

## Clinical Skills Mobile Unit

### Equipment Guide



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## New-born Intubation Model

- Lifelike model for practice of basic treatment of neonatal babies such as:
  - Use of laryngoscope
  - Practise use of intubation tubes and laryngeal masks
  - Securing airways with intubation
  - Heart massage
  - Correct/incorrect intubation which can be confirmed visually by either chest movement or abdominal movement
  - Artificial respiration with bags



## Chest Tube Manikin

Manikin designed specifically to teach the theory, anatomy and skills needed to manage pre-hospital chest trauma, as well as ongoing chest tube maintenance.

- The right side of the manikin has two cutaway viewing areas to provide awareness of the anatomical relationship between the skin surface, musculature, ribs and lungs
- The left side has a pressurised tension pneumothorax site to relieve air that has accumulated within the pleural space and is restricting lung inflation
- There is also a site where chest tubes may be surgically placed to treat pleural effusion by draining fluids from the pleural space. The fluid, colour, volume, and viscosity is controlled by the instructor
- The Chest Tube Manikin is perfect for teaching the concepts and mechanics of dosed water-seal drainage systems like 'Pleur-Evac' type units
- Manikin comes with two visual sites for chest tube maintenance, five surgical chest tube sites, and five pneumothorax chest pads.



## Interactive ECG Simulator

- The simulator combines defibrillator and external pacer training features with adult and paediatric ECG rhythms, for use with Adult or Child Crisis Manikins
- Simulate electrical capture with an external pacer. Attach pacer to manikin and initiate pacing. When pacer current is set to 70mA or more, paced beats appear on monitor
- Waveforms available for pacer training include:
  - Sinus Brady
  - Junctional Brady
  - 2nd degree type I A-V block
  - 2nd degree type II A-V block
  - 2nd degree type II A-V block with PVCs
  - 3rd degree A-V block
- Simulate cardio version with a manual, semi-automatic, or automatic defibrillator
- Activate convert feature to select (before defib discharge) another rhythm to run immediately after defib discharge
- Waveforms available for defibrillator training include:
  - V. Fib
  - V. Tach (fast)
  - V. Tach (slow)
  - V. Tach (polymorphic)
  - Fib
  - Flutter
  - SVT
  - Sinus Tach
  - Sinus rhythm with PVCs
  - Asystole
  - NSR



- Use one simulator to generate both adult and paediatric rhythms. With adult mode selected, all 17 waveform keys generate adult rhythms. With paediatric mode selected, all 17 waveform keys generate paediatric rhythms. Press key marked 'age group' to toggle between adult and paediatric modes
- With 'age group' feature a total of 34 rhythms are available
- Generate realistic 3- or 4-lead ECG rhythms. The RA, LA, and LL signal morphologies create accurate representations of the QRS, P and T axes
- Practise operating a defibrillator/external pacer without a manikin. Connect defibrillator/pacer to simulator using pad adaptors. Built-in circuitry allows you to defibrillate and to pace directly into simulator, and to observe ECG rhythms through the PADS connector
- LED indicators illuminate for:
  - Pacer pulse detection
  - Defib discharge detection
  - Adult age group
  - Paediatric age group
  - Low battery

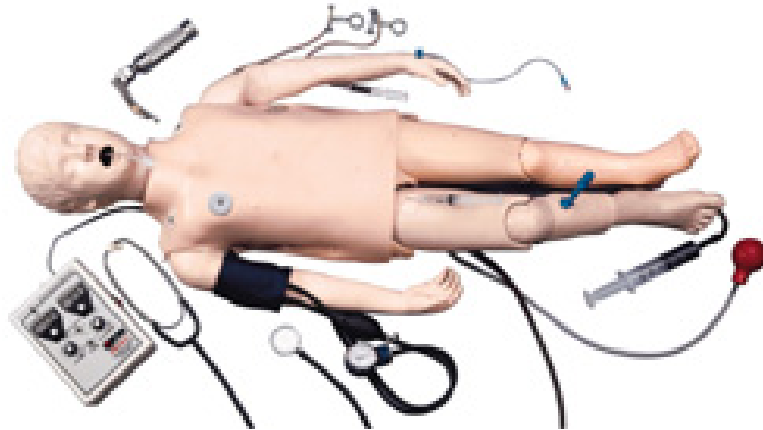
## Paediatric Intraosseous Infusion & Femoral Access Leg

