Catalog

MedVision

Innovations for life



REPRESENTANTE PARA ECUADOR

SOCIEDAD RADIOTÉCNICA ECUATORIANA

www.socradec.com

socradec@socradec.com

+593 2 225-2731

www.medvisiongroup.com

MedVision is a global company committed to the advancement of educational excellence in quality healthcare through medical simulation. Our designs and leading-edge technologies define our range of adult, pediatric, neonatal and surgical simulators.

We are proud to work closely with healthcare professionals around the world to create successful simulation programs that will impact the quality and safety of patient care and help to improve patient outcomes.

We look forward to partnering with you!

MedVision

Innovations for life

Contents

Patient Simulators

Leonardo Adult Simulator 4

Mia Newborn Simulator 14

Arthur Pediatric Simulator 22

Lisa ALS Manikin 30

Patient/Surgical Simulators

LapVision Hybrid 36

Software 44

Surgical Simulators

LapVision 48

AngioVision 58

HystVision/TUR 64

EndoVision 74

Bakulev CPBSS 78

Diagnostics Simulators

MATT & Pediatric MATT 84

SonoVision 90

Leonardo VR 94

Services 98

Please contact us at mail@medvisiongroup.com
for further information about our innovative products.



Training for Emergencies
Keeping it real...



Leonardo

Leonardo is a durable and easy-to-use adult patient simulator designed for high-quality simulation training in basic to advanced medical procedures, clinical team development and patient case management.

Extensive functionality, combined with the ability to use your own medical devices, will enable learners to fully immerse and challenge themselves, as they put their individual and team skills to the test in time-critical emergency scenarios.

Sociedad Radiotécnica Ecuatoriana



Sociedad Radiotécnica Ecuatoriana

- Realistic, Robust, Reliable
- Lifelike weight (150lbs/68kg) and height (5’9ft/180cm)
- Tetherless connection (with up to 8 hours of battery life)
- Rechargeable, swappable battery
- Reliable supply of durable consumables
- Realistic, seamless skin, easy to clean



Vital signs

• Pulse palpation (14 points)
• Monitor blood pressure



Auscultation

High-fidelity heart, lung (anterior & posterior) and bowel sounds with advanced controls



Neurological Assessment

• Convulsions
• Programmable blinking
• Programmable pupils
• Pupillary light reflex



Upper respiratory tract intubation

• Head tilt, chin lift
• Jaw thrust
• Bag valve mask (BVM)
• Laryngoscope
• Orotracheal intubation
• ET tube



Drug administration

• IV drug recognition, injected volume and speed recognition
• Pre-installed catheter
• Injection of fluids using an IV access port



Full joint mobility

Realistic scenarios with learning objectives for patient handling and transportation



CPR

• Chest compressions
• ECG Monitoring
• Defibrillation with a real device



Connectors

• Removable metal connectors in the manikin's body to apply defibrillation electrodes, ECG electrodes



Available in several skin tones

Sociedad Radiotécnica Victoriana



But Leonardo on a real ventilator

Mechanical ventilation with a real ventilator is a unique feature of Leonardo. Set compliance and resistance for a complete clinical case. Pressure / volume control, pressure support, APRV, PAV, HFOV, NIV, PEEP (5-20cm H2O)

Sociedad Radiotécnica Ecuatoriana

The only patient simulator to include comprehensive training in ventilation management



Use your own ventilators

Leonardo can be used with your institution's own real mechanical ventilators. Our propriety software makes it possible to set compliance and resistance for a complete clinical case. Pressure / volume control, pressure support, APRV, PAV, HFOV, NIV, PEEP (5-20cm H2O).

... or our virtual anesthesia machine

Our virtual ventilator can be used in conjunction with Leonardo or as a stand-alone training device. Trainees will learn the full functionality and application of ventilation equipment, including identifying criteria used to determine the need for mechanical ventilator support, commonly monitored ventilator settings, presence of artificial airways and prevention of complications, and weaning the patient from mechanical ventilation, including the nurse's role in this process.

Sociedad Radiotécnica Ecuatoriana



It all comes down to the scenario...

Leonardo's Action Log captures performance data from the scenario to allow for a quality debrief and reflective learning.

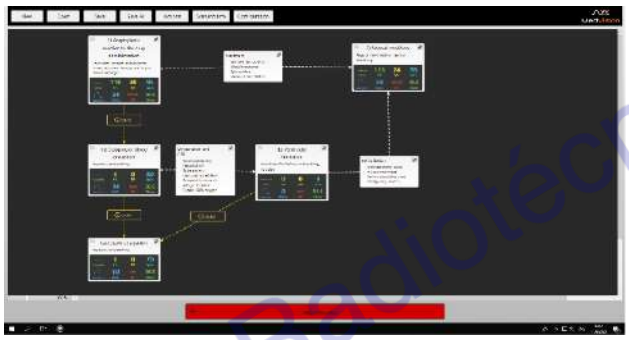
Sociedad Radiotécnica Ecuatoriana

Scenarios... create your own or run on the fly



Intuitive software makes running and creating your own scenarios easy

Our intuitive software is so easy to use, you can run Leonardo on the fly and capture learning opportunities in the moment - all in a risk-free environment!



Alternatively, you can create your own scenarios to cover specific teaching points and learning objectives unique to your training programs.

Leonardo's range of pre-programmed patient states and scenarios are also available to ease your busy workload.



Patient monitor

Its generic interface and intuitive design create a more authentic experience and clinical realism in the scenario. Choose a heart rhythm from our library or create your own to match your learning objectives.

Sociedad Radiotécnica Ecuatoriana

Features

Airway

- Realistic airway
- Supraglottic airway device support
- Combitube, LMA
- Retrograde intubation
- Fiberoptic intubation
- Head and jaw mobility
- Orotracheal and nasotracheal intubation
- Laryngeal mask airway insertion
- Pulmonary aspiration
- Cricoid pressure
- Surgical cricothyrotomy
- Needle cricothyrotomy
- Pneumothorax and hydrothorax
- Positive pressure ventilation
- Dynamic airway resistance
- Airways obstruction
- Esophageal Intubation
- Feeding tube insertion
- Bag valve mask (BVM)
- Cyanosis and acrocyanosis
- Chest rise and fall
- Bilateral bronchi resistance
- Tracheotomy
- Intubation tube real-time tracking
- Lockjaw
- Tongue swelling
- Laryngospasm
- Pharyngeal obstruction
- Cannot intubate / Can ventilate
- Cannot intubate / Cannot ventilate
- Trismus

Breathing

- Spontaneous breathing
- Programmable respiratory patterns
- Programmable diaphragmatic excursions
- Mechanical ventilation (A/C, PCV, PSV)
- PEEP (up to 40cm H2O)
- Variable compliance
- Variable bronchi resistance
- Audible needle decompression with realistic feedback

Auscultation

- High-fidelity heart, lung, and bowel sounds
- Independent normal / abnormal heart sounds at Mitral, Aortic, Pulmonary, Tricuspid valve and Erb's point
- 4 sites for abdominal murmurs: normal / abnormal
- Korotkoff sounds auscultation while monitoring blood pressure
- Programmable bilateral chest rise and fall

Neurology

- Convulsions
- Programmable blinking
- Programmable pupils

Circulation

- Rich library of ECG rhythms
- HR 0 - 200
- Real ECG electrodes
- Accurate landmarks for chest compression performance point finding
- Chest compressions
- Defibrillation, cardioversion and cardiac pacing using real devices
- Correct paddle placement
- Defibrillation in manual and automatic modes
- High quality CPR affects the HR and ECG
- Training defibrillation, cardioversion and cardiac pacing support
- Cyanosis
- Variable pulse strength with activity log

CPR

- Realistic chest compressions
- Automatic activity log, displaying all user actions
- Depth, frequency, hands placement assessment and log
- Ventilation volume
- Manual configuration of CPR protocols
- Printable detailed CPR assessment

Sociedad Radiotécnica Ecuatoriana

Vascular access

- Intravenous injections (preinstalled catheter)
- Intraosseous access (tibia)

Other features

- Sounds: crying, screaming, coughing, moaning
- Speech (preloaded phrases or instructor's microphone)
- Teeth, soft cheeks and gums
- Pre-installed themes, scenarios, programs
- Realistic bone structure, palpable ribs, kneecaps and many more
- Secretion: sweat, tears, bleeding
- Urine output





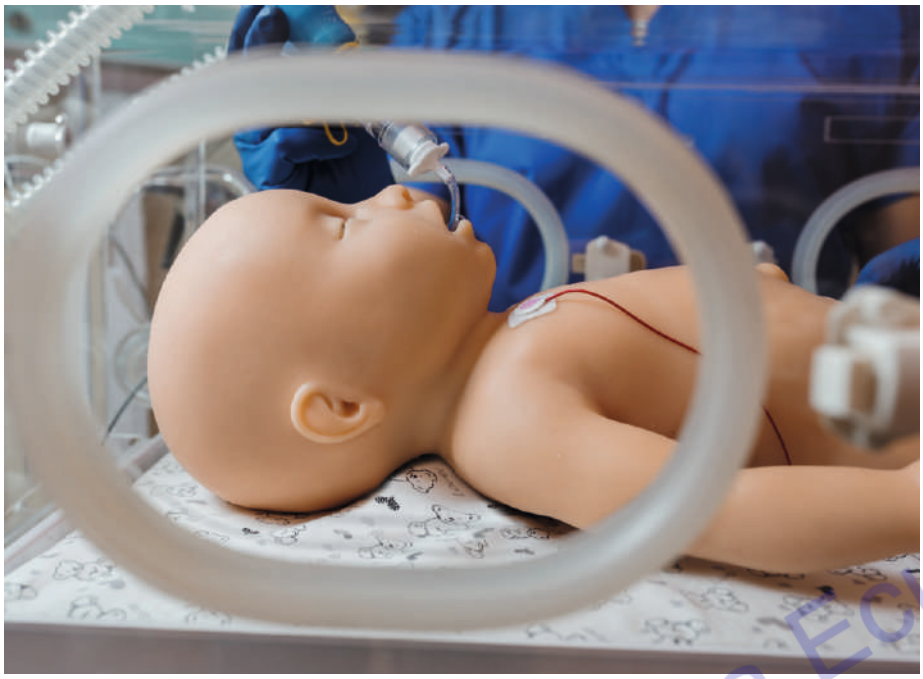
Trauma Modules available, including wounds and amputations

Sociedad Radiotécnica Ecuatoriana



Preparing for time-critical neonatal emergencies

Sociedad Radiotécnica Ecuatoriana



Mia

Mia is a state-of-the-art newborn simulator designed to meet the challenges of specialist training in neonatal care.

From basic assessment to critical thinking skills in emergency scenarios, Mia will enable profound learning experiences that are transferable to clinical practice promoting safer patient care and improved outcomes.

One of the benefits of **Mia** is that you can use as both a newborn and an infant.

Sociedad Radiotécnica Ecuatoriana



Realistic skin quality

Mia's Action Log captures all performance data to allow for a structured, quality debrief and reflective learning.

Defib pads, band aids, moulage... Mia's skin can be easily cleaned to as good as new.

Sociedad Radiotécnica Ecuatoriana





Neonatal Resuscitation

Realistic resuscitation skills practice supports clinical guidelines and protocols. Chest compressions, ventilation with a bag valve mask (BVM), airway adjuncts and mechanical ventilation.

Difficult Airway Management

Can't intubate, can't ventilate! The anatomically correct, realistic feel and durable design of Mia's airway allows trainees to hone their airway management skills in advanced neonatal emergency scenarios.



Available in several skin tones

In-situ and 'Just in time' training

The wireless design of Mia and her extensive battery life (5-6 hours) enables in-situ simulation training to take place in the NICU and will help to overcome challenges in training schedules, enhance performance in new teams and provide an opportunity to practice rare emergency scenarios just before patient admissions.

Sociedad Radiotécnica Ecuatoriana

Basic Assessment of the Newborn







Mia allows for many of the checks required in the basic physical assessment of the newborn, including:

Measurements

- Head & abdominal circumference
- Length
- Vital signs including pulse and breathing rate

Physical Exam

- General appearance
- Head and Neck –head shape, fontanelles and clavicles
- Auscultation – heart, lung and bowel sounds
- Bilateral chest rise and fall synced with breathing
- Correct movement of the arms and legs – realistic bone structure, palpable ribs, knee caps and many more

Neurological Assessment

- Convulsions
- Programmable blinking
- Programmable pupils
- Programmable muscle tone: active, decreased, hypotonia, lacking
- Programmable, palpable fontanelle
- Sounds: crying, screaming, coughing, moaning, grunts

Measuring 21.5”/55cm and weighing 9lbs/4kg, Mia can facilitate many emergency scenarios simulating a newborn to a 28-week old infant.

Sociedad Radiotécnica Ecuatoriana

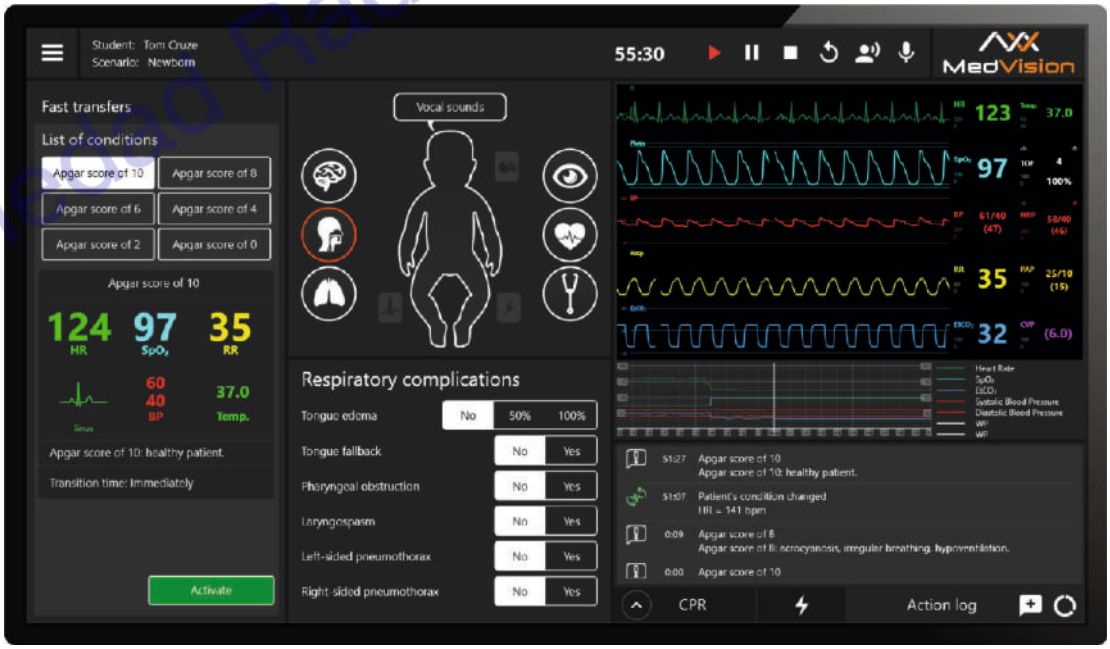
Simulation training with your own medical devices



When simulation training can incorporate the use of your own medical devices, the learning benefits are highly significant in transferring skills to real patient care. ECG, defibrillation, pacing, capnography, mechanical ventilator with different modes. (A/C, SIMV, PCV, PSV, NIPPV, setting PEEP values up to 20 cmH2O)

Run scenarios on the fly to challenge quick decision-making skills

Mia's easy-to-use and intuitive software allows you to change the parameters of the scenario on the fly to test clinical decisions made in time-critical scenarios. Pre-programmed patient states and ready-to-run scenarios are also available with Mia saving you preparation time in your simulation programs.



