

# ALS Simulator



*Advanced Version  
now available!*

Laerdal Simulation Solutions

[www.laerdal.com.au](http://www.laerdal.com.au)  
[www.laerdal.co.nz](http://www.laerdal.co.nz)



**Laerdal**  
helping save lives

# Helping improve patient outcomes.



## ***Helping enhance your educational environment***

In a real emergency, a good outcome for the patient depends on the realism of the rescuer's training, and effective practice in teams.

A critical part of the learning process for emergency care personnel is practicing treatment in the same way it occurs in a real emergency. A patient's condition changes over time, depending on the quality and speed of treatment, so should the simulation in practice.

Simulation training is of greatest value to help people practice working together as a team. It helps improve essential communication and coordination skills and so improves effective team treatment. Simulation in teams is therefore an invaluable step in enhancing your educational environment.

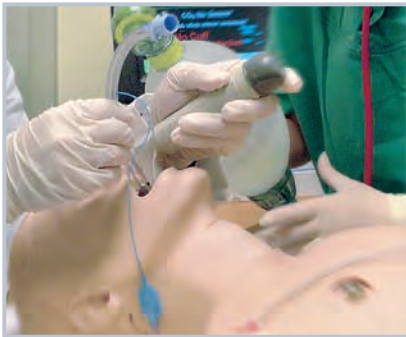
## ***Helping build competence***

Patient safety and outcome are critically dependent on the competence of healthcare personnel. Building real competence is a step-by-step process. It includes acquiring new knowledge and skills, getting used to making quick and safe decisions, training realistically in teams, and gaining clinical experience.

Maintaining and increasing competence is an ongoing process. Laerdal has been offering learning products responding to evolving needs in emergency medicine ever since the introduction of Resusci Anne in 1960. Today our range of life saving, cost-efficient learning products includes graphic source materials, innovative skills trainers, interactive computer simulators and advanced patient simulators.

This reflects our belief that helping build competence is a critical part of our mission of helping save lives.

# ALS Simulator



HEALTHCARE



E M S



MILITARY

*At Laerdal, we are committed to the idea that simulation helps save lives. That is why simulation has so rapidly become a crucial component of healthcare education.*

*More and more, simulators are found in educational institutions, hospitals, the military and other areas of healthcare education at every level. There is a growing need to train staff without risk to patients, to prevent medical errors and, when errors do occur, to find out why.*

*As the need for simulation grows, the need for easy to use, sustainable, high quality solutions grows with it. As technology offers more possibilities, educators' demand for simple, flexible solutions becomes even more profound. As patient simulation proliferates, so does the need to train in new environments. The result is a pressing need for the next generation of patient simulation.*

## **That's where Laerdal comes in...**

*ALS Simulator is the fully functional, cost effective simulator that efficiently targets the key skills of EMTs and other prehospital and in-hospital healthcare providers. With spontaneous breathing, airway control, voice, preprogrammed sounds, ECG and a complete range of products and services surrounding it, ALS Simulator is the perfect tool to help you achieve your goal of saving lives.*



# Benef

## ALS Simulator Benefits

The Advanced Life Support Simulator is a realistic interactive training manikin for simulating a wide range of advanced lifesaving skills in medical emergencies. The simulator responds to clinical intervention, instructor control and comprehensive preprogrammed scenarios for effective practice of diagnosis and treatment of a patient. With spontaneous respirations, airway control, voice, sounds, ECG and many other clinical features, the ALS Simulator is the fully functional emergency care simulator.

### Airway

A new improved airway allows for insertion of standard airway devices with the addition of the LMA, Combitube® and King airway devices.

Learners can perform difficult airway management procedures including needle and surgical cricothyrotomy.

### Breathing

Instructor controlled spontaneous respirations, variable rate of chest rise and lung sounds allow learners to assess breathing. Sensors for head tilt/chin lift and modified jaw thrust procedures record that the airway has been opened.

Presentation of airway obstruction, tongue oedema and tension pneumothorax can prompt learners to follow the difficult airway algorithm and make choices about difficult airway management.

### Circulation

Learners will find bilateral carotid, brachial and radial pulses that are synchronised with a library of over 1400 ECG rhythms.

The blood pressure arm can be auscultated or palpated for training NIBP measurement. Learners can practice cannulation of veins and medication administration using the multi-venous IV arm.

### Defibrillation

Standard patient monitors can be used to refine the learner's skills in cardiac monitoring and interpretation. Defibrillation, pacing with capture and synchronised cardioversion allow students to intervene using clinical defibrillators and external pacers.

