

# Laparoscopic ADAM-X

## Surgical Patient Simulator



**MEDICAL-X**  
ADVANCING SIMULATION



## The Laparoscopic ADAM-X

**Laparoscopic ADAM-X** is a high-fidelity full-body surgical patient simulator! Faithful reproduction of a man's anatomy and physiology, Laparoscopic ADAM-X is our highest fidelity manikin with a specially designed abdomen for the insertion of trocars and laparoscopic instruments, allowing the students to practice their laparoscopic skills using real devices.

With a software that includes an Anesthesia Machine Simulator, Laparoscopic ADAM-X is not just a laparoscopic simulator; it's a real patient under surgery!





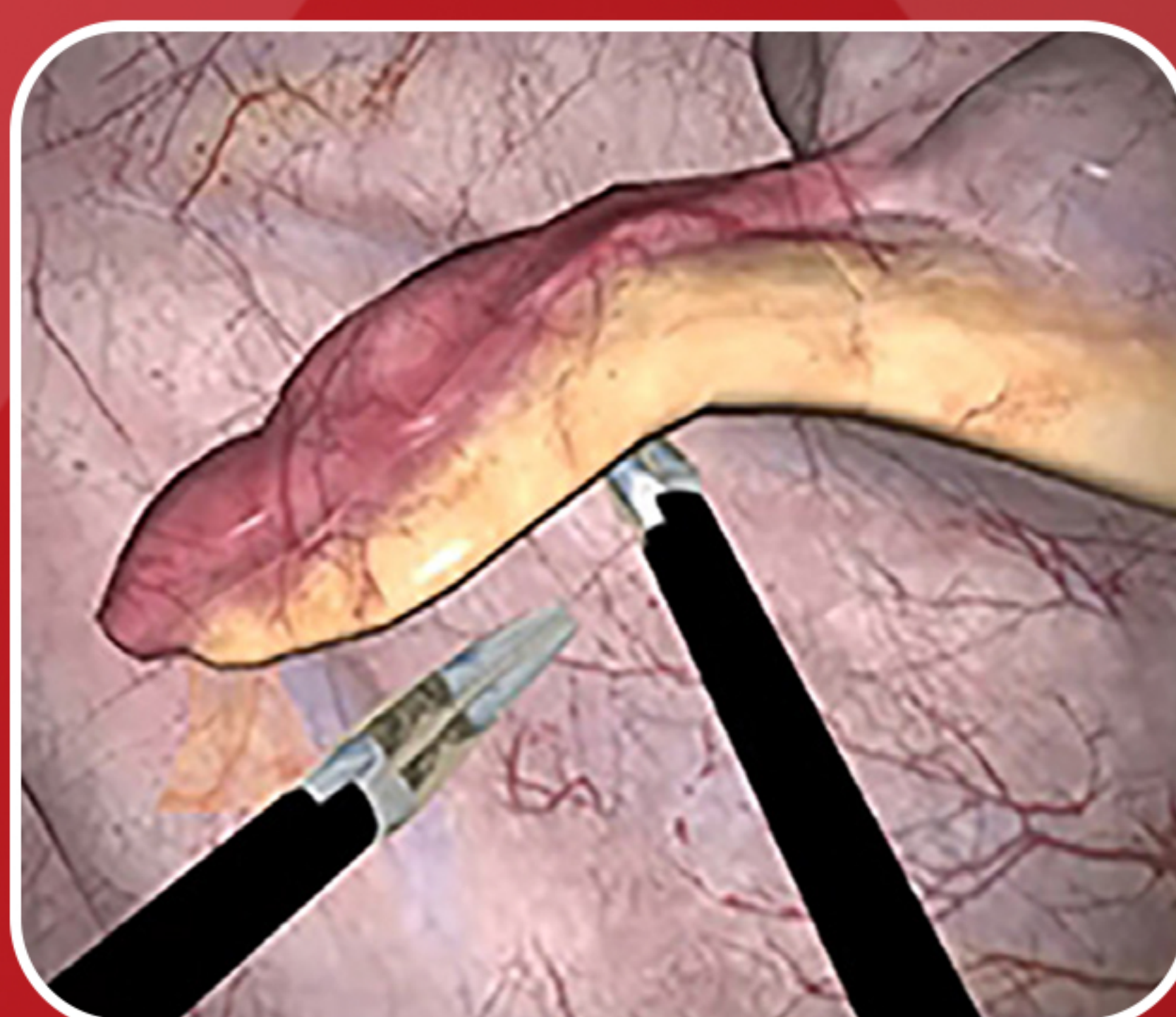
## LAPAROSCOPIC TRAINING

The Laparoscopic ADAM-X has a specially designed abdomen for the insertion of trocars and laparoscopic instruments, allowing the students to practice their laparoscopic skills in two different ways:

