HAL® S3010

A Neonate at 40 Weeks Gestational Age

· Simulation Made Easy™
· Proven HAL® technology
· Tetherless with wireless communication
· Fully responsive even while being carried
· Modeling and trending
· Comprehensive performance feedback

Tetherless Simulators - Newborn HAL® S3010

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Newborn HAL® allows you to take advanced simulation where you need to go and that can be at an accident scene, in an ER, in a Labor and Delivery room, or in a NICU. "Care in motion" also provides the opportunity for you to measure how well patient "hand-offs" take place. What is done well and what needs to be improved?

Realistic

Realistic size and weight, tetherless connectivity, chest rise, cyanosis, crying sounds and a variety of other features make for highly realistic scenarios.

Mobile

No external compressors, no linking boxes, no cords; just Newborn HAL® and a Tablet PC wirelessly connected for up to 300 feet.

Complete Solution

From our standard one year warranty and 20 pre installed scenarios, to multiple service, training, and warranty offerings, we cover all of your simulation needs.

Affordable

Gaumard® dedicates its talents to providing simulators at affordable prices. This principle remains as true today as it was over 50 years ago.

Intuitive Software

Our intuitive and powerful user interface defines... Simulation Made Easy™.

Debriefing

Evaluate interventions and insert notes on a real-time performance log.

Reliable

Standard one year warranty and over 50 years of experience building high quality patient simulators.
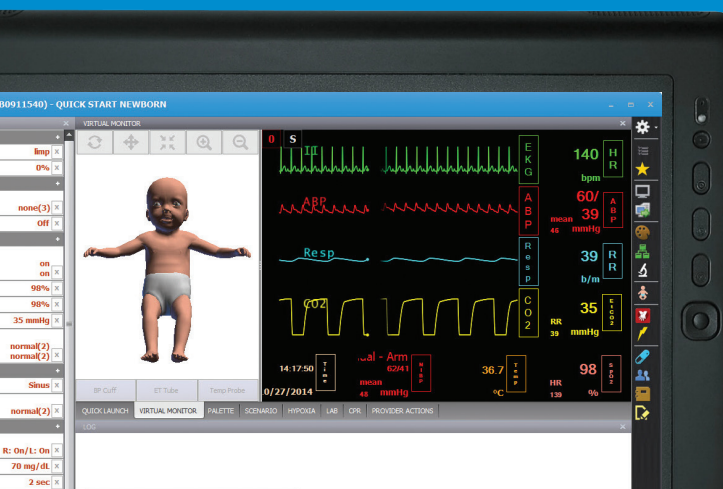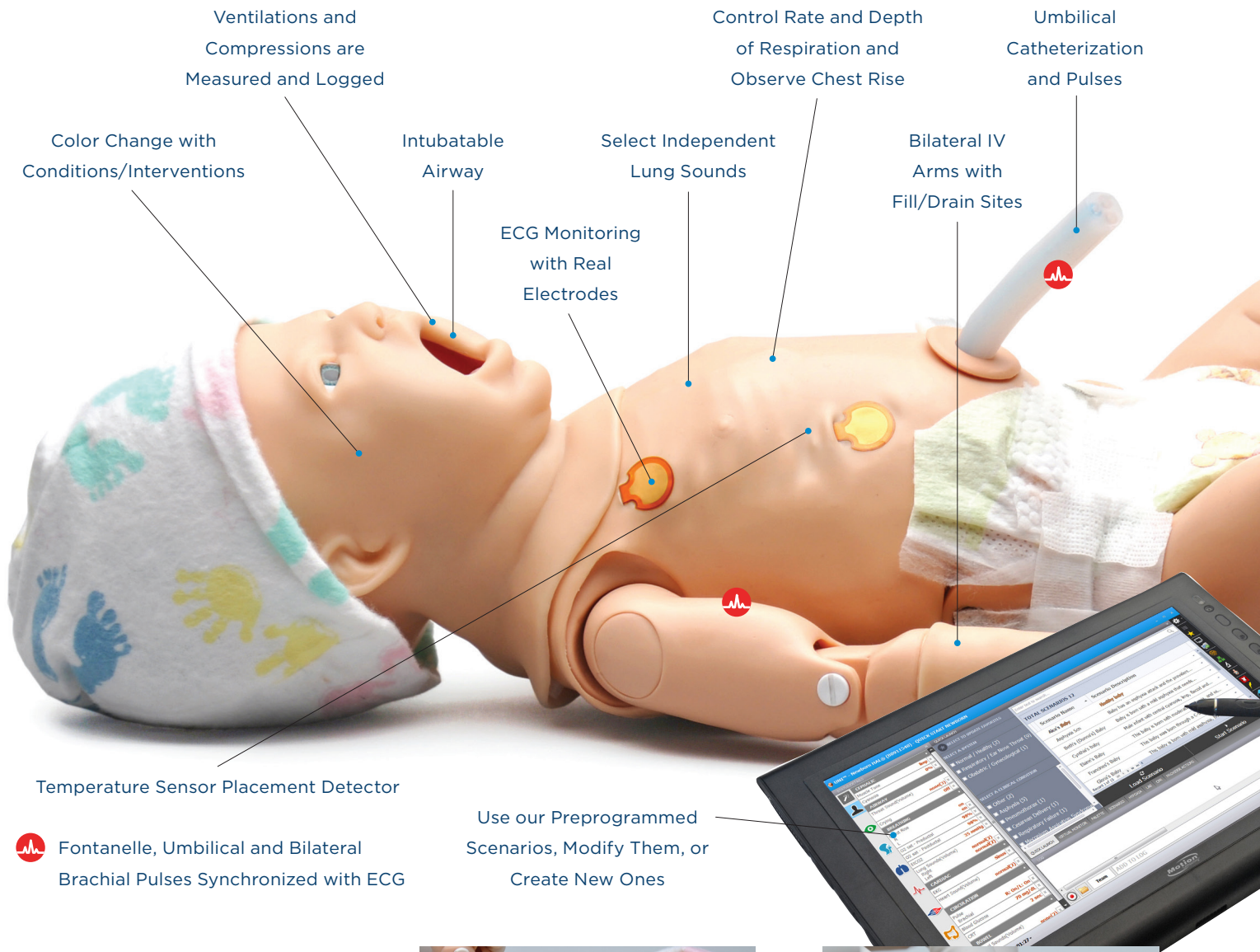
Proven Technology