Sociedad Radiotécnica Ecuatoriana



Sociedad Radiotécnica Ecuatoriana

Measuring 21.5”/55cm and weighing 9lbs/4kg, Mia can facilitate many emergency scenarios simulating a newborn to a 28-week old infant.

Features

Airway

- Realistic airway
- Supraglottic airway device support
- Head and jaw mobility
- Orotracheal and nasotracheal intubation
- Laryngeal mask airway insertion
- Pulmonary aspiration
- Positive pressure ventilation
- Dynamic airway resistance
- Neck hyperextension
- Airways obstruction
- Esophageal Intubation
- NG/OG tube placement
- Bag valve mask (BVM)
- Cyanosis and acrocyanosis
- Chest rise and fall
- Bilateral bronchi resistance

Breathing

- Spontaneous breathing
- Respiratory rate is synchronized with vital parameters on the bedside monitor
- Programmable respiratory patterns
- Programmable diaphragmatic excursions
- Mechanical ventilation (A/C, SIMV, CPAP, PCV, PSV, NIPPV)
- PEEP (up to 20cm H2O)
- Airways synced to the respiratory rate
- Variable compliance
- Variable bronchi resistance
- Audible needle decompression with realistic feedback

Auscultation

- High-fidelity heart, lung, and bowel sounds
- Independent normal / abnormal heart sounds at mitral (1), aortic and pulmonic (2) sites
- Abdominal murmurs: normal / abnormal
- Korotkoff sounds auscultation while monitoring blood pressure
- Programmable bilateral chest rise and fall, synced with breathing

Neurology

- Convulsions
- Programmable blinking
- Programmable muscle tone: active, decreased, hypotonia, lacking
- Programmable, palpable fontanel

CPR

- Realistic chest compressions
- Automatic activity log, displaying all user actions
- Depth, frequency, hands placement assessment and log
- Ventilation volume
- Manual configuration of CPR protocols
- Printable detailed CPR assessment

Vascular access

- Intravenous injections (hands, scalp, umbilicus)
- Intraosseous access (tibia, bilateral)

Other features

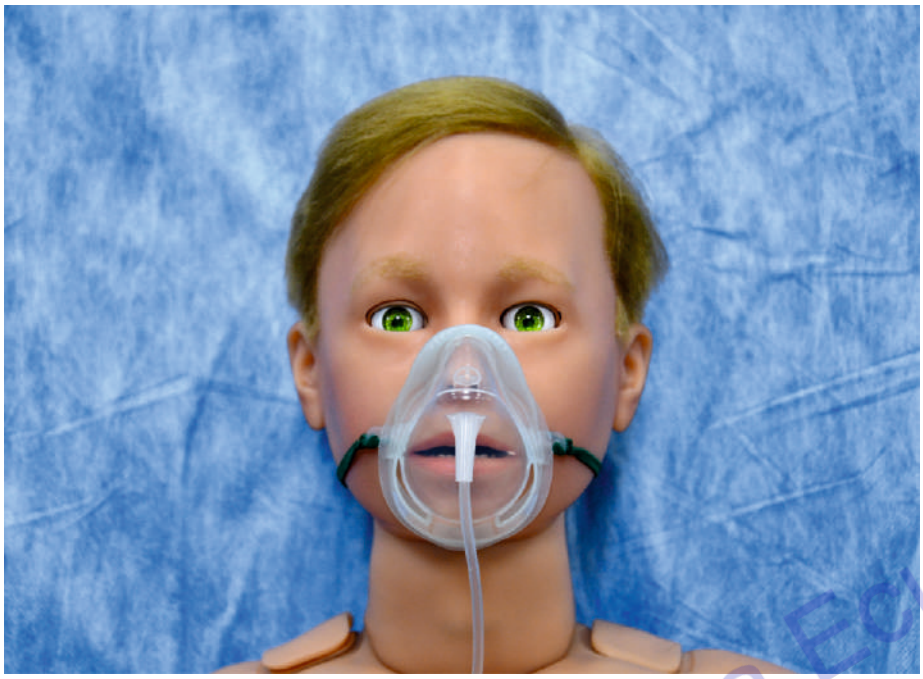
- Sounds: crying, screaming, coughing, moaning, grunts
- Sucking reflex
- Pre-installed themes, scenarios, programs
- Realistic bone structure, palpable ribs, kneecaps and many more

Sociedad Radiotécnica Ecuatoriana



Preparing for Pediatric Emergencies

Sociedad Radiotécnica Ecuatoriana



Arthur

When caring for a young child, communication skills are as critical as the technical skills required to manage pediatric emergencies.

Arthur has been designed to support those working in child health to effectively communicate, assess, diagnose and treat young patients in a diverse range of critical scenarios and in a variety of clinical settings.

Sociedad Radiotécnica Ecuatoriana



Sociedad Politécnica Ecuatoriana

- Realistic airway
- Real mechanical ventilator compatibility
- Real devices can be used for ECG, pulse monitoring, defibrillation and BP monitoring
- Cricothyrotomy, needle decompression of tension pneumothorax

Arthur represents a 5-8 year old boy that simulates a wide range of conditions. From a healthy, talking child to being unresponsive with no vital signs, Arthur provides meaningful learning experiences through his extensive range of features.



Basic to advanced patient examinations

From pulse checks and SpO2 monitoring to checking pupillary light reflexes for neurological assessment, Arthur allows for a complete patient examination.



Interactive eyes

- Blinking: open, half-open or closed
- Pupillary responses: normal or absent response



Resuscitation Scenarios

Realistic chest compressions: rate, depth, hands placement and ventilation volume. Arthur's activity log will capture all aspects of performance to ensure compliance with Guidelines.



Drug Administration

- IV drug recognition, injected volume and speed recognition
- Pre-installed catheter



Integrating ALS into Emergency Scenarios

Incorporating essential skills including dicult airway, IV administration, IO infusions, intubation and hypoxia.



Available in several skin tones

Sociedad Radiotécnica Ecuatoriana



Sociedad Radiotécnica Ecuatoriana

- A range of respiratory complications
- Realistic unilateral and bilateral chest rise and fall
- Spontaneous breathing
- Mechanical ventilation supporting real devices or our proprietory virtual anesthesia machine
- Programmable lung resistance and compliance
- Heart, lung (posterior & anterior) and bowel sounds

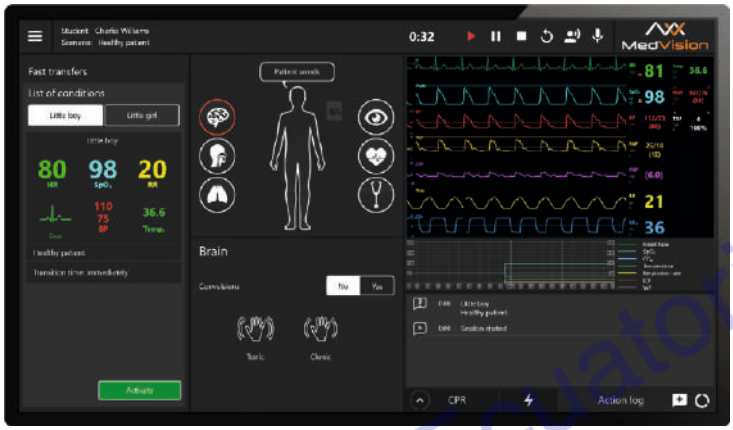
Arthur's Action Log captures all performance data to allow for a structured, quality debrief and reflective learning.

Pediatric scenarios to challenge clinical decision-making and team performance

The easy-to-use software of Arthur's Instructor Tablet allows scenarios to be created on the fly capturing unique learning moments as the scenario unfolds.

Alternatively, you can create and standardize your own set of patient cases to meet specific learning objectives required within your programs.

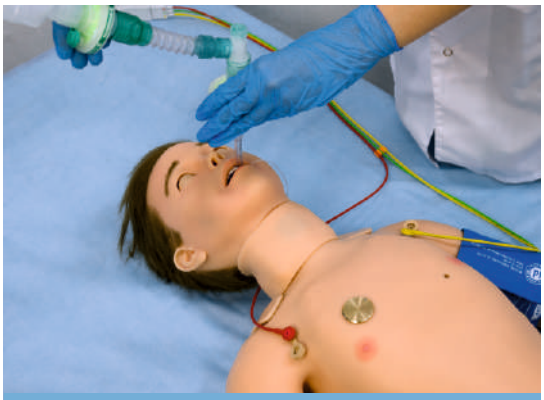
Arthur also comes with a range of pre-programmed patient states and scenarios of typical pediatric cases that will help to get your simulation programs up and running quickly.





Patient Monitor

Add clinical realism to your scenarios. Our patient monitor is highly configurable and simulates several parameters including heart rate, ECG, SpO2, Respiration Rate, NIBP and ETCO2



Put Arthur on a real ventilator or use our virtual anaesthesia machine

Sociedad Radiotécnica Ecuatoriana

Features

Airway

- Realistic airway
- Supraglottic airway device support
- Head and jaw mobility
- Orotracheal and nasotracheal intubation
- Laryngeal mask airway insertion
- Intubation sensor
- Pulmonary aspiration
- Cricoid pressure
- Positive pressure ventilation
- Dynamic airway resistance
- Neck hyperextension
- Airways obstruction
- Esophageal Intubation
- Feeding tube insertion
- Bag valve mask (BVM)
- Cyanosis and acrocyanosis
- Chest rise and fall
- Bilateral lung resistance
- Tracheotomy

Breathing

- Spontaneous breathing
- Respiratory rate is synchronized with vital parameters on the bedside monitor
- Programmable respiratory patterns
- Mechanical ventilation (A/C, SIMV, CPAP, PCV, PSV, NIPPV)
- PEEP (up to 20cm H2O)
- Airways synced to the respiratory rate
- Variable compliance
- Variable bronchi resistance
- Needle decompression with realistic feedback
- Real sensors for EtCO2 (Optional)

Auscultation

- High-fidelity heart, lung, and bowel sounds
- Korotkoff sounds auscultation while monitoring blood pressure
- Programmable bilateral chest rise and fall, synced with breathing

Neurology

- Convulsions
- Programmable blinking
- Programmable pupils

Circulation

- Rich library of ECG rhythms
- HR0-320
- Real ECG electrodes
- Accurate landmarks for chest compression performance point finding
- Chest compression
- Defibrillation, cardioversion and cardiac pacing using real devices
- Correct paddle placement
- Defibrillation in manual and automatic modes
- Successful compressions are registered and affect the HR and ECG
- Defibrillation, cardioversion and cardiac pacing using real devices
- Cyanosis
- Variable pulse strength with activity log

CPR

- Realistic chest compressions
- Automatic activity log, displaying all user actions
- Depth, frequency, hands placement assessment and log
- Ventilation volume
- Manual configuration of CPR protocols
- Printable detailed CPR assessment

Sociedad Radioteonica Ecuatoriana

Vascular access

- Intravenous injections with automatic drugs recognition (pre-installed catheter)
- Intraosseous access (tibia, bilateral)

Other features

- Vocal sounds
- Speech (preloaded phrases or instructor's microphone)
- Pre-installed themes, scenarios, programs
- Realistic bone structure, palpable ribs





Sociedad Radiotécnica Ecuatoriana



Training for Acute Emergencies

Sociedad Radiotécnica Ecuatoriana



Lisa ALS

Lisa is a durable and easy-to-use advanced life support simulator designed for high-quality simulation training in basic to advanced medical procedures and clinical team development

Extensive functionality, combined with the ability to use your own medical devices, will enable learners to fully immerse and challenge themselves as they put their individual and team skills to the test in time-critical emergency scenarios

Sociedad Radiotécnica Ecuatoriana



- Realistic, Robust, Reliable
- Height (67inches/ 170 cm) and weight (66lbs/30kg)
- Tetherless connection (over 6 hours of battery life)
- Rechargeable, swappable battery
- Reliable supply of durable consumables
- Realistic, seamless skin, easy to clean
- Works with real medical devices such as ventilator
- defibrillator, ECG, etc.
- Available in several skin tones

Sociedad Radiológica Ecuatoriana



Circulation

- Radial, carotid, femoral pulses
- ECG monitoring
- Central cyanosis



Breathing

- Spontaneous breathing
- Realistic unilateral chest rise and fall
- Lungs compliance and resistance



Full joint mobility

Realistic patient handling and transportation scenarios with learning objectives



Auscultation and vocal sounds

- High-fidelity heart, lung (anterior+posterior) and bowel sounds
- Speaker and microphone installed in the head



Realistic CPR

- Rate, depth and ventilation vol.
- ECG monitoring
- Defibrillation, cardioversion, pacing with a real device
- Activity log



Drug administration

- IV - pre-ported access arm, arm with venipuncture
- IM - upper leg (bilateral), shoulder
- Bilateral tibia IO access

Sociedad Radiotécnica Ecuatoriana



- Realistic airway
- Head tilt, chin lift
- Jaw thrust, articulated jaw
- Bag valve mask
- Supraglottic devices placement
- Oro-, naso- tracheal intubation
- Esophageal intubation
- Laryngospasm
- Cricothyrotomy
- Pneumothorax decompression
- Real mechanical ventilator support (600 ml)

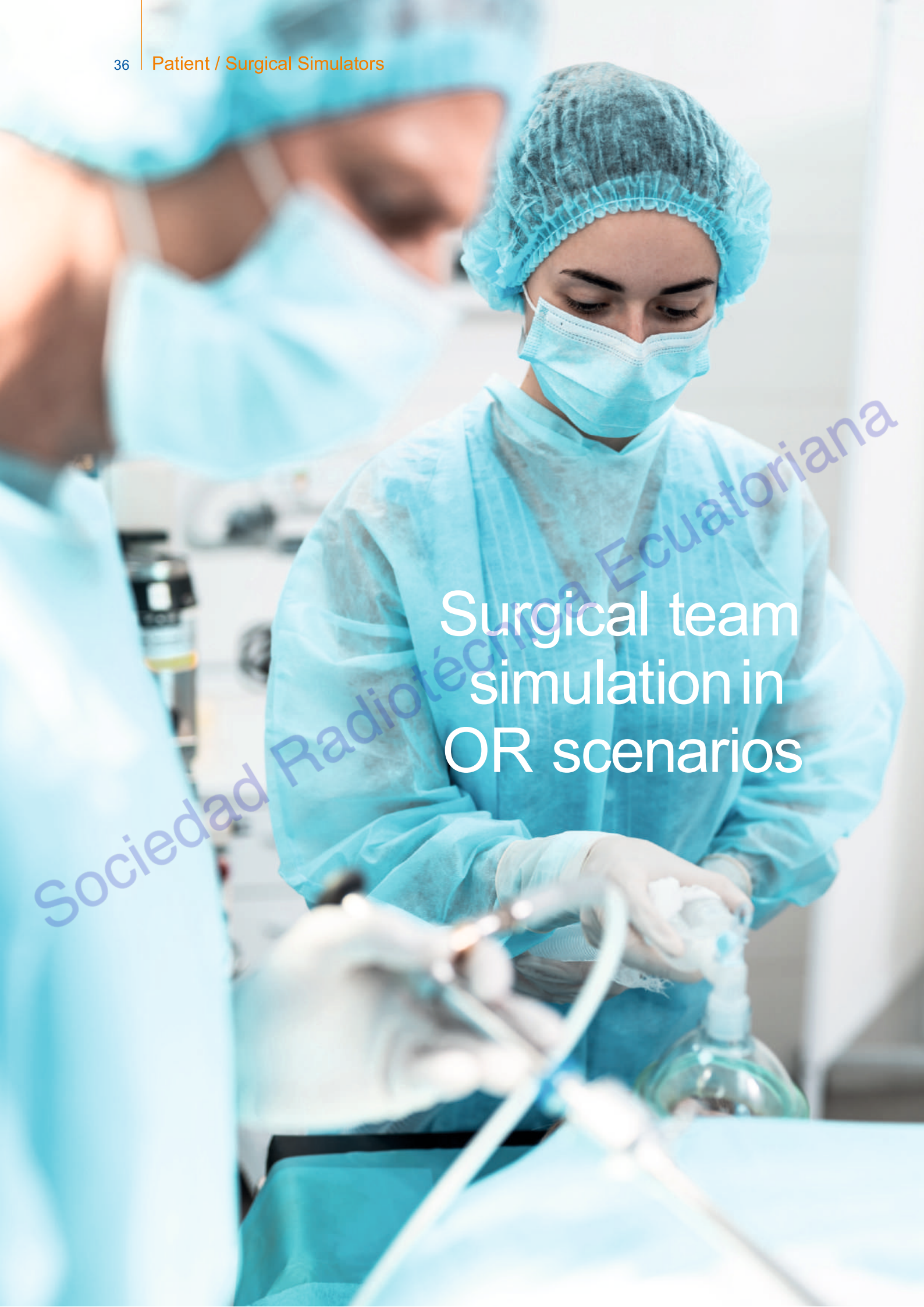
Sociedad Radiotécnica Ecuatoriana

Make it easy, make it reliable and make it do whatever the instructor wants!



