Contents

About

MedVision provides an environment for effective medical education training, with focus on constant development and sales growth.

MedVision also operates a simulation center created with our accumulated know-how, provides consulting, operating and management expertise for the whole construction process of a simulation center.

Our strengths:

MedVision works closely with only the best experts in Japan, simulators are capable of providing very realistic images, life-like haptic feedback while being very durable and reliable. MedVision also involves with methodology development for simulation-based education in medicine, introducing new educational content and promoting simulation to overseas countries based on Japanese medical technologies.

Key principles

Individual approach

MedVision can supply not only individual medical simulators but also sets of simulation equipment, completed with everything necessary for smooth and proper integration, enhancing learning process to the max.

It's among the company's goals to create convenient conditions for the unfolding of the learning process and to ensure the developing of practical skills by the trainees; minimizing the preparative organizational processes such as the need to search for additional components or operating supplies.

Services and Guarantees

MedVision guarantees proper functioning of its products, provided that the User complies with standard requirements for operation and maintenance.

Equipment delivery, installation, and training of staff are carried out within no more than 4 (four) months from the date of signing the contract for the purchase of equipment. Additionally, if our client requests so, it is possible to supply real medical furniture or extra supplies.

If it is required by the customer, MedVision can convert client's available premises to best suit their simulation needs and install our own centralized management system to have full control and statistics for the simulation center. Such system ensures that all educational process data is recorded, stored, processed and is available upon demand at the premises, and includes video surveillance, a database, and a control room.

For maintenance and repair services we have a few options to choose from, with different coverage plans.

Competition

The current level of products development and equipment localization is about 95% and the average price per unit is two times lower in comparison with the competitors.

The company helped with organization and launching more than 20 types of educational medical simulators, all of that meet modern education standards have been successfully implemented. The rulers of the supplied simulators are constantly updated and modernized.
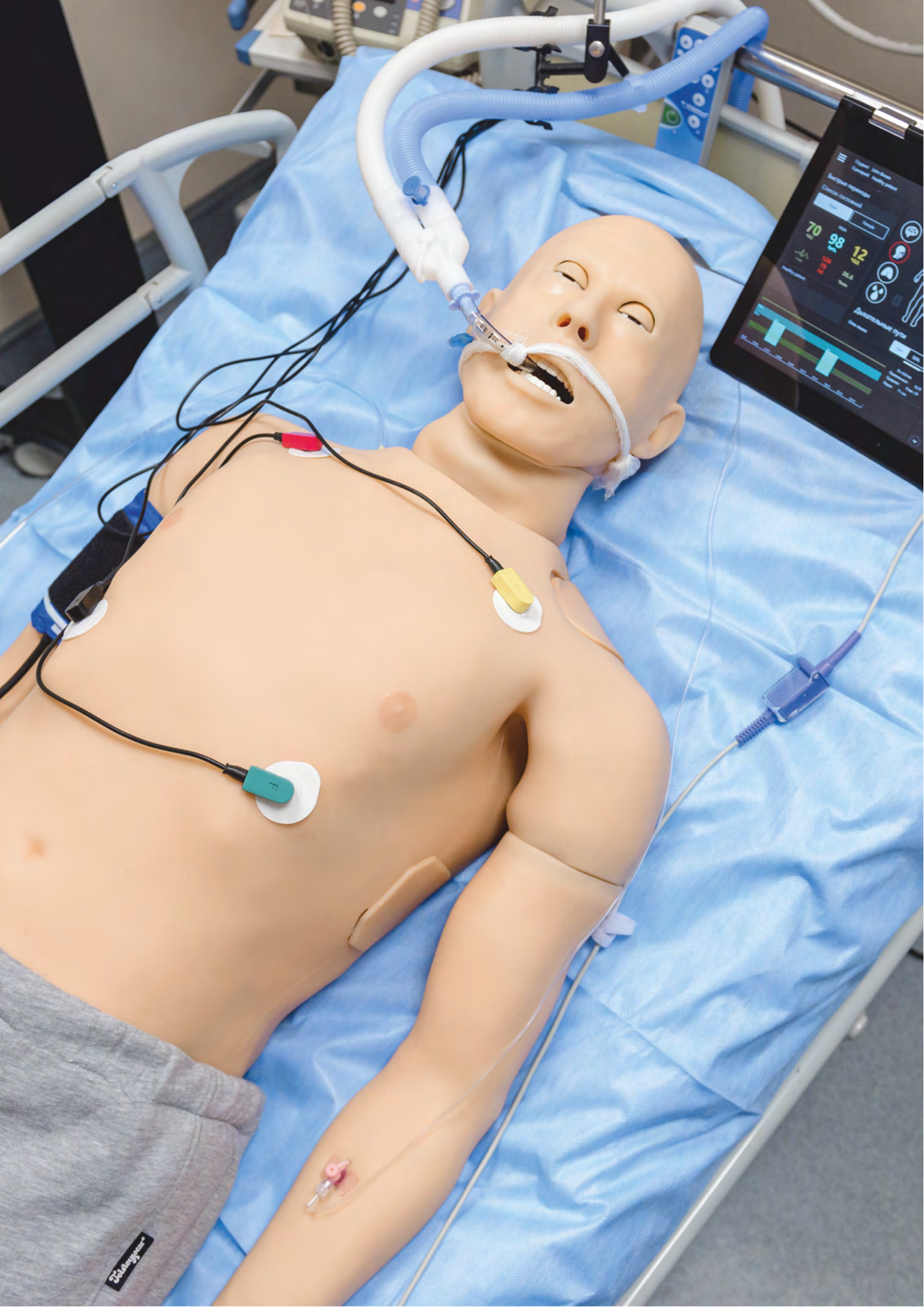

