Caring for obese patients poses daunting challenges
Intensive care units are reporting a rise in the number of patients with extreme body weight

BY SHARON KIRKEY, POSTMEDIA NEWS FEbruary 21, 2011

It can take six nurses -12 experienced hands grappling with great masses of flesh -to turn some of the alarmingly growing number of obese patients in Canada's intensive care units.

There are men and women with so much abdominal fat that they can't lie flat on their backs and still breathe.

They spill over the sides of a hospital bed and require extra-wide bariatric beds that can support up to 1,000 pounds. Some of them are so large it can be difficult for nurses to find their patients' veins to insert intravenous lines.

They may weigh 400 pounds, 500 pounds or more.

In the latest fallout from Canada's obesity epidemic, intensive care units across the country are reporting a rise in the number of patients with "morbid" or extreme body weight.

The phenomenon is posing significant challenges for the health-care system, from patients too large to fit inside CT scanners or MRI machines, to what doctors have described as the "nightmare" of trying to insert breathing tubes into patients whose airways are layered in fat.

Recently, an ICU bed in Montreal's Royal Victoria Hospital nearly collapsed under the weight of a patient who weighed 435 pounds. One of the legs broke.

Orderlies had to prop up the bed with planks of wood "because it was the only bed we had that was big enough to take this guy," said Dr. Nicolas Christou, a professor of surgery at McGill University and director of the bariatric surgery program at the McGill University Health Centre.

The increase in the number of critically ill obese patients is happening at a time when doctors have little published research or other scientific backup to guide them. The challenges, they say, can be daunting, from trying to calculate drug doses for potentially life-saving medications without under- or overdosing, to performing physical examinations when stethoscopes can't transmit sounds through chests or backs thick with adipose tissue.

Then come the multiple other health problems that go hand-in-hand with obesity, such as hypertension, diabetes, respiratory problems, sleep apnea and coronary artery disease.

"One of the things about ICU is how well you are going in determines if you're going to come out," says Paul Hebert, a critical-care physician at The Ottawa Hospital and editor-in-chief of the Canadian Medical Association Journal.
"To properly care for someone who is 400 pounds or more is a huge issue. Every time you have one in the system it creates a problem."

Perhaps the biggest burden is falling on nurses, who can struggle at simply moving or turning patients, who are immobilized by ventilators, to prevent skin ulcers and pressure sores.

"We're seeing more back injuries, more shoulder injuries," says Teddie Tanguay, a nurse practitioner in the intensive care unit at Edmonton's Royal Alexandra Hospital.

"Normally in our units, we make sure to turn patients every two hours to prevent skin breakdown," says Tanguay, who is also the vice-president of the Canadian Association of Critical Care Nurses.

"Now, you have a patient that takes six to eight nurses to turn or move, and when you can't find eight, you go with five. And that's when we get the injuries," she says.

When she started nursing in the 1980s, "patients in the 250-to 280-pound range were what we considered an obese patient.

"Sadly, now they come into our ICUs and we think they're small, because now we're dealing with people who are 400 to 500 pounds," Tanguay says, noting that the rise in severely obese patients began even before the hospital began performing weight-loss surgery.

"Not only do they not fit into our wheelchairs, but they don't fit into our beds. They don't fit into our imagers, they don't fit into our commodes. If the toilet is on the wall they can't sit on it because they break the toilet off."

Hospitals are scrambling to adapt: they're ordering ceiling-mounted hoists and lifts, wider ICU beds and bigger imaging machines. Meanwhile, researchers are compiling guidelines, based on the experience of leaders in their fields and the best evidence available, to develop better treatment strategies.

"Frequently, we're at a loss as to how to manage patients with morbid obesity," said Dr. Marilyn Haupt, co-editor of a special October issue of the journal Critical Care Clinics that was devoted entirely to treating morbidly obese patients. Haupt and her co-editor, Dr. Mary Jane Reed, say the ICU has undergone a transformation in the past two decades, from places that used to see the occasional severely overweight, to places that now care for multiple morbidly obese patients at once.

"That's because of the explosion of the epidemic of obesity in this country and North America," says Haupt, director of research and quality at Synergy Medical Education Alliance in Saginaw, Mich.

According to Statistics Canada, 24 per cent of the adult population aged 20 to 69 -5.3 million people - are obese, with a body mass index, or BMI, of 30 or more. Doctors are reporting a rise in the "super obese," people with a BMI in the 50s and 60s, something that was unheard of a generation ago.

"We are seeing more patients in the very severely obese categories," says Dr. Gordon Rubenfeld, chief of the trauma, emergency and critical care program at Toronto’s Sunnybrook Health Sciences Centre.
"The epidemiology is very clear about that, that we're seeing more patients like this. I think that's without a doubt the case."

Severely obese people now make up a bigger proportion of patients with severe infections, heart problems, breathing disorders, pneumonia, blood poisoning, crash injuries, gunshot wounds and any other trauma that requires admission to an ICU.

Heavier patients are being operated on and running into complications that require intensive care, and bariatric, or "stomach-shrinking" surgery for the severely obese is expanding. With any operation, obesity increases the risk of respiratory failure, wound infections, blood clots and other post-op complications -"including death," Atule Gawande writes in his book, Complications.

Once in the ICU, even getting at a diagnosis can be difficult. "You can't do things like CT scans or MRIs because the patient won't fit onto the beds or into the scanners," Rubenfeld says. In a CT scan and MRI, the typical bore size -the hole in the doughnut -is 70 cm to 80 cm.

"They get to you, they're really sick ... Ultrasounds don't work, X-rays don't work," Hebert, of The Ottawa Hospital says. "Getting people to a hospital can be a problem. Sometimes, ambulance stretchers aren't heavy or big enough. It can start from the moment you try to get them out of their apartment."

Crystal Godfrey Wall says discrimination against obese patients is rampant. "In our health-care system, we really do believe that it's their fault, and there is no compassion," the nurse says.

Godfrey Wall underwent bariatric surgery in 2009. She weighed 310 pounds; she weighs 127 pounds now. She used to work in the operating room but now works in internal medicine and says the first thing asked when a patient is sent to the ICU is, "How big are they?"

"In the smaller centres, an ICU only has so many beds. If they have a regular-sized person over a bigger person with the same conditions, they are going to take the smaller one."