Our multiplatform intuitive software is so easy to use, you can run MedVision ALS manikin on the fly and capture learning opportunities in the moment - all in risk-free environment! Alternatively, you can create your own scenarios to cover specific teaching points and learning objectives unique to your training programs. Lisa's range of pre-programmed patient states and scenarios are also available to ease your busy workload.

Sociedad Radiotécnica Ecuatoriana



Surgical team simulation in OR scenarios

Sociedad Radiotécnica Ecuatoriana



LapVision Hybrid

Our NEW**LapVision Hybrid** has been designed for realistic simulation scenarios in the OR setting to develop surgical teams in communication, decision-making and technical skills.

The comprehensive manikin-based training platform allows for the acquisition and retention of laparoscopic skills, which can be combined with a variety of dynamic OR scenarios, including anesthesia administration and management of complications, and other emergency scenarios that may arise during surgical procedures.

Sociedad Radiológica Ecuatoriana



Integrating the principles of Human Factors to enhance clinical performance.

When combining surgical and anesthesia emergencies into one seamless learning experience, you can create both common and complex critical scenarios that challenge the whole OR team.

Sociedad Radiotécnica Ecuatoriana

Create a complete OR set up for the whole surgical team

- Enhance anesthesia and surgical team performance in critical scenarios
- Full range of advanced ventilation scenarios
- Complete range of resuscitation and anesthesia procedures
- Surgeon's actions can be controlled with the patient simulator's vital signs
- Magnetic haptic feedback with true-to-life tissue resistance
- Realistic interactive laparoscopic stand set-up
- Virtual anesthesia and ventilation machines hook up
- Extensive Leonardo functionality can be employed (see page 5)

Training together those that work together…

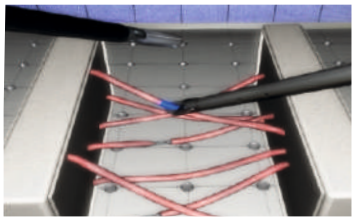
Many dynamic scenarios can be created to reflect complications that arise in the OR realistically. Through the testing of technical and team communication skills, our LapVision Hybrid facilitates immersive learning of related complications, including those associated with:

- Administering drug therapy
- The induction of pneumoperitoneum
- 5 trocars in total - expandable with additional virtual trocars
- Bipolar and monopolar diathermy
- Mechanical instruments
- Other associated conditions and many more…

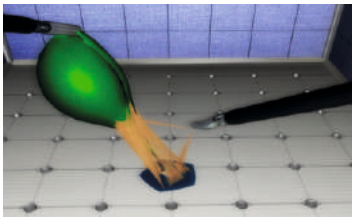


Sociedad Radiotécnica Ecuatoriana

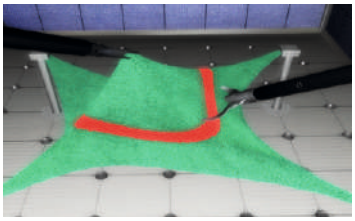
Modules for Basic & Essential Skills in Laparoscopy including:



Vessel clipping and capturing

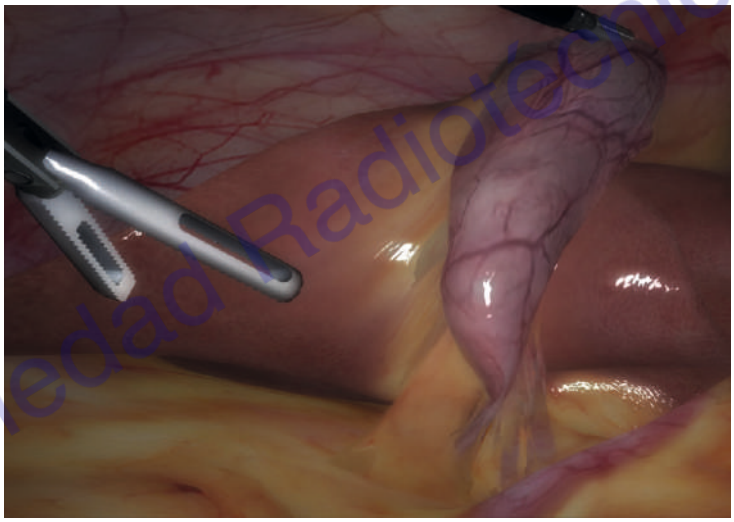


Electrocoagulation operating skills

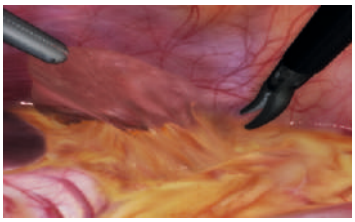


Endoscopic scissor handling

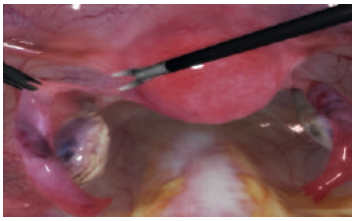
Modules for Surgical Skills in Laparoscopy including:



Full procedure of laparoscopic chole



Splenectomy



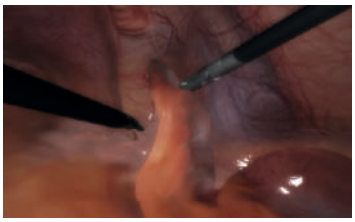
Salpingo-oophorectomy



Tubal ligation

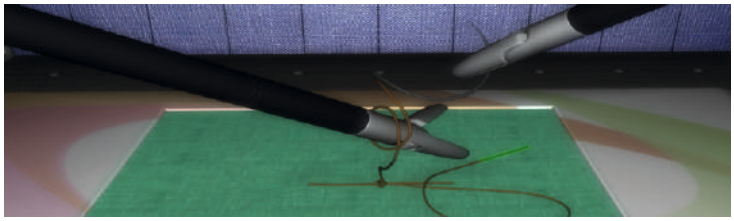


Ectopic Pregnancy-Salpingostomy

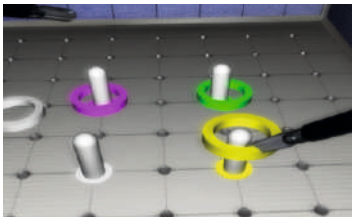


Appendectomy

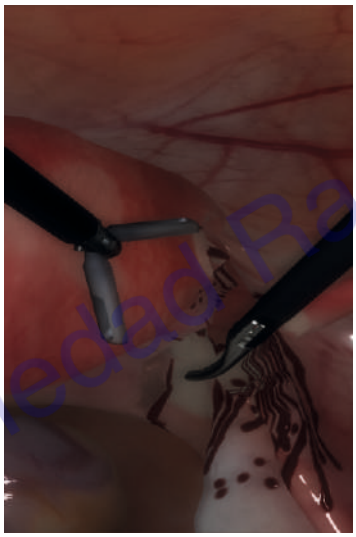
Sociedad Radiotécnica Ecuatoriana

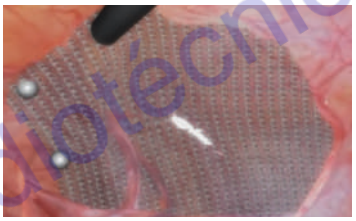


Suturing and knotting

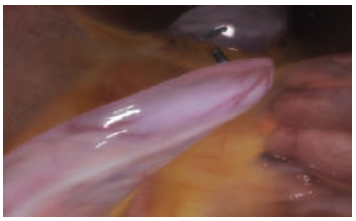


Psychomotor skills

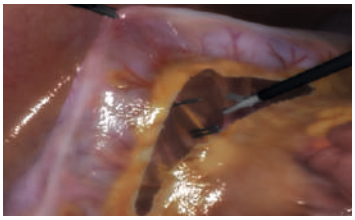




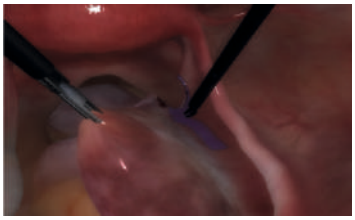
Hernioplasty



Anastomosis

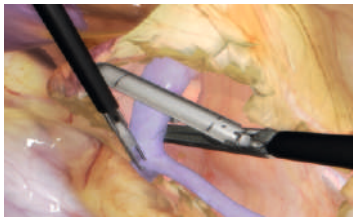


Sigmoid colon resection

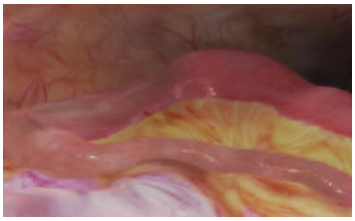


Prophylactic oophorectomy

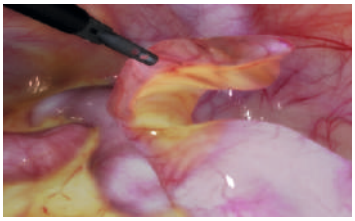
Total hysterectomy



Nephrectomy



Adhesive small bowel obstruction



Diagnostic laparoscopy

Sociedad Radiotécnica Ecuatoriana



Sociedad Radiológica Ecuatoriana

Setting the standard in Laparoscopic Simulation

- Our proprietary Magnetic Haptic System provides realistic feedback
- Magnetic Haptic System is also more reliable than mechanical ones
- Wireless instruments can be completely removed from the port
- Instruments use integrated gyroscopes for easy tool selection and swap
- A camera imitator with angle adjustment control



A complete training solution



Our innovative software allows for a complete training solution that includes:

- Training and exam modes
- Detailed statistics after each module
- High definition 3D graphics
- Video and text materials
- 3D anatomy atlas

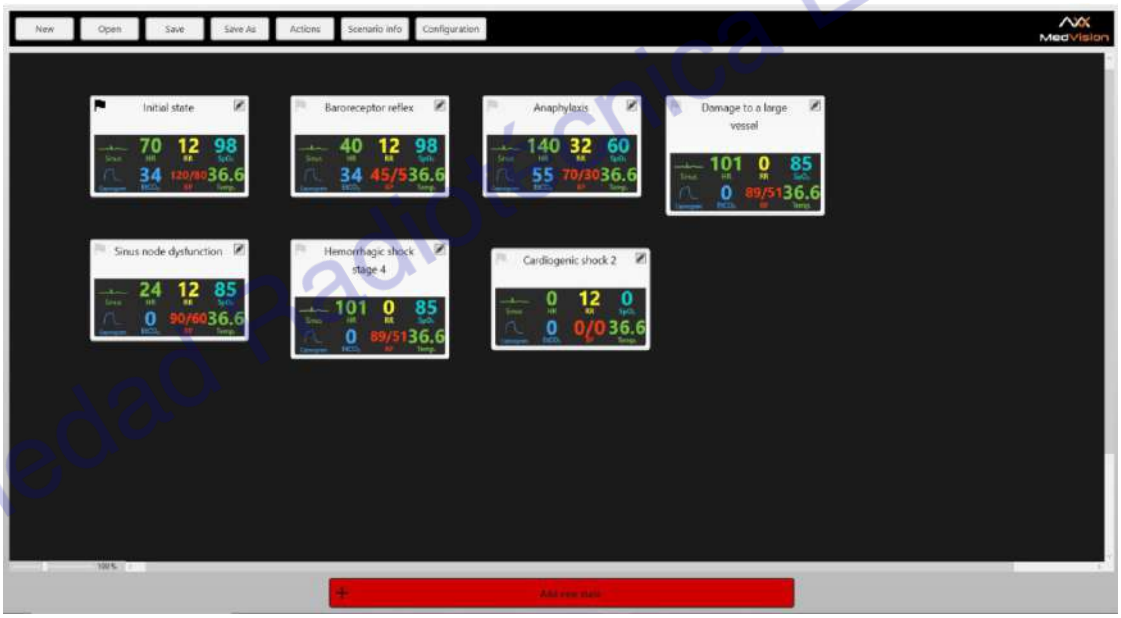
Sociedad Politécnica Ecuatoriana

Let the software do the work…

The software solutions behind our simulator platforms follow a simple mantra: make it easy, make it reliable and make it do whatever the instructor wants!

Our intuitive software is so easy to use, you can run this simulator on the fly and capture learning opportunities in the moment - all in a risk-free environment!

Alternatively, you can create your own scenarios to cover specific teaching points and learning objectives unique to your training programs.



Sociedad Paidotécnica Ecuatoriana

Scenario Builder

Creating scenarios has never been this easy! Highly flexible in its operation, our scenario builder software allows you to create simple to more complex patient cases through its touchscreen ‘drag and drop’ capability.

Drop in, Slide to Sequence and Easy Adjustment of patient events and physiological parameters, make it possible to fully customize your programs for trainees to acquire the required competencies.



Instructor Tablet

Our Instructor Tablet with its quality touch screen makes navigation between windows and menus a totally seamless experience.

Of course, it has all the functionality you would expect from an instructor tablet: automated and manual scenario modes; easy selection of patient states and themes; synchronized vital signs with the patient monitor; slider controls for nuanced changes to the patient's condition… but it's the intuitiveness of the user interface that is the real game-changer here. From 'pick-up-and-play' to running complex scenarios, it really is that simple.



Scenarios... create your own or run on the fly

Sociedad Radiotécnica Ecuatoriana



Patient Monitor

Our touchscreen patient monitor displays vital signs with a familiar look and functionality typical of its real counterparts.

It is fully customizable and the operator can simply select and display vital signs most appropriate to the patient's clinical case.