Human Patient Simulator

Options	MedVision	Analog Nº1	Analog Nº2
Level of physiological model of the patient	Above average	High level	No
Level of patient detailisation	"Life like skin", realistic muscu-loskeletal structure	Medium	Low
Anesthesiologist training	Yes	Yes	No
Possibility of integration with surgical simulators	Yes	No	No
HF and ALS models	Yes	Yes	Yes
BLS models	Yes	No	Yes
Service charges	Low	High	High
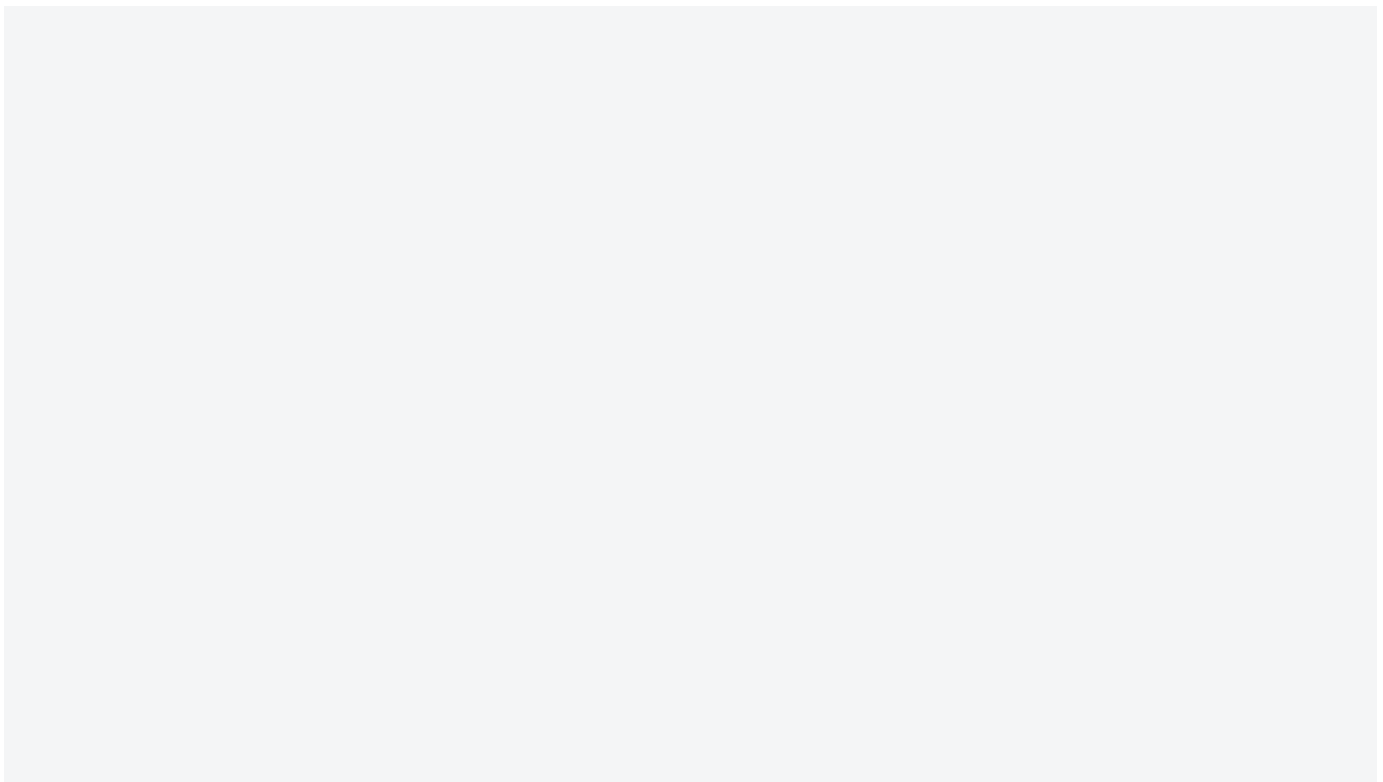
Surgical simulators

Options	MedVision	Analog N°1	Analog N°2
Haptic feedback	**Magnetic (except for angiography)**	Mechanical	Mechanical
Possibilityof integration with the human patient simulator	**Yes**	No	No
Visualization of anatomical structures in software	**High level**	Low level	**High level**
Implementation of 3D-endoscopy	No	No	**High level**
Availability of training modules aimed at conducting diagnostic procedures	**Yes**	No	No
Number of training exercises	**A large number of exercises**	Reduced amount of exercises	**A large number of exercises**
Service charges	**Low**	High	High

Our 5th generation of Human Patient Simulators

Our high-fidelity human patient simulator is the highest standard of realism in form and function.

The 5th generation of our Human Patient Simulators was launched into production in early 2017 and it has received high praises at many exhibitions and trials in clinics and universities, not only in Japan, but also in Europe, USA, and in the East.

Taking the best from its predecessors, the 5th generation HPS is full of innovative solutions. Many of its parts were completely redesigned and expanded in order to achieve the highest level of realism and reliability

Lifelike body

We used a real person's MRI images and consulted with several independent specialists and clinics to ensure that the HPS's appearance and musculoskeletal structure is lifelike. Now it can offer realistic mobility in all main joints: kicking back and putting hands behind your head? Easy! Sitting, bending knees, can do!

New and updated features

Various new major structural elements were added, such as interchangeable limbs feature, allowing for easy imitation of trauma, wounds and amputation; secretion module for imitation of all main biological fluids (blood, urine, sweat, tears, saliva). Already existing modules, such as CPR performance were expanded and updated with rich variety as well.
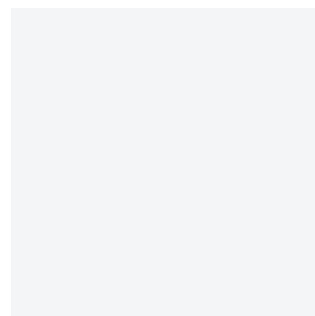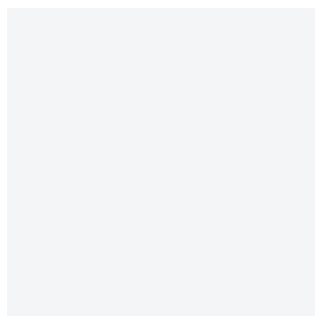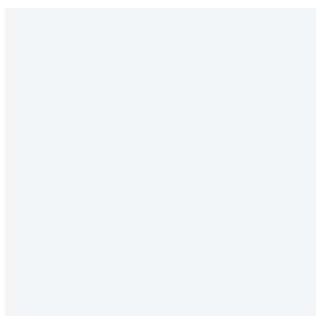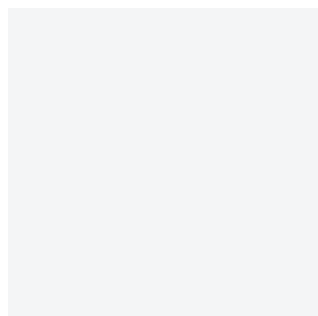
Expanded software

Patient's physiological model received a fundamental update in its key features alongside with introduction of a few new elements. Pharmacokinetics were added in order to simulate correct responses to medication. New "ECG creator" and "Scenario creator" features are now available, allowing the user to create custom ECG graphs and unique educational modules (scenarios) tailored to their needs.

