Improving pediatric outcomes

SimJunior™
Laerdal Pediatric Simulation Solutions
Pediatric Simulation:
It’s about building self-confidence

Whether you serve in a hospital or in EMS, providing medical care to a child tests your skills and abilities. Children are different from adults. Their bodies are different. They communicate differently. And, the medical treatment they require is often unique to their age.

Medical professionals need the same level of confidence and experience in treating children that they have for treating adults. Yet, fewer resources are often directed to educating and training healthcare professionals in the treatment of children. As a percentage of patient cases, the average medical professional experiences fewer children than adults. This reduces child patient safety, and it is a factor contributing to the risk of disability and death.

SimJunior addresses these important issues, and combined with scenarios developed by industry leaders such as the American Academy of Pediatrics (AAP) and the National League for Nursing (NLN), you can be assured of providing a validated education and training experience that can maximize pediatric healthcare skills.
SimJunior™

SimJunior is a realistic, full-body pediatric simulator. With its easy-to-use and versatile platform, SimJunior is available in Standard and Advanced versions to enable instructors to scale their training to meet individual needs.

Allowing highly realistic pediatric simulation training, SimJunior provides practice of teamwork, leadership and communication skills in a risk-free environment.

Versatile and reliable - SimJunior allows learners to focus a broad range of pediatric skills in order to gain exposure and practical experience to life threatening pediatric problems.

Interactive manikin gives immediate feedback to interventions allowing learners to think critically and adjust their care plan accordingly.

Proven software, modeled from ALS Simulator, allows flexible management of all patient parameters. Using the scenario editor, instructors can create basic to advanced scenarios, and the use of Trends and Handlers enable multiple physiological changes in the simulation.

Automatic debriefing based on the event log synchronized with video pictures provides immediate, detailed feedback on performance and optimizes the simulation as an educational tool (Video with Advanced version only).

Airway Features:
The SimJunior airway is anatomically modeled as far as the trachea.
- Realistic airway with landmarks
- Oral and nasal intubation
- LMA or ET insertion
- Tongue edema
- NG tube
- Cricoid cartilage
- Head tilt and jaw thrust (no sensor)

Sounds:
- Heart
- Lung
- Bowel
- Patient voice
  - Pre-recorded sounds
  - Wireless microphone

Cardiac Features:
- Defibrillation and cardioversion
- Pacing
- Extensive ECG library
- Multiple heart sounds synchronized with ECG
- ECG rhythm monitoring (3 leads)
- 12 lead ECG display (Advanced version)

Sounds:
- Heart
- Lung
- Bowel
- Patient voice
  - Pre-recorded sounds
  - Wireless microphone

Advanced Version
Software Features:
- Easy-to-operate software based on well-proven ALS Simulator software
- Manual control over all parameters
- Scenarios with Trends and Handlers can be pre-programmed by the user

Debriefing Viewer:
- Web-camera recording
- Review event log together with synchronized recording of the patient monitor and in-room video
- Stand-alone debrief viewer for offsite review

Patient Monitor:
- Highly configurable
- Touch screen operation
- Simulates several parameters including:
  - Heart rate, ECG, SPO2, NIBP, ETCO2
- X-ray display
- 12 lead ECG display
- Custom video and image display

232-000XX SimJunior Standard*

SimJunior Standard Includes:
Manikin, VitalSim Control Unit with Remote Control, Blood Pressure Cuff, Set of Consumables, Operating Software, Directions for Use, and a Carry Case.

* XX – denotes language version. SimJunior is available in ethnic skin tones.
Breathing Features:
- Simulated spontaneous breathing
- Observable chest rise
- Variable respiratory rates
- Multiple upper airway sounds synchronized with breathing
- Detect and quantify the volume of mechanical ventilations (including no ventilations)
- Bag Valve Mask capable
- Normal and abnormal breath sounds
- Oxygen saturation and waveform (Advanced version)
- Breathing complication
  - Bilateral chest movement with spontaneous breathing
  - Unilateral chest rise with right mainstem intubation
  - Unilateral and bilateral breath sounds
- Left and right lungs can be either closed or open to allow ventilations

Circulation Features:
- Blood pressure measured manually by auscultation of Korotkoff sounds
- Bilateral carotid and unilateral brachial and radial (left side) pulses synchronized with ECG
- Pulse strength variable with BP
- Pulse palpation is detected and logged

Convulsions
- Interchangeable pupils - normal, dilated, and constricted

Eye:
- Interchangeable pupils - normal, dilated, and constricted

Chest Compressions:
- Compliant with 2010 Guidelines
- CPR compressions generate palpable pulses, blood pressure waveform, and ECG artifacts
- Detection and logging of a series of compressions in the data log

Vascular Access:
- IV access (right arm and hand)
- Intravascular access (right tibia)

233-000XX SimJunior Advanced

SimJunior Advanced Includes:
Manikin, VitalSim Control Unit with Remote Control, Laptop PC, Touch Screen Monitor, USB Webcam, Blood Pressure Cuff, Set of Consumables, Operating Software, Directions for Use, and a Carry Case.
SimJunior Advanced also includes your choice of courseware available on SimCenter.
Your Complete Pediatric Solution

There is so much more to simulation than the patient simulator itself. That’s why we’ve created a portfolio of products to help you get the most out of your simulation program. With a full complement of courseware available on SimCenter and the availability of comprehensive Technical and Educational Services, Laerdal provides a solution to make it even easier for you to own, operate, and maintain your SimJunior.

Courseware ensures high-quality, reproducible simulations

Laerdal has partnered with the American Academy of Pediatrics (AAP) to develop scenarios mapped directly to its pediatric life-support courses and offerings, including Pediatric Education for Prehospital Professionals (PEPP). These scenarios facilitate delivery of consistent simulations, reinforcing the AAP course curriculum and enabling instructors to easily integrate simulation into pediatric training programs.

National League for Nursing (NLN) scenarios are being developed for SimJunior Advanced based on the results of the National Council State Board of Nursing survey data. These scenarios provide core to complex cases based on common health problems experienced by pediatric patients in the inpatient setting.

Creating an environment for success

SimCenter is designed to make your simulation experience easier and more rewarding than ever. From new simulation users to sophisticated developers, SimCenter has the tools and services to help every user realize their full potential. SimCenter also offers easy access to validated content from worldwide simulation experts – so you can take advantage of their experience and get the most from every learning opportunity. All this is delivered in a fully integrated system, that includes:

SimStore
SimDeveloper
SimManager
SimView

SimJunior Advanced includes your choice of courseware available on SimCenter. Visit www.mysimcenter.com to learn how you can fully optimize your learning experience.

Laerdal Services... supporting you all the way

Laerdal’s Services portfolio offers comprehensive Educational courses to support your educational goals, and extensive Technical Support offerings to meet your simulator servicing needs. From simulator installation, routine preventive maintenance, product orientation and operation, through to helping you realize your learning objectives and incorporating scenarios, Laerdal’s Services are available to help make your simulation-based training program a success! Please contact your local Laerdal representative for full details about our entire range of services.
Partnering to improve pediatric patient outcomes

Building on our strategic alliance, Laerdal Medical and the American Academy of Pediatrics (AAP) have partnered to develop the SimJunior Pediatric Simulator and associated courseware. This collaboration will allow for new opportunities to integrate the latest technologies into your pediatric training programs. This gives you the ability to train realistically - in order to achieve real results. Pairing SimJunior and courseware developed and validated by the AAP allows learners to master the skills needed to care for pediatric patients and ultimately improve patient outcomes.

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

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.