# List of Current Simulation Equipment

### **CRDAMC Simulators**

CAE Endoscopy System

Gaumard Baby Hal

Gaumard NOELLE S551 Birthing Simulator
Gaumard NOELLE S555 Birthing Simulator

Gaumard NOELLE 3G Birthing Simulator

Gaumard Pedi Blue

CAE Laparoscopic Simulator

Laerdal SimMan Classic
Laerdal SimMan 3G
Laerdal SimMan Essential

Laerdal SimMan Essential

Laerdal SimNewB/SimBaby

Laerdal SimJR/MegaCode Kid

CAE Echocardiography (US trainer)

### **Tasks Trainers**

AirSim Airway Trainer Adult AirSim Airway Trainer Pedi

Armstrong IV arm/hand

Blue Phantom Central venous access system
Blue Phantom Epidural/Lumbar (US model)

Blue Phantom Femoral line

Blue Phantom Foreign body U/S simulator

Blue Phantom Pedi Vessel US Model

Blue Phantom Pelvic sonogram trainers (US torso)
Blue Phantom Peripheral Nerve Block US Model

Blue Phantom Thoracentisis

Blue Phantom 2 Vessel US Model
Blue Phantom 4 Vessel US Model
Childbirth Graphics Leopold's Maneuvers

Gaumard Foley Male

## **Tasks Trainers (cont.)**

Gaumard Vasectomy Trainer

HMS EZ I/O Gun

Kyoto Kugaku Central line trainer Kyoto Kugaku IV Arm/hand

Kyoto Kugaku Lumbar puncture Simulator

Laerdal Arterial stick arm

Laerdal Baby Arti Laerdal Baby Stap Laerdal Foley Female

Laerdal Fundus Skills Trainer
Laerdal NG Tube Trainer

Laerdal Umbilical Cath. Task Trainer

Life Form Chest Tube Trainer

Life Form Circumcision Trainer

Limbs and Things Injection model - Elbow

Limbs and Things Injection model - Foot

Limbs and Things Injection model - Hand/wrist
Limbs and Things Injection model - Knee aspiration

Limbs and Things Injection model - Shoulder

Limbs and Things Skin pad jig with pads for suturing
Limbs and Things Suture tutor Trainee kit edition

Limbs and Things Episiotomy Trainer
Limbs and Things Toenail Trainer
Medisim IUD Trainer

Mobile Obstetric OB Emergency Simulator (MOES)
Simulab FAST SCAN Ultrasound Trainer

Simulab Thoracentisis

Sonosite Ultrasound w/vag. probe Verathon Ranger Glidescope Trainer

# Central Simulation Committee Mission Statement

The CSC will strive to be a leader, both nationally and internationally, in the area of simulation training and will apply all of its efforts to ensure that our providers are "Trained, Competent, Safe, and Ready" to complete the critical mission of caring for our Soldiers and their Families.

#### **Sim Lab Contacts**

Central Simulation Committee (CSC)
members

#### CRDAMC Sim Lab Administrator

Charles A. Steiner 1SG (Ret)

254-553-2070

#### **CSC Sim Lab Specialist**

Tahir M. Ruffin 254-618-8368

#### **Director of Medical Education**

Dr. Wayne A. Schirner DO, MPH 254-288-8304

#### Simulation Medical Director

Maj. Aaron D. Williams DO, RMSK 254-286-7115

Located in BLDG 36000 on 3 East

We support the following services with patient care sustainment/proficiency training initiatives: Physicians, Nurses, Physician Assistants, Health Technicians and Residency Programs.

With advanced notice of 48-72 hours we can facilitate training events ranging from Obstetric Emergencies, Code Blue to Trauma Training.



# **Simulation Lab**

"Trained, Competent, Safe, and Ready"



# About the Simulation Lab and the CSC

The CRDAMC Simulation Lab is a branch of the office of Graduate Medical Education and is committed to promoting medical simulation as a way to:

Ensure provider competency
Reduce medical errors
Improve patient safety
Reduce health care costs

The Central Simulation Committee (CSC) was formed in April 2007. CRDAMC is one of 10 Military Treatment Facilities (MTFs) selected to meet this need. Funding is provided by the Advances in Medical Practice (AMP) and the Army Medical Command (MEDCOM). The CSC members are Directors of Medical Education, Specialty Advisors (appointed), Simulation Medical Director (appointed), Simulation Administrator, and Program Directors from each of the 10 MTFs (TAMC, Madigan AMC, Womack AMC, Wm Beaumont MC, Darnall AMC, DeWitt ACH, Eisenhower AMC, SAUSHEC/Brooke AMC, Martin ACH, NCC/WRAMC/USUHS).

#### What is Medical Simulation?

Simulation is a training and feedback method in which learners practice tasks and processes in lifelike circumstances using models or virtual reality, with feedback from observers, peers, actor-patients, and video cameras to assist improvement in skills. Computer-based medical simulation provides a realistic and economical set of tools to improve and maintain the skills of health care providers adding a valuable dimension to medical training similar to professional training in aviation, defense, maritime, and nuclear energy. Medical simulators allow individuals to review and practice procedures as often as required to reach proficiency without harming the patient.

In medicine, sophisticated mannequins, known as patient simulators provide health care professionals with a computer-based patient that breathes, responds to drugs, talks, and drives all clinical monitors in the operating room, e.g., blood pressure and pulse rate.

Task trainers provide a simulated subset of functionality, such as how to give a Smallpox inoculation or how to insert a chest tube.

Computer-based training provides software programs that train and assess clinical knowledge and decision-making skills. Simulated/standardized patients allow students to interact with actors trained to act as patients providing students with valuable feedback on, among other things, bedside manner.

Medical simulation is a cross-disciplinary effort that brings together physicians, nurses, and allied health professionals across a variety of disciplines with computer scientists, researchers, educators, and human factors engineers.

## Why use Medical Simulation?

Currently, there are hundreds of schools in the United States providing "hands on" health care education to medical, nursing, and allied health students. These schools predominately use the apprenticeship model as a main teaching style, often referred to in medicine as "do one, see one, teach one."

A health care provider's ability to react prudently in an unexpected situation is one of the most critical factors in creating a positive outcome in a medical emergency, regardless of whether it occurs on the battlefield, freeway, or hospital emergency room.

This ability, however, is not a skill that one is born with, but rather it is learned and developed with time, training, practice, and repetition.

Today, advances in technology have created new and better, methods for teaching the practice of medicine and reinforcing best practices. One of the most exciting innovations in health care is in the field of medical simulation.

As reported in the "Advanced Initiatives in Medical Simulation": Medical errors kill as many as 98,000 people annually at a total national cost of between \$37 to \$50 billion for adverse events and between \$17 to \$29 billion for preventable adverse events. Institute of Medicine Nursing shortages, which are

expected to reach 20% by the year 2020, are forcing some health care facilities to implement mandatory overtime for nurses and increased patient care loads, contributing to an already high number of stress related errors.

Bioterrorism threats and concerns are forcing institutions and governments to reconsider how quickly providers can be trained and ready to react to a health crisis. Reserve troops are deployed into combat situations with insufficient time and resources to prepare them to provide medical care in battlefield conditions. Medical residents are operating under strict new rules that limit them to an 80-hour work week leaving less time for direct interactions between students and instructors.

Employing medical simulation techniques can help move medicine from the old "see one, do one, teach one," method to a "see one, practice many, do one," model for success.

Advanced Initiatives in Medical Simulation.

"What is medical simulation?"

"Why use medical simulation?" [Online]

26 November 2007.

http://www.medsim.org/whatissimulation.php