Advanced simulation

For the 5th Gen we have doubled the amount of various sensors, which drastically improved the process of automatic tracking and evaluation. New interface – intuitive, simple and elegant

Intensive Care Unit

LEONARDO HF
(High Fidelity)

Develop Major Medical Skills:

– Perform **cardiopulmonary resuscitation procedure (CPR)** in accordance with 2010-2015 AHA/ERC Guidelines for CPR and defibrillation with or without use of acute care medications and a real defibrillator

– Perform **intubation procedures**, normal and with complications (which includes but is not limited to tongue swelling, laryngeal edema, laryngospasm (requires coniotomy), left/right bronchi obstruction, lockjaw), using a variety of medical instruments such as endotracheal tubes, laryngeal mask airway (LMA), combitube and others

– **Decompression of tension pneumothorax**

– Perform **intramuscular, intraosseous and intravenous injections** (with type and amount of administered medicine being automatically recognized) by software

– Perform cricoid pressure technique (**Sellick's maneuver**)

– Perform **pleural cavity drainage**

– **Auscultation** and interpretation of heart, lungs and bowel sounds, and Korotkoff tones, which requires correct positioning of instrument

– Perform of **urethral catheterization**

LEONARDO HF is a high-fidelity patient simulator: the highest standard of realism in form and function. It is designed for training in performance of cardiopulmonary resuscitation, intensive care, and life-support procedures using a wide variety of possible medical situations.

Human patient simulator height – 183 cm, weight – 70 kg, age – 40-50 years

Highlights

— Automatic blinking, depending on the physiological state of the patient: pupils reacting to light or touching the eyeball

— Physiological virtual model, correlated with the patient's scenario age

— Speech, coughing, moaning, screaming; voice communication with the trainee (imitation of active speech) via a microphone,

— Pulse: 12 points

— Various types of secretion (bleeding, sweating, urination, tears, secretion from ears, nose, mouth)

— Create and edit ECG graphs (add-on software)

— Lips and fingers cyanosis

— Real-time tracking and analysis of CPR performance

— Individual breathing settings for both lungs (right / left)

— Life-like mobility and flexibility of major joints - neck, shoulders, knees, hips, elbows, hands and fingers, feet, etc.

— Convulsions

— Additional elements with imitations of injuries (arms and legs)

— Virtual comprehensive ventilator and anesthesia machines

— Detailed activity log in real time

Imitation of different clinical pictures:

— During Cardiac complications - pressure change, heart rate change, ECG rhythm change, pulsation power, etc. Dislpayed on the bedside monitor.

— During respiratory the introduction andmonitor. maintenance of anesthesia - various complications and critical situations - drug overdose, inflammation, cessation of oxygen supply, failure of mechanical ventilation or NDA, embolism

— During respiratory complications - changing BHD, capnogram, cyanosis, loss of consciousness, speech, various wheezing sounds and many more.

— In case of head trauma, internal injuries of the torso and limbs with different physiological reactions - lack of pupils response, auscultatory pattern on left or right sides, pressure drop (in case of blood loss), convulsions and seizures

LEONARDO Essential
(Advanced Life Support)

**Male/female
Dark/brown/tan
skin**

Development Of Major Medical Skills:

— Perform **cardiopulmonary resuscitation procedure (CPR)** in accordance with 2010-2015 AHA/ERC Guidelines for CPR and defibrillation with or without use of acute care medications and a real defibrillator

— Perform **intubation procedures**, normal and with complications (which includes but is not limited to tongue swelling, laryngeal edema, laryngospasm (requires coniotomy), left/right bronchi obstruction, lockjaw), using a variety of medical instruments such as endotracheal tubes, laryngeal mask airway (LMA), combitube and others

— **Decompression of tension pneumothorax** (right side)

— Perform of **pleural cavity drainage** (right side)

— Perform **intramuscular, intraosseous and intravenous injections** (with type and amount of administered medicine being automatically recognized) by software

— Perform of a **conicotomy procedure**, including making of an incision, the installation of the endotracheal tube, the administration of medicine and the use of an BVM

— Perform cricoid pressure technique (**Sellick's maneuver**)

— **Auscultation** and interpretation of heart, lungs and bowel sounds, and Korotkoff tones, which requires correct positioning of instrument

— Perform of **urethral catheterization** (without liquid)

LEONARDO Essential is a patient simulator: the highest standard of realism in form and function. It is designed for training in performance of advanced life support and intensive care in case of various complications and life-threatening situations.
Human patient simulator height – 183 cm, weight – 70 kg, age – 40-50 years

Highly realistic face (optional)   Dark skin (optional)   Trauma module (optional)   12

Highlights

— Automatic blinking, depending on the physiological state of the patient: pupils reacting to light or touching the eyeball

— Adapter interface for the real defibrillator machinel

— Speech, coughing, moaning, screaming; voice communication with the trainee (imitation of active speech) via a microphone,

— Pulse: 10 points

— Lips and fingers cyanosis

— Extensice ECG-graphs library

— Convulsions

— Life-like mobility and flexibility of major joints - neck, shoulders, knees, hips, elbows, hands and fingers, feet, etc.

— Type and amount of the administered medicine are automatically recognized by software

— Virtual imitation of mechanical ventilation machine

— Detailed activity log in real time

— Real-time tracking and analysis of CPR performance

Development Of Clinical Judgment:

— Addressing the complications in patient health caused by malfunctioning of mechanical ventilation

— Performing of an emergency assistance in case of airways obstruction and /or closure caused by allergic reactions, blockage of the lungs, swelling of the tongue, presence of a foreign object

— Performing of emergency first aid in various critical situations: drug overdose, anaphylactic shock, hyperkalemia etc

— Addressing unforeseen complications in patient health caused by unknown circumstances

— Modification avaliable:
Male/female
Dark/brown/tan skin

Advanced Life Support (Child)

JUNIOR Essential

(Advanced Life Support)

Male/female
Dark/brown/tan
skin

Development Of Major Medical Skills

— Perform **cardiopulmonary resuscitation procedure (CPR)** in accordance with 2010-2015 AHA/ERC Guidelines for CPR and defibrillation with or without use of acute care medications and a real defibrillator

— Perform **intubation procedures**, normal and with complications (which includes but is not limited to tongue swelling, laryngeal edema, laryngospasm (requires coniotomy), left/right bronchi obstruction, lockjaw), using a variety of medical instruments such as endotracheal tubes, laryngeal mask airway (LMA), combitube and others

— **Decompression of tension pneumothorax** (right side)

— Perform of **pleural cavity drainage** (right side)

— Perform **intramuscular, intraosseous and intravenous injections** (with type and amount of administered medicine being automatically recognized) by software

— Perform of a c**onicotomy procedure**, including making of an incision, the installation of the endotracheal tube, the administration of medicine and the use of an BVM

— Perform cricoid pressure technique **(Sellick's maneuver)**

— **Auscultation** and interpretation of heart, lungs and bowel sounds, and Korotkoff tones, which requires correct positioning of instrument

— Perform of **urethral catheterization** (without liquid)

JUNIOR Essential is a high-fidelity patient simulator: the highest standard of realism in form and function. It is designed for training in performance of advanced life support and intensive care in case of various complications and life-threatening situations.
Human patient simulator height – 120 cm, weight – 30 kg, age – 6-8 years

Highlights

— Automatic blinking, depending on the physiological state of the patient: pupils reacting to light or touching the eyeball

— Adapter interface for the real defibrillator machinel

— Speech, coughing, moaning, screaming; voice communication with the trainee (imitation of active speech) via a microphone,

— Pulse: 10 points

— Lips and fingers cyanosis

— Extensice ECG-graphs library

— Convulsions

— Life-like mobility and flexibility of major joints - neck, shoulders, knees, hips, elbows, hands and fingers, feet, etc.

