

# Surgical CHLOE™ S2101

# Full-Body Surgical Simulator

- Address surgical competencies
- Use real surgical instruments
- Perform laparotomy, laparoscopy, and vaginal procedures
- Wireless and tetherless; fully responsive in transit
- Includes scenarios created and tested in an academic OB/GYN environment







Removal of endometrioma



Ruptured ectopic pregnancy



Removal of dermoid cyst



Incision and dissection

# Address ACGME skills

Simulator can be used to address competencies in six areas, including patient care, medical knowledge, practice-based knowledge and improvement, systems-based practice, communication, and professionalism.

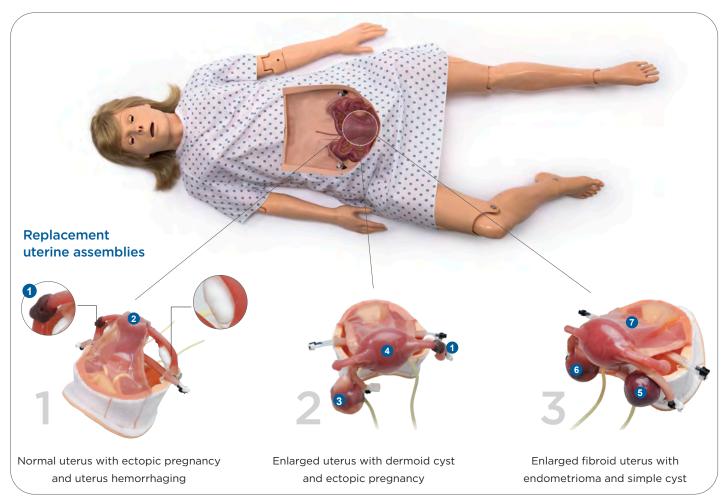
# Surgical scenarios

- Ruptured ectopic pregnancy
- Pelvic mass
- Septic abortion
- Bleeding disorder
- Post-op hemorrhage

- Patient safety (fire)
- Malignant hyperthermia
- Cardiac arrest
- Anaphylaxis
- Hypoxia
- Basic OR patient

# Use real surgical instruments

With its lifelike abdominal inserts and uterine assemblies, procedures can be performed using real surgical instruments in a real surgical OR.



# Unique pathologies

- 1 Ectopic pregnancy
- 2 Normal-size uterus with hemorrhaging
- 3 Dermoid cyst
- 4 Enlarged uterus
- 5 Endometrioma
- 6 Simple cyst
- **7** Enlarged uterus with embedded fibroids

# **Common features**

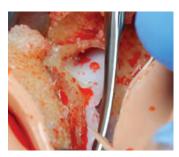
- · Veins and arteries, including uterine and ovarian
- Bladder
- Ovaries
- Fallopian tubes

- Peritoneum
- Ureters
- Perineum with integrated vagina
- Ligaments, including round, uterosacral, infundibulopelvic, and cardinal



Comprehensive training

Scenarios can cover an entire procedure, from patient presentation to assessment, surgical management, and the recovery room.



Bleeds when cut

Abdominal inserts and uterine assemblies incorporate simulated blood for the realistic practice of hemostatic techniques.



Laparotomy, laparoscopy & vaginal procedures

Chloe allows caregivers to perform surgical interventions using all three procedures.



Replaceable uterine assemblies

Each assembly exhibits different complications and allows surgical teams to carry out a variety of procedures.



Assess individual & team competencies

Team-building scenarios can be performed for the development of gynecologic surgical skills and patient safety.



**Bowel insert** 

For abdominal and laparoscopic procedures, the simulated bowel can be moved aside to provide access to the underlying uterine assembly.



# Cut and suture like real tissue

Multi-layer design representing the skin, subcutaneous, fascia, muscle, and peritoneum for maximum realism.



**CPR** + circulation

Monitor compression and ventilation performance in real-time.



Tablet PC with UNI® software

Control the simulator wirelessly. Sensors track the actions of up to 6 participants. Changes in condition are time-stamped and logged.



Speech and streaming voice

Be the voice of  $\mathsf{Chloe}^{\scriptscriptstyle\mathsf{TM}}$  and hear caregiver responses. Create and store vocal responses or select from a prerecorded vocal menu.



# Surgical and general patient safety scenarios

Train and assess teams in managing complications such as hemorrhage, malignant hyperthermia, and patient safety



# All-in-one with virtual monitor software

Customize the display, alarms, and configurations of the virtual vital signs monitor to mimic the real monitors in your facility.

