroversion, myomatous uterus, uterus with salpingitis on the right side, uterus with salpingitis on the left side, uterus with marked anteversion-anteflexion, uterus with deformation and salpingitis on the right side and uterus with ovarian cyst on the left side;
- Normal cervix, linear laceration which may also indicate parous, cervical erosion with some mucus, cervical polyp, inflamed Nabothian cyst, acute purulent cervicitis and carcinoma;
- Using “air bag” to make the uterus stable;
- Interchangeable skin (not included in standard package); Uteri and cervices can be assembled discretionarily.

➤ LOGISTICS REQUIRED

- Realistic model simulates a female lower body including abdomen and basin
- 7 replacable cervices and 10 uteri

➤ ASSESSMENT

Practical demonstration of various pathologies and uteri in different stages practice of this difficult skills procedure.



ADVANCED GYNAECOLOGICAL EXAMINATION TRAINER