World’s First Hospital to Hospital Telerobotics Assisted Surgery Performed in Canada

St. Joseph’s Healthcare Hamilton, North Bay General Hospital and Technology Partners Computer Motion, Bell Canada, Johnson & Johnson, Stryker Canada, and Cisco Systems Canada Partner in Successful Landmark Surgery Over 400 km

Hamilton, Ontario and North Bay, Ontario, March 4, 2003—St. Joseph’s Healthcare Hamilton and North Bay General Hospital announced today that on Friday February 28th, Dr. Mehran Anvari, Dr. Craig McKinley and their respective surgical teams performed the world’s first hospital to hospital telerobotics assisted surgery. Located at St. Joseph’s Healthcare Hamilton, Dr. Anvari, founding Director of the Centre for Minimal Access Surgery (CMAS), successfully collaborated with Dr. McKinley, a General Surgeon at North Bay General Hospital, to complete a laparoscopic Nissen fundoplication (anti-reflux) surgery on a female patient located at North Bay General Hospital, nearly 400 kilometres away.

“Until today, CMAS has been using telehealth to mentor surgeons located in community health settings, but now we have taken this one step further,” said Dr. Anvari. “We now can successfully use a robot from a distance, to actually assist and perform part of the surgery if necessary. The implications of this are far reaching.”

“With the challenge of attracting specialized surgeons to Canada’s northern communities, this technology allows us to provide necessary services close to home and family,” said Dr. McKinley. “Telerobotics procedures are the next logical step in minimal access surgery to help ensure that communities have access to needed expertise.”

This event is the first in a series in collaborations between Drs. McKinley and Anvari. The series is scheduled to demonstrate the safety and feasibility of telerobotics assisted surgery to extend the reach of expert health care to Canada’s remote populations.

While at St. Joseph’s Healthcare Hamilton, Dr. Anvari used Computer Motion’s ZEUS® Surgical System, which was connected and supported by Bell Canada’s Virtual Private Network Service to the system’s robotic ‘arms’ in North Bay General Hospital’s operating room.
Dr. Anvari’s hand, wrist, and finger movements were translated from the ZEUS console, with a delay of no longer than 150 milliseconds, to control the endoscopic camera in the abdominal cavity of the patient. At the patient’s side in North Bay, Dr. McKinley, a board-certified general surgeon who routinely performs laparoscopic surgery, positioned the robotically controlled instruments and controlled the electrocautery energy source.

ZEUS was granted Class IV clearance by Health Canada in October 2002 for cardiac surgery and telesurgery applications and received U.S. FDA clearance for general and laparoscopic surgery in September 2002.

“Computer Motion is honored to be working with Dr. Anvari of St. Joseph’s Healthcare Hamilton and Dr. Craig McKinley of North Bay General Hospital in this historical stride to extend the most advanced patient care possible to the entire population of Canada,” said Joseph DeVivo, President of Computer Motion. “These pioneers are securing Canada’s leadership role in the use of robotics to provide national access to health care.”

“Partnering with St. Joseph’s Healthcare Hamilton on this landmark surgery demonstrates Bell Canada’s expertise in reliably managing a large-scale networking project and delivering powerful applications to remote locations,” said Terry Mosey, President of Bell Ontario. “With our IP VPN solution, distance becomes irrelevant and the power of IP-based networking technologies can be leveraged to connect the most mission-critical applications, even the operating room.”

To explore telehealth capabilities, CMAS was last year awarded $1,000,000 by the Canadian Health Info-structure Partnership Program (CHIPP). The federal government agency is mandated with promoting telehealth and web-based (electronic) medical records throughout the country in efforts to combat the exodus of northern physicians. Other partners supporting CMAS include the Ontario Government, Computer Motion, Bell Canada, Stryker Canada, and Johnson & Johnson.

“Based on the success of these first cases, we are investigating the next steps to take this technology to other Canadian communities including Yellowknife and Chicoutimi,” said Dr. Anvari. “Ultimately we hope to make it accessible to dozens of remote locations to create linkages that will provide both expert advice to our northern colleagues as well as expert assistance during surgery when required.”

The major benefits of minimal access surgery to patients are less pain and surgical trauma, shorter hospital stays and faster recovery. The use of robotics has advanced the development of minimal access procedures in numerous surgical areas by increasing the precision of the surgeon’s control of surgical instruments and decreasing normal human tremor and physical fatigue during surgery.

The patient, who underwent the gastroesophageal reflux surgery, said she was honoured to be part of the historic scientific milestone.

“It isn’t every day someone gets to participate in such a landmark achievement,” said Claudette Fortier. “Not only do I feel privileged, thanks to having the procedure done laparoscopically, I feel remarkably well.”

Friday’s surgery is especially significant in light of the November “Romanow Report” on health care reform in Canada. Romanow outlined a recommendation for major support of the adoption
of a national telemedicine program to reduce the costs of reaching Canada’s remote populations with specialized treatments and of surgeon and physician training.

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NOTE TO PRODUCERS/EDITORS: B-Roll and photo stills of the surgery are available upon request. Please contact Kristin Tataryn (905) 522-1155 ext. 3156 or Juliana Minsky (805) 962-3700.