Features like "ECG monitoring with real electrodes" and "Cyanosis" make Newborn HAL® the most realistic neonatal patient simulator in the market.

Tablet PC

Includes a 12in touchscreen tablet PC with stylus control, "bump" case and scenarios.

Ventilations and
Compressions are
Measured and Logged

Control Rate and Depth
of Respiration and
Observe Chest Rise

Umbilical
Catheterization
and Pulses

Color Change with
Conditions/Interventions

Intubatable
Airway

Select Independent
Lung Sounds

Bilateral IV
Arms with
Fill/Drain Sites

ECG Monitoring
with Real
Electrodes

Temperature Sensor Placement Detector

Fontanelle, Umbilical and Bilateral
Brachial Pulses Synchronized with ECG

Use our Preprogrammed
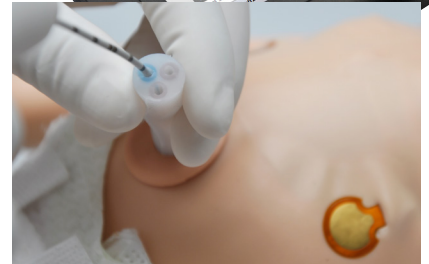Scenarios, Modify Them, or
Create New Ones

Tetherless
Control Newborn at distances up
to 300 feet while he smoothly
transitions between physiologic
states in response to commands
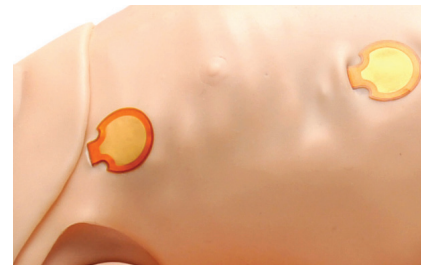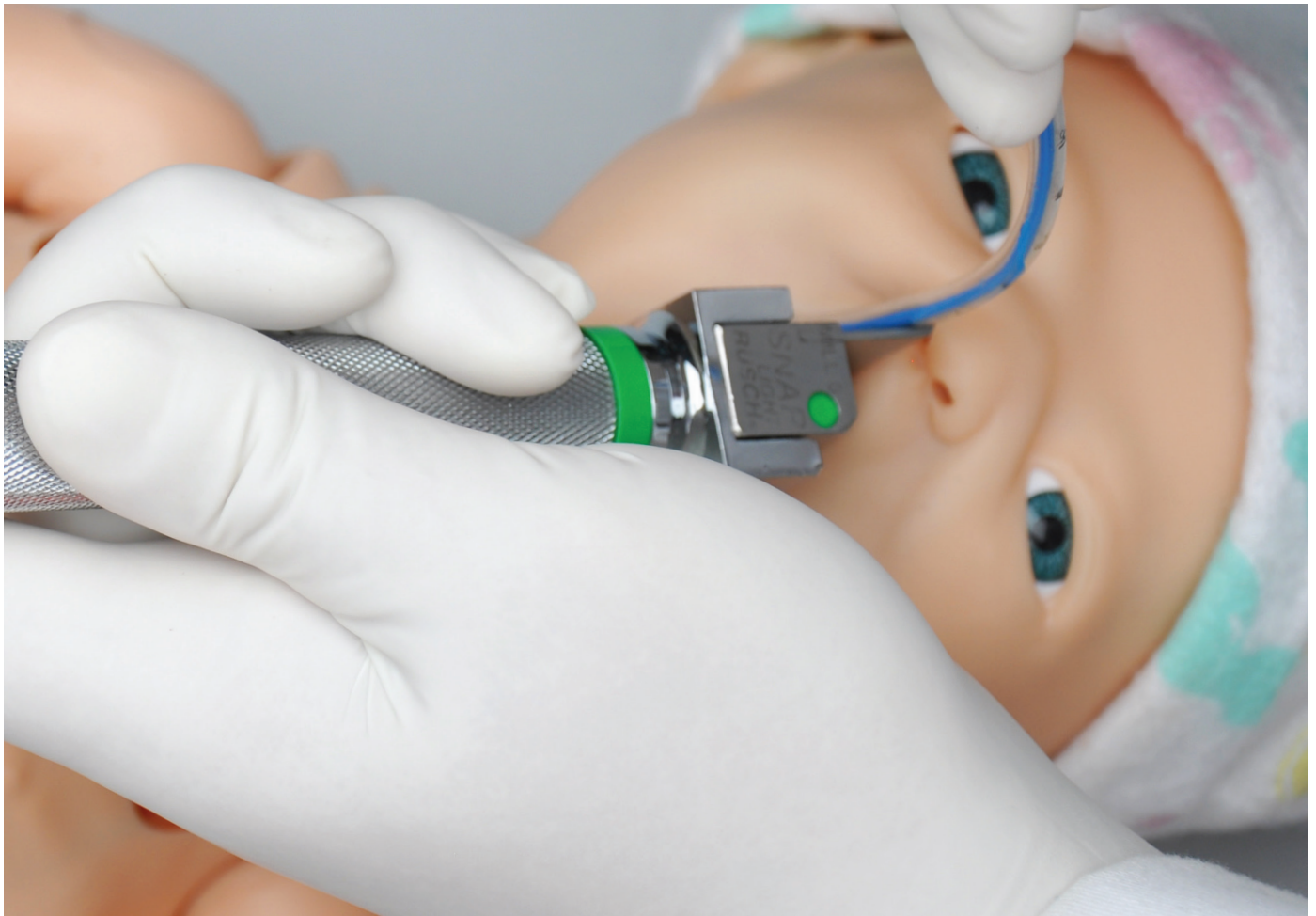from a wireless tablet PC.