- Ideal for teaching intraosseous infusion techniques:
  - Palpable landmarks including patella, tibia and tibial tuberosity
  - Replaceable bones and skin
  - Pressurised system to allow aspiration of fluid
- Ideal for teaching femoral access:
  - Palpable arterial pulse
  - Realistic flashback from pressurised venous system
  - Replaceable injection pad
  - An articulated leg that requires proper positioning



## Child Crisis Manikin

- Ideal for teaching life-saving techniques on children
- Complete PALS training capabilities in one manikin
- Simulates a five year old child
- Completely functional CPR manikin with IV training arm, blood pressure arm, defibrillation chest skin, intraosseous infusion/femoral access leg and airway management trainer



Procedures that can be performed:

- CPR
  - Palpable and visual landmarks
  - Fully articulated head, neck and jaw
- Airway Management
  - Realistic anatomy of the mouth, tongue and pharynx, larynx, epiglottis, vocal cords, trachea and oesophagus
  - Separate left and right lungs for auscultation
  - Oral, nasal and digital intubation capabilities
  - Suctioning capabilities
- Inflatable stomach bladder to indicate oesophageal intubation
- IV Arm
  - Smaller lumen tubing to simulate child's veins
  - Articulated at biceps for antecubital and dorsal access
  - Realistic flashback from a pressurised system
  - Replaceable skin and veins
- Blood Pressure Arm
  - Instructor determines systolic and diastolic levels, heart rate
  - Speaker in arm reproduces real blood pressure sounds
  - Five Korotkoff sounds
  - Auscultatory gap can be added

- Defibrillation Chest
  - Completely compatible with all standard brands and types of defibrillators, monitors and patient simulators
  - Manual, automatic and semiautomatic defibrillation rhythms detected at four ECG sites and two defibrillation sites
  - Load box prevents shocks from reaching the simulator
  
- Intraosseous Infusion
  - Palpable landmarks include the patella, tibia, tibial tuberosity
  - Replaceable bones and skin
  - Pressurised system allows aspiration of fluid
  
- Femoral Access
  - Palpable arterial pulse
  - Palpable symphysis pubis and anterior superior iliac spine
  - Realistic flashback from pressurised venous system
  - Replaceable injection pad
  - Articulated leg requires proper positioning

## Brad CPR Training Manikin

CPR training manikin with features:

- Snap-on airway-lung unit
- Improved head tilt capability
- Well defined landmarks
- Realistic choking simulation
- Realistic appearance
- Resistance to chest compression
- A sturdy soft-feel body
- Chest overlay that can quickly be removed for easy lung replacement



## Arterial Puncture Arm Simulator

- This realistic arm model is ideal for practising and demonstrating drawing arterial blood samples for monitoring blood gases
- Students can identify puncture locations through palpation of the pulse at either the radial or brachial sites
- Realistic arterial pressure produces a life-like backflow of blood in the syringe, confirming proper needle location in the artery



## Central Venous Cannulation Simulator

A valuable teaching aid for those involved in ATLS and ACLS and medical staffs who wish to practice central venous cannulation

Approaches:

- Subclavian vein – infraclavicular and supraclavicular
- Internal jugular vein – anterior, central, and posterior
- External jugular vein gives an accurate impression of the degree of difficulty which can be experienced when cannulating the subclavian and jugular veins
- The head is turned to the left making landmark entry easy
- The soft plastic skin grips the cannula and seals around the puncture sites
- Palpable carotid artery
- Sternocleidomastoid muscle which divides into the sternal and clavicular heads and sternal notch which sinks 2-4 cm when palpated



[Inside view]

## Airway Management Model

A realistic simulator for practice in:

- Maintaining the airway
- Endotracheal intubation
- Elevating the submaxilla
- Using a laryngoscope
- the use of endotracheal tubes, laryngeal masks, EGTA, combi tubes and transnasal airways
- Removal of foreign objects in the airway with forceps and confirming respiratory sound
- Giving artificial respiration with bags
- Confirming dilation of stomach when air enters oesophagus
- Hearing respiratory sounds with a stethoscope



## SimBaby

SimBaby is the portable advanced infant patient simulator for team training. SimBaby has realistic anatomy and clinical functionality that enables simulation training. SimBaby includes software with video debriefing and an interactive technologically advanced manikin, allowing learners to practise the emergency treatment of infant patients.

SimBaby software is easy to operate and allows you to build advanced scenarios, including Trends and Handlers, to meet your learning objectives. The software communicates with the manikin and registers events during the simulation. The user interface is designed to make it easy to control, adjust and manage the scenarios.