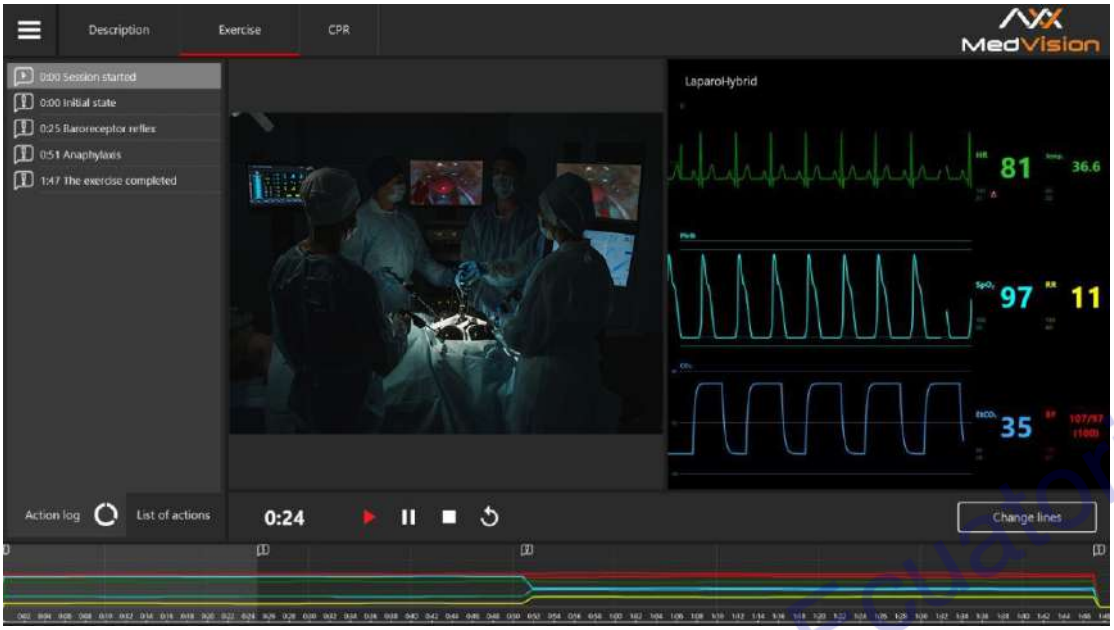
A novel feature of our patient monitor is the real-time CPR performance display, which can be employed during cardiac arrest scenarios. Feedback on the quality of CPR: rate, depth, release and ventilation supports compliance with Guidelines.

A virtual manual defibrillator is also available for cardiac arrest and cardioversion events.





Sociedad Radiotécnica Ecuatoriana



Debrief Viewer

The debrief is arguably the most important element of the simulation exercise, which is why we have put careful attention to the features within our Debrief Viewer.

Our debrief software provides the instructor with unprecedented flexibility in its operation. Whether you review the session from start to finish or jump to time-stamped events, we have made it easy to find and access meaningful moments within the simulation with full patient data to ensure the best possible learning outcomes.

CPR performance metrics are also available at the touch of a button.

The integrated action log captures all trainee records and performance data.

Leonardo's Action Log captures performance data from the scenario to allow for a quality debrief and reflective learning.

Sociedad Radiotécnica Ecuatoriana



Simulation in laparoscopic skills

Sociedad Radiotécnica Ecuatoriana



LapVision

The **LapVision** simulator has been designed for surgeons and a wide range of medical specialists to safely learn, refine and retain laparoscopic skills. From basic to advanced levels of operation, LapVision provides a comprehensive educational platform that tests technical skills in a variety of surgical scenarios. Complete with a library of educational modules of common laparoscopic procedures, LapVision can be easily integrated into any surgical curriculum or training program.

Sociedad Radiotécnica Ecuatoriana



Line them up in your simulation centre then wheel them away when not in use!

- Convenient all-in-one structure
- Adjustable workspace height
- Plug and play
- Mobile

LapVision Standard

Instrument Simulation

- Realistic, wireless instruments that resemble their real counterparts
- Magnetic haptic feedback with true-to-life tissue resistance
- Zero delay tracking

Virtual OR

- 3D Anatomy Atlas
- Video hints, step-by-step instructions and video courses
- Complications and pathologies
- Free mode of operation
- Videos from real surgeries

Educational Features

- Individual user profiles
- Detailed automatic registration of all actions performed during exercises
- Course for basic skills training
- Additional suturing modules
- Extensive library of modules
- Screenshots and video recording
- Additional training modules can be added at anytime

Sociedad Radiotécnica Ecuatoriana

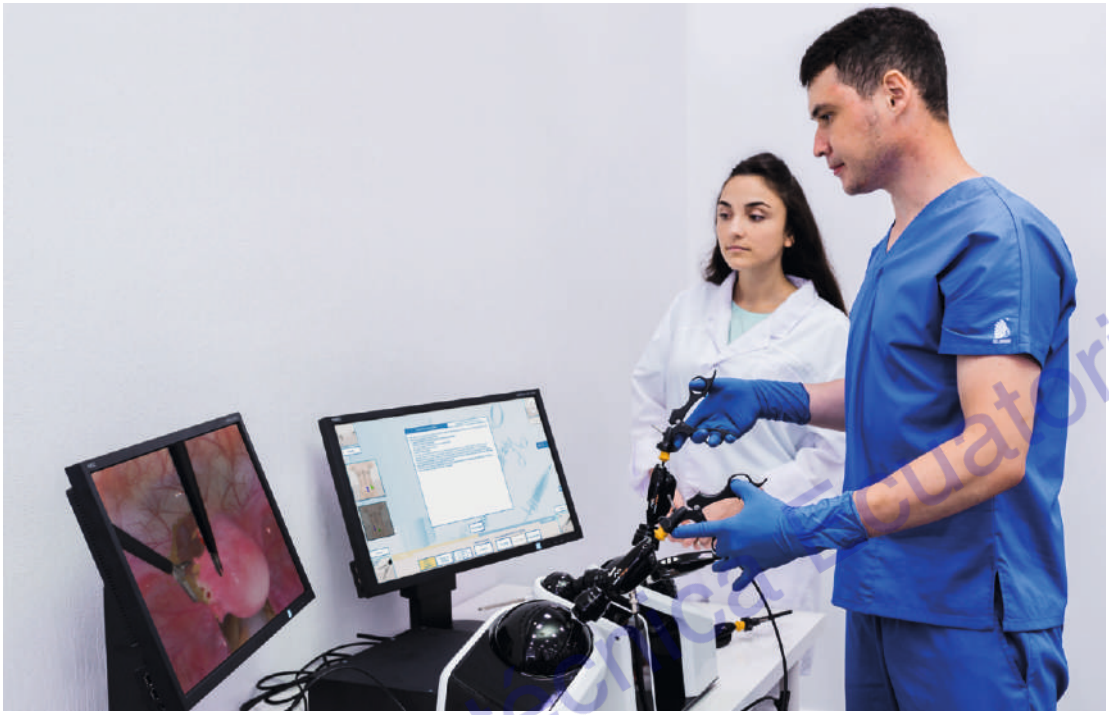
LapVision SMART

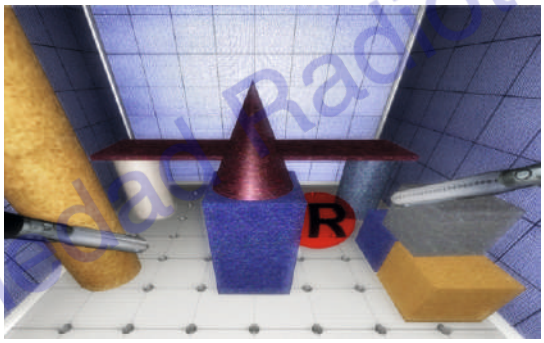
The compact design and portable nature of LapVision SMART makes it the perfect solution not just for simulation centres but also workshops and seminars. Simply place it on the table and begin!

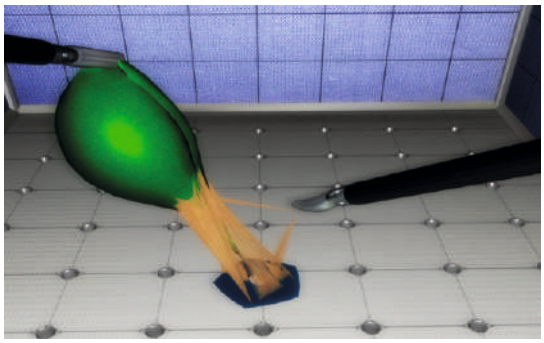
- Easy to set-up
- Expandable with additional virtual trocars – up to five in total

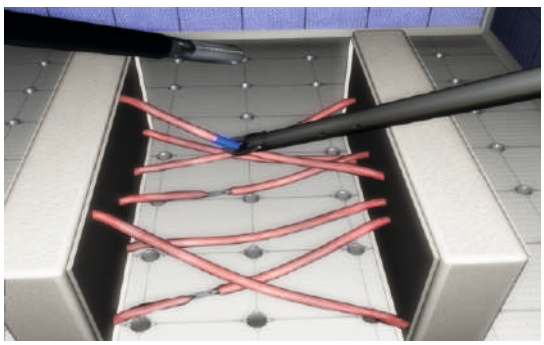


Basic Skills









Refining dexterity in instrument handling

- Control of camera with multiple viewing angles
- Vessel clipping and capturing
- Electrocoagulation operating skills
- Endoscopic scissor handling
- Suturing
- Knot tying
- The task on on 3-D coordination, grip of the instruments, movement and rotation of objects

Sociedad Radiotécnica Ecuatoriana

Mastering use of laparoscopic instruments and camera

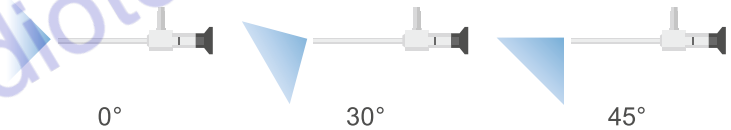
- Our proprietary Magnetic Haptic System provides realistic feedback
- Magnetic Haptic System is also more reliable than mechanical versions
- Wireless instruments can be completely removed from the port
- Instruments use integrated gyroscopes for easy tool selection and swap



Highly realistic instruments support a seamless transition of skills to real surgical practice

Laparoscope control

- Three camera angles: 0°, 30°, 45°
- Endocamera use training
- Realistic camera functions



Virtual instruments

Extend the learning and practice with a variety of virtual instruments.

- Easy switch between instruments
- Instrument freeze functions



Forceps



Endobag Extractor

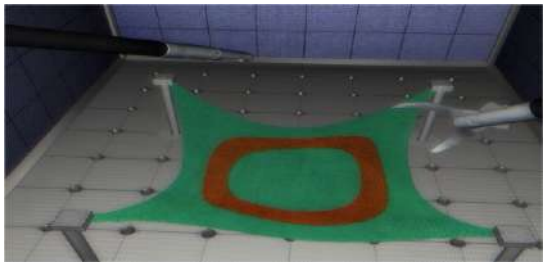


Coagulator

Over 20 different virtual instruments are available that are commonly used in laparoscopic surgeries. We can add new instruments by arrangement.

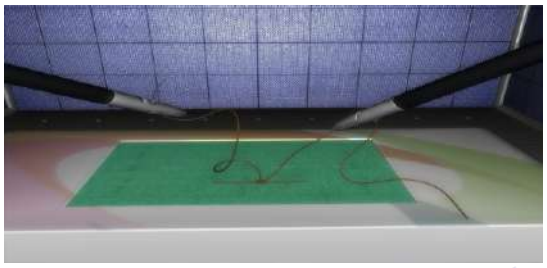
Sociedad Radiotécnica Ecuatoriana

Library of Laparoscopic Modules



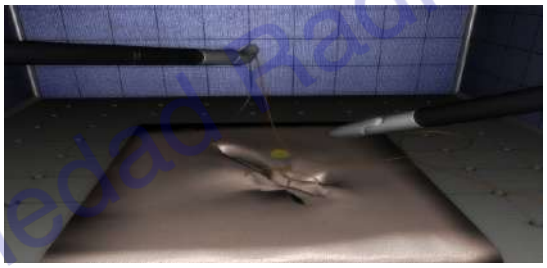
Certain important skills in laparoscopy

- The task on endoclip applicator control
- The task on endoscopic scissors control in examination mode
- The task on endoscopic scissors control in training mode
- The task on movement of objects on pins
- The task on movement of pins



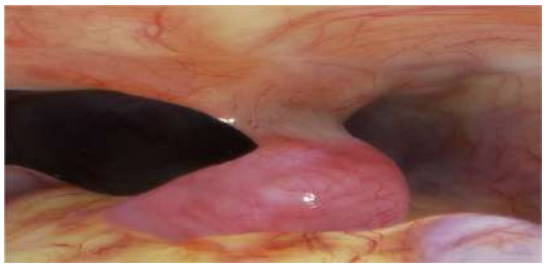
Complex of training tasks on suturing and knotting

- Interrupted (loop) suture for curved incision
- Interrupted (loop) suturing technique
- Square knot tying for right/left hand
- Surgeon`s knot tying for right/left hand



Special critical skills of suturing and knotting

- Mattress suturing technique
- Square knot tying on a thread without a needle
- Surgeon`s knot tying on a thead without a needle
- Suturing by right-hand / left-hand needle
- Training of skills of needle orientation in the need-holder
- Z-shaped suturing technique

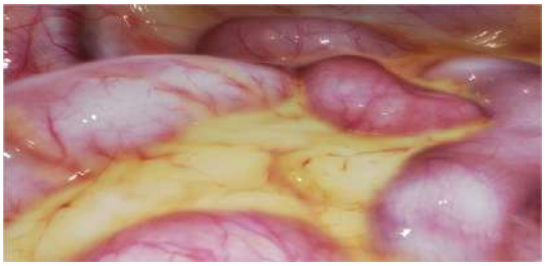


Acute adhesive small bowel obstruction

- Acute adhesive small bowel obstruction in the right/left area

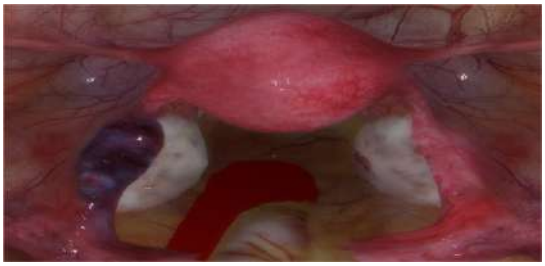
Sociedad Radiotécnica Ecuatoriana

Library of Laparoscopic Modules



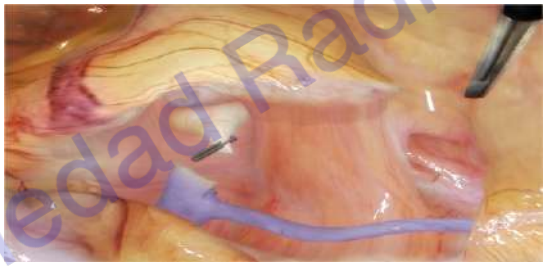
Diagnosis of the abdominal cavity

- Diagnosis of appendicitis
- Diagnosis of cholecystitis
- Diagnosis of ectopic pregnancy
- Diagnosis of ovarian cysts
- Diagnosis of perforated duodenal ulcer



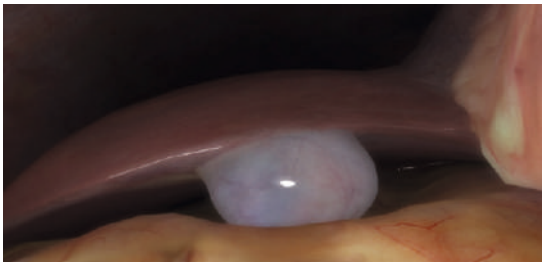
Skills in gynecological surgery

- Preventive oophorectomy
- Tubal sterillization
- Tubectomy with abdominal pregnancy in ampullar area of the right/left fallopian tube with active bleeding
- Tubectomy with abdominal pregnancy in ampullar area of the right fallopian tube in ampulla of the right tube
- Tubotomy with abdominal pregnancy in isthmic area of the right fallopian tube



Skills in laparoscopic nephrectomy

- Clipping and intersection of the ureter
- Clipping and intersection of the vessels
- Mobolization of the descendig colon
- Removal of the kidney



Important skills in laparoscopic cholecystectomy

- Traction and dissection of the peritoneum
- Dissection of structures in Calot's triangle
- Clipping and cutting of cystic artery and cystic duct
- Mobilisation of the gall bladder

