



The QEII Foundation was onsite to capture Sharon Needham's gallium-68 DOTATATE scan at the QEII. The donor-funded technology, which is the first of its kind