The software automatically generates a debriefing view combining event logs with synchronized recordings of the patient monitor and in-room video. Easy-to-use navigation tools and adjustable level of detail help the instructor to optimize the simulation as an educational tool. SimBaby has an anatomically realistic airway that allows accurate simulation of all relevant infant airway management and patient care situations. SimBaby can simulate a wide range of breathing patterns including variable rate and depth, and complications like sub costal retractions and see-saw breathing. Relevant circulation features, include palpable pulse on several locations, BP measurement, realistic IV and IO access.

SimBaby comes with a simulated patient monitor. The 17" color LCD screen provides 12-lead ECGs, SpO<sub>2</sub>, CO<sub>2</sub>, Hemodynamic pressures (ABP, CVP, PAP, PCWP, NIBP), Cardiac Output, and several other parameters.

### Product features:

- Full scale infant patient simulator which allows the learner to perform relevant pediatric emergency skills and scenarios.
- Interactive manikin which gives you immediate feedback to interventions.
- Simulator utilises software generating automatic debriefing based on the event log synchronized with video pictures, which provides immediate, detailed feedback on performance to learners.
- Realistic airway system allows accurate simulation of all relevant difficult infant airway management and patient care scenarios.
- Realistic infant breathing patterns and complications bring realism to the infant simulation experience.
- IV training arm and IV/IO legs allows practice of peripheral intravenous and intraosseous therapy.



## SimMan

SimMan is a portable and advanced patient simulator for team training. SimMan has realistic anatomy and clinical functionality. SimMan provides simulation-based education to challenge and test students' clinical and decision-making skills during realistic patient care scenarios. SimMan includes well-proven software and an interactive technologically advanced manikin, allowing learners to practise the emergency treatment of patients.

SimMan software is easy to operate and allows you to build advanced scenarios, including Trends and Handlers, to meet your learning objectives. The software communicates with the manikin and registers events during the simulation. The user interface is designed to make it easy to control, adjust and manage the scenarios. The software automatically generates a debriefing view combining event logs with synchronized recordings of the patient monitor and in room video. Easy-to-use navigation tools and adjustable level of detail help the instructor to optimize the simulation as an educational tool.

SimMan comes with a simulated patient monitor. The 17" color LCD screen provides 12-lead ECGs, SpO2, CO2, Hemodynamic pressures (ABP, CVP, PAP, PCWP, NIBP), Cardiac Output, and several other parameters. Touch-screen operation allows for setting of waveform parameters, alarm functions, and screen layouts, X-rays, snapshots of 12-lead ECG and trends.

### Product features:

- Full scale patient simulator which allows you to perform relevant ALS skills and scenarios.
- Interactive manikin which gives you immediate feedback to interventions.
- Simulated patient monitor with touch-screen technology including the possibility to configure your layout and content to match your simulation environment.
- SimMan software comes with pre-programmed scenarios, but instructors can also design and save their own patient cases.
- Trend curves on instructor's panel control how the physiological parameters will change over time, and multiple trends can be run simultaneously with their effects added together.
- Simulator utilises software generating automatic debriefing, based on the event log synchronized with video pictures, which provide immediate, detailed feedback on performance to learners.
- Patented airway system allows accurate simulation of all relevant difficult airway management scenarios.
- Realistic practice of chest tube insertion
- Needle and surgical cricothyrotomy
- Bronchial tree is anatomically accurate in size, colour and texture and features the accurate anatomical landmarks necessary to facilitate realistic fiber-optic bronchoscopy.



## ALS Baby

The Laerdal ALS baby is a portable skills trainer for realistic infant resuscitation training. Laerdal ALS Baby manikin is a three-month-old infant with an anatomy that offers exceptional realism for individual training.

The Laerdal ALS baby offers the opportunity to practise advanced resuscitation skills, including airway management, professional rescuer CPR, vascular access, and 4 connectors, 3-lead ECG monitoring.

### Product features:

- Realistic airway anatomy with tongue, oropharynx, epiglottis, larynx, vocal cords and trachea
- Practice of bag-valve-mask ventilation, oral and nasal intubation and use of LMA (Laryngeal Mask Airway)
- CPR can be performed
- 3-lead, 4 connectors ECG monitoring
- Intraosseous needle insertion with aspiration of bone marrow
- Sellick Maneuver can be performed



## Resus Baby

The Resus Baby manikin offers realism and quality to infant CPR education. Its full-body construction and use of the optional Skill Guide performance indicator enable students to quickly sharpen their skills in performing infant CPR to high standards.