— Type and amount of the administered medicine are automatically recognized by software

— Virtual imitation of mechanical ventilation machine

— Detailed activity log in real time

— Real-time tracking and analysis of CPR performance

Development Of Clinical Judgment:

– Addressing the complications in patient health caused by malfunctioning of mechanical ventilation

– Performing of an emergency assistance in case of airways obstruction and /or closure caused by allergic reactions, blockage of the lungs, swelling of the tongue, presence of a foreign object

– Performing of emergency first aid in various critical situations: drug overdose, anaphylactic shock, hyperkalemia etc

– Addressing unforeseen complications in patient health caused by unknown circumstances

– Modification avaliable:

Male/female
Dark/brown/tan skin

Auscultation

Highlights

— For the «Advanced» version, following options are included: debriefing, demonstration of the phonogram of auscultation sounds, the possibility of combining the ECG and phonogram charts, the possibility of changing the heart rate and BHD with a corresponding change in the dynamics of sound

— More than 20 (35 for the «advanced» version) of the auscultation zones

— More than 30 (50 for the version of «advanced») pre-established clinical cases

— Self-tuning of sounds in different zones

— Reproduction of complex combinations (heart sounds with breathing sounds)

Auscultation of lung souns

– The sound is normal: trachea, bronchial, vesicular, broncho-vesicular

– Noise respiratory: sniffles, snoring, wheezing, stridor, friction of the pleura

– Vocal sounds

– Croupous pneumonia

– Dry low-toned rales

– Dry high-pitched rales

– Crepitus

– Noise of friction of the pleura

– Pulmonary edema

Auscultation of heart sounds

– Normal sound of heart rate,

– Additional third, fourth tone

– Systolic noises

– Mitral regurgitation

– The noise of exile

– Diastolic murmurs

– Aortic stenosis

– Mitral valve insufficiency

– Mitral stenosis

– Atrial septal defect

– Cardiomyopathies

Endovascular simulator

Device Simulation

- More than 30 kinds of virtual endovascular instruments
- Ilmitation of a real C-arm control panel
- Haptic feedback and imitation of catheter guiding resistancel
- Real-time tracking for movements and rotations of tools

Virtual OR

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

Educational Features

- Individual user profiles
- Detailed automatic log of all actions performed during exercise performance
- Course of basic skills training
- C-arm operating training
- Work with real endovascular instruments
- Work with a wide range of virtual instruments
- Customizable training courses
- Extensive educational content
- Standardize, structure and complement hands-on skills training

The simulator's software provides the highest level of detail of the anatomy. Simulation of the endovascular instruments physics, haptic feedback and imitations spreading of X-ray contrast liquids allows the trainee to understand fundamental principles of working with different types of interventions and to improve already existing skills.

AngioVision can be used to acquire and maintain endovascular skills, and is suitable for radiology, cardiology and neuroradiology training. It presents the user with real endovascular instruments and an extensive modules library. On top of that it has the possibility to simulate different types of angiographic imaging, including X-ray with positive, negative and 3D mode, fluoroscopy, cineangiography and DSA (Digital Subtraction Angiography) for roadmapping.

Platforms

AngioVision SMART

- Compact size

- No specific requirements for installation

- Easy transportation

- Complete set of training modules

Compact portable design which can easily and conveniently be placed on any table for training; the perfect solution e.g. in skills centers, workshops and seminars.

AngioVision STANDARD

- Mono- structure

- Wheels for easy transportation

- Different monitors for radiography and fluoroscopy

- Adjusting the height of the workspace

Sophisticated and mobile design, the perfect solution for training rooms and simulation centers

Library Of Modules

1. Balloon angioplasty and stenting
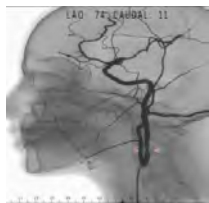
Carotid stenting

Renal stenting

Coronary stenting

Iliac stenting

Femoral stenting

Below the knee stenting

2. Brain interventions
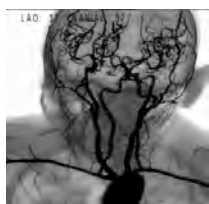
Cerebral vessels stenting
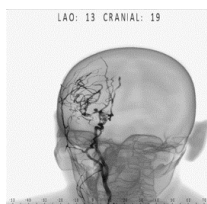
Embolization of intracranial aneurysms

Ischemic stroke

3. Aneurism repair

endovascular aneurism repair (EVAR)

thoracic endovascular aneurism repair (TEVAR)

4. Base course

Catheter training

Guide wire training

Embolization coils training
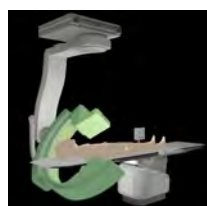
Projections of coronary angiography

Common angiography projections

5. Uterine fibroid embolization

Advanced coronary stenting
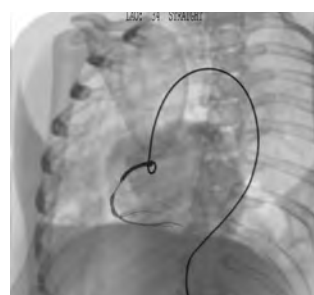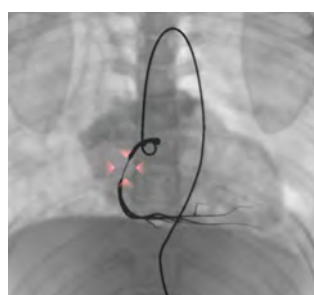
Highlights

Realistic X-Ray

- During the fluoroscopy, the X-ray image reflects the corresponding changes in the current projection of C-arm and patient position

- Movement of blood vessels as a result of heartbeat and breathing leads to the corresponding changes in the X-ray image

- The spreading of the contrast agent through the vascular system can be tracked from the place of its administration to the system, which is determined by the current position of the catheter