Sociedad Radiotécnica Ecuatoriana



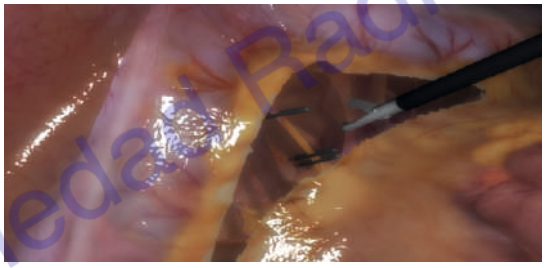
Execution of hysterectomy

- Execution of total hysterectomy
- Subtotal hysterectomy



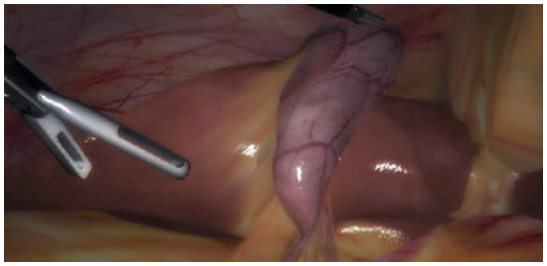
Execution of laparoscopic appendectomy

- Acute phlegmonous appendicitis in pregnant woman
- Acute phlegmonous appendicitis with effusion in the area of the appendix
- Acute phlegmonous appendicitis with local peritonitis
- Acute phlegmonous appendicitis with retrocecal location of the appendix
- Acute phlegmonous appendicitis
- Gangrenous appendicitis with effusion and local peritonitis



Sigmoid colon resection

- Cutting vessels, mobilisation and intersection of the sigmoid colon
- Anastomosis



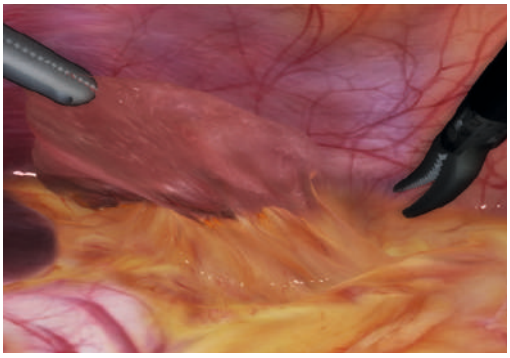
Full procedure of laparoscopic cholecystectomy

- Planned cholecystectomy with acute catarrhal cholecystitis
- Cholecystitis with phlegmonic cholecystitis
- Urgent cholecystectomy with gangrenous cholecystitis with local peritonitis

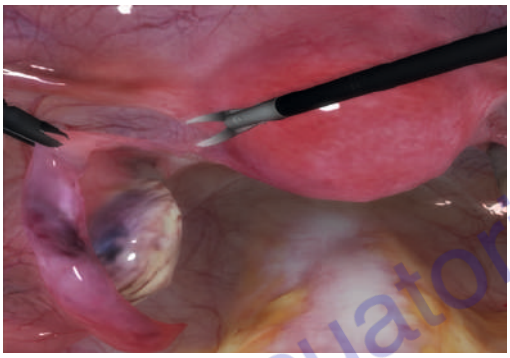
Sociedad Radiotécnica Ecuatoriana

Library of Laparoscopic Modules

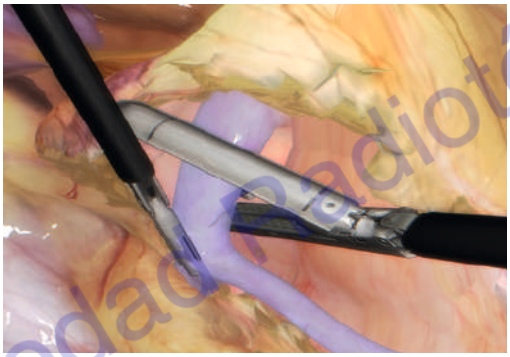
Immersive anatomies



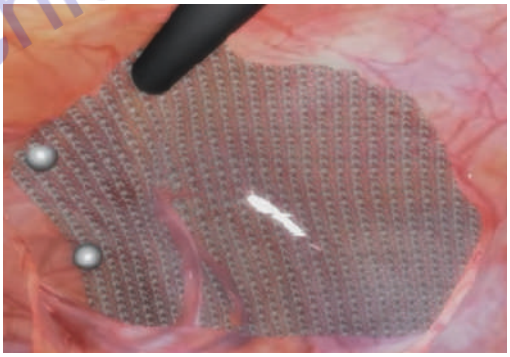
Splenectomy



Salpingo
oophorectomy



Nephrectomy



Hernioplasty

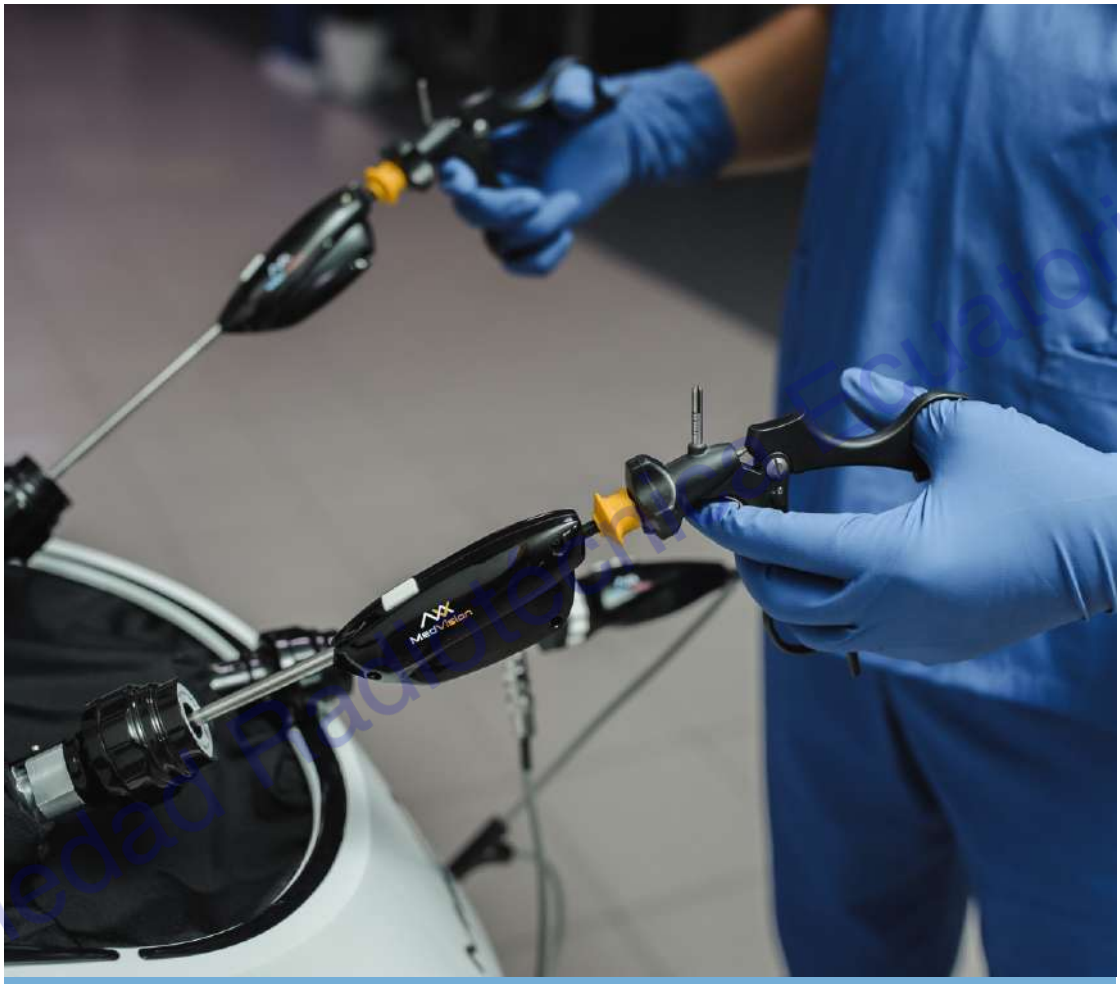
Sociedad Radiotécnica Ecuatoriana

• Internal bleeding that occurs during the exercise will lead to changes in the patient's condition including possible death;

• When coagulating or dissecting, the tissuesof the internal organs change and react accordingly;

• Realistic fluid physics;

• The abdominal cavity is operable, presenting the perfect learning opportunity to make surgical mistakes and then correct them.



Internal organs and abdominal cavity are modelled using footage from real surgeries

Sociedad Peruana de Ecuatoriana



Real-feel surgical simulation

Sociedad Radiológica Ecuatoriana



AngioVision

AngioVision is a surgical simulator for the acquisition and retainment of endovascular skills. It is suitable for radiology, cardiology and neuroradiology training programmes and presents users with real endovascular instruments and an extensive module library.

With its highly realistic and detailed anatomy, simulated physics, haptic feedback for tissue resistance, and radiocontrast agent spreading; users can master and perfect their endovascular skills in preparation for real surgical procedures.

Sociedad Radiotécnica Ecuatoriana









Sociedad Radiotécnica Ecuatoriana



AngioVision Standard

Device Simulation

- More than 30 virtual endovascular instruments
- Imitation of a real C-arm control panel
- Real-time tracking for movement and rotation

Virtual OR

- Suitable for radiology, cardiology and neuroradiology training
- DSA (Digital Subtraction Angiography)
- X-ray imaging in positive and negative with our 3D mode
- A set of virtual hints and guides and step-by-step instructions

Educational Features

- Individual user profiles
- Detailed log of all actions performed
- Course of basic skills training
- C-arm operation training
- Work with real endovascular instruments
- Work with a wide range of virtual instruments
- Customisable training courses
- Extensive educational content
- Standardise, structure and complement hands-on skills training

- One-piece ergonomic stand
- Two mounted FullHD monitors for X-ray and CINE
- Real-time catheter tracing unit
- Intuitive and simple touch screen controls
- Adjustable stand height
- Mobile

AngioVision SMART

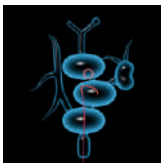
- Compact and portable for easy set-up at workshops and conferences
- Touch-sensitive FullHD monitor for all menu controls and high-quality visuals
- Real-time 3D tracking of all catheters
- Haptic feedback system for tissue resistance



Sociedad Radiotécnica Ecuatoriana

Library of Modules

Basic Course


Catheter Training

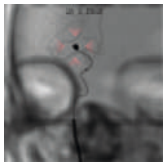

Guidewire Training

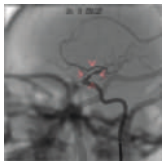

Embolization Coils Training

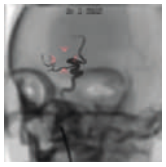

Angiographic Projections


Coronary Projections

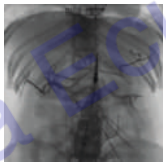
Intracranial Interventions

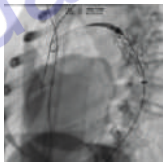

Intracranial Aneurysm Embolization


Cerebral Stenting

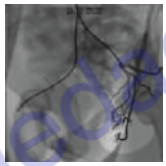

Ischemic Stroke

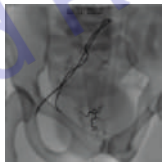
Aortic Aneurysm Repair

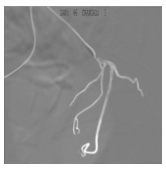

Endovascular Aneurysm Repair


Thoracic Endovascular Aneurysm Repair

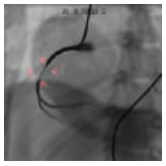
Uterine Fibroid Embolization

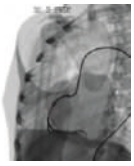




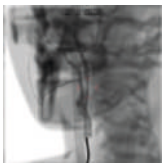


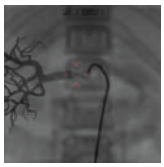
Advanced Coronary Stenting



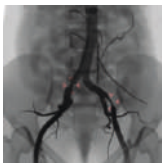


Balloon angioplasty and stenting


Carotid Stenting


Renal Stenting


Coronary Stenting


Iliac Stenting

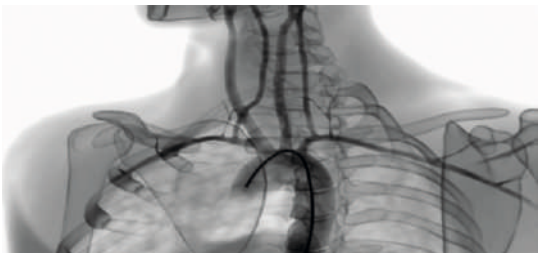

SFA Stenting

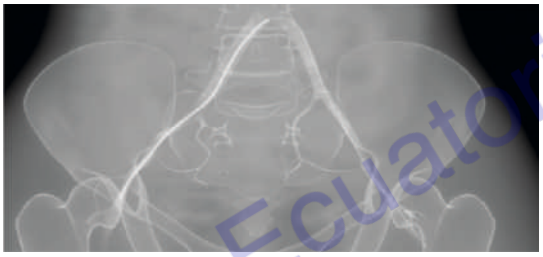

Below-the-knee Stenting

Sociedad Radiotécnica Ecuatoriana

Realistic X-Ray

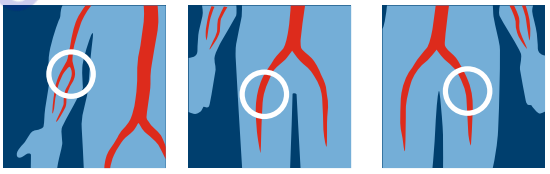
- During the fluoroscopy, the X-ray image reflects the corresponding changes in the current projection of the C-arm and the patient position
- Heartbeat and breathing affect the displayed image
- Realistic contrast spreading depending on the catheter position
- The intensity of the fluoroscopic image corresponds to the volume of the introduced contrast agent, speed of injection and time interval from the moment of injection





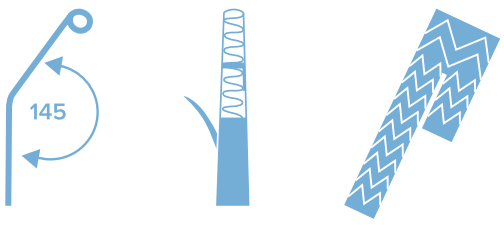
Access Points

- Three access points (right radial, right femoral, left femoral)
- Simultaneous work with multiple access points
- Change the access point during the intervention



Library of instruments

- In each exercise, several endovascular instruments can be used during the procedure.
- The software does not limit the choice of instrument within the procedure.
- More than 30 instrument types are available in the virtual library.
- During the simulation of endovascular procedures, realistic endovascular instruments such as catheters and guidewire are used as their real counterparts.



Sociedad Radiotécnica Ecuatoriana



Sociedad Radiológica Ecuatoriana



HystVision/TUR

HystVision/TUR is a comprehensive training solution for Hysteroscopy&TUR examinations that includes training and exam modes, detailed performance data after each module, high definition graphics, videos, text materials and a 3D anatomy atlas.

The realistic feel of the haptic, makes HystVision/TUR an essential simulation tool to build confidence and competence when performing such a procedure.

The simulator comes in various options. There are HystVision and TURVision modules a combined HystVision/TUR version.