### Product features:

- Natural obstruction of the airway allows students to learn the important technique of opening the airway so that in a real-life situation they know how to effectively administer air to the patient
- Head tilt/chin lift and jaw thrust allows students to correctly practise airway maneuvers necessary when resuscitating a real patient
- Occluded airway with hyperextension highlights correct head position
- Realistic chest rise verifies correct ventilations
- Realistic resistance for chest compression allows the students to experience the amount of pressure needed to perform proper chest compressions in a real-life situation
- Anatomically correct landmarks and sternal notch allow the student to practise identification of all anatomical landmarks relevant to infant CPR
- Articulating arms, legs and head allow realistic weight and handling of an infant during obstructed airway maneuvers
- Brachial pulse simulation to realistically check for pulse
- Disposable non-rebreathing airways are suitable for use by more than one student during class and are quick and easy to change after each training session



## Little Anne

The Little Anne manikin is a realistic and lightweight adult CPR trainer with all the essential features for adult CPR learning.

### Product features:

- Oral and nasal passages allow realistic nose pinch required for mouth-to-nose ventilation
- Natural obstruction of the airway allows students to learn the important technique of opening the airway
- Head tilt/chin lift and jaw thrust allow students to correctly practise all maneuvers necessary when resuscitating a real victim
- Realistic airway function means that the airway remains obstructed without proper head tilt/chin lift or jaw thrust. Chest rise is seen with correct ventilations
- Anatomically correct landmarks and sternal notch allow the student to practice identification of all anatomical landmarks relevant to adult CPR
- Audible feedback reinforces correct compression depth. An optional "clicker" feature signals the correct compression depth
- Realistic chest compression resistance allows the students to experience the amount of pressure needed to perform proper chest compressions in a real-life situation
- Economical disposable airways for quick and easy clean-up
- Removable and reusable faces for convenient and affordable maintenance



## Male Multivenous Arm IV Training Kit

Lifelike arm reproduction with multi-vein system designed for peripheral intravenous therapy.



## Pelvis birth model

Two life-size models, chosen to demonstrate birth. Consists of a plastic female pelvis.



## Forceps/Vacuum Delivery OB Manikin

This is the manikin used in "Advanced Life Support in Obstetrics" (ALSO) training programs. The anatomical features are realistic and accurate with added features of premature and full term foetuses. The soft vinyl pelvis replicates the resistance encountered in a delivery requiring forceps or vacuum intervention. There is a removable abdominal overlay provided with this manikin and the overlays are interchangeable, and optional.



## Sounds Tutor (Sounds and Arrhythmias)

- Reproduces digitally stored heart sounds, murmurs and breath sounds
- These sounds are heard with stethoscopes from sounders, either the two mounted in the top or from other sounders, with up to 50 connected at the rear panel jacks
- When listening, it is important to recognise the timing of systole and diastole
- Menu items that are selected from the 16 plug-in modules have their number digitally displayed adjacent to the keyboard
- Arrhythmia menus may be also displayed on patient monitors
- Comes with two built-in sounders plus two extra sounders
- Modules onboard the unit are as follows;
  - Module 1 – Basic Heart Sounds
  - Module 2 – Basic Murmurs
  - Module 3 – Breath Sounds



## Male Catheterisation Simulator

The Male Catheterisation Simulator allows demonstration and practice in urinary catheterisation without embarrassment or discomfort to the patient or the students. In addition, the catheterisation simulator is useful for anatomical identification and demonstration of perineal care. Catheterisation can be practiced just as on a real patient.

### Product Features:

- A lubricated catheter can be inserted in the urethral orifice, passed through the urethra, and into the bladder. When the bladder is successfully entered, artificial urine (water) will flow from the catheter.
- Normal restrictions caused by the mucosal folds, bulbous urethra, and the internal urethral sphincter, just prior to entrance into the bladder.
- The experience teaches proper positioning and movement of the penis to allow the catheter to pass easily with a minimum of discomfort to the patient.



## Suturing Kits

Eight individually packed kits to practise suturing skills, along with Quality Assured skills guides that cover theory and best practice giving practical tips and help.

Each pack contains:

- Skin pads in jigs
- Forceps
- Sterile scissors
- Needle holders
- Assortment of sutures