Cyanosis
Color and vital signs respond to
hypoxic events and interventions.

Realistic Umbilicus
HAL's umbilicus can be
catheterized and even has a
pulse synchronized with
programmed heart rate.

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Bilateral IV Arms

Newborn HAL® has bilateral IV training arms that can be used for bolus or intravenous infusions as well as for draining fluids.

Intraosseous Access

Intraosseous infusion and injection system with realistic tibia bones.

ECG Monitoring
Using Real Electrodes

Newborn has conductive skin regions that allow the application of real electrodes to view ECGs with physiologic variations, allowing the user to track cardiac rhythms with their own equipment just like with a human patient.

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UNI™ Software

Our intuitive and powerful software offers ease of use and the flexibility required by the most demanding users.
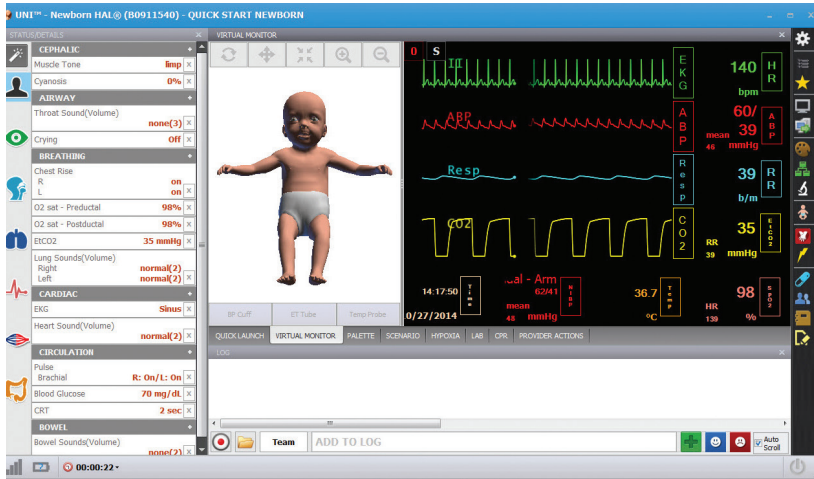