Sociedad Radiológica Ecuatoriana



Sociedad Radiológica Ecuatoriana



HystVision/TUR SMART

- Mobile and convenient, forged with on-the-go funtionality in mind
- FullHD monitor for good quality visuals
- Touch-sensitive Full HD monitor for all menu controls
- Magnetic feedback system allows for a unique, realistic feel of tissue resistance
- Real resectoscope handle
- Pedals for coagulation and electric dissection

HystVision/TUR Standard

- Mobile and convenient: sturdy wheelbase with adjustable height. A perfect solution for simulation centers and training rooms
- Two FullHD monitors: one touch-sensitive for all your menu controls and one for endocamera feed
- Proprietary magnetic feedback system
- Adjustable height
- Wheels for easy transportation
- Pedals for coagulation and electric dissection

Resectoscope for hysteroscopy

We provide instrument imitations for every instrument manufacturer brand out there, available by special order

Software

- Training and exam modes
- Detailed statistics after each module
- High definition 3D graphics
- Visual tips and guidelines
- Video and text materials
- 3D anatomy atlas

Magnetic feedback

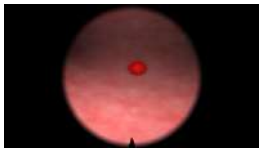
Our proprietary magnetic feedback system allows for unprecedented immersion. Furthermore, unlike mechanical feedback systems, it is far more relaible



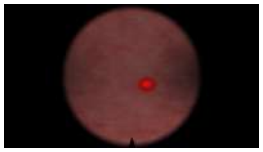
Sociedad Radiotécnica Ecuatoriana

Gynecology Modules

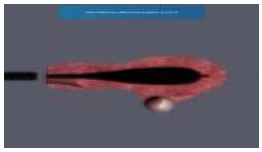
Essential skills



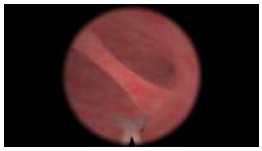
0° viewing angle camera uterus inspection



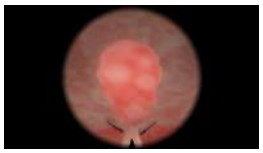
30° viewing angle camera uterus inspection



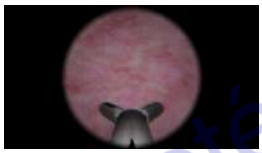
Uterus distention mastering



Resection of the intrauterine septum

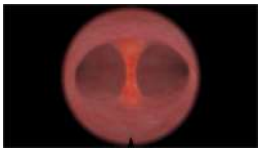


Polypectomy using grasper and scissors

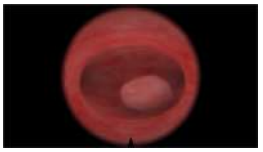


Taking a biopsy from the uterine wall

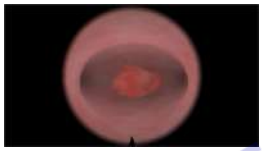
Advanced resection



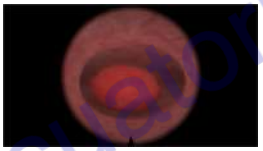
Resection of the intrauterine septum



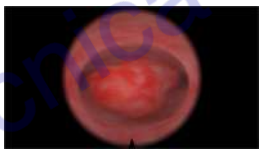
Resection of the myoma type 0 according to ESGE 1



Resection of the myoma type 0 according to ESGE 2

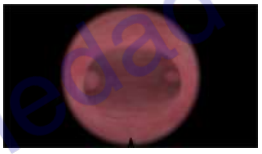


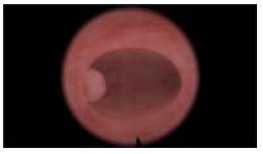
Resection of the myoma type 1-2 according to ESGE



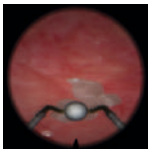
Resection of the polyp

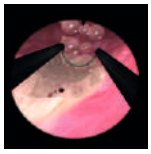
Diagnostic hysteroscopy

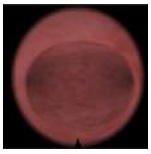




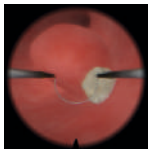
Endometrial ablation

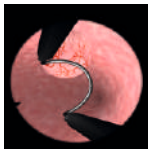


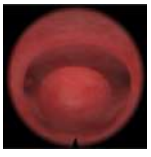




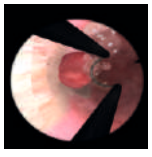
Removal of myoma submucosal nodes



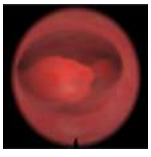




Polypectomy



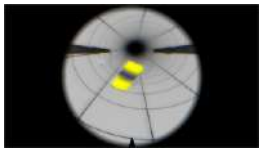




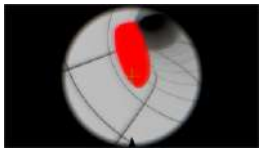
Sociedad Radiotécnica Ecuatoriana

Urology Modules

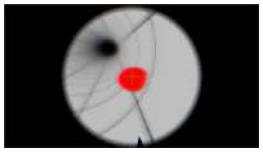
Essential skills



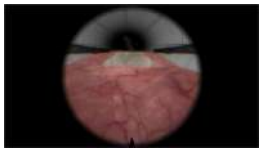
Basic skills of working with endoscopic instruments



Basic skills with resectoscope for angular optics



Basic skills with resectoscope



Resection of the prostate share

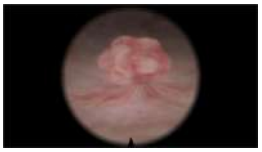


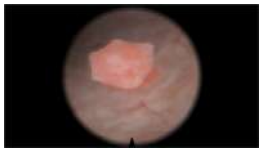
Test of hemostasis



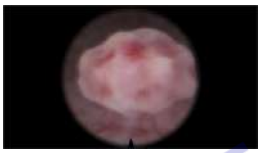
Visualization of anatomical landmarks

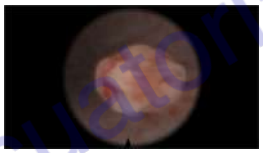
Transuretral resection of bladder tumor



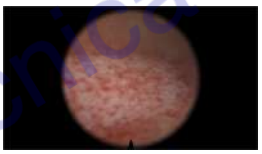


Polyp diam. 2-3 cm, base 1-2 cm, rear and left wall





Polyp diam. 5 cm, base 2.5-3 cm, rear and right wall



Creeping polyp, height 1 cm, base 3x2 cm,right wall



Two polyps, diam. 4 cm and 3 cm, bases 2x2 cm and 2 cm, back and left

Transuretral resection of the prostate



Large adenoma with an average lobe



Large adenoma with lateral lobe, without middle lobe



Large adenoma with lateral lobes, with an average lobe



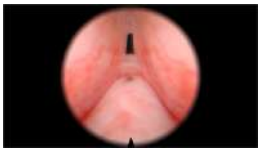
Medium sized adenoma with medium lobe



Medium sized adenoma without middle lobe



Small adenoma with an average lobe



Small adenoma without middle lobe

Sociedad Radiotécnica Ecuatoriana



Real-feel surgical simulation

Sociedad Radiológica Ecuatoriana



EndoVision

EndoVision sets the standard in simulation for hands-on-training in endoscopic procedures. Allowing trainees realistic and safe clinical experiences, EndoVision offers exposure to an extensive library of modules and patient cases to challenge diagnostic and psychomotor skills in preparation for real presentations.

True-to-life instruments for procedures in Bronchoscopy, Gastroscopy and Colonoscopy, along with an interactive 3D anatomy atlas, videos, texts and automatic data capture for quality debriefing, high standards of competency are assured.

The simulator offers various modules and their combinations, i.e. bronchoscopy, gastroscopy, colonoscopy and an all-in-one version.

Sociedad Radiológica Ecuatoriana

EndoVision Standard

- Manage complications caused by trainee's actions
- 2 FullHD displays with one of them being a touchscreen for all your menu controls
- Haptic feedback for realistic tissue resistance
- Interactive 3D anatomy atlas with real-time tracking of the instrument
- Real patient cases
- Detailed automatic recording of all actions
- A set of virtual tips with videos, texts and visual cues
- Mobile wheelbase
- Height adjustable



Software

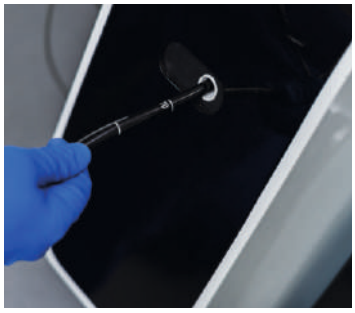
- Training and exam modes
- Detailed statistics after each module
- High definition 3D graphics
- Visual tips and guidelines
- Video and text materials
- 3D anatomy atlas

Endoscopy intruments

- Real adapted gastroscope, bronchoscope, colonoscope
- High-precision no-lag instrument tracking system provides accurate, smooth response for all your actions



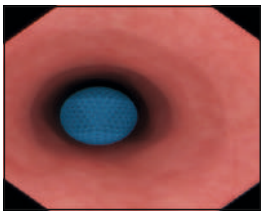




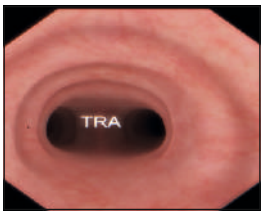
Sociedad Radiotécnica Ecuatoriana

Bronchoscopy Modules

Essential skills

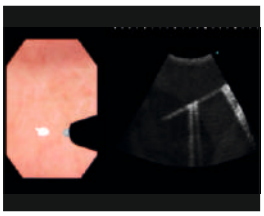


Bronchoscope Handling Skills in Real Anatomical Environment

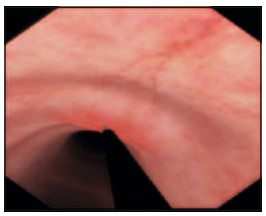


Knowledge of Anatomy in Bronchoscopy

Transbronchial needle aspiration

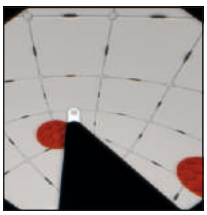


EBUS-TBNA

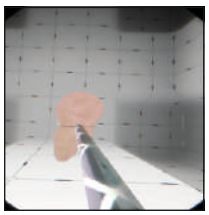


TBNA

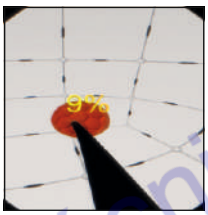
Instrument handling skills



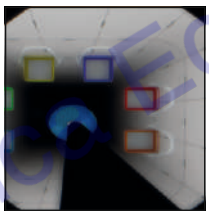
Biopsy forceps



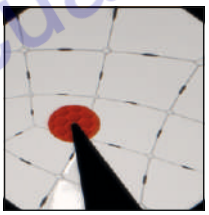
Endoloop



Coagulator Control (monoelectric and argon plasma unit)

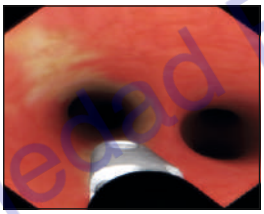


Forceps for Grab of a Subject

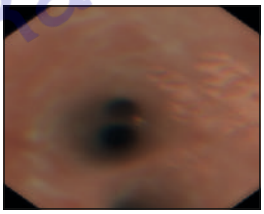


Puncture Needle

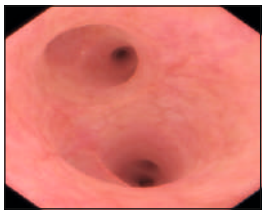
Diagnostic Bronchoscopy



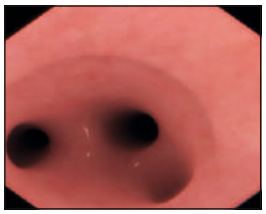
Biopsy in Bronchoscopy



Bronchoalveolar Lavage

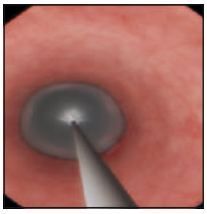


Pediatric Bronchoscopy

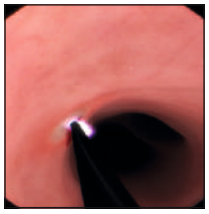


Routine Endoscopy Skills

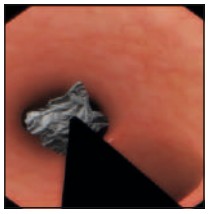
Therapeutic Bronchoscopy



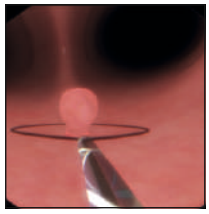
Balloon dilatation



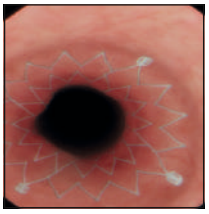
Bleeding Control



Foreign Body Removal



Polypectomy in Bronchoscopy



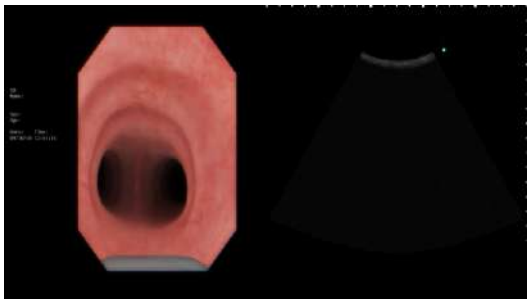
Stenting

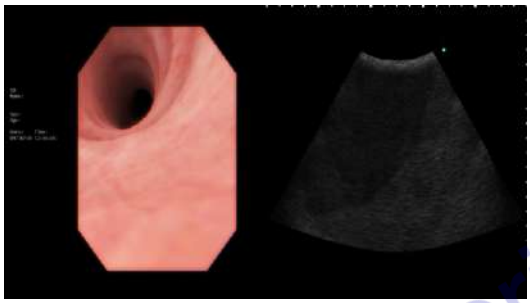
Sociedad Radiológica Ecuatoriana



Sociedad Radiotécnica Ecuatoriana

Endobronchial ultrasound transbronchial needle aspiration





Due to the close proximity of vessels and unavailability of endoscopic landmarks, we have to use something that could indicate the location of the anatomical structures outside the walls of the bronchi. That “something” is ultrasound (US), and the procedure becomes an ultrasound-guided TBNA technique.

How to actually perform an ultrasound scanning, if standard probes are not designed to reach these nodes? EBUS bronchoscope, i.e. a bronchoscope with an ultrasound sensor in the tip making it possible to run an ultrasound-guided procedure.
The TBNA procedure is completely the same, but now it is possible to provide real-time imaging of the nearby anatomical structures behind the bronchial wall.

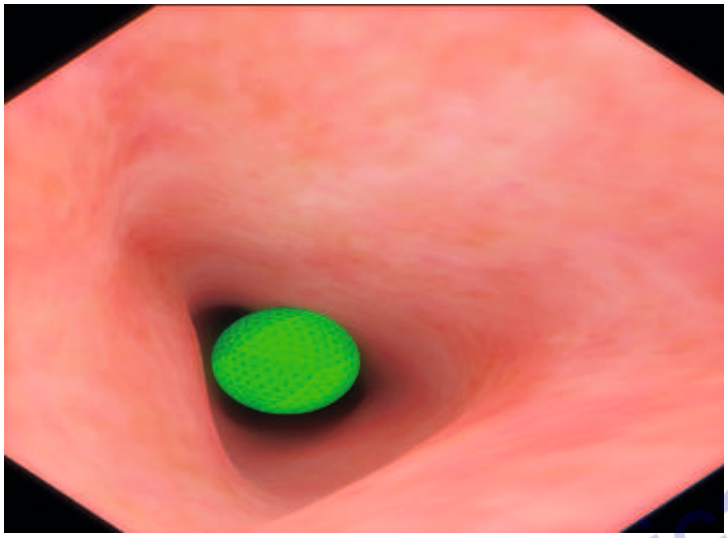
In such bronchoscopes, the lenses have such an angle of view (30 to 45 degrees) that would make it possible to maximally remove the probe from the field of view, but at the same time maintain the usual view.