Here are some of the many benefits of using the ALS Simulator in your training program:

- *Educationally effective for teaching advanced lifesaving skills, communication and teamwork through simulation*
- *Efficiently targets key skills of emergency care providers*
- *Preprogrammed scenarios provide standardised training, while customisable scenarios and real-time instructor control allow adaptation to meet individual student needs*
- *Flexible and economical simulator platform with multiple modules accommodates a wide range of training including CPR, ACLS, NBC, trauma, bleeding control and first aid*
- *Cost effective simulation for incorporating patient simulation into training programs*
- *Mobile for use in field, transport and hospital training without cumbersome air tanks, hoses or cables*
- *Educational support material provides quick orientation to case-based scenario training. Designed with emergency care in mind, these modules contain patient scenarios based on specific learning objectives, problem solving and decision making skills*
- *Durable, rugged and lifelike; made to withstand years of use*





# ALS Simulator Features



Interchangeable Pupils



NBC Module



Blood Pressure



Intubation

## Cardiac Related – VitalSim™:

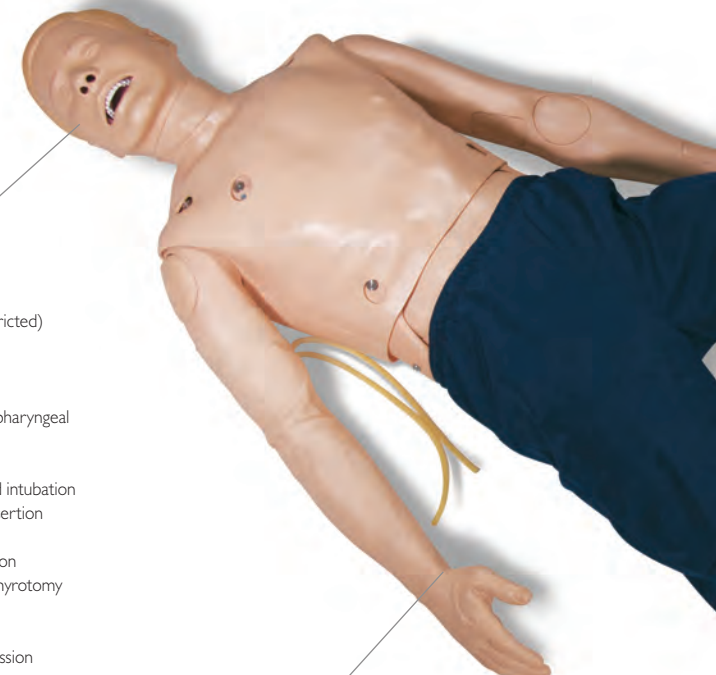
- 1400+ Cardiac rhythm variations
- Manual chest compressions
- Programmable waiting rhythms
- Programmable scenario based algorithms for instructor control
- 3- or 4- lead ECG, pacing and defibrillation using standard clinical equipment
- Pacing with programmable threshold for capture

## Airway Features:

- Interchangeable pupils (normal, blown and constricted)
- Endotracheal intubation
- Nasotracheal intubation
- Digital intubation
- Oropharyngeal and Nasopharyngeal airway insertion
- Bag Valve Mask ventilation
- Retrograde and Lightwand intubation
- Laryngeal Mask Airway insertion
- Combitube insertion
- Trans-Tracheal Jet ventilation
- Surgical and needle cricothyrotomy
- Suctioning techniques
- Obstructed airway
- Pneumothorax decompression and chest tube insertion
- Tongue oedema
- Stomach auscultation to verify positioning
- Head Tilt / Chin Lift
- Modified Jaw Thrust
- Spontaneous chest rise and fall

## Circulatory Skills and IV Drug Administration:

- Articulating IV Arm with replaceable skin and infusible vein system allows peripheral/intravenous therapy and site care
- Subcutaneous and intramuscular injection sites



205-05050 ALS Simulator  
200-10001 VitalSim Control Unit

## Optional Accessories:



381500 Trauma Modules



276-15001 Simulated NBC Module

200-03650 Genitalia Kit–Male and Female (not shown)

# Features

## Blood Pressure / Pulses – VitalSim:

- Articulating blood pressure arm for auscultated and palpated blood pressure simulation
- Korotkoff sounds
- Systolic and diastolic pressure may be set individually
- Auscultatory gap
- Bilateral carotid pulses and brachial and radial pulses in the BP arm
  - Pulses synchronised with programmable ECG
  - Pulse strengths dependent on BP