Features

· Basic view provides windows for the 3D model of the simulator, a completely configurable vital signs monitor and an activities log

· 3D image can be rotated or enlarged; the skin removed and physiologic parameters accessed to change any elements of a powerful physiologic engine

· Physiologic parameter groups include airway, breathing, cardiac, cephalic and circulation. Move each about the status panel

· Expand windows to include status, palettes, scenario, branching scenario, actions, log, monitors, and CPR recorder

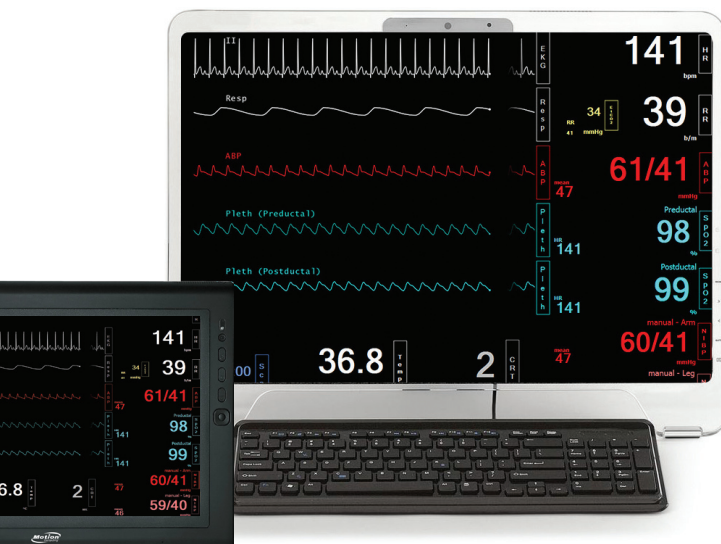· Specify only frequently used parameters or be as detailed as you wish
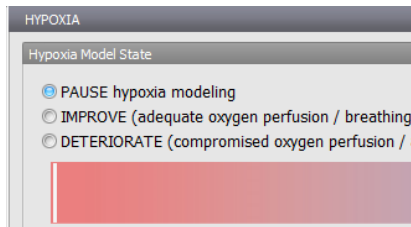
Hypoxic model responds to care provider actions
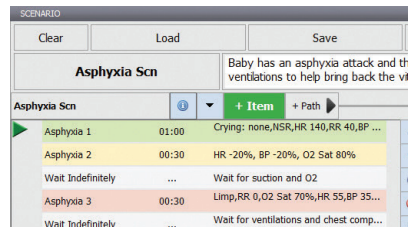
Scenarios link physiologic states
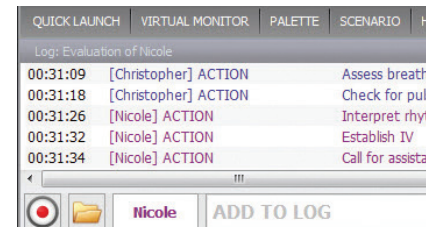
Track the actions of up to six care providers

Vital Signs Monitor

· Optional 20in "all-in-one" touchscreen virtual monitor or 12in Touch Screen Tablet to display vital signs

· Customize each trace independently; users can set alarms, and time scales

· Display up to 12 numeric values including HR, ABP, CVP, PAWP, NIRP, CCO, SpO_2, SvO_2, RR, $EtCO_2$, temperature, and time

· Select up to 12 dynamic waveforms including ECG Lead I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6, AVP, CVP, PAWP, pulse, CCO, SvO_2, respiration, capnography

· Share images such as x-rays, CT scans, lab results, or even multimedia presentations as the scenario progresses

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General
· Available in ethnic skin tones
· Tetherless and fully responsive even while being transported
· Powered from an internal rechargeable battery or wall outlet
· Battery capable of 300 recharges and operate the simulator up to 4 hours
· Simulator receives commands from a wireless tablet PC and operate at distances up to 300 feet
· Option to operate automatically using Automatic mode or by the Instructor
· Training Guide with both basic and advanced interactive scenarios
· Use pre programmed scenarios, modify them or create your own quickly and easily
· Installation and training worldwide
· Simulation Made Easy™

