



Simulation Equipment

HAL® S3201 Advanced Multipurpose Patient Simulator (High Fidelity Simulator)



General Functions:

- Reactive Eyes, Seizures: HAL has blinking eyes with photosensitive pupils. Control dilation, reactivity, and blink rate to simulate injury and state of consciousness.
- Surgical Airway: Visible tongue edema, pharyngeal swelling, and laryngospasm. Perform an emergency cricothyrotomy or tracheostomy.
- eCPR™ and Real EtCO₂: Built-in ventilation and chest compression sensors capture CPR quality metrics. Measure EtCO₂ using a real capnometer to monitor effectiveness.
- Defibrillation: Monitor, capture, pace, and cardiovert using a real defibrillator, electrodes, and real energy. Alternatively, save money on replacement pads by connecting the defibrillator directly to HAL using our optional hands- free training cables.

Sim Man 3G Plus (High Fidelity)



General Functions:

- Completely wireless and self-contained
- Supplemental wired connectivity and power
- Controllable open/closed airway; automatically or manually controlled
- Airway Complications

- Breathing Features: Simulated spontaneous breathing, Bilateral and unilateral chest rise and fall, CO2 exhalation, Normal and abnormal breath sounds, Oxygen saturation and waveform
- Breathing Complications: Cyanosis, Needle thoracentesis - bi-lateral, Unilateral & Bilateral chest movement, Unilateral, Bilateral & lobar breath sounds
- Chest tube insertion – bilateral
- Cardiac Features: Extensive ECG library, Heart sounds - four anterior locations, ECG rhythm monitoring (4 wire), 12 lead ECG display, Defibrillation and cardioversion, Pacing
- Circulation Features: BP measured manually by auscultation of Korotkoff sounds, Carotid, femoral, brachial, radial, dorsalis pedis, popliteal and posterior tibialis pulses synchronized with ECG, Pulse strength variable with BP, Pulse Palpation is detected & logged
- Vascular Access:
 - IV access (right arm)
 - Intraosseous access (tibia and sternum)
- Automatic Drug Recognition System
- CPR: CPR compressions generate palpable pulses, blood pressure wave form, and ECG artefacts, Realistic compression depth and resistance, Detection of depth, release and frequency of compressions, Real time feedback on quality of CPR
- Eyes: Blinking - slow, normal, fast and winks, Open, closed and partially open
- Pupillary accommodation: synchrony/asynchrony, normal and sluggish speed of response
- Other Features:
 - Seizure/Fasciculation
 - Bleeding: Simulation of bleeding at multiple sites, Arterial and venous, Vital signs automatically respond to blood loss & therapy, Works with various wound modules & moulage kits
- Urine output (variable)
- Foley catheterization
- Secretions: Eyes, Ears, Nose, Mouth, Blood, Mucous, CSF, etc.
- Diaphoresis
- Bowel Sounds - four quadrants
- Patient Voice: Pre-recorded sounds, Custom sounds, Instructor can simulate patient's voice wirelessly
- Pharmacology: Automatic Drug Recognition System identifies drug & dose, Extensive drug formulary, Automatic or programmable physiological responses

Nursing Anne (High Fidelity Simulator)



Accurate clinical procedures

- Realistic patient care procedures including placement and care of NG tubes, gastric lavage, and gavage, complete urinary catheterization.
- Anatomical landmarks: Palpation of anatomy includes clavicle, scapula, and anterior superior iliac crest. You can also train on IM injections that require palpation for proper insertion locations.
- Evaluate patient consciousness: Conscious patient characteristics including spontaneous breathing and blinking eyes.

Lifelike and realistic training

- Auscultation diagnostic: Teach learners how to auscultate anterior and posterior lung sounds as well as heart and bowel sounds.
- Medication and fluids: Train on infusion of fluids and medication with bilateral (pre-ported) IV arms and central line catheter.
- Train on CPR: CPR capabilities including compressions and ventilation.
- Bilateral assessment: Perform realistic vital signs assessment with bilateral blood pressures and pulses.

Highly realistic

- Tetherless operation: Let learners interact realistically with wireless and tetherless operation.
- Realistic articulation: Realistic patient handling and movement with bilateral articulating elbows, positional head, and bendable waist allowing her to sit up unassisted or be placed in tripod position.
- Expand the scope of training: Take your training to the next level with add-on accessory modules that facilitate clinical training focused on learning objectives geared toward mastectomy care, wound assessment and general patient care.

Super Tory (High-Fidelity Simulator)



General

- Age: Full-term newborn
- Weight: 8 lbs.
- Length: 21 in.
- Tetherless and wireless; fully responsive during transport
- Internal rechargeable battery provides up to 8 hr. of tetherless operation
- Smooth and supple full-body skin with seamless trunk and limb joints
- 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

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
- Nasotracheal/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 rise 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 rise 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, tactile pleural pop, and fluid drain
- Visible chest rise 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 postductal (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)
- eCPR™ 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 tibial infusion

Gastrointestinal

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

Nursing Anne (Task Trainer)



General Functions:

- NG tube insertion care, medication administration and removal; gastric lavage and gavage.
- Tracheostomy care and tracheal suctioning.
- Articulating IV training arm allows peripheral intravenous therapy with IV bolus or push injection. Venipuncture possible in the antecubital fossa or dorsum of hand.
- Interchangeable genitalia with connectors & urinary and colon reservoirs facilitate urologic care procedures and gastrointestinal procedures.

Nursing Baby



Offers a wide variety of patient features that can be simulated to enhance skill techniques and learning:

- Trach care and suctioning (oral and nasal)
- NG and OG tube insertion
- Intraosseous puncture and infusion
- Intramuscular injection site identification
- Urinary catheterization
- Auscultation of normal and abnormal heart, breath and bowel sounds
- Gastrostomy tube care and feeding
- Vocal sound identification