Sociedad Radiológica Ecuatoriana

Upper GI Endoscopy

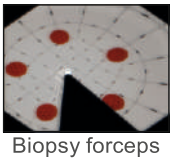
Gastroscopy Modules

Essential skills

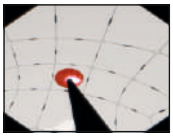


Gastroscope Handling Skills in Real Anatomical Environment

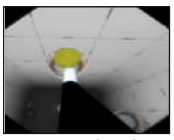
Instrument handling skills



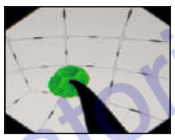
Biopsy forceps



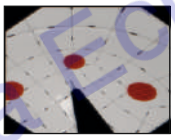
Coagulator Control (monoelectric and argon plasma unit)



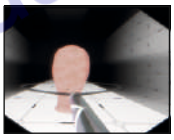
Forceps for Grab of a Subject



Injection needle

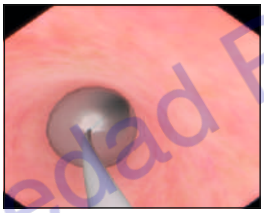


Puncture needle

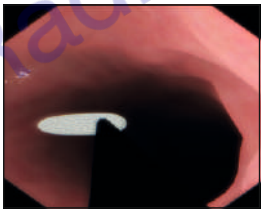


Endoloop

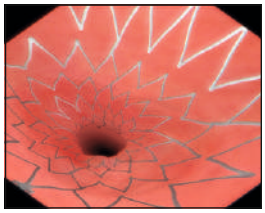
Therapeutic Gastroscopy



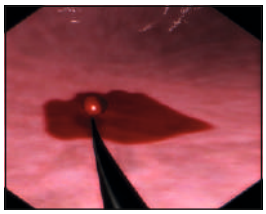
Balloon dilatation



Foreign Body Removal

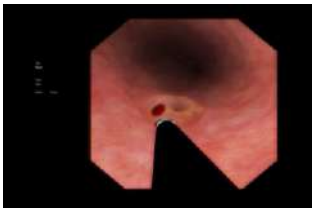


Stenting

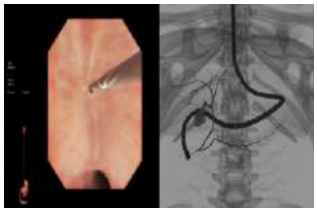


Upper GI Bleeding

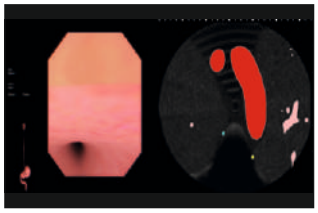
Diagnostic Gastroscopy



Esophagogastroduo-denoscopy (EGDS)



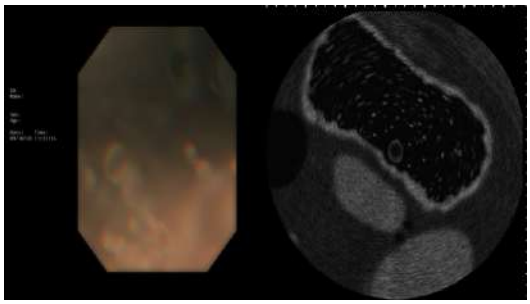
Endoscopic Retrograde Cholangiopancreatography

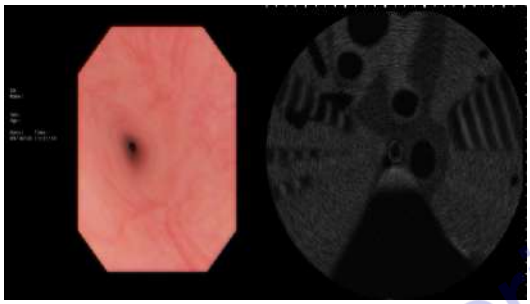


Endoscopic Ultrasonography

Sociedad Radiotécnica Ecuatoriana

Endoscopic Ultrasonography





An obvious advantage of this technique is the ability to produce images of organs that are inaccessible by conventional ultrasound scanning, i.e the mediastinum organs and structures such as vessels, lymph nodes, etc. It is also possible to see organs "from the other side" adding funstionality to conventional ultrasound examination. One more important feature to mention is the examination of gastric submucosal tumors (or deeper layers of the GI tract walls), which allows making diagnosis when regular biopsy is not informative or sampling is not possible.

Along with ultrasonic bronchoscopes, ultrasound gastroscopes are used. There are two types of ultrasound gastroscopes: a curved, linear-array gastroscope (similar to EBUS-TBNA bronchoscope) and a radial-array gastroscope. The latter allows imaging in a circular plane. Considering that such imaging is untypical and requires certain skills, the design of our simulator is focused on the radial-array type of probes.

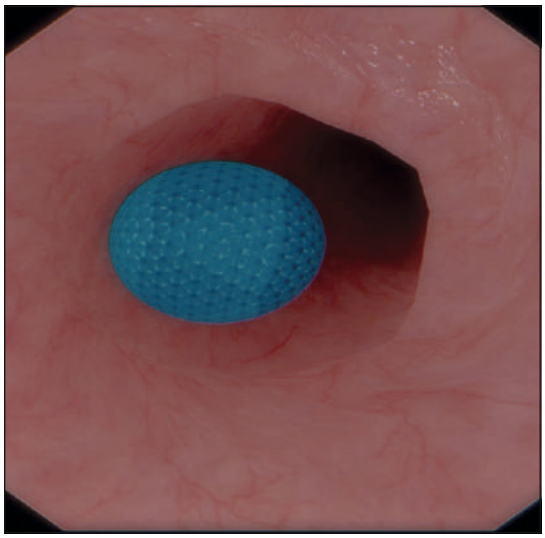
The module contains 4 clinical cases:
- Healthy Patient (Mediastinal Examination)
- Neoplasm in the Lung
- Healthy Patient (Abdominal Examination)
- Choledocholithiasis (Gallstone Disease)

Sociedad Radiológica Ecuatoriana

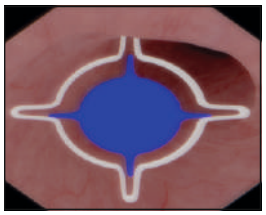
Lower GI Endoscopy

Colonoscopy Modules

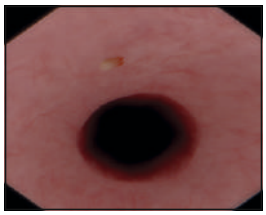
Essential skills



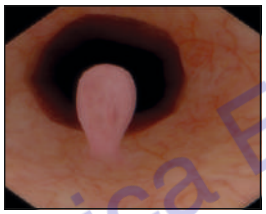
Colonoscope Handling Skills in Real Anatomical Environment



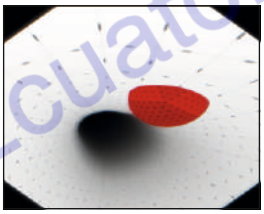
Colonoscopy Navigation



Mucosal Assessment Skills in Colonoscopy

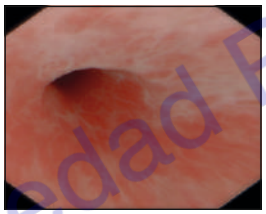


Pathology Visualization Skills

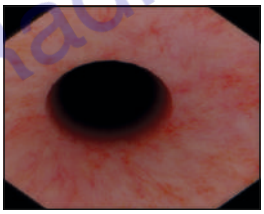


Targeting in Colonoscopy

Sigmoidoscopy

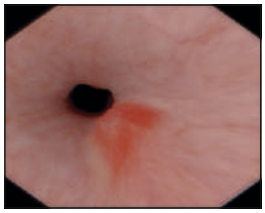


Random Anatomy of Sigmoidoscopy

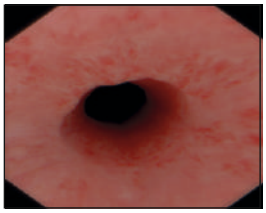


Sigmoidoscopy

Diagnostic colonoscopy

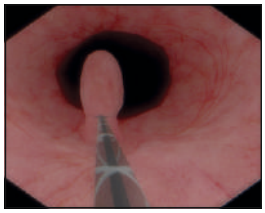


Biopsy in Colonoscopy

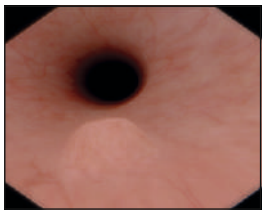


Colonoscopy

Therapeutic colonoscopy



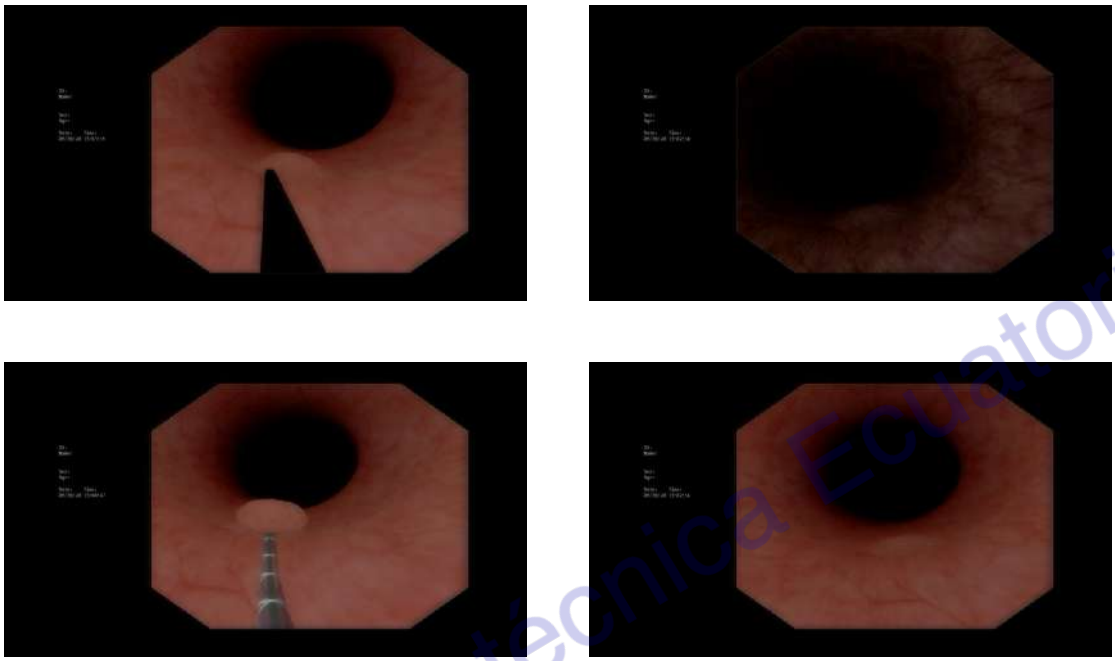
Polypectomy in Colonoscopy



Endoscopic Mucosal Resection

Sociedad Radiotécnica Ecuatoriana

Endoscopic Mucosal Resection



One of the standard treatments for patients with early-stage colon cancer is endoscopic mucosal resection (EMR). Under certain criteria, neoplasms can be resected in a minimally invasive manner preventing more serious forms of cancer. This is one of the cornerstones of modern endoscopy.

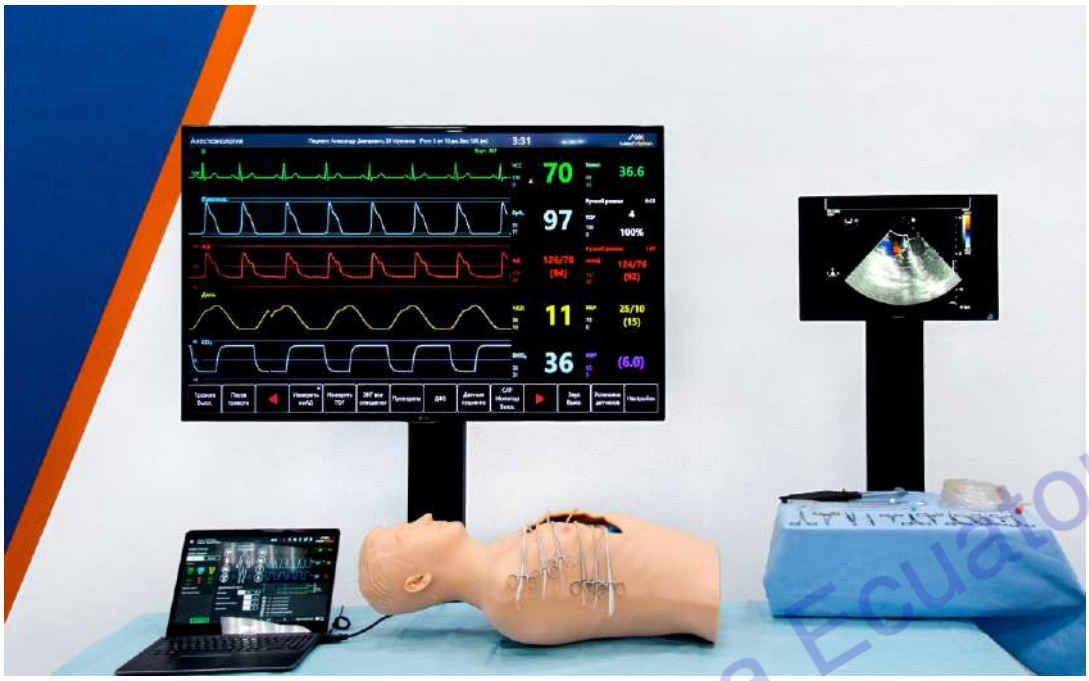
The purpose of the module is to learn and practice the main stages of the procedure and to demonstrate the possibility of using extra types of examination such as narrow band imaging endoscopy.

Sociedad Radiotécnica Ecuatoriana



Cardiopulmonary Bypass Surgery Simulator

Sociedad Radiológica Ecuatoriana



Bakulev CPBSS

A simulator for practicing the basic technical skills in cardiopulmonary bypass supported heart surgery using the Teacher Cardio software and a set of scenarios. Turnkey solution for training young healthcare professionals and supporting advanced professional training, CME courses and accreditation.

Sociedad Radiológica Ecuatoriana

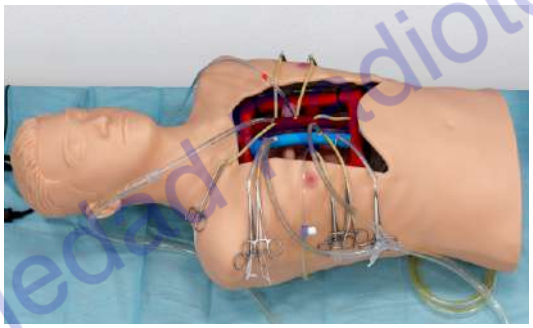
- The adult patient head and torso with access to the vessels of the venous and arterial segment in the chest area

- A removable blood vessels imitation module

- Controlling simulation and patient parameters using the Teacher Cardio software with pre-installed scenarios

- The simulator set includes an all-in-one PC to imitate a bedside monitor and a display to demonstrate images of a TEE test

Sociedad Radiotécnica Ecuatoriana









List of equipment:

Adult patient head and torso - 1 pc
Display - 2 pcs
Laptop - 1 pc
Teacher Cardio, Bedside Monitor software
Dry removable module imitating inferior and superior vena cava, aorta, pulmonary artery and vein - 1 pc
Anaesthesia screen - 1 pc
J-tip wire-reinforced venous cannula for cardiopulmonary bypass - 1 pc
J-tip wire-reinforced aortic cannula for cardiopulmonary bypass - 1 pc
Catheter for left heart catheterization - 1 pc
Head up/down tilt table equipment - 1 pc
Surgical drape sheets - 4 pcs
Vascular forceps - 1 pc
Curved Billroth hemostatic forceps - 8 pcs
Angled jaws aorta vascular clamps - 1 pc
Towel clamp - 8 pcs
Straight surgical clamps for cardiopulmonary bypass machine and cannulae - 3 pcs
Purse string suture tourniquet - 6 pcs
Vena caval tourniquet - 2 pcs
Cardiovascular tourniquet stylet - 1 pc
Vascular tape, 20 cm - 2 pcs
Dissector to simulate cannulation - 1 pc
Cardioplegia cannula (Dufaut needle imitation) - 1 pc
Loop tubing 3/8, 100 cm - 1 pc
Left ventricular drainage tubing 1/4, 100 cm - 1 pc
Cardioplegia tubing 1/8, 100 cm - 1 pc
Y connector 3/8-3/8-3/8 - 1 pc
Leur lock adapter, 3/8-3/8 - 1 pc
Scalpel No.111 - 1pc

Sociedad Radiotécnica Ecuatoriana



MedVision Auscultation Task Trainers

Sociedad Politécnica Ecuatoriana



MATT & Pediatric MATT

Our portable auscultation skills trainers are highly effective for learning cardiac, lung and abdomen auscultation points and sounds.