- The intensity of the fluoroscopic image depends on the volume of the introduced contrast agent, the speed of input, the time passed since the moment of input
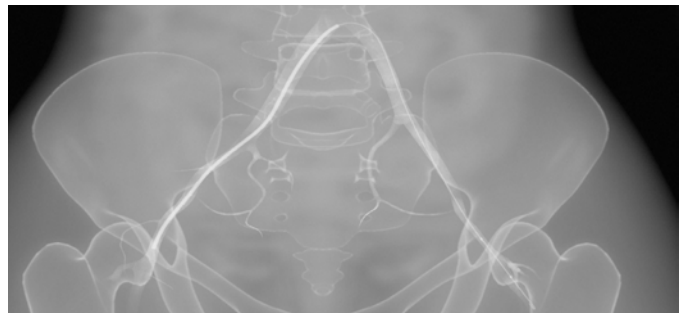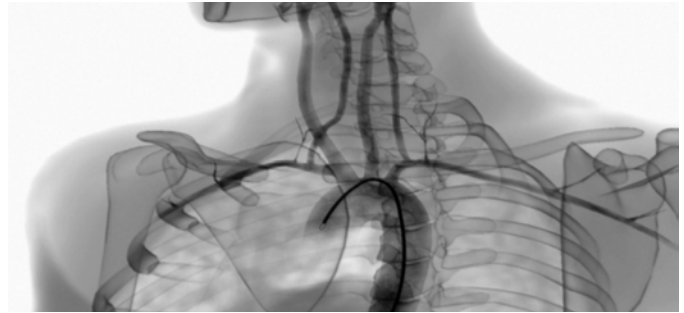
Different position of the catheter

- 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 in order to complete the interventions. At the same time, the software does not limit the choice of the instrument within the framework of the intervention.

During the simulation of endovascular interventions real endovascular instruments (catheters, guidewire,) are used as universal ones.

More than 30 types of instruments are available in the virtual library, with the possibility of choosing from different categories

Endosurgery simulator

Device Simulation

- Wireless universal imitators of laparoscopic instruments
- Magnetic haptic feedback for simulating the resistance of internal organs
- Tracking of longitudinal movements and rotations of tools
- Working with virtual and hardware elements of the laparoscopic stand

Virtual OR

- Three-dimensional anatomical atlas
- Presence of virtual hints, step-by-step instructions and video courses
- Addressing of complications caused by trainee actions or unforeseen circumstance
- Performing operations in the «Free Mode»

Educational Features

- Individual user profiles
- Detailed automatic registration of all actions performed during exercise performance
- Course of basic skills training
- Additional suturing modules
- Extensive educational content
- Standardize, structure and complement hands-on skills training

The simulator's software provides the highest level of detail of the patient anatomy; detailed simulation of the resistance of organs and instruments based on modern magnetic feedback provides realistic tactile perception when performing interventions.

LapVision — can be used to acquire as well as maintain laparoscopic skills, making it a system suitable for trainees and students, as well as for doctors in residency training and a wide range of medical specialists. The educational platform enhances knowledge and technical skills, and improves communicational skills and team work. Simulator can be integrated in any curriculum or training program. Suitable for individual- as well as team training

Platforms

LapVision SMART

- Compact size

- No specific requirements for installation

- Easy transportation

- Additional training modules can be installed later

Compact portable design which can easily and conveniently be placed on any table for training; the perfect solution e.g. in skills centers, workshops and seminars

LapVision STANDARD

- Mono structure

- Wheels for easy transportation

- Different monitors for endoscope and instruments controls

- Adjustable workspace height

Sophisticated and mobile design with; the perfect solution for training rooms and simulation centers

Endosurgery simulator
Library Of Modules
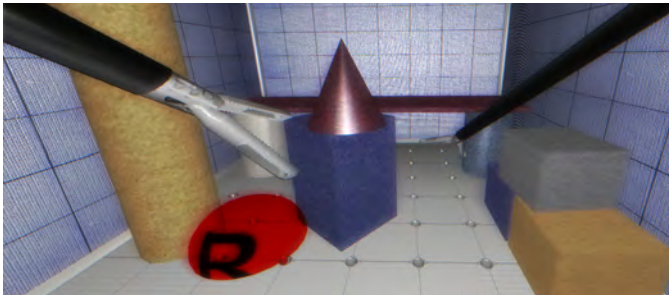
1. Basic skills in endoscopic surgery

- Control of camera with different viewing angles (0 °)
- Control of camera with different viewing angles (30 °)
- Hand coordination in space
- Instrument control skills
- Vessel clipping and capturing
- Instrument coordination in space
- Electrocoagulation operating skills
- Movement of objects in space
- Capturing of objects in space

2. Certain important skills in laparoscopy

- Movement of objects in space
- Movement of pins and objects on pins
- Endoscopic scissor handling (examitaion)
- Endoscopic scissor handling (training)
- Endo clip applicator handling

3. Complex of training tasks on suturing and knotting

- Square knot tying left hand
- Square knot tying right hand
- Surgical knot tying left hand
- Surgical knot tying right hand
- Interrupted (loop) suturing technique
- Interrupted (loop) suture for curved incision
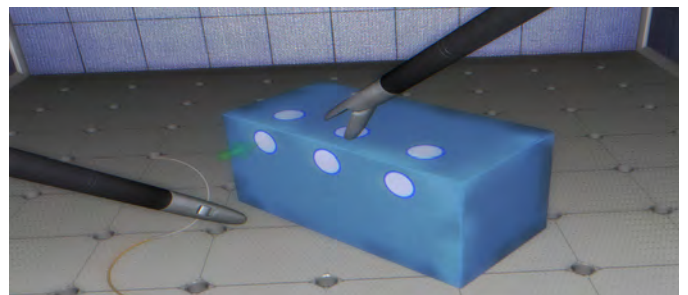
4. Special critical skills of suturing and knotting

- Needle orientation in the needle holder
- Needle suturing left hand
- Needle suturing right hand
- Square knot tying on a thread without needle
- Surgical knot tying on a thread without needle
- Z-stitch overlaying
- Mattress suturing
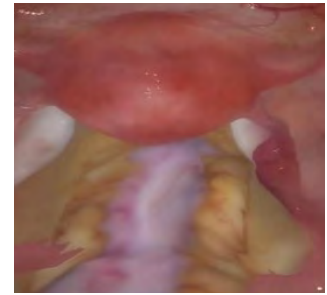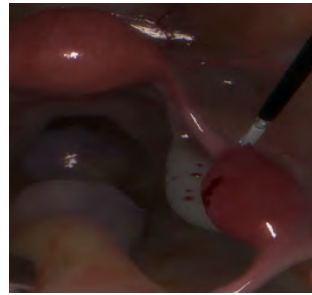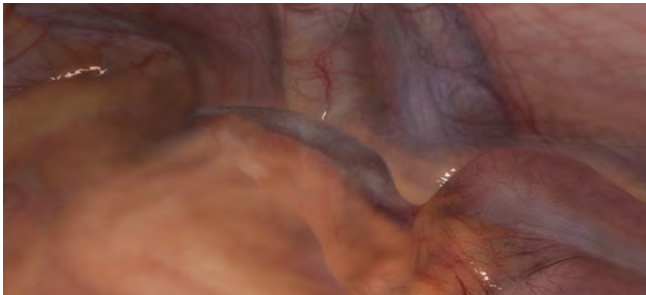
5. Diagnosis of abdominal cavity

