MedSim – Pioneer in Ultrasound Simulation

The New CompactSim - Real Images – Real Patients Cases

For over a decade, MedSim has been the world leader in Ultrasound training simulation. The CompactSim, the small form factor version, is the world’s best known ultrasound simulation platform, and has been installed in hundreds of locations from the US to Japan from the UK to China.

The CompactSim is an innovated breakthrough for Sonography Education throughout the world. The UltraSim (the older brother) is widely used the USA, as in the US in the USA (over 76% of universities and medical training facilities have integrated the UltraSim into their ultrasound curriculum) and Japan (82 UltraSim’s are installed in universities and hospitals) where it is widely used for training Mid-Wives to improve their ultrasound capability and disease recognition.

Nowadays, China and Russia are looking ahead for medical training advancement incorporating Medical Simulators. In the past two years several simulation centers and Novosibirsk University) have started to implement ultrasound training using the UltraSim.

In China, Beijing Obstetrics and Gynecology Hospital has implemented ultrasound training using the UltraSim. The UltraSim is the first of its kind and is based on patented technology. All information (patient history and patient outcome) and images are from real patients giving the user the best scanning experience possible.

Whether scanning a vascular or gynecology case, the user will see real ultrasound images while scanning with the UltraSim’s mannequin. This provides excellent illustration and training environment, unlike CGI based simulators in which the image is not real but generated by computers.

The UltraSim enables the user to practice normal and abnormal cases (i.e. fetal cystic hygroma, gallstones), easy to difficult cases as well as invasive and non-invasive scenarios without relying on real patients, hence improving and elevating the user’s capabilities beyond any "on the job" training.

The UltraSim has over 380 lessons (cases) based on real patient ultrasound images, real patient history, reason for examination, and case analysis.

The UltraSim provides the user a full spectrum of cases Creating a learning environment which is not achieved by any other solution for ultrasound training. A case is prepared with tasks in which the trainee progresses
from easy cases to difficult cases while taking ultrasound images. The user can compare his/her images to an ultrasound expert/professional image directly within the system. In turn the trainer may disable this feature (expert/ professional images) as the user progresses in their skill level. The Professional guidance provides not just the correct image to acquire but one of the most important features in ultrasound expertise which is the hand-eye coordination, (i.e. how to hold the transducer in the correct angle, position and direction).

In addition to the comprehensive content within the UltraSim simulator, the system is accompanied by detailed Instructor Manuals or PDF's and a User Guide. The Instructor Manuals cover a variety of the UltraSim applications: Gynecology, Obstetrics, Transvaginal: Gynecology, Obstetrics, Breast, Abdomen, Vascular and Emergency Medicine.

Sample of the UltraSim worldwide reference sites:
- Beijing Maternity Hospital - 北京妇产医院
- Beijing Friendship Hospital - 北京友谊医院
- Moscow Simulation Center
- Novosibirsk University, Russia
- Tokuyama Central Hospital, Japan
- Nagoya University, Japan
- Yokohama Medical Center, Japan
- Florida Hospital College of Health, USA
- Keiser University, FL, USA
- The Michener Institute, Toronto, Canada
- Tel Hashomer Hospital MSR Simulation Unit, Israel

What do the experts and Students say about the UltraSim:

Prof. Amitai Ziv, Head MSR Simulation Center: "the UltraSim is not only the first of its kind, but also the long standing simulator out there... With the UltraSim you can actually meet many different pathologies, many different scenarios in a very structured safe environment. A task trainer that allows you to do many of the mainstream Ultrasound tasks, Abdominal ultrasound, breast ultrasound, vaginal ultrasound and many others What's beautiful about the UltraSim, which is the first of its kind in the world, Where you can teach yourself, a lot of self tutorials and no less important you get feedbacks from the system, without even the presence of an instructor because the system as a system has a built in instructor module in it."

* Prof. Ziv is one of the world's experts in Medical Simulation and heads a world class simulation center – MSR.

Jessica Burger, Ultrasound student: "...With the UltraSim I can practice performing a sonographic examination on a mannequin without the presence of an instructor... Working with UltraSim provides me with the Confidence I need when working with real patients..."