



SimMan® Critical Care

Advanced training in respiratory and critical care interventions

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Meet the evolving demands of healthcare education

Simulate true-to-life scenarios

Designed for in situ simulation, SimMan® Critical Care provides advanced training in respiratory care, critical care, and anesthesia practice using onboard technology to deliver tetherless mechanical ventilation, enabling learners to progress through transitions of care from pre-hospital to ICU. Engage in hands-on learning experiences practicing basic to advanced medical techniques for a cutting-edge training experience, aligning healthcare education with the demands of the evolving medical landscape.

Built on SimMan's trusted legacy in medical simulation, SimMan Critical Care integrates ASL 5000™ technology to replicate any patient condition, allowing learners to refine essential skills in managing critically ill patients. Tetherless operation reduces complexity, marking a significant advancement in mechanical ventilation training.

Simulation solutions

SimMan's product ecosystem is designed to make advanced medical simulation available to everyone and offers a holistic approach to training and quality improvement in critical care, including specialized training in emergency care, trauma care, intensive care, anesthesia, and point-of-care ultrasound.

Together, these products deliver training solutions that form an immersive simulation environment, ensuring healthcare providers are equipped to face the challenges they may encounter in the real world.



Laerdal-SonoSim Ultrasound Solution 2.0

Designed to integrate diagnostic ultrasound into simulations.

VitalsBridge

Bridging the gap between simulation and real patient monitors.

Designed for realistic c



Advanced experiential learning

SimMan Critical Care transforms respiratory simulation, providing a complete range of resistance and compliance parameters, patient effort features, and the ability to manage a spontaneously breathing patient. Its portability, connection to real patient monitoring equipment, and capacity for up to 900 mL tidal volume set it apart in critical care simulation training.

Compatible with any ventilator in any mode of ventilation, SimMan Critical Care enables the simulation of any respiratory condition possible, creating a safe and realistic training environment that benefits both learners and experienced providers.



The optimal option for training

SimMan Critical Care generates a highly realistic ventilator response as well as holds PEEP at any clinical level.

It also supports clinicians in various respiratory modalities:

- Bag-valve-mask ventilation
- Non-invasive ventilation
- Airway management
- Mechanical ventilation
- Anesthesiology
- Ready-to-Wean patient management



SimMan Critical Care is the only high-fidelity mobile simulator that offers spontaneous modes of:

- Pressure Support Mode – provide support for every patient triggered breath
- Adaptive Support Mode – automatically adjust pressure based on patient requirements
- Proportional Assist Ventilation – improve patient-ventilator synchrony
- Pressure Regulated Volume Control – achieve set tidal volume at lowest possible airway pressure
- Volume Control Mode – preset tidal volumes administered to patient
- High Frequency Oscillatory Ventilation – combine high respiratory rate with small tidal volumes to improve oxygenation

Precision in practice

In the field of healthcare education, prescribed simulation control is vital to bridge theoretical knowledge with practical application and ultimately contribute to improved patient care and safety. Experience advanced simulation control that enhances hands-on training and allows for the customization of simulations, ensuring that students and healthcare professionals can practice and refine their skills across a broad spectrum of scenarios. From pre-built lung models to customizable scenarios, the simulation control software provides a realistic learning environment with features that support comprehensive critical care training.

- Pre-built Lung Models - access five pre-built lung models, each offering variable severity to enhance the breadth of simulation scenarios
- Scenario Library: utilize a library of pre-built scenarios, streamlining the preparation process for comprehensive training sessions
- Custom Lung Models - create and save custom lung models, broadening training scenarios that can be accessed at any time
- Breathing Control - exercise precise control over patient work of breathing with variable patient effort settings, providing a nuanced and true-to-life training experience
- Spontaneous Breathing Response – recognize spontaneous breathing using a real mechanical ventilator, enhancing the authenticity of simulations
- Ventilation Mode Changes: effortlessly switch between ventilation modes, transitioning from volume to pressure control on the same patient without adjusting settings or interrupting the simulation flow