ED problems result of bed shortages, doctors contend

The crisis in hospital emergency departments (EDs) across Canada, which has led to strikes, walkouts, investigations and finger-pointing, is directly linked to shortages of hospital beds, say emergency physicians.

A string of high-profile problems at EDs in several provinces have turned a spotlight on patients enduring long waiting times for treatment or admission to hospital. These incidents include:

- The death of Dorothy Madden, a 74-year-old Winnipeg woman who waited 6 hours in St. Boniface Hospital’s ED before going into cardiac arrest.
- The demotion of Dr. John Witt, former head of the ED at the Royal University Hospital in Saskatoon, after he wrote a letter to the provincial minister of health calling for increased funding because ED overcrowding was endangering patients (CMAJ 2004; 170[10]:1527).
- The mass resignation of 21 doctors at the Nanaimo Regional General Hospital on Vancouver Island over the doctor–patient ratio in the ED.

Overcrowding that denies patients timely treatment is a common theme in all of these situations, says Dr. Alan Drummond, chair of public affairs for the Canadian Association of Emergency Physicians (CAEP).

Drummond and his organization point to another cause. They say the real issue is the shortage in acute care hospital beds.

“The correct approach to solving overcrowding is in fact to increase acute care bed capacity and increase bed flexibility and appropriate utilization of beds. That’s really what it comes down to,” says Drummond, who practises emergency medicine in Perth, Ont.

Over the past decade there has been a 40% decrease in hospital bed capacity in Canada. Closing beds translates into more patients being “warehoused” on stretchers and treated in corridors in hospital EDs when they need to be admitted.

An aging population, increased numbers of homeless and de-institutionalized people and emerging infectious diseases are all straining the capacities of emergency medical staff, emergency physicians say.

There are some savings to be made by improving primary care — but not enough to equal what provinces need in extra hospital capacity, says Dr. Les Vertesi, an emergency physician at the Royal Columbian Hospital in New Westminster, BC.

Diverting the “walking wounded” through programs like Telehealth Ontario, mass influenza vaccinations and promoting the use of walk-in clinics won’t ease those stresses enough, doctors and policy analysts say.

Vertesi is worried that the Council’s narrow mandate won’t allow a thorough examination of ED overcrowding. CAEP has the same concern, citing their proposal to provincial health ministers 2 years ago to host a forum on emergency services in Canada. The response, a November 2002 letter from Nova Scotia’s Jamie Muir, the health minister then chairing the first ministers’ group, completely ignored the request.

Dr. Joel Lexchin, an emer-
Robot arms to revolutionize neurosurgery — and more

The development of a space-age robot enabling neurosurgeons to operate with greater precision and dexterity from outside the operating room received critical funding that should see it in use by 2006.

The $30-million Project neuroArm, a joint Calgary Health Region and University of Calgary venture, will incorporate microsurgical tools and real-time magnetic resonance imaging (MRI) to guide surgeons — working behind a desk — through the brain’s complex folds. A $10.5-million federal grant from the Canadian Foundation for Innovation, announced Mar. 9, will complete the funding.

Once the neuroArm is built, sound, sight, and touch data enhanced through the robotic sensors and MRIs will flow onto computer screens to create 3-dimensional images that will map the brain for surgeons.

The microscopic precision of what will be the world’s first image-guided surgical robot, being built by the same company that designed the Canadarm used by NASA in outer space, is part of a technological revolution, says Dr. Garnette Sutherland, project leader.

“It’s not just about building a robot, it’s about changing surgery,” Sutherland said from his office in Calgary.

“Robotics are more precise ... are much more ergonomic and improve surgeon stamina. It opens the door to teleSURGERY, surgical simulation, and translates molecular imaging and nanotechnology into the operating room.”

Sutherland worked with MD Robotics of Brampton, Ont., for 2 years to design the squat robot, which is reminiscent of Star Wars’ R2D2. The machine will be operated by a surgeon using hand controls to move surgical tools while watching a screen, thus increasing visualization and removing the danger of hand tremors.

Sutherland envisions other disciplines will use the neuroArm to improve techniques and patient care. “Virtual surgery is a natural progression of robotics,” he said. (Robot photo reprinted from Louw DF et al. “Surgical robotics: a review and neurosurgical prototype development.” Neurosurgery 2004;54:525-37) — Dina O’Meara, Calgary, Alta.