Pericardiocentesis
Intercostal palpable ribs
Chest compression
ECG
Defibrillation
Pacing

Blinking eyes
Variable pupil size
Tearing and secretions from eyes and mouth

Realistic airway
Breakaway teeth
Voice
Trachea with realistic anatomical landmarks
Bilateral carotid pulse

Pneumothorax decompression
Independent chest excursion
Breath sounds
Heart sounds
Pericardiocentesis
Intercostal palpable ribs
Chest compression
ECG
Defibrillation
Pacing

Bilateral brachial pulse
IM injection
Chest tube with fluid output
Bilateral brachial pulse
IV cannulation with flashback

Peritoneal lavage
Bowel sounds

Bilateral femoral pulse

Interchangeable genitalia
Urinary output

Instructor's workstation with Müse

ECS® Emergency Care Simulator
Affordability, Versatility and Dependability
The anatomically correct, feature-rich mannequin supports the physical demonstration of various clinical signs, including bleeding, breathing, blinking eyes and convulsions. But that only goes skin deep. The real beauty of the ECS lies beneath the surface where the unique physiological and pharmacological models are working to deliver automatic, life-like responses to clinical conditions and therapeutic interventions.

Only CAE Healthcare’s physiological models provide clinically accurate responses to interventions based on the nature of the patient’s condition. This is vital to a truly authentic and objective medical learning experience. CAE Healthcare simulators – relying on accurate observations of the heart, lungs and nervous system – set a standard in healthcare education that no other company can match.

**ECS**

Built with the sophisticated technology behind the gold standard HPS, the ECS is CAE Healthcare’s best selling wired patient simulator, and a cost-effective and reliable training solution for nursing, EMS agencies, hospitals, the military and health science education. The ECS includes a complete hemodynamic monitoring package, a life-like intubation head and automatic physiological responses to medical interventions and medications.

- **Bilateral popliteal pulse**
- **Bilateral dorsalis and tibialis pedis pulses**
- **TouchPro monitor and software**
Müse Makes Simulation Easy

Operating ECS is quick, easy and intuitive with Müse. With three levels of control of CAE Healthcare’s physiological modeling, Müse allows instructors to run scenarios, modify patient parameters or operate the simulator on-the-fly. Enjoy the freedom and versatility to use Müse away from the simulation lab with four additional licenses for any Mac or PC.

- Scenarios automatically load as part of the SCE. Scenario states and progression can be controlled directly from the Run Screen.
- Patient reset button allows you to quickly return to the patient’s original baseline physiology without having to restart the SCE.
- Parameter controls allow you to operate on-the-fly by adjusting model parameters and using overrides.
- Recent Event Logs on the Run Screen keep you updated, while complete event and physiological data is logged in the SCE history.
- Patient status display can be customized to show vital signs, cardiac output, respiratory status and more, including SpO₂, ECG and capnogram.
- Simulated Clinical Experiences (SCEs) bundle ready-to-go patient, scenarios, educational content and setup preferences to automatically load together when you run an SCE.
- SCE timeline provides the ability to place bookmarks throughout an SCE and to return to the patient’s bookmarked physiology at any point.
Navigate controls by clicking the patient diagram.

Password protected multi-user system allows institutions to set privileges of users and operators.

Quick Links allow an instructor to change a patient’s physiology in an instant. Run the same scenario with a stable or unstable patient to challenge learners’ critical thinking skills.

Layer conditions, administer medications and record interventions directly from the customizable Quick Link menus.

Extensive drug library is integrated with physiology.

Medication Monitor shows current concentration of any administered medication in the patient. Administered drugs can be “reset,” immediately removing all effects of the medication from the patient for learning purposes.

TouchPro Simulated Patient Monitoring Software

Müse comes with the TouchPro Patient Monitoring software that looks and acts just like a real-world patient monitor including touch-screen capability and capnography.

- Operates wirelessly or via wired Ethernet
- Can be run on a touch-screen computer or tablet
- Waveforms and numeric vitals can be changed with drag and drop simplicity
- Can display up to six waveform traces and four numeric vitals
- Web browser-based for PC or Mac

Waveform Selection
- 12-Lead ECG — Adults
- Arterial Blood Pressure
- Central Venous Pressure
- Pulse Oximetry Graph
- Capnogram

Numeric Selection
- Heart Rate
- Pulse
- Arterial Blood Pressure
- MAP
- NIBP
- Pulmonary Artery Pressure
- PCWP
- Central Venous Pressure
- Continuous Cardiac Output
- Thermodilution Cardiac Output
- Respiratory Rate
- SpO₂
- PAO₂
- PaO₂
- PaCO₂
- EtCO₂
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- Blood Temperature
- Axillary Temperature
- Rectal Temperature

NEW!
12-lead ECG waveform capability for adult patient simulators


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ECS Clinical Features

CIRCULATORY SKILLS AND IV ARM
Right IV training arm with replaceable skin and veins:
- IV insertion into peripheral veins of forearm, antecubital fossa and the dorsum of the hand
- Simulated blood flashback on cannulation
- IV bolus or infusion
- Sites for subcutaneous or intramuscular injections