- Ovarian cyst
- Ectopic pregnancy
- Appendicitis
- Cholecystitis
- Perforated duodenal ulcer

6. Skills in gynecological surgery

- Tubal sterilization
- Tubotomy procedure in the isthmic of the right tube
- Tubotomy procedure in ampullar part of the right tube with active bleeding
- Tubotomy procedure in the isthmic of the left tube
- Tubotomy procedure in ampullar part of the left tube with active bleeding
- Oophorectomy
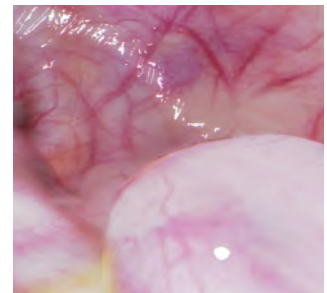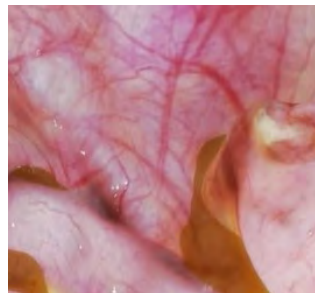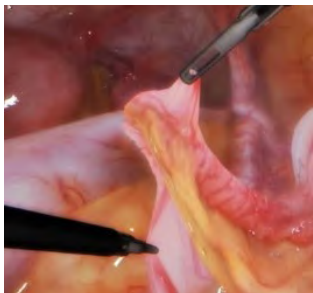
7. Execution of laparoscopic appendectomy

- Acute phlegmatic appendicitis
- Acute appendicitis with exudate appendicitis
- Acute appendicitis in pregnant women
- Acute appendicitis with retrotic positioning
- Gangrenous appendicitis with effusion and local peritonitis
- Acute phlegmatic appenitocyte with local peritonitis

8. Small bowel acute adhesive obstruction:

- Acute intestinal obstruction, adhesion on ileum
- Acute intestinal obstruction, adhesion on jejunum

Library Of Modules
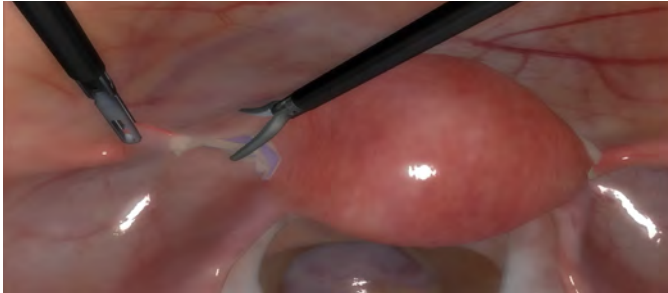
9. Execution of total hysterectomy

- Total laparoscopic hysterectomy
- Partial hysterectomy
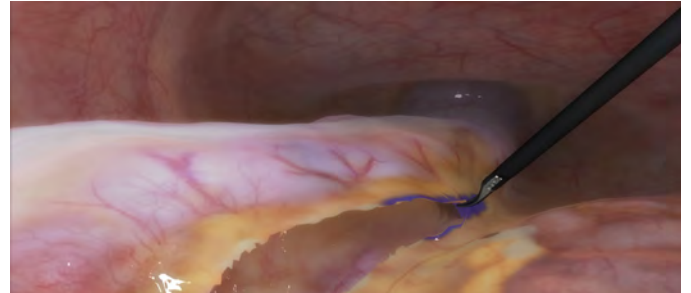
10. Sigmoid colon resection

- Cutting vessels, mobilization and intersection of the sigmoid colon
- Anastomosis
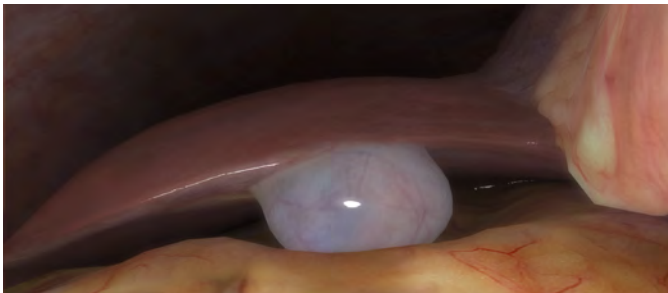
11. Skills in laparoscopic cholecystectomy

- Traction and dissection of the peritoneum • Dissection of structures in Calot's triangle
- Clipping and cutting of cystic artery and cystic duct
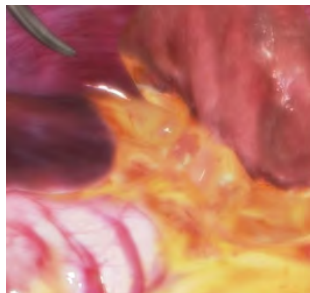- Mobilization of the gallbladder

12. Full procedure of laparoscopic cholecystectomy

- Planned cholecystectomy with acute catarrhal cholecystitis
- Cholecystectomy with phlegmonic cholecystitis
- Urgent cholecystectomy with gangrenous cholecystitis with local peritonitis
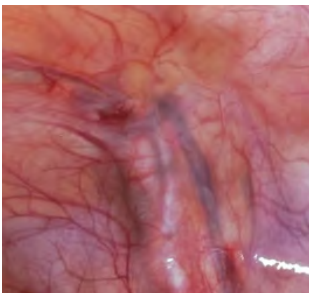
13. Hernioplasty

14. Splenectomy
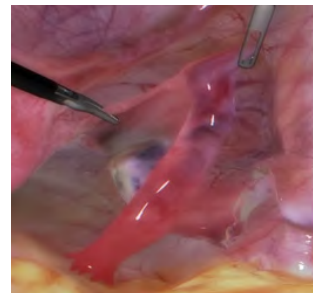
15. Salpingo oophorectomy
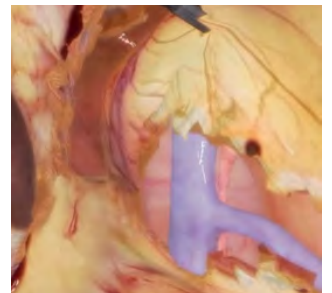
16. Nephrectomy

Highlights

Realistic anatomy

- Internal organs and abdominal cavity are modeled using footage from real surgeries

- Internal bleeding, that occurs during the exercise performance, leads to changes in the patient's condition, including possible death

- When performing coagulation or dissection, the tissues of the internal organs change and react accordingly.

