NOELLE & PREMIE HAL - Obstetrics and premature care - UNI

PRODUCT NUMBER: 1517

DESCRIPTION:

The **NOELLE and Premie HAL package** is a complete **simulation-based obstetric and premature infant care education and training** solution for one great price.

This turnkey solution includes a Noelle wireless and tetherless childbirth patient simulator, a Premie HAL wireless and tetherless premature infant, two UNI® control tablet PCs, a Gaumard Vitals® patient monitor, Labor & Delivery and Premature Infant Care Simulation Learning Experience® Courseware packages, and accessories.

SKILLS:

MORE THAN SIMULATORS S.L.
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- Leopold Maneuvers skills training
- Fetal monitoring
- Breech and vartex delivery skills training
- Obstetrics emergency: shoulder dystocia and C-section.
- Epidural placement and needle detection
- Delivery maneuvers training: McRoberts, Zavanelli, Woods' screw, and more
- Advanced delivery management techiques training: Pinard's, Mauriceau, Ritgen's, Lovset, etc.
- Placenta extraction and fragments detection
- Post-partum hemorrhage control
- Episiotomy exercises
- Catheterization training
- Rectum suppository placement
- Cardiac, pulmonary and abdominal auscultation exercises
- Palpation of pulses (synchronized with heart rate)
- Oxygen saturation monitorization
- Blood pressure measurement
- IV trainining: intravenous, blood draw, intramuscular, subQ, etc.
- Administration of intravenous drugs/medication
- Resuscitations skills (CPR)
- Real equipment monitorization: EKG, capnography, NIBP, TOCO, pulse oximenters, etc.
- Defibrillation, cardioversion and pacing training
- Heart rate measurement
- Detection of respiratory patterns and inspiratory/expiratory ration
- BVM ventilation
- Oral and nasal intubation
- CO2 exhalation measurement (with adapter)
- Airway management training
- Difficult airway management (laryngospasm, tongue edema, etc.)
- Mechanical ventilation skills training
- Diagnosis of seizures
- Ophthalmologic exercises and pathology diagnosis

CHARACTERISTICS:

NOELLE FEATURES:
LABOR AND DELIVERY:

- NOELLE® Fetus-Newborn wireless link capability
- Automatic and fully programmable birthing mechanism simulates descent and cardinal movements
- Precise labor scenario repeatability for competency-based training and assessment
- Programmable normal, breech, shoulder dystocia, instrument-assisted delivery, and C- section
- Supports Leopold’s Maneuvers and external cephalic version
- Epidural placement and needle detection; palpable anatomical landmarks and skin layers

- Force sensors monitor traction applied to the fetus in real-time
- Anatomic landmarks include bilateral ischial spines, coccyx, and pubic bone
- Realistic birth canal with dilating cervix
- Fetus rotates, dips, and rises during delivery
- Palpable contractions
- Programmable intrapartum bleeding
- Supports McRoberts maneuvers
- Supports Woods' screw, arm sweeps, and Lovset
- Postpartum: palpable fundus with programmable uterine contractions
- Uterine bleeding: manage uterine hemorrhage using medications or a balloon tamponade
- Episiotomy repair inserts simulate human tissue that can be sutured closed repeatedly

NEUROLOGICAL:

- Programmable blinking, dilation, and eye response to light
- Programmable duration and intensity of convulsions
- Prerecorded responses
- Wireless streaming voice: be the voice of Noelle and listen to the participants' responses via a wireless headset

AIRWAY MANAGEMENT:

- Program tongue edema and pharyngeal swelling
- Multiple upper airway sounds synchronized with breathing
- Nasal or oral intubation
- Sensors detect depth of intubation
- Supports Bag-Valve-Mask ventilation
- Supports conventional airway adjuncts

BREATHING:

- Automatic chest rise is synchronized with respiratory patterns
- Normal and abnormal breath sounds
- Independent left or right lung sounds synchronized with breathing
- Ventilation may be assisted using BVM, ETT, or LMA
- Ventilations are measured and logged
- Detection and logging of ventilations and compressions

CARDIAC:

- eCPR® – Monitor rate and compression depth, no-flow time, ventilation rate, and excessive ventilation.
- The smart trainer features vocal cues and outputs performance reports.
- Chest compressions generate palpable blood pressure waveform and ECG artifacts
- Normal and abnormal heart sounds
- Heart sounds synchronized with ECG

