ALS Simulator

Laerdal Simulation Solutions

Advanced Version now available!
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.
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.
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.

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**
Interchangeable Pupils

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 edema
• Stomach auscultation for proper positioning
• Head Tilt / Chin lift
• Modified Jaw Thrust
• Spontaneous chest rise and fall

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

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

Optional Accessories:

205-05050 ALS Simulator
200-10001 VitalSim Control Unit
381500 Trauma Modules
276-15001 Simulated NBC Module
200-03650 Genitalia Kit–Male and Female (not shown)
ALS Simulator Includes:
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

For an optimal ALS Simulator Advanced experience, please consider:

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

205-09001 Peripheral Kit Complete

Graphic User Interface (GUI)

Debrief Viewer
ALS Simulator Configurations

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

**ALS Simulator VitalSim™**

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<thead>
<tr>
<th>Part Number</th>
<th>Product</th>
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<tbody>
<tr>
<td>80-1496</td>
<td>ACLS Scenarios for ALS Simulator</td>
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<tr>
<td>200-17001</td>
<td>NLN Scenarios for VitalSim Vol. I</td>
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<tr>
<td>200-17201</td>
<td>Emergency Preparedness Scenarios (VitalSim)</td>
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**ALS Simulator Advanced**

This product configuration is compatible with SimMan® Scenarios

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<tr>
<th>Part Number</th>
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<tr>
<td>80-1459</td>
<td>ACLS Scenarios for SimMan</td>
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<tr>
<td>211-17001</td>
<td>NLN Scenarios for SimMan Vol. I</td>
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<td>211-17301</td>
<td>NLN Scenarios for SimMan Vol. II</td>
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<td>211-17101</td>
<td>Emergency Preparedness Scenarios (SimMan)</td>
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*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!
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.