

# THE GLOBE AND MAIL

## A clear vision for better health care

By cutting out inefficiencies with surgical precision, a Victoria eye clinic is helping patients faster than ever before

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Out of habit, Lynda Taggart glanced up at a clock high on the wall in the operating room.

“Did you see the clock? I couldn't believe it,” she said a little later. “I could read the numbers.”

Her cataract surgery had just finished and, minutes after walking away from the surgery table, she was sitting in the waiting room, smiling, and about to go home. “I won't need glasses around the house. I can put them away in a drawer.”

Her quick turnaround is the result of a quiet overhaul by a battalion of efficiency experts, guided by front-line medical staff – doctors and nurses willing to look at their work through a business lens: Identify and purge waste, and stop doing things that don't add value.

Using management techniques pioneered by the Toyota Motor Company, “quality improvement” experts with stopwatches have teamed up with doctors and nurses to analyze every step in a patient's journey through the eye clinic at Royal Jubilee Hospital in Victoria.

This is what they found: waste, in each doctor demanding a unique assembly of dozens of surgical implements for the same procedure. Waste, in anesthetizing patients when a light sedative would do. Waste, in sending tools off-site to be sterilized (and often lost).

With B.C.'s health authorities having been told this week to find \$360-million in savings this year, discovering efficiencies has taken on a new urgency.

Dr. Hamza Khan, who conducted Mrs. Taggart's surgery, didn't buy into the new “lean” methods, also called the Toyota Production System, just to help management control costs. He's embraced the new techniques because they lessen patient anxiety and reduce the risk of errors and infections.

“Through this stream-lining process, we need to take more time to improve the safety for the patient. When you start with that, it's much easier to get front-line support.”

Lower costs, better outcomes: What's not to like? Hospitals across Canada, the U.S. and Britain have adopted the Toyota/lean concept because it promises a way to manage scarce dollars in the face of escalating costs and growing demand. But is it a fad diet or a lifestyle change?

“We've had Ontario hospitals talking about being ‘lean like Toyota does it.’ Then a few years later, the money's been spent without net benefits,” said consultant Tim Hill, an expert in adapting Toyota management to health-care settings.

He said many Canadian hospitals haven't figured out how to stay lean because they look at it only as a cost-cutting measure. "As hackneyed as it sounds, this is a journey, not a destination."

### **One woman's story**

Mrs. Taggart's journey at the Royal Jubilee eye clinic began at 11:50 a.m. Tuesday. She was prepped and in the operating room by 12:42 p.m. She lay down and her eye was propped open, a sheet adjusted. The operation began with a quick but key ritual: a verbal checklist to ensure Dr. Khan had the right patient on the operating table, the correct eye under his scope, and the proper prosthetic lens ready in a prepared tray.

"Just take some nice deep breaths," advised Maureen Hinz, the nurse in charge. Mrs. Taggart's dark brown eye stared up as Dr. Khan narrated the procedure in a soothing tone. He made an incision of 2.5 millimetres in the side of her cornea – the clear surface of the eye – and inserted a tiny probe that blasted the cataract to pieces with ultrasonic vibration.

After he suctioned out the tiny remains of the cataract, it was time for the last step. "This is the lens going in, rolled up like a taco," he explained to Mrs. Taggart. Once in place, the implant unrolled itself.

Ten minutes after the surgery started, it was over. "The lens is in, the cataract is out," Dr. Khan announced. "Were you comfortable through all that?"

"Yeah, great," Mrs. Taggart replied. The nurses helped her to her feet and she walked away. This was her second cataract operation – her right eye was done in November – and by today, the 72-year-old will be able to drive again, her independence and quality of life restored.

By tweaking the things that Mrs. Taggart wouldn't notice – using a prepackaged set of surgery tools and installing sterilization equipment at the clinic – the operation now flows with more manufacturing precision. The result is that Royal Jubilee, the main centre for cataract surgery in Greater Victoria, has been able to do more with less: Last year they did 3,900 surgeries like this one, up from 2,800 in 2003. They've also saved \$450,000 by eliminating unnecessary anesthesiology.

### **Making it last**

This is just the kind of efficiency the B.C. government wants to hear about to as it looks for ways to rein in health care spending. This week, as hospital authorities announced cuts to elective surgeries, layoffs and higher fees, Premier Gordon Campbell defended his government's funding levels. "If we lock ourselves into the past and say there can be no change, we are not going to be as successful in sustaining health care," he said Thursday.

Similar changes are taking place at Royal Jubilee's emergency department.

At 9:30 on a weekday morning, the waiting room was busy. There aren't enough beds to go around because of the 38 patients admitted to ER, 30 were just waiting for a bed in other parts of the hospital. (The story is echoed in the rest of the hospital, where close to 12 per cent of all beds are occupied by people who are waiting for a space in a care home.)

This patient traffic jam is common – but it's an improvement from six months ago, before lean management changes.

Leighanne MacKenzie is the director of emergency services at Nanaimo Regional General Hospital. An ER nurse for 30 years, she's helped usher in changes at Vancouver Island hospitals including at Royal Jubilee.

Her goal is for the emergency department to perform an initial triage assessment in 30-90 seconds. She grabs a reporter's wrist and demonstrates the emergency department "handshake" which tells her, in a quick moment of contact, that the reporter is not in critical condition. "I can tell by your skin, which is warm and dry." With a pulse, too.

In the old system, a patient would wait 10-20 minutes to be assessed, then likely wait 2-4 hours a stretcher. Now, if they are able to walk, they'll be handed their own file follow the blue dots on the floor into a second admitting room. Which doesn't sound like much of an improvement, but they'll now receive treatment 30 per cent faster.

Ms. MacKenzie boils Toyota's lessons for her department down to this: "What is not added value from the patient's perspective and is not added value from a medical perspective, can go."

The Royal Jubilee hospital has a unique opportunity to make the new management process stick by embedding it in concrete. On one side of the sprawling campus of aging buildings, a new patient tower is under construction. Each floor will be carved into pods (which can be sealed off in case of contagion) sprouting identical patient bedrooms. Nurses will whisk efficiently around their patients with carts armed with wireless laptops which will help them locate wheelchairs or other devices equipped with GPS tags.

While construction workers buzz around the building, a mock-up of the new single-patient rooms and a nursing station has been built nearby to hone the interior design.

Jackie Blache imitated the shimmy she currently does to help a patient on the toilet. A clinical nurse who has worked at Royal Jubilee since 1981, she admired the large bathroom and the room's patient hoist – a luxury on her current ward.

Ms. Blache estimates she wastes an hour a day due to inefficient design – trying to find medication in crowded closets, or tracking down equipment. Most rooms now house four patients, sharing one bathroom - a recipe for poor sleep and ineffective sanitation.

With poor hygiene a chronic weak link in containing the spread of bugs, the pods (formally known as wards, here they are called acuity adaptable medical surgical inpatient units) include easy-clean, no-touch sinks at every turn. "No excuse not to handwash," she observed approvingly.

Mr. Hill said getting nurses like Ms. Blache engaged in the process is the key to taking the Toyota Production Method past the "flash in the pan" of early success. Show her how she can do more of what she wants to do – patient care – without wasting time, and it can work.

And it has to, he said. "We have run out of time to continue to do it wrong."

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