## Remote Feature:

- Built-in flexibility to run stand alone with the VitalSim box or operate from the laptop (Advanced Version)



## Logging / Scenario Function:

- Sensored Events Include:
  - Airway opened via Head Tilt / Chin Lift or Modified Jaw Thrust
  - Pulse check
  - Ventilations Started / Stopped
  - Compressions Started / Stopped
  - Defibrillation
  - Pacing
- Customisable events for logging specialised learning objectives

## Sounds – VitalSim:

- Heart sounds synchronised with programmable ECG
- Lung sounds synchronised with breathing rate
- Individual lung or bilateral sound selection
- Normal and abnormal bowel sounds
- Pre-recorded and live feed voice sounds



Cricothyrotomy



I.V. Access



Auscultation

## ALS Simulator Includes:

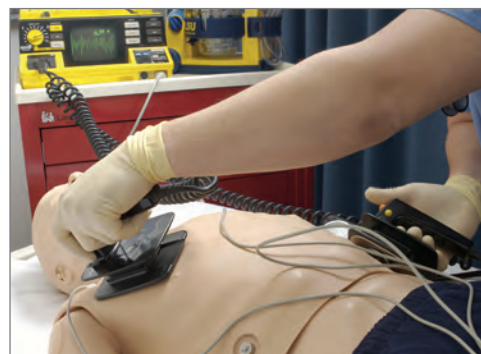
Adult Full-body Simulator; Interchangeable Pupil Set, (6) Neck Skin Collars, (1) Roll Cricothyroid Membrane Tape, Set of Replacement Pneumothorax Bladders, (6) Chest Drain Modules, Air Pump, Set of Defibrillation Posts, Jacket, Pants, Directions for Use, Preprogrammed Scenarios for VitalSim Platform (10), Manikin Lubricant, Manikin Cable and Carry Case.



381550 Bleeding Trauma Modules



381450 Nursing Wound Module Set



Defibrillation

# ALS Simulator Configurations

## ALS Simulator VitalSim™

- Manikin is controlled via VitalSim Remote Control
- Only VitalSim compatible courseware

## ALS Simulator Advanced

- Manikin is controlled via laptop PC based on well proven SimMan® software. VitalSim Unit is still needed for operation
- A Graphical User Interface to write and run a wider range of simulations. Manikin is compatible with SimMan courseware
- A simulated patient monitor for expanded applications
- Integrated video recording and debriefing
- Programmable scenarios with Trends and Handlers
- Event log with synchronised recording of the patient monitor and in-room video
- Stand alone debrief viewer for off-site review
- Inclusion of media files: videos, sounds, etc.
- Versatility to operate back and forth between VitalSim platform and Advanced platform



Graphic User Interface (GUI)

For an optimal ALS Simulator Advanced experience, please consider:

### 205-09001 Peripheral Kit Complete

Peripheral Kit Complete Includes: Laptop PC, USB Webcam, USB Hub, Touch Screen Patient Monitor and Advanced Software



Debrief Viewer





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# ALS Simulator Configurations Courseware

ALS Simulator is compatible with a wide variety of pre-packaged scenarios depending on the platform chosen.

## ALS Simulator VitalSim™

Part Number	Product
80-1496	ACLS Scenarios for ALS Simulator
200-17001	NLN Scenarios for VitalSim Vol. I
200-17201	Emergency Preparedness Scenarios (VitalSim)



ACLS Scenarios for ALS Simulator

## ALS Simulator Advanced

This product configuration is compatible with SimMan® Scenarios

Part Number	Product
80-1459	ACLS Scenarios for SimMan
211-17001	NLN Scenarios for SimMan Vol. I
211-17301	NLN Scenarios for SimMan Vol. II
211-17101	Emergency Preparedness Scenarios (SimMan)



NLN Scenarios for SimMan Vol. I

For more information on these pre-packaged scenarios, please visit [www.laerdal.com.au/courseware](http://www.laerdal.com.au/courseware) or [www.laerdal.co.nz/courseware](http://www.laerdal.co.nz/courseware)

Laerdal offers a complete line of Courseware and Patient Cases for all of your simulation needs!





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## Helping Save Lives

For more than 50 years, healthcare providers and educators have trusted Laerdal to offer products, services and solutions that help improve patient outcomes and survivability. By supporting the advancement of resuscitation science, improving medical education and strengthening the chain of survival in communities worldwide, we help you save more lives.

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