ORSIM Bronchoscopy Simulator

The ORSIM Bronchoscopy Simulator is an innovative product designed to improve bronchoscope dexterity through hands-on training.

Inadequate practice and lack of clinical experience have been identified as the main barriers to the development and maintenance of flexible bronchoscope skills by physicians globally.

The ORSIM is built around the philosophy of learning through regular practice and on the principles of simplicity, accessibility and economy. It builds essential skills and knowledge to deliver improved patient care.

The ORSIM enables users to train in a safe, virtual environment and explore an array of anatomy and pathology scenarios. It overcomes the high cost of traditional bronchoscopy training, which uses large format simulators or easily damaged clinical equipment.

The ORSIM is designed for health care professionals in anesthesiology, pulmonology, otolaryngology, critical care and emergency medicine.
The ORSIM consists of three main parts: a replica video bronchoscope, a desktop sensor and a dedicated laptop with software program.

The replica video bronchoscope is connected to the small desktop sensor. The sensor registers movement of the insertion tube and translates this to a three-dimensional virtual airway displayed through the software on the laptop screen. The user can progress through a range of upper and lower airway scenarios receiving instant feedback as well as scoring metrics, recording and playback options.

The ORSIM provides comprehensive training for a common diagnostic procedure, which until now has required lengthy specialist training. Based on its size, simplicity and economy, it is suitable for large training organizations as well as individual practices.

**Benefits**

**Small**

Limitations with existing training simulators include scale, location and expense. The ORSIM is designed to make training portable and affordable, putting operating room simulation within reach in any environment.

**Smart**

The ORSIM facilitates distributed practice - individual login means each user session can be stored to monitor individual progress. It decreases patient risk, providing virtual scenarios for learning before clinical contact.

**Economical**

The ORSIM is a robust training tool enabling self-directed, patient free and tutor free learning. The result is significant cost savings in terms of training time, training resources and repair costs to clinical equipment.

**Features**

The ORSIM has a number of unique features that deliver flexible and safe bronchoscopy training:

- **Robust Construction**
  - Both the replica video bronchoscope and desktop sensor module are designed for the rigors of training – avoiding expensive damage to clinical bronchoscopes during training.

- **Virtual**
  - Virtual format enables part task training and promotes skill development and dexterity with a fully functional bronchoscope as well as providing an economical and safe solution to training. It also provides rapid exposure to multiple scenarios before clinical application.

- **Recording and Evaluation Functionality**
  - Includes metrics for objective scoring and performance evaluation. Instant feedback is provided through session recording to aid learning and training evaluation.

- **High Quality Graphics**
  - High definition virtual modelling of a range of anatomy and pathology scenarios facilitates bronchoscope dexterity as well as building experience and knowledge.

- **Size**
  - Due to its small scale and laptop compatibility, it can be stored near the OR for regular use and easily transported to classrooms, training facilities and conferences. All elements fit within the hand-held case.

**How it works**

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Airway Simulation Limited designs and develops simulation-training products for physicians and other health care professionals to build, maintain and expand fundamental skills.

The company was founded on a belief in making the learning of essential skills simple, accessible and economical.

The ORSIM team is comprised of doctors, educators, industrial and graphic designers, software developers and electronic engineers.

The company is led by Dr Paul Baker, an anesthesiologist with a focus on teaching and researching airway management and a background in international airway skills training.

For more information about the ORSIM Bronchoscopy Simulator, or to purchase a unit, please contact us via email at info@orsim.co.nz