

PRESS RELEASE

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A Canadian First

What do Airline Pilots and CHUM's Orthopaedic Residents Have in Common?

Montreal, Quebec, Canada, September 20, 2010—Like airline pilots, CHUM's orthopaedic residents can now apply simulator technology in practicing one of their field's most common procedures. Residents can conduct virtual arthroscopies of the knee and shoulder in complete safety using the state-of-the-art *insightArthroVR*[®] simulator from GMV, a Madrid-based firm. CHUM recently employed this device for the first time in Canada to train orthopaedic residents.

Why utilize virtual reality? This simulator offers residents leading-edge training tools to help them develop essential skills while avoiding the risks inherent to procedures on actual patients. This is also the only device of its kind that permits arthroscopies of the knee and shoulder. Limited operating room time, accompanied by the low availability and high cost of cadavers, are some of the reasons for using a virtual simulator to train residents. Furthermore, few specialists are specifically trained in performing arthroscopies of the shoulder and thus able to train residents in this procedure.

Arthroscopy

The technique inserts a fibre-optic endoscope directly into the joint to be studied. Arthroscopy is a delicate orthopaedic surgical procedure, requiring frequent and sustained training.

Benefits of the *insightArthroVR*[®] simulator

The *insightArthroVR*[®] simulator helps residents develop fundamental and advanced skills in performing shoulder and knee arthroscopies, using a tutorial approach for different clinical and diagnostic arthroscopic routines. A computer program includes basic and advanced exercises in handling instruments and in reproducing life-sized models of the knee and shoulder. Once an exercise is complete, the software generates a report with performance scores and data on the user's skills. This data is also used to assess progress over time and to personalize instruction.

Specialists-in-training can use the device as of their second year of residence, during a program in surgical sports medicine, so that they will become acquainted with arthroscopic techniques at an earlier stage of their careers. Arthroscopic training has traditionally been offered in the last two years of residence.

"Ultimately the patient is the one who benefits from this specialized training. This teaching technology results in a greater number of specialists who can perform arthroscopies, providing patients with more access to such treatment," said Dr. Véronique Godbout, orthopaedic surgeon at CHUM, Professor at the Faculty of Medicine of the Université de Montréal, and supervisor of orthopaedic instruction at CHUM.

"Surgical risk management is a timely subject. The World Health Organization's 2006-2007 program clearly defined the need to develop new technologies to improve patient safety. The *insightArthroVR*[®] virtual simulation device for teaching arthroscopy helps develop a highly effective training program that is part of the medical curriculum. It also provides an objective

assessment of skill and learning process development among future surgeons by drawing on advanced pilot certification procedures,” said Ms. Almudena Sánchez, Business Development official at GMV Healthcare.

The simulator will permit arthroscopic training for seven to nine orthopaedic residents per year at CHUM, as part of the Université de Montréal’s Édouard Samson Orthopaedics Program. The surgical sports medicine program is generally open to orthopaedic residents from other universities.

Acquisition of the simulator was made possible by financial contributions from the CHUM Teaching Division and the CHUM Foundation.

About:

CHUM: chumtl.qc.ca

Université de Montréal: umontreal.ca

GMV: gmv.com

A video (in French) on how the simulator is used at CHUM can be seen on CHUM’s YouTube page at youtube.com/user/chumontreal.

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Sources:

Communications Division, Centre hospitalier de l’Université de Montréal
GMV

FFI and for interviews:

Nathalie Forgue, Communications Advisor
CHUM
514-890-8000, ext. 23674
Pager: 514-801-5762
nathalie.forgue.chum@ssss.gouv.qc.ca