- Fluids (from unaddressed bleeding and using of irrigation) are accumulated in the abdominal cavity and must be aspirated.
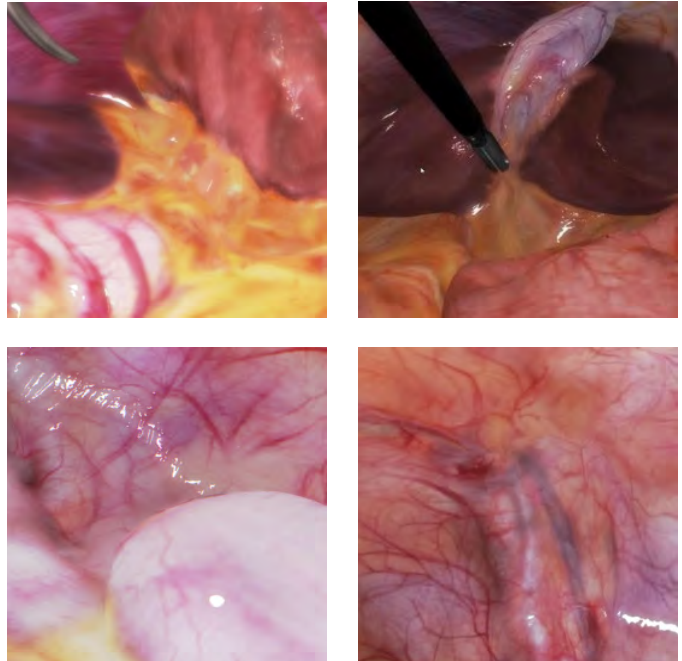
Different viewing angles

- Three viewing angles (0°, 30°, 45°)

- Use of different camera angles lead corresponding changes in the visualized area

- Change of endoscope view angles during the intervention

Library of instruments

In each exercise, several instruments can be used in order to complete the interventions. At the same time, the software does not limit the choice of the instrument within the framework of the intervention.

While using power tools, for example when coagulating, the trainee can adjusts the power and frequency of the discharge.

More than 20 types of instruments are available in the virtual library, with the possibility of choosing from different categories

Bronchoscopy simulator

Device Simulation

- Work with real (adapted) bronchoscope
- Magnetic haptic feedback for simulating the resistance of internal organs
- Tracking of longitudinal movements and rotations of tools
- Working with virtual and hardware elements of the endoscopic stand (ENSIM.H.LPR)

Virtual OR

- Three-dimensional anatomical atlas
- Studying of real rx-ray images
- Presence of virtual hints, step-by-step instructions and video courses
- Addressing of complications caused by trainee actions or unforeseen circumstance

Educational Features

- Individual user profiles
- Detailed automatic registration of all actions performed during exercise performance
- Course of basic skills training
- Execution of different approach to performing interventions, depending on the patient's age group of the
- Extensive educational content
- Standardize, structure and complement hands-on skills training

The simulator's software provides the highest level of realism and detail of the lung anatomy; detailed simulation of the resistance of organs and instruments based on modern magnetic feedback provides realistic tactile perception when performing interventions.

BronchoVision is the virtual reality simulator for teaching and training practical skills in bronchoscopy. Simulator can be used to acquire as well as maintain bronchoscopic skills, making it a system suitable for trainees and students, as well as for doctors in residency training. It is deal for training bronchoscopic procedures, including diagnostics with samples obtaining, bleeding arresting, foreign bodies removal, masses removal, stenting, bronchial lavage and mediastinal lymph nodes puncture.

Library Of Modules

1. Basic skills in bronchoscopy
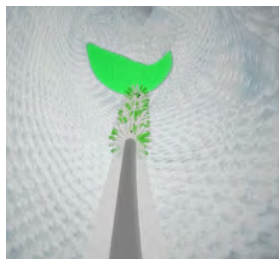
Handling of bronchoscope

Knowledge of the bronchial tree anatomy

Handling of bronchoscope (in bronchial tree anatomy)
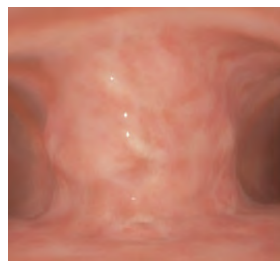

Endoscopic instrument handling
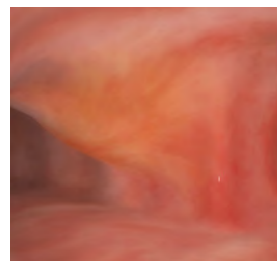
2. Diagnostic bronchoscopy

Base diagnostic

Base diagnostic

Children procedures
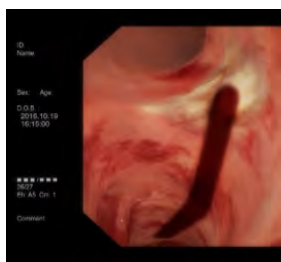
3. TBNA

Exercises for training TBNA

Type 1

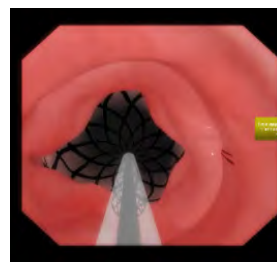
Exercises for training TBNA

Type 2

4. Therapeutic bronchoscopy

Extraction of foreing objects

Addresing of lung bleeding

Endoloop-Assisted Polypectomy

Stenosis of the trachea (stenting)

Stenting

Bronchoalveolar lavage

stenosis of the trachea (dilatation)

Highlights

Realistic anatomy

- Bronchial tree and lungs are modeled on the basis of data from real patients

- The intensity of the image depends on the position of the endoscope camera, the power of illumination and the level of contamination of the lenses

- Internal bleeding that occurs during the operation leads to changes in the patient's condition, including possible death
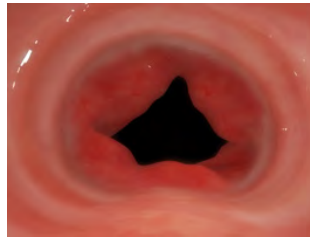

3D Anatomy Atlas

- Interactive model of the lung and bronchological tree

- Tracking the position of tools during the execution of an intervention

- Display of the target area on an interactive model and radiographic image
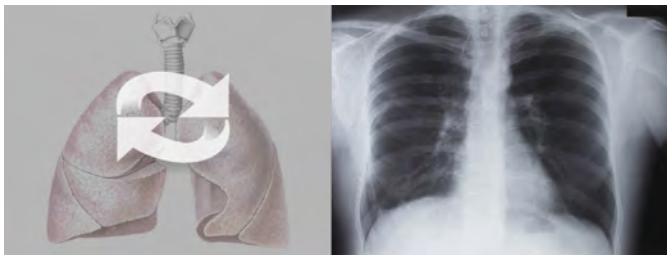
Library of instruments