Airway
· Multiple upper airway sounds synchronized with breathing
· Nasal or oral intubation
· Right mainstem intubation
· Sensors detect depth of intubation
· Airway may be obstructed
· Block right lung, left lung, or both lungs
· Head tilt/ chin lift
· Jaw thrust
· Simulated suctioning techniques can be practiced
· Bag-Valve-Mask Ventilation
· Placement of conventional airway adjuncts
· Endotracheal intubation using conventional ETTs
· Sellick maneuver brings vocal cords into view

Breathing
· Control rate and depth of respiration and observe chest rise
· Automatic chest rise is synchronized with respiratory patterns
· Select independent left and right upper lung sounds
· Chest rise and lung sounds are synchronized with selectable breathing patterns
· Accommodates assisted ventilation including BVM and mechanical support
· Ventilations are measured and logged
· Chest compressions generate palpable blood pressure wave form and ECG artifacts
· Detection and logging of ventilations and compressions
· Simulated spontaneous breathing
· Variable respiratory rates and inspiratory/expiratory ratios
· Bilateral chest rise and fall
· Unilateral chest rise simulates pneumothoraces
· Normal and abnormal breath sounds

Cardiac
· ECGs are generated in real time with physiologic variations never repeating textbook patterns
· Heart sounds may be auscultated and are synchronized with ECG

Circulation
· Measure blood pressure by palpation or auscultation
· Use real modified BP cuff to measure blood pressure
· Korotkoff sounds audible between systolic and diastolic pressures
· Pulse sites synchronized with BP and heart rate
· Bilateral IV arms with fill/drain sites
· Realistic flashback
· SubQ and IM injection sites
· Intraosseous access at tibia
· Chest compressions are measured and logged
· ECG monitoring using real devices; apply real electrodes to conductive skin regions
· Multiple heart sounds, rates and intensities
· ECG rhythms are generated in real time
· Heart sounds synchronized with ECG
· Dynamic rather than static 12 lead ECG display with optional Automatic Mode and Vital Signs Monitor
· Fontanelle, umbilical and bilateral brachial pulses synchronized with ECG

Speech
· Pre recorded crying

Articulation and Movement
· Seizure/convulsions
· Muscle tone active, right arm only, left arm only, reduced and limp
· Realistic rotation of the shoulder and hip joints
· Legs bend at the knees
· Supine or semi-recumbent positions

Other
· Central cyanosis
· Color and vital signs respond to hypoxic events and interventions
· Fill bladder and perform Foley catheterization
· Interchangeable genitalia
· Umbilical catheterization
· Umbilicus with two arteries and one vein; practice cutdowns
· Temperature probe placement
· Insert feeding tubes
· Auscultate bowel sounds
· Remains fully functional even while in transit

User Interface
· Sensors track student actions
· Changes in condition and care provided are time stamped and logged
· View the actions of up to 6 care providers using a responsive menu or write narrative
· Generate and share diagnostic lab results
· File sharing through Vital Signs Monitor
· Links with optional recording and debriefing system integrating the event log with cameras and patient monitor
· Supplied with wireless tablet PC
· Optional automatic mode
· 20 pre programmed scenarios which can be modified by the instructor even during the scenario
· Create your own scenarios - add/edit
· Change simulator's condition during the scenario

Newborn HAL® S3010
S3010

Patented; other patents pending

Options

20in All-in-one Touch Screen PC to Display Vital Signs
S3010.001.R2

· Controlled via wireless tablet PC
· Simulated vital signs
· Use selected configuration or create your own configuration to mimic the real monitors used in your facility
· Customize alarms
· Easy to operate and control
· Reflect simulator's condition during the scenario
· Share images such as ultrasounds, CT scans, lab results
· Touchscreen control
· Monitor can be configured by the instructor to suit the scenario
· Display up to 12 numeric parameters
· Select up to 12 dynamic waveforms

12in Touch Screen Tablet to Display Vital Signs
S3010.002

Pro+ Recording and Debriefing System
S3010.211

· Control both simulation and recording simultaneously using one PC
· Capture multiple video, audio, and patient monitors, as well as simulator log file for debriefing
· Use in a fixed simulation laboratory or at a mobile location
· Two wireless and one wired camera

Automatic "Physiologic" Mode
S3010.600

· Intuitive interface and automaticity makes simulation easy
· Vital signs are generated in real time
· Drug library with medications
· Use of medications change conditions in real time mimicking real clinical situations

Neonatal Stabilization Scenarios
CD100