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Paging Dr. Robot

Hospital gets neurosurgical robot thanks to donation by Joe Shannon

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SYDNEY — Robots coming to life, doing the work of humans has been the premise of many science fiction movies over the years, but soon the Cape Breton Regional Hospital will begin using its own walking, talking robot controlled by a physician hundreds of kilometres away.

The robot, which is more formally known as a Remote Presence Neurosurgical Robot, was acquired through a \$400,000 donation given to the QE II Foundation by Cape Breton businessman Joe Shannon.

Sitting in a busy emergency room corridor the remote presence robot sits inactive plugged into a wall outlet. After several minutes of anticipation among waiting reporters, Dr. Ivar Mendez, the head of the Division of Neurosurgery at the QE II, appears on screen and pulls away from the wall to unplug itself from the socket.

He immediately searches for the hospital's ER clinical nurse leader, Sharon MacLeod.

"Sharon, are you around? Oh, I can see you behind all the cameras," he said gleefully.

Mendez operates the five-foot robot from a laptop computer in his Halifax office. The monitor has a 180-degree view and Mendez is able to swivel the monitor 360 degrees. It can move backwards, forwards and side-to-side with nearly the same mobility as any person.

It'll be used for emergency neurosurgical examinations such as those for a brain hemorrhage. It'll allow neurosurgeons stationed at the QE II Health Sciences Centre to communicate more efficiently with patients needing urgent care.

From any location with an Internet connection, neurosurgeons will be able to connect to the robot via laptop computer to access and diagnose a patient. They are also able to provide instruction to local physicians and monitor the recovery process.

The QE II and the regional hospital are the only two health institutions in Canada to have the remote presence robots.

"We hope that it will enhance the services, at least initially, for neurosurgical patients. It's one of the few areas of acute surgical intervention that we don't have immediate access to here in Cape Breton," said Dr. Tom Currie, the chief of emergency medicine at the regional hospital.

"We rely on the assistance of the neurosurgical team in Halifax to make some very difficult decisions for some very sick patients, so you can't underestimate the ability to actually look at a patient and see what kind of state they're in and talk to them and their family members."

With the way it works now, he said, the neurosurgical team is relayed information from the patient and family through the attending physician at the regional hospital. With the absence of a neurosurgical team in Sydney, the region's only neurosurgeon sees a limited number of the most serious cases.

Funding for the technology was provided solely by Shannon. He said his family has a responsibility to take part in worthwhile projects like this one.

"We believe in order to succeed and to do the best job you can in the business of running a hospital, you need to stay on the leading edge of technology and that's what this is — it's an opportunity for this community, this hospital, to become a real leader in this area of medicine."

Currie said the robot has yet to be tested fully. Mendez is currently training other members of the neurosurgical team in Halifax to use the device, but Currie said it could soon be in use for patients.



Valerie MacKeigan, a registered nurse at the Cape Breton Regional Hospital, pretends to be a patient as Dr. Ivar Mendez, the head of the division of neurosurgery at the QE II, demonstrates the hospital's new Remote Presence Neurosurgical Robot. Chris Shannon – Cape Breton Post