

SimMan 3G is an advanced patient simulator that can display neurological symptoms as well as physiological. It is simple to operate and features innovative technology such as automatic drug recognition. SimMan 3G with a long list of features that will optimize simulation training scenarios including automatic drug recognition, light sensitive pupils and bodily fluid excretion, lab testing, intubation, ECG recognition. These features will provide the opportunity to practice many basic and advanced clinical skills without risk to patients. Wireless technology makes SimMan 3G flexible and mobile, so that it is possible to conduct training for the entire rescue chain and allow team training which includes patient handover and emergency reporting.

It must be able to do the perform the following actions:

Specifications

- Completely wireless and self-contained
- Internal electrical and pneumatic power
- Supplemental wired connectivity and power
- Wirelessly integrates with existing computer networks
- Swappable, rechargeable batteries
- Approximately 4 hours continuous operation in wireless mode
- Rugged and reliable for use in multiple environments

Multiple Airway Skills/Features:

- Controllable open/closed airway; automatically or manually controlled
- Head tilt/Chin lift
- Jaw thrust w/articulated jaw
- Suctioning (Oral & Nasopharyngeal)
- Bag-mask ventilation
- Orotracheal intubation
- Nasotracheal intubation
- Combitube, LMA, and other airway placement
- Endotracheal tube intubation
- Retrograde intubation
- Fiberoptic intubation
- Transtracheal jet ventilation
- Needle cricothyrotomy
- Surgical cricothyrotomy
- Variable lung compliance
 - 4 settings
- Variable airway resistance
 - 4 settings
- Right main stem intubation
- Stomach distention
- Connectivity with third party respiratory simulations

Airway Complications:

- Detection of proper head position
- Can't intubate/Can ventilate

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- Tongue edema
- Pharyngeal swelling
- Laryngospasm
- Decreased cervical range of motion
- Trismus

Breathing Features:

- Simulated spontaneous breathing
- Bilateral and unilateral chest rise and fall
- CO2 exhalation
- Normal and abnormal breath sounds
 - 5 anterior auscultation sites
 - 6 posterior auscultation sites
- 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)
- Automatic Drug Recognition System

CPR:

- Compliant with 2015 Guidelines

- 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
- Instructor Communication
 - Multiple instructors communicate using integrated voice over IP

Pharmacology:

- Automatic Drug Recognition System identifies drug & dose
- Extensive drug formulary
- Automatic or programmable physiological responses

System Features:

- Control multiple manikins from one interface
- Control simulations from any where on your network
- Multiple interfaces can control/observe a single simulation
- Manual Mode
 - Precise control "on the fly"
 - Design & program custom scenarios
 - Create custom events
 - Run pre-packaged scenarios
- Automatic Mode

- Physiological & pharmacological models run pre-packaged simulations
 - Unique, simple controls increase/decrease difficulty & pace
- Simulation controls:
 - Fast forward
 - Pause
 - Rewind
 - Save/Restore
 - Profile Editor
 - Future prediction & patient outcome display
 - Integrated video debriefing
 - Data logging
 - Instructor comments

Patient Monitor:

- Wireless
- Highly configurable
- Includes:
 - ECG (2 traces)
 - SpO2
 - CO2
 - ABP
 - CVP
 - ICP
 - Anesthetic Agent
 - PH
 - PTC
 - PAP
 - PCWP
 - NIBP
 - TOF
 - Cardiac Output
 - Temperature (core & peripheral)
 - Additional and programmable parameters
- X-Ray Display
- 12 Lead ECG Display
- Custom Image Display
- Custom Video Display