In each exercise, several instruments (including one honed for the child's anatomy) can be used in order to complete the interventions. At the same time, the software does not limit the choice of the instrument within the framework of the intervention.
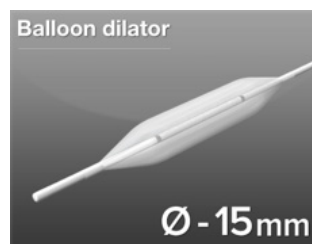
During the exercise performance, universal imitators of endoscopic instruments are introduced through special ports of the bronchoscope

More than 10 types of instruments are available in the virtual library, with the possibility of choosing from different categories

Hysteroscopy Simulator

Device Simulation

- Work with real (adapted) hysteroresectoscope
- Magnetic haptic feedback for simulating the resistance of internal organs
- Service screen for managing the elements of the virtual endoscopic stanf (STANDARD)

Virtual OR

- Three-dimensional anatomical atlas
- Presence of virtual hints, step-by-step instructions and video courses
- Addressing of complications caused by trainee actions or unforeseen circumstance
- Use of different camera angles lead corresponding changes in the visualized area

Educational Features

- Individual user profiles
- Detailed automatic registration of all actions performed during exercise performance
- Course of basic skills training
- Extensive educational content
- Standardize, structure and complement hands-on skills training

The simulator's software provides the highest level of realism and detail of patient anatomy detailed imitators of instruments - based as well as magnetic feedback provides realistic tactile perception when performing interventions

HystVision is the virtual reality simulator for teaching and training practical skills hysteroscopy. Simulator can be used to acquire as well as maintain existing skills, making it a system suitable for trainees and students, as well as for doctors in residency training. It is deal for training in different procedures, including diagnostics with samples obtaining, bleeding arresting, foreign bodies' removal, masses removal, stenting etc

Platforms

Hyst VIsion SMART

- Compact size

- No specific requirements for installation

- Easy transportation

- Complete set of training modules

Compact portable design which can easily and conveniently be placed on any table for training; the perfect solution e.g. in skills centers, workshops and seminars

Hyst Vision STANDARD

- One-piece structure

- Wheels for easy transportation

- Adjusting the height of the workspace

- Hysteropump service monitor

- Instrument holder

Sophisticated and mobile design with a wheel cart and an electronically adjustable display and working height; the perfect solution for training rooms and simulation centers

Library Of Modules

1. Basic Skill
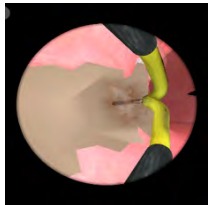
Hysteroscopy pump use
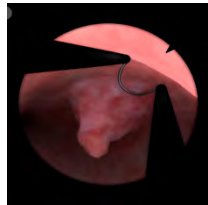
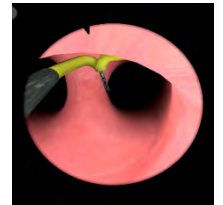Camera (0°) handling exercise
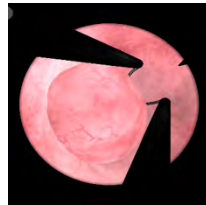
Camera (30°) handling exercise
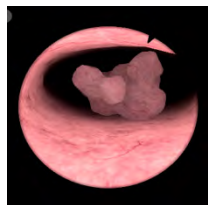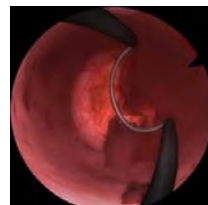

Biopsy sample obtaining
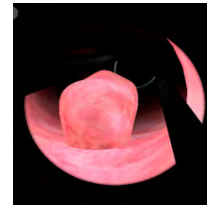
Polypectomy (base)

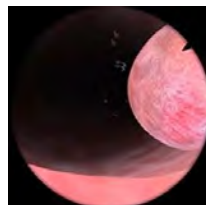Resection of the intrauterine partition

2. Clinical Hysteroscopy

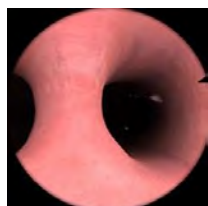Diagnostic hysteroscopy

Polypectomy (advanced)

Hysteroscopic myomectomy with submucous uterine myoma

Endometrial ablation

3. Extended resection

Highlights

Realistic anatomy

- Virtual anatomy modeled on the basis of data obtained from real patients

- The intensity of the image depends on the position of the endoscope camera, the power of illumination and the level of contamination of the lenses

- Internal bleeding that occurs during the operation leads to changes in the patient's condition, including possible death
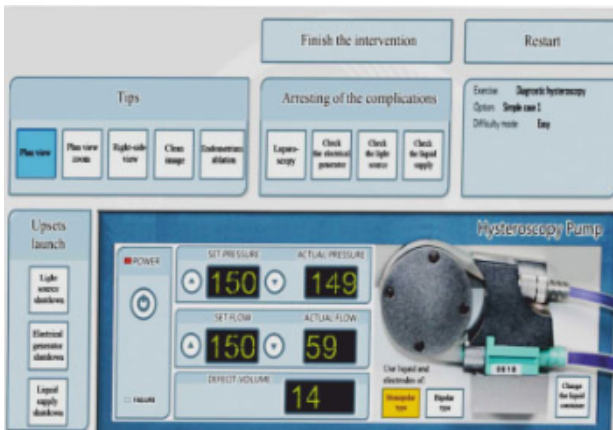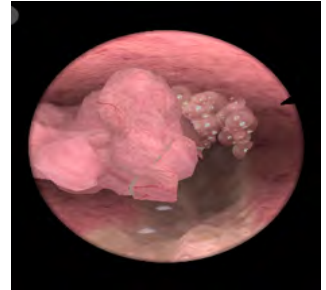
Hysteropump

- Indication of operating modes, pressure level in the cavity

- Smooth adjustment of the rate of liquids irrigation and aspiration

- Possibility of equipment mailfunction and concomitant complications in the patient's condition

Library of instruments

The specially adapted simulator of the hysteroresectoscope is used for a performance of exercises. In each exercise, several instruments can be used in order to complete the interventions. At the same time, the software does not limit the choice of the instrument within the framework of the intervention.

During the exercise performance, universal imitators of endoscopic instruments are introduced through special ports of the hysteroresectoscope.

More than 10 types of instruments are available in the virtual library, with the possibility of choosing from different categories