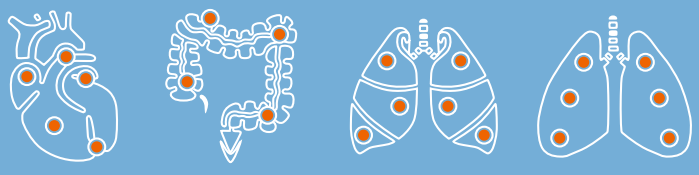
A rich library of sounds with amplified details for trainees to develop their patient assessment skills will allow for both cost and time efficiencies in your training programs, while ensuring the highest standards in learning outcomes.

Sociedad Radiológica Técnica Ecuatoriana



Sociedad Radiotécnica Ecuatoriana

The sounds library conforms to American Thoracic Society guidelines.



Easy to teach...
Easy to learn!



- Adult and Pediatric manikins available
- 39 Heart, 9 Lung and 14 Abdomen sounds
- Anterior and Posterior auscultation points
- All auscultation points light up
- Transmit sounds to external speakers
- Compatible with a real stethoscope



Sociedad Radiotécnica Ecuatoriana

Challenge assessment skills from clear clinical findings to detecting faint murmurs. The flexible operating tablet allows you to:

- Activate or deactivate auscultation points and backlighting individually
- Adjust volume and intensity of sounds
- Change HR and RR for a sound that is currently being reproduced
- Compare sound recordings
- Sound matches ECG diagrams and other vital parameters



Available in several skin tones

Intuitive operating tablet to support gradient levels of skills development

Adjustment Heart Rate and RR

2 operating modes: external speakers / stethoscope

Auscultation point selection

Auscultation area selection

Auscultation point selection, highlighting and volume control



Soundwaves, ECG and RR graphs

ECG and RR

Activating the two-sound compare mode

Simultaneous volume control at all points

Sociedad Radiotécnica Catalana

MedVision simulator software allows for analyzing sounds in four critical areas: cardiac, lungs (anterior & posterior) and abdominal quadrants. Two different sounds can be compared within the same auscultation area. ECG and Respiratory Rate (RR) graphs are also shown.

Features

Cardiac auscultation

- Normal heart sound
- Split first heart sound
- Split second heart sound
- Third heart sound (gallop)
- Fourth heart sound (gallop)
- Functional murmur
- Diastolic murmur
- Opening snap
- Holosystolic murmur
- Early systolic murmur
- Mid-systolic murmur
- Continuous murmur
- Austin Flint murmur
- Pericardial rub
- Graham Steell murmur
- Aortic valve regurgitation
- Aortic valve stenosis
- Aortic stenosis and regurgitation
- Mitral valve regurgitation
- Mitral valve stenosis
- Mitral valve prolapse
- Mitral valve stenosis and regurgitation
- Mitral valve stenosis and tricuspid valve regurgitation
- Pulmonary valve stenosis
- Pulmonary valve regurgitation
- Tricuspid valve regurgitation
- Coarctation of the aorta
- Hypertrophic cardiomyopathy
- Patent ductus arteriosus
- Atrial septal defect
- Ventricular septal defect
- Acute myocardial infarction
- Congestive heart failure
- Systemic hypertension
- Acute pericarditis
- Dilated cardiomyopathy
- Pulmonary hypertension
- Tetrology of Fallot
- Ventricular aneurysm

Auscultation of lungs (anterior & posterior)

- Bronchial respiration
- Vesicular respiration
- Diminished vesicular respiration
- Coarse crackles
- Fine crackles
- Wheezes
- Rhonchi
- Stridor
- Pleural friction rub

Abdomen auscultation

- Normal bowel sound
- Hyperactive sounds
- Hypoactive sounds
- Borborygmus
- Capotement
- Peritoneal friction rub
- Normal bowel sound with bruits
- Irritable bowel syndrome
- Diarrhea
- Bruits due to renal arteries stenosis
- Constipation
- Ulcerative colitis
- Crohn's disease
- Paralytic ileus

Highlights

- 39 heart sounds
- 9 lung sounds
- 14 abdomen sounds
- All the auscultation positions light up
- Sounds can be transmitted to an external speaker
- Realistic manikin skin
- Anterior and posterior auscultation points
- Rotatable platform
- Compatible with a real stethoscope

Sociedad Radiotécnica Educatoriana



The highest level of detail in the internal organs imaging. Realistic feel

Sociedad Radiotécnica Ecuatoriana



SonoVision

SonoVision ultrasound diagnostic simulator is a professional medical training tool. This virtual simulator is designed for developing and improving diagnostic medical sonographer skills. SonoVision is used by students and practitioners in clinics and hospitals. An ultrasound simulator is a great add-on to traditional healthcare education and professional development training.

The next-generation ultrasound simulator ensures the highest level of detail of internal organs imaging. An anatomically correct manikin provides realistic feel and imaging during scanning. The simulator offers more than 40 clinical scenarios.

Sociedad Politécnica Ecuatoriana

The musculoskeletal structure of the torso is based on real Computed Tomography (CT) images. The skin is made of special silicone resistant to constant mechanical stress and the use of an ultrasound gel.





The system uses realistic imitators of ultrasound probes.



3D model of organs displayed in a virtual reality window
Thorough medical history for each clinical case
Real-time ultrasound probe tracking
Ultrasound measurements and image optimization

Sociedad Radiotécnica Ecuatoriana

The anatomically correct phantom torso and head and a lifelike ultrasound probe imitator are the important elements of the simulator.

The simulator is designed to support the learning of fundamentals and features of diagnostic ultrasound. Simulations are run in a realistic, fully-immersive and anatomically correct environment without putting patients at risk.





The software includes a set of training scenarios. Each scenario has a theoretical part with instructional materials and a practical part with a set of parameters. Students are expected to develop the most suitable course of action based on such parameters.

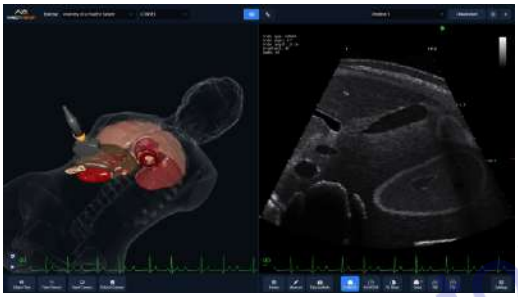
Sociedad Radiotécnica Ecuatoriana

Training module library

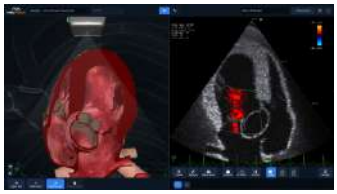
The training module library includes exercises for practicing pelvic (male and female), abdominal and chest ultrasound. Each clinical case has a thorough history to make the learning process more deep and efficient.



Anatomy of the healthy patient



Ultrasound study module for abdominal organs and retroperitoneal space



Transthoracic echocardiography (TTE) skills training module



Transesophageal Echocardiography (TEE) skills training module



Transthoracic Echocardiography (TTE) based on data from real patients training module

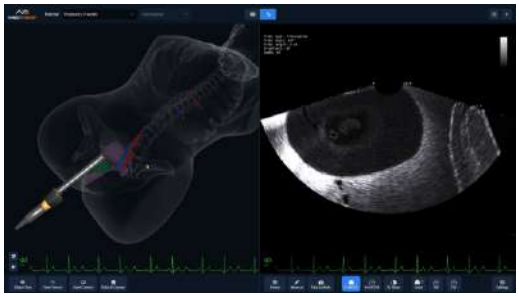


Focused assessment with sonography for trauma (FAST) skills training module

Sociedad Radiológica Ecuatoriana



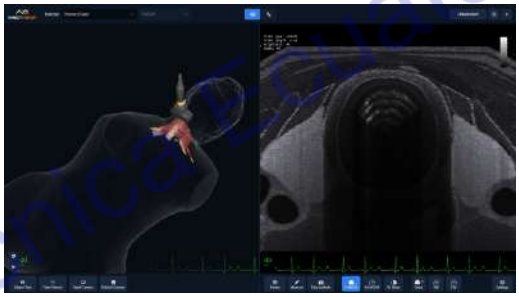
Gynecology basic skills training module



The first trimester obstetrics skills training module



Urinary bladder (female anatomy) and female pelvis (uterus, ovaries) ultrasound scanning skills training module with abdominal transducer



Thyroid ultrasound scanning skills training module

Sociedad Radiotécnica Ecuatoriana



Leonardo VR is a comprehensive system to train clinical reasoning and decision making.

Sociedad Radiotécnica Ecuatoriana



Leonardo VR

A Virtual Patient Simulator is a large interactive multitouch table presenting a virtual patient. The simulator screen also displays physiological parameters, ECG data, assigned laboratory tests results and Xrays of a virtual patient necessary for diagnostic decision making. The simulator allows realtime tracking of any changes in the condition of the virtual patient, manipulations performed by students and relevant patient's reactions to the treatment. After the exercise is finished, the screen displays the assessment of the student's actions according to the specified criteria.

The simulator offers clinical scenarios of different levels of difficulty covering various medical specialties, i.e. cardiology, endocrinology, traumatology, neurology, obstetrics, etc. With the use of the virtual simulator, students greatly improve their skills in making clinical decisions, which increases the competence of health care professionals and reduces the risk of medical errors.

Sociedad Politécnica Ecuatoriana

Leonardo VR is a touchscreen table where you can interact with a virtual patient. The table has been designed to acquire diagnostic skills, run treatment, practice clinical decision making and thus accelerate various skills of a healthcare professional.

Control panel

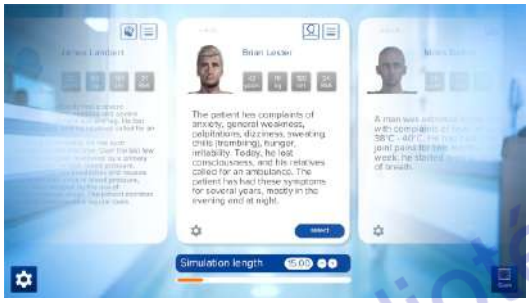
Tap the button and interact with the patient. In the drop-down list, select a question and get a preset reply from the patient.

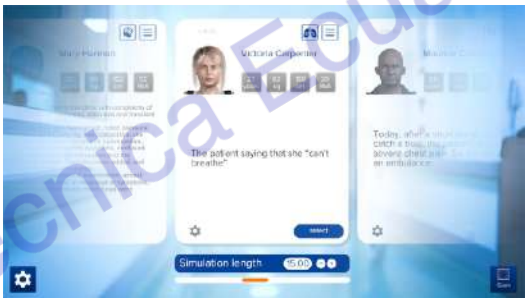


Simulation-based development of clinical reasoning

Patient Library

More than 20...









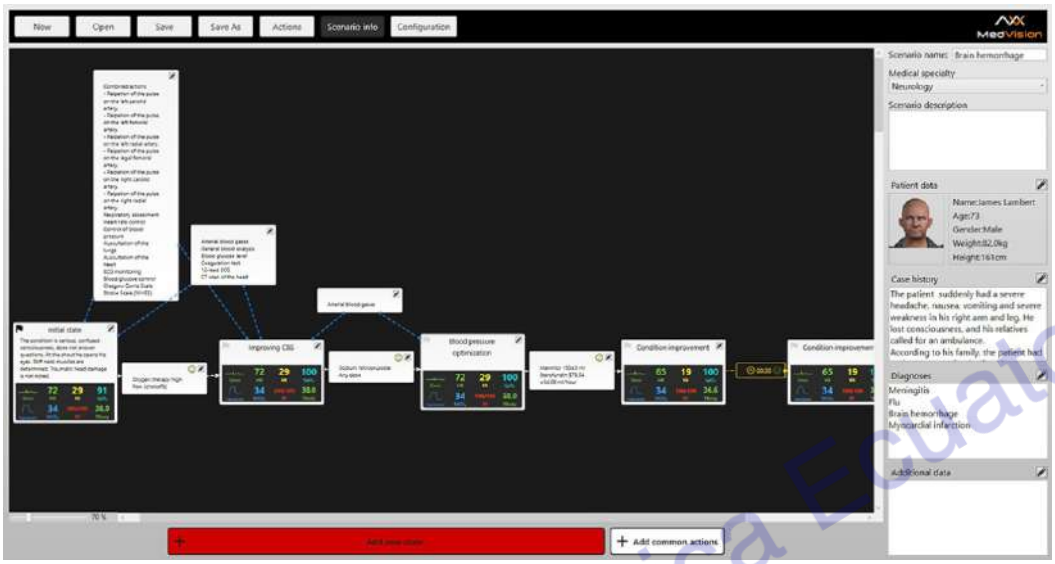
At the end of the simulation, the student should decide upon the diagnosis



Sociedad Radiotécnica Ecuatoriana

Scenario constructor

With Scenario Constructor, you can create an unlimited number of new scenarios and thus build up the functionality of Leonardo VR. The software allows setting the patient's condition as well as triggers causing the change of state.



Clinical case library

- Hypoglycemia
- Septic shock associated with tricuspid valve endocarditis
- Ischemic attack
- Embolic stroke
- Septic shock associated with aortic valve endocarditis
- Diabetes with unstable angina
- ST segment elevation myocardial infarction
- Monomorphic ventricular tachycardia
- Acute hypertensive encephalopathy
- Asthma
- Unstable angina
- Septic shock secondary to pneumonia
- Warfarin-induced brain hemorrhage
- Hypoglycemia induced by sulfonylurea overdoses
- Acute coronary syndrome
- Septic shock associated with hemodialysis with a central venous catheter
- Cardiac tamponade
- Brain hemorrhage

Sociedad Radiotécnica Ecuatoriana





Services

We understand that you have made a significant investment in your education program, which is why we have designed service solutions to help you every step of the way, from choosing the right simulator to fully integrating it into your simulation programs.

Whether it's product installation, preventive maintenance, troubleshooting or repairs, our team is here to help you optimize the full capability of your simulators, assisting you to efficiently meet your programs' goals and objectives.

For further information about our service solutions, please contact your Regional Representative.

Contact us

REPRESENTANTE PARA ECUADOR

SOCIEDAD RADIOTÉCNICA ECUATORIANA
www.socradec.com
socradec@socradec.com
+593 2 225-2731

To connect with your local Regional Representative email: sales@medvisiongroup.com



MedVision is a global company committed to the advancement of quality education in healthcare through simulation. Innovative design and cutting-edge technologies define its range of adult, pediatric, neonatal and surgical simulators.

For further information about any of our products, please contact your local regional representative.

Sales Enquiries:

Global, Japan
+81 (045) 716-6497
muneo.ogata@medvision.jp

Europe
+43 (664) 453-5931
hello@mse-group.co

USA
+1 (407) 840-8781
sales@medvisiongroup.com

Middle East, Africa
mail@medvisiongroup.com