AIRWAY
Realistic airway with a flexible tongue, arytenoid cartilage, epiglottis, vallecula, vocal cords, trachea, esophagus, and simulated lungs for spontaneous breathing and realistic chest movement
- Replaceable neck skin
- Standard ALS airway skills:
  - Bag-valve-mask ventilation
  - Endotracheal tube intubation
  - Combitube placement
  - LMA placement
  - Retrograde intubation
  - Fiber optic intubation
  - Light wand intubation
  - Transtracheal jet ventilation
  - Needle cricothyrotomy
  - Surgical cricothyrotomy
  - Oropharyngeal and nasopharyngeal airway placement
- Modeled patient response to airway complications
- Exhaled CO₂ flow to confirm placement of airway devices within the trachea
- Signs of spontaneous respiration:
  - Chest excursion (independent left and right movement)
  - Exhalation of air from mouth
- Breathing is physiologically modeled or may be manually controlled by instructor:
  - Pharyngeal obstruction – posterior pharyngeal surface swells into the anterior pharyngeal cavity
  - Swollen tongue with variable levels of difficulty for intubation
  - Laryngospasm – closes the vocal cords completely and results in automatic desaturation
  - Left and right bronchial obstruction
  - Esophageal intubation
  - Stomach distention
- Airway Complications:
  - Cannot intubate, can ventilate
  - Intubation is not possible

PULSES
Bilateral carotid, brachial, radial, femoral, popliteal and dorsalis pedis pulses
- Pulses synchronized to physiology of circulation and chest compressions

CARDIAC FUNCTIONS
- Extensive ECG rhythms library
- Defibrillation
- Cardioversion
- Cardiac monitoring (e.g. blood pressures, cardiac output)
- 3 or 5-lead ECG monitoring
- External pacing with variable pacing threshold
- Pacing results in appropriate physiological changes in blood pressure and heart rate
- ECG and heart rate can be displayed on the simulated monitor or real monitors

TRAUMA FEATURES
Bilateral pneumothorax needle decompression
Bilateral chest tube placement and drainage
Pericardiocentesis
Diagnostic peritoneal lavage

NEUROLOGICAL
Blinking eyes
Variable pupil size
Convulsions

IV DRUG ADMINISTRATION
Extensive drug library which includes ALS drugs
- Modeled patient response to drugs administered

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Bilateral carotid, brachial, radial, femoral, popliteal and dorsalis pedis pulses
- Pulses synchronized to physiology of circulation and chest compressions

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SOUNDS AND PHONATION
Patient “speaks” through wireless microphone
- Heart sounds synchronized with the cardiac cycle
- Independent left and right breath sounds
- Bowel sounds
- Heart, breath, Korotkoff and bowel sounds can be auscultated with a stethoscope
CPR
ABC check:
  Airway - visible inspection of the airway for obstructions
  Breathing - chest excursion; sounds of air movement; air on exhalation
  Circulation - heart sounds; palpable pulses
Spontaneous and mechanical ventilation
Chest compression
Blood pressure
Auscultation of Korotkoff sounds
Return to flow blood pressure assessment
BP can be displayed on the simulated monitor

GENITOURINARY
Interchangeable male or female genitalia for urinary catheterization procedures

INSTRUCTOR CONTROL
Instructor’s laptop workstation
Muse controls all airway management, cardiac functions, CPR, pulse, blood pressure and sounds

LOGGING
Physiological, pharmacological and event data is logged and time stamped
Automatically calculates and logs: alveolar and blood gases, cardiac output, heart rate, SpO₂, invasive BP, hematocrit and hemoglobin values, and temperature

SCEs AND PATIENTS
6 base patients that can run with any scenario
14 pre-configured SCEs
Scenario designer to create your own scenarios
Ability to create your own patients

STANDARD EQUIPMENT
ECS Mannequin
Power and Communications Unit
Instructor’s Laptop Workstation (wired)
Muse Software
6 Patient Profiles
14 Simulated Clinical Experiences (SCEs)
4 SCE Development Software Licenses
TouchPro Software and Patient Monitor Computer
Air Compressor
One Year Support and Maintenance

OPTIONAL EQUIPMENT
Wireless Remote Laptop
Mannequin Carrying Case
Auxiliary Portable Power Supply
Gas Accessory Kit
Convulsions
Trauma/Disaster Casualty Kit (TDCK)
Pharmacology Editor
Hands-free Cable Kit
Learning Applications
Additional TouchPro Patient Monitor Computer
CAE Healthcare offers simulation-based patient, imaging, surgical and learning solutions to improve patient safety and outcomes. Our leading-edge products and learning applications provide risk-free practice and professional development to physicians, nurses, EMS responders, military medics, students and allied health professionals around the world.

caehealthcare.com

For more information about CAE Healthcare products, contact your regional sales manager, the CAE Healthcare distributor in your country, or visit caehealthcare.com.
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