- ECGs are generated in real-time with physiologic variations

CIRCULATION:

- Measure blood pressure by palpation or auscultation using real instruments
- Korotkoff sounds audible between systolic and diastolic pressures
- Oxygen saturation detected using real monitors
- Bilateral carotid, radial, and brachial pulses synchronized with ECG
- Pulse sites synchronized with BP and heart rate
- Bilateral IV arms with fill/drain sites
- Optional drug recognition system
- SubQ and IM injection sites
- Chest compressions are measured and logged
- ECG monitoring using real devices
- Defibrillate, cardiovert, and pace using real devices

PREMIE HAL FEATURES:

GENERAL:

- Gestational age: 30-week preterm neonate
- Weight: 2.9 lb. (1.32 kg)
- Length: 15.71 inches (39.9 cm)
- Smooth and supple full-body skin

AIRWAY MANAGEMENT:

- Lifelike and anatomically accurate oral cavity and airway
- Supports NG and OG tube placement
- Supports endotracheal intubation using standard adjuncts
- Selectable upper airway sounds synchronized with breathing

BREATHING:

- Automatic, spontaneous breathing
- Programmable respiratory rates and I:E ratios
- Preprogrammed respiratory patterns and grunting
- Selectable normal and abnormal lung sounds
- Compliant lungs present visible chest rise following guideline recommended flow, PIP, and PEEP values
- Supports standard positive pressure ventilation devices including bag-valve-mask, resuscitators, mechanical ventilators, CPAP, and more
- Real-time PPV ventilation feedback via UNI control interface
- Programmable unilateral chest rise simulates pneumothorax

CIRCULATION:

- Central cyanosis with variable discoloration
- Includes comprehensive library of ECG rhythms with customizable beat variations
- Supports ECG monitoring using real devices
- Normal and abnormal heart sounds with adjustable rates
- eCPR™ Real-time quality feedback and reporting: Time to CPR, Compression depth/rate, Compression Interruptions,
- Ventilation rate, Excessive ventilation, Smart CPR voice coach and CPR performance report
- Automatic and palpable pulses: Fontanelle, Brachial, Umbilicus and Femoral
- Pulse strength is blood pressure dependent
- Supports IV cannulation: bolus, infusion, and sampling in dorsum of hand (bilateral), Umbilical catheterization (UVC/UAC) and dorsum of foot
- Intraosseous access at right tibia supports continuous infusion
- Temperature sensor placement detection
- Supports virtual pacing and defibrillation via Gaumard Vitals™ Virtual Patient Monitor

NEUROLOGICAL:

- Crying synchronized with breathing

INCLUDE:

- 1 NOELLE simulator
- 1 PREMIE HAL simulator
- 2 UNI Tablet pc (simulations control)
- 9 Pre-installed labor and delivery simulation scenarios
- 5 Pre-installed pre-term simulation scenarios
- 1 Virtual Patient Monitor with Gaumard Vitals
- 1 RF communications module
- 1 Palption abdomen
- 1 C-section abdomen
- 2 Umbilical cords
- 1 Placenta
- 1 Epidural insert
- 1 Episiotomy trainer insert
- 5 IO inserts
- 1 Artificial blood concentrate
- 1 Fluid filling kit
- 1 Mineral oil lubricant
- 1 Power supply adapter
- 1 Soft carrying case
- 1 Instructions manual

ADDITIONAL MODULES:

GAUMARD VITALS PATIENT MONITOR (included):

- Touchscreen patient monitor preloaded with Gaumard Vitals
- Programmable uterine activity
- Control contraction frequency, duration, intensity, resting tone, and decels
- Program fetal heart rate and baseline variability
- Control episodic, periodic, and variable changes
- Generate FHR patterns at any time
- Virtually monitor FHR via External Fetal Monitoring or the Fetal Spinal Electrode Mode
- Review up to 2 hours of recorded fetal tracings
- Save/print fetal tracings for debriefing
- Interactive virtual patient monitor displays vital signs in real-time
- Customizable layout mimics real patient monitors
- Display simulated ultrasounds, CT scans, lab results, x-ray

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