**1.** By using a real laparoscopic device, ADAM's abdomen can be used as a traditional box trainer, with endless possibilities of exercises;



**2.** And using our laparoscopic surgical simulator LAP-X in Virtual Reality mode, students can practice several motor skills exercises, have a realistic experience in an anatomical environment, and practice actual surgical laparoscopic procedures.



In both modes, the students practice with real laparoscopic graspers, developing manual dexterity, hand-eye coordination, and laparoscopic depth perception.



## User interface

**Command-X** is our user-friendly touchscreen interface, offering manual and automatic modes. The instructor can control scenarios and parameters by wireless operation and remote control.

### Scenario Editor

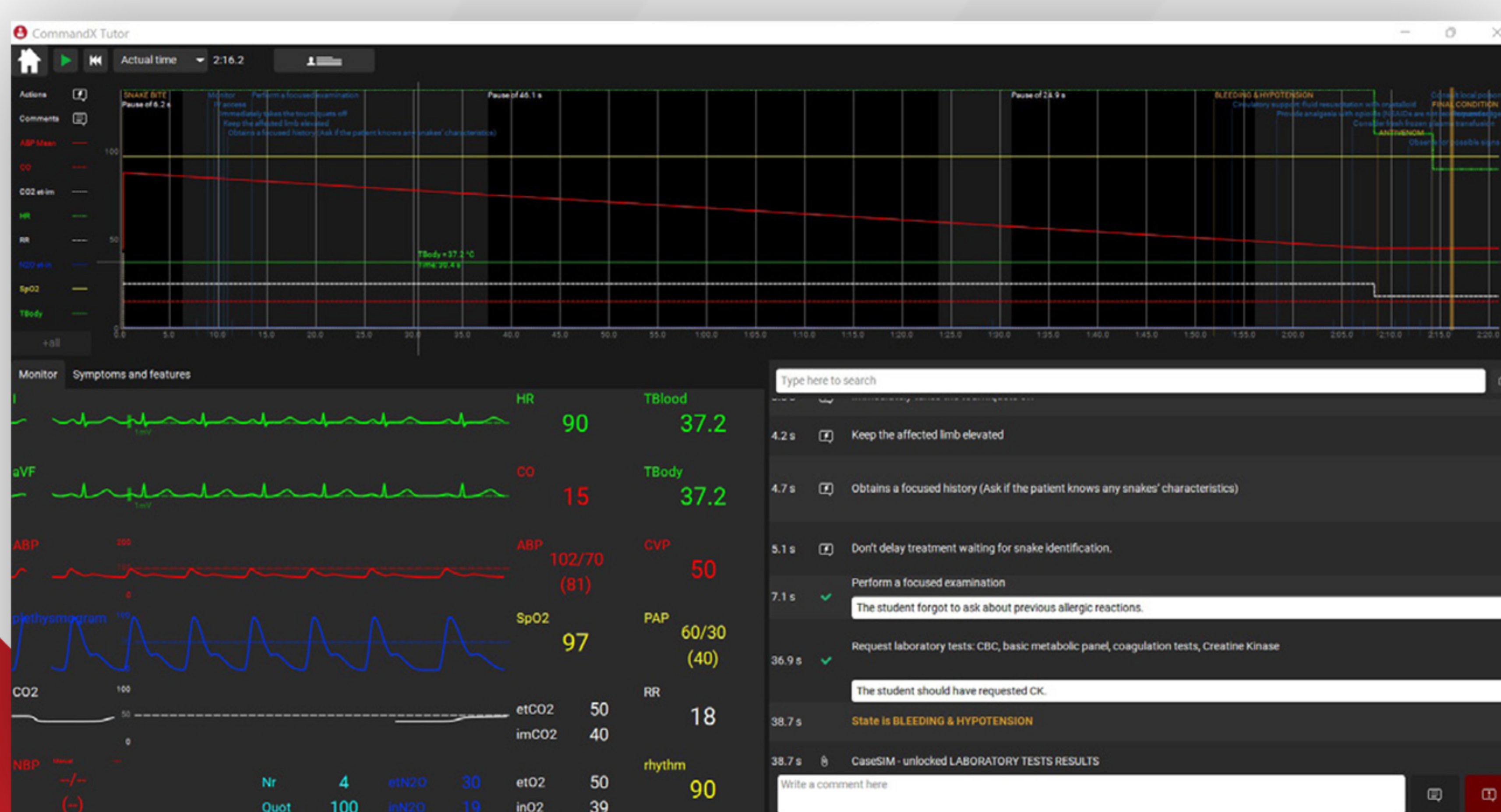
15 pre-programmed evidence-based scenarios that can be easily edited + Scenario Editor to create your own completely customizable scenarios.

### Debriefing

All states, actions, activities, and added comments during a scenario or CPR training are logged in for posterior debriefing.

### Multi-parameter patient monitor

From basic vital signs to advanced monitoring parameters, the wireless bedside monitor displays all the patient's information.





## Anesthesia Machine

The MEDICAL-X Anesthesia Machine Simulator is an interactive simulation model of an Anesthesia Machine and ventilator for medical training purposes.

It was carefully designed to display the main features of an Anesthesia Machine, preparing learners for using real devices. Combined with Command-X and our Patient Monitor, it's possible to gather the device training with clinical scenarios and patient's vital signs changes, allowing clinical reasoning training.



### User interface:

Enables you to view and change monitoring, ventilation, and status information using keys

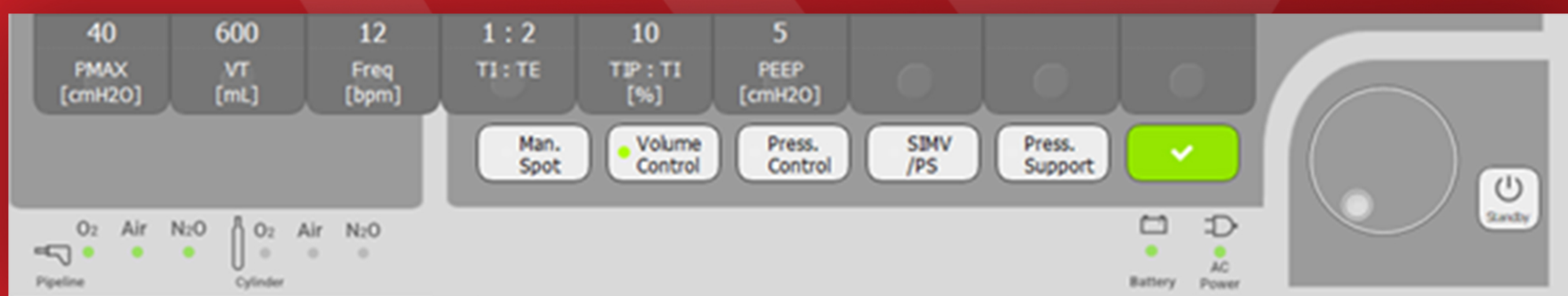
### Anesthetic agents' vaporizers



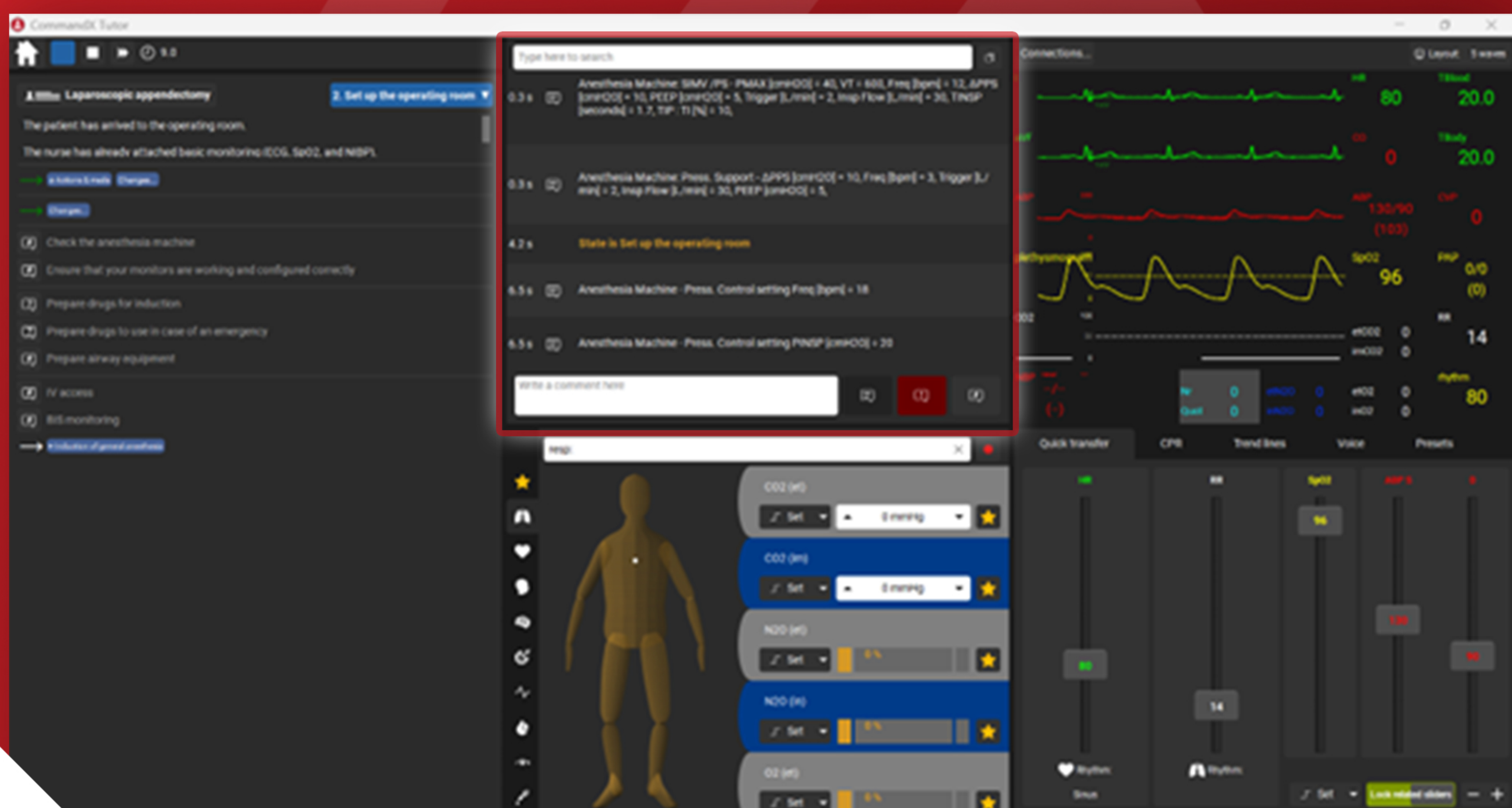


The Anesthesia Machine Simulator supports the most common ventilation modes in order to provide the students with an overview of the main ventilation parameters:

- Manual/Spontaneous ventilation
- Volume-controlled ventilation
- Pressure-controlled ventilation
- Synchronized intermittent mandatory ventilation
- Pressure Support



Real-time communication with Command-X: All actions are logged in for posterior debriefing:



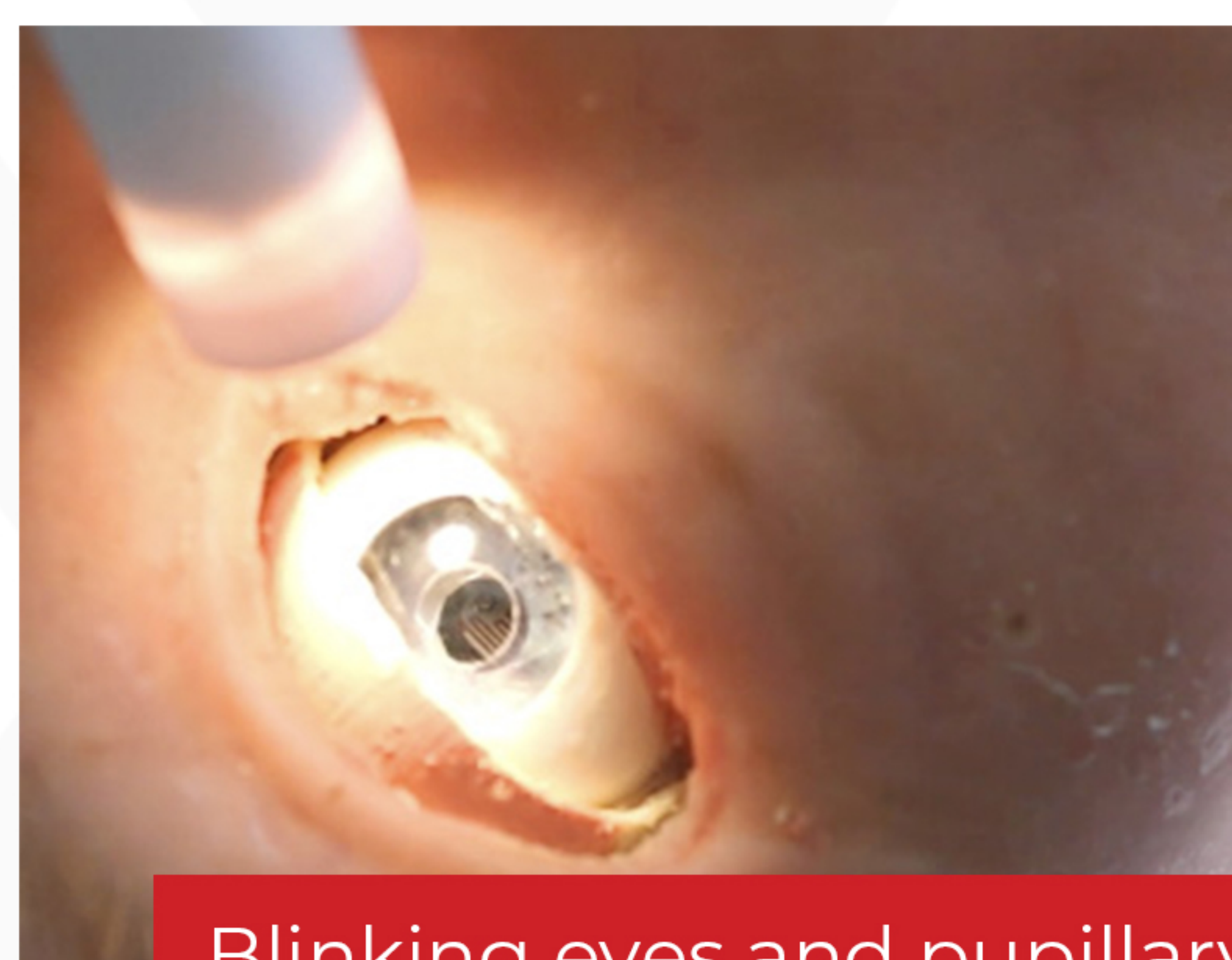


## General | Laparoscopic ADAM-X

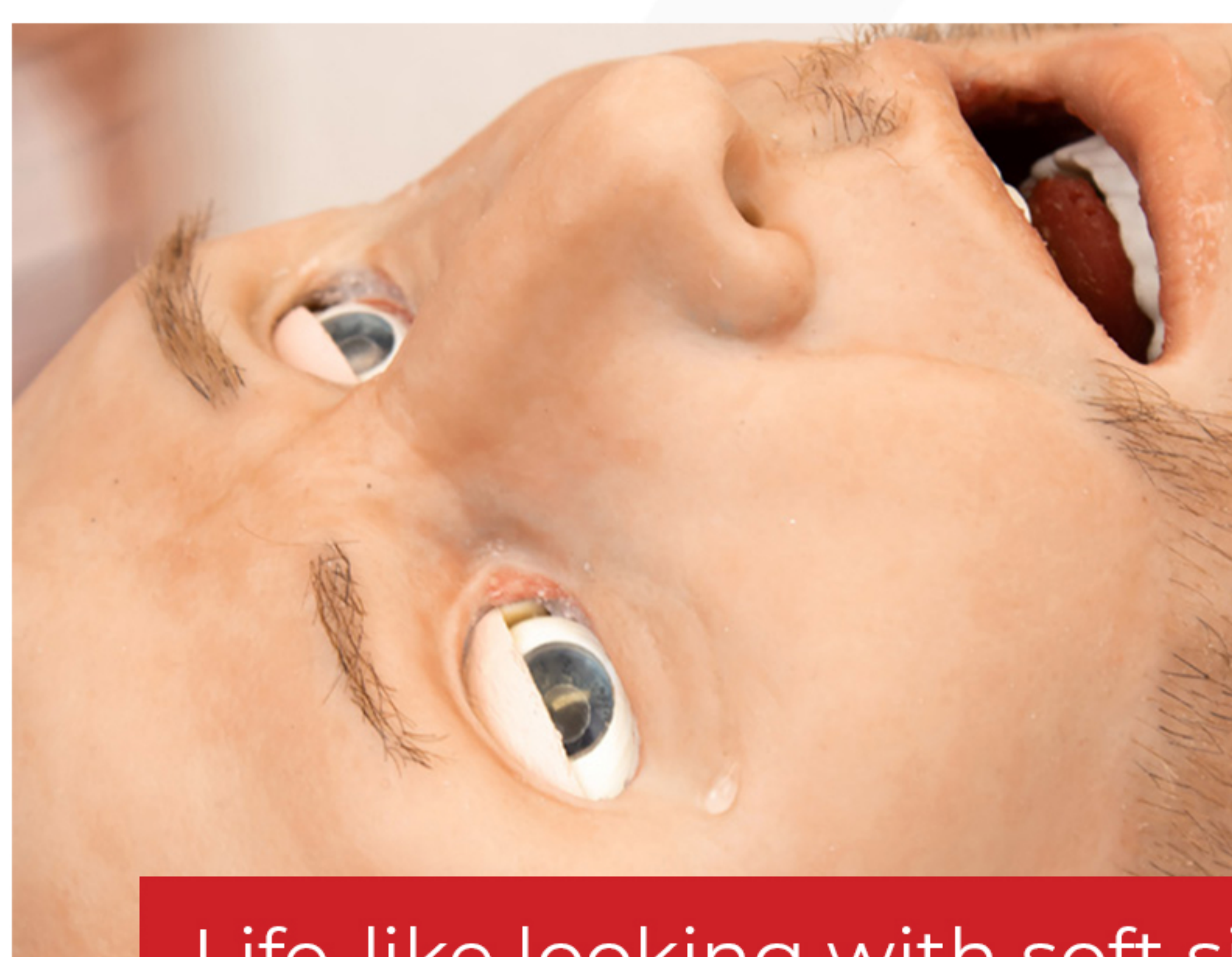
**Laparoscopic ADAM-X** has flexible joints and a human-like soft skin made with our unique special silicone blend.



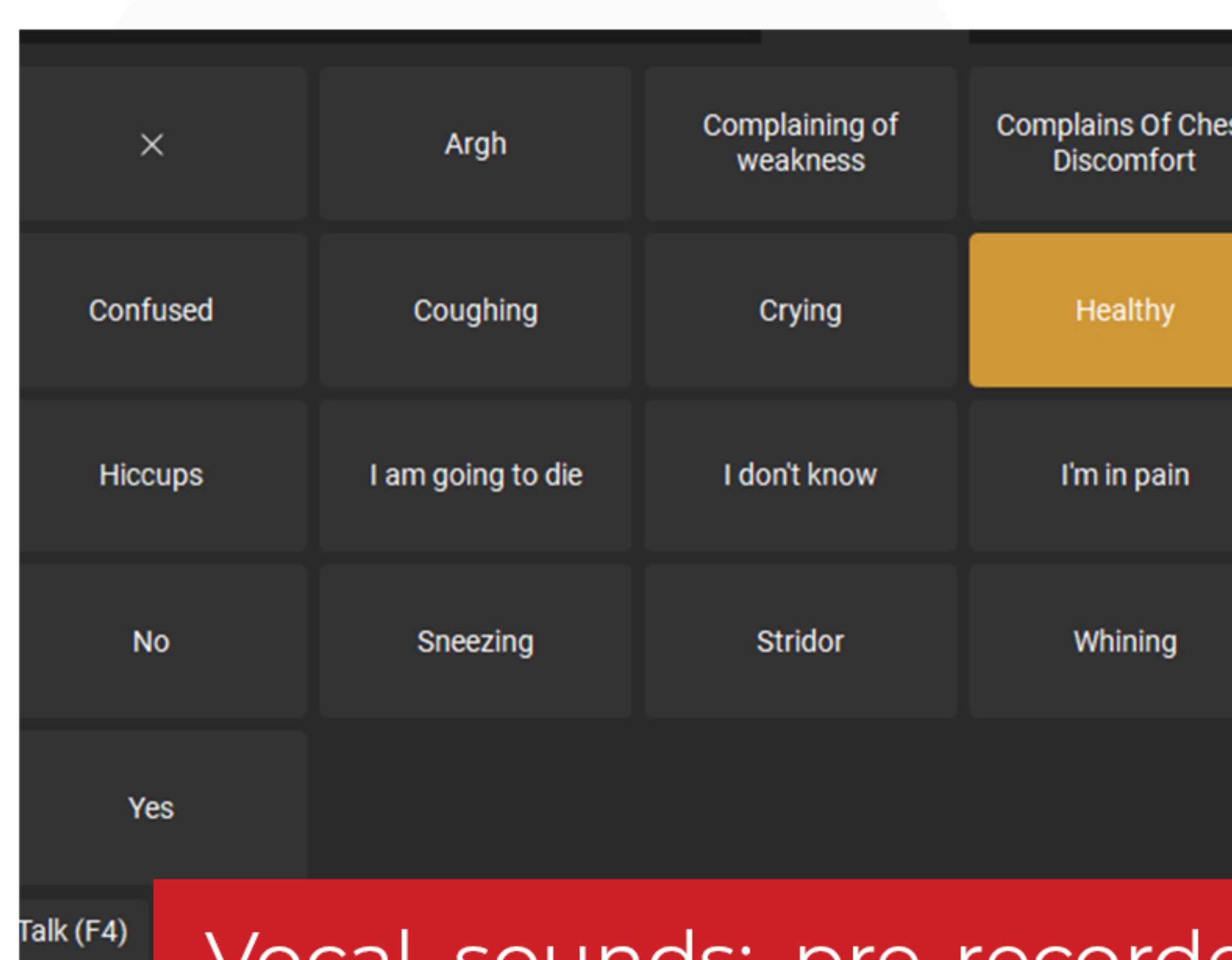
Visual clinical conditions coloring ADAM's face and fingers



Blinking eyes and pupillary light reflex



Life-like looking with soft silicone skin



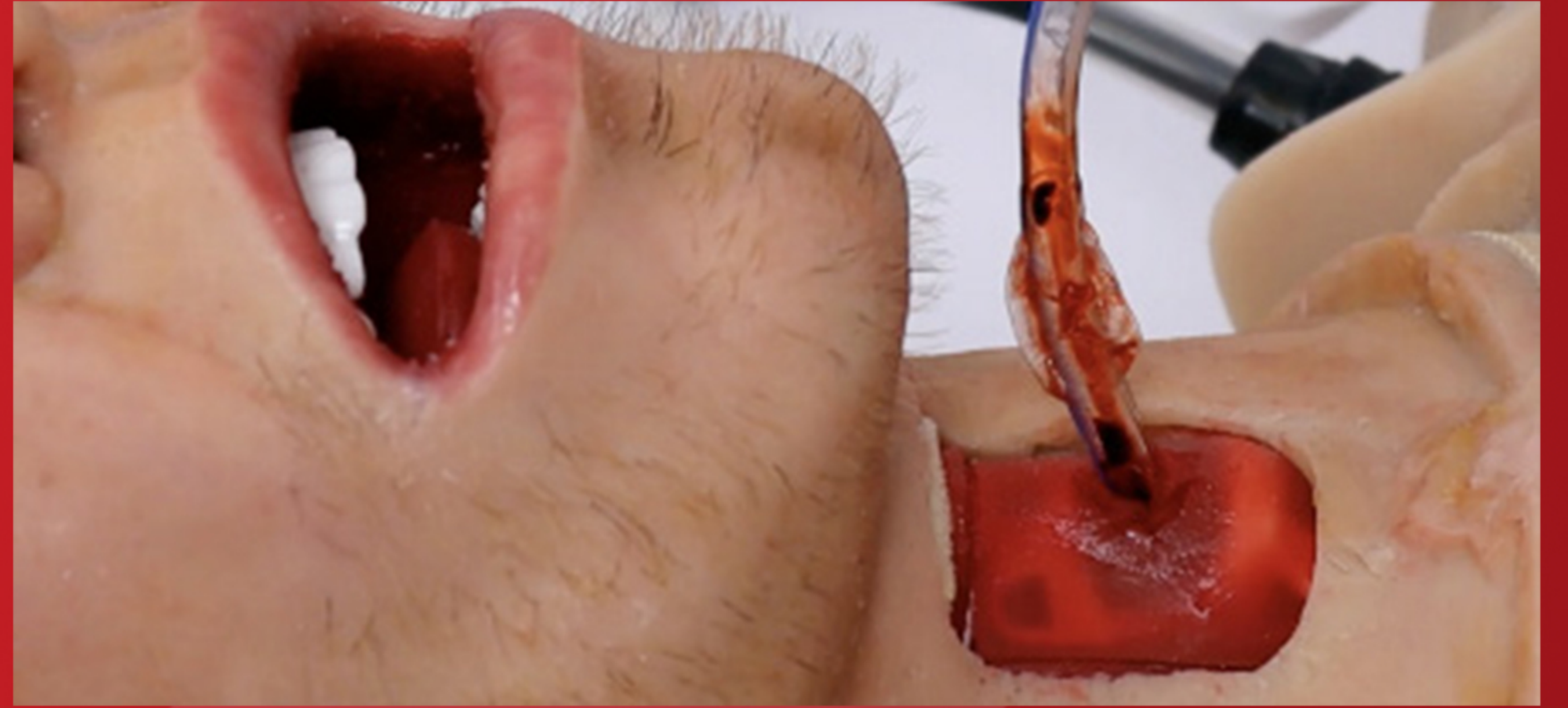
Vocal sounds: pre-recorded and voice reproduction wirelessly

### Tetherless and Wireless

With internal electrical power and air compressor, Laparoscopic ADAM-X is fully operational on battery power.



## Airway



### **Needle and surgical cricothyrotomy** with realistic bleeding



### **Basic and Advanced Airway Training**

- Correct airway anatomy
- Airway maneuvers: head tilt, chin lift, and jaw thrust
- Airway management with multiple devices
- Airway complications: swollen tongue, pharyngeal and laryngeal edema



## Breathing

With an accurate **pulmonary system**, Laparoscopic ADAM-X can breathe spontaneously with variable rate and depth, be ventilated with bag-valve-mask, or be attached to real mechanical ventilators.



## Pneumothorax and bilateral **needle decompression**



### Other pulmonary features:

- Variable lung compliance and airway resistance
- Auscultation of the lungs
- Chest tube placement





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## Cardiovascular



**Bluetooth stethoscope** for auscultation of heart, lungs, and abdominal sounds



Blood pressure measurement with a real cuff and audible **Korotkoff sounds**

- 14 sites to palpate **central and peripheral pulses**
- Pulses strength varies with blood pressure
- Pulses palpation **detected by sensors** and recorded by the software









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And much more...



**IV injections** administration and automatic drug recognition. Supplied with more than 50 syringes



**Urethral catheterization**

**Intraosseous Access** in the tibia and humerus





## The entire team train together!

Providing safe and high-quality surgical care requires a multifaceted approach provided by a multidisciplinary team of surgeons, anesthesiologists, nurses, and other healthcare professionals.

Besides allowing the training of several technical skills, Laparoscopic ADAM-X is also an effective tool for improving teamwork dynamics.

It's possible to create endless surgical scenarios and simulate realistic situations in a safe environment. During all stages of perioperative care, multidisciplinary teams are expected to work interdependently and collaboratively to meet the needs of the patient and manage emergency situations with confidence.

Training surgical scenarios with Laparoscopic ADAM-X allows the training of all the healthcare team involved in the enormous responsibility of caring for a patient under surgery.





## Contact us

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## Warranty

While we're confident that the MEDICAL-X's products are highly user-friendly, we also understand that this is an advanced product with the need for strong support and service. That's why we provide application training and guarantee the product for two years.

Additional service packages can also be delivered.





## About Medical-X

MEDICAL-X is a Dutch company specialized in the design, development, manufacturing, marketing and distribution of simulation products for medical teaching and training.

Our mission is to provide healthcare professionals with simulation-based training solutions and cutting-edge technological simulators that are cost-effective and time-efficient to teach and train clinical skills without risk to actual human patients.

## Design philosophy

Realism is the key to our design philosophy! Simulator training gives medical teams the experience, competence, and confidence they desire. Realism adds to the quality and efficacy of training.

Our products are developed through extensive feedback programs to produce an engaging experience for healthcare professionals. Form and function come together in a realistic and interactive simulator, ready to be used in training for all levels of care.





# MEDICAL-X

Contact us



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