#### **Features**

#### General

- Full-body adult patient simulator
- Built-in wireless connectivity with tablet PC1
- Powered by an internal rechargeable battery or wall outlet
- Up to four (4) hours of tetherless operation on internal, rechargeable battery power<sup>2</sup>

#### **Neural responses**

- Eyes open and close manually
- Normal, miosis (constricted), and mydriasis (blown) pupil states
- Independent left/right pupil states simulate consensual and nonconsensual response
- · Wireless streaming audio & prerecorded responses

#### **Airway**

- Multiple upper airway sounds synchronized with breathing
- Head tilt/ chin lift
- Anatomically accurate airway
- Intubatable airway

#### **Breathing**

- Spontaneous breathing and chest rise generated by internal compressor
- Bilateral chest rise and fall
- Programmable rate and depth of respiration
- Variable respiratory rates and inspiratory-expiratory ratios
- · Normal and abnormal independent lung sounds synchronized with respiratory pattern and rate
- Ventilations are detected, measured, and logged

#### Cardiac

- Monitor ECG with real equipment from 4 conductive skin regions
- Normal and abnormal heart sounds may be auscultated and are synchronized with ECG
- Compressions are automatically detected, measured, and logged

#### Circulation

- Measure blood pressure using real BP
- Korotkoff sounds audible between systolic and diastolic pressures
- Bilateral carotid, brachial, and radial
- Oxygen saturation detected using real monitors
- Bilateral IV arms with fill/drain sites
- SubQ and IM injection sites
- Venous and arterial bleeding, including ovarian and uterine arteries and veins

• During application of scenarios, vital signs reflect physiologic changes that occur with hemorrhage

#### Surgical

- Laparoscopy abdominal wall includes eight (8) access ports on the left (3), right (3), and midline (2)
- Place laparoscopic trocars
- Laparotomy abdominal wall multi-layer insert design replicates the skin, subcutaneous fat, fascia, muscle, and peritoneum
- · Use real instruments for incision, dissection, and suturing
- Can be used at least four (4) times
- Perform Pfannenstiel or vertical incision

#### **Uterine assemblies**

- Uterine assembly 1 Normal-sized uterus with ectopic pregnancy and uterine hemorrhage. Simulates ruptured ectopic pregnancy with bleeding and severe vaginal bleeding from uterus.
- Uterine assembly 2 Enlarged uterus with dermoid cyst and ectopic pregnancy. Simulates ruptured ectopic pregnancy with bleeding and realistic dermoid cyst.
- Uterine assembly 3 Enlarged uterus with embedded fibroids. Simulates embedded and bleeding fibroids, simple cyst, and endometrioma.
- Procedures supported on all uterine assemblies include unilateral oophorectomy, conization of the cervix, chromopertubation, hysteroscopy.
- All uterine assemblies include ovarian and uterine veins and arteries, bladder, ovaries, fallopian tubes, peritoneum, ureters, perineum with integrated vagina, ligaments including round, uterosacral, infundibulopelvic, and cardinal.

#### Scenario workbook by Martin E. Olsen, MD

- Ruptured ectopic pregnancy
- Pelvic mass in pregnancy
- Septic abortion
- Bleeding disorder Von Willebrand's disease
- · Postoperative hemorrhage after conization of the cervix
- Fire in the OR
- Malignant hyperthermia during surgery
- · Cardiac arrest in the OR
- Anaphylaxis in the OR
- Hypoxia in the OR

#### UNI® control PC

- Use preprogrammed scenarios or run "on the fly"
- · Changes in condition and care provided are time-stamped and logged
- 1. Maximum wireless range will vary depending on environmental factors and conditions. 2. Battery life estimates dependent on active features and settings; results may vary. Price without options, discounts, or special offers, Taxes and other fees not included. Extended service plans, product installation, and training services are available. Product design and price subject to change without notice. All trademarks and/or copyright materials are the property of their respective

 $owners. @ 2021 \ Gaumard \ Scientific. \ Patented; other patents pending. \ All \ Rights \ Reserved. \ MADE \ IN \ USA. \ 11190031B$ 

- Track actions of up to 6 care providers
- Generate and share diagnostic lab results
- Create your own scenarios add/edit
- Change simulator's condition during the scenario

#### Gaumard Vitals™ patient monitor

- Interactive virtual patient monitor displays vital signs in real-time
- Display up to 10 numeric parameters
- Display up to 6 dynamic waveforms
- Customizable layout mimics real patient monitors
- Program custom threshold alarms
- Share images such as ultrasounds, CT Scans, lab results, etc.

## Surgical CHLOE™

S2101.PK • •





Surgical Chloe Surgical Patient Simulator, UNI® Tablet PC, UNI license, scenario courseware, Gaumard Vitals™ patient monitor, RF communications module, Bluetooth communications module, battery charger, 4 abdominal wall inserts, 12 uterine assemblies (4 of each type), a workbook by Martin E. Olsen, MD, soft transport case, and One-Year Limited Warranty. Extended service plans available. Skin tones available at no extra charge. Patented; other patents pending.

### Abdominal wall insert

S2101.140 • • •





**Bowel overlay** 

S2101.141

Laparoscopy abdomen

S2101.142 • • •





Laparotomy abdomen

S2101.142.1 • • •

Uterine assembly 1

S2101.143 • • •

**Uterine assembly 2** 

S2101.144 • • •

**Uterine assembly 3** 

# S2101.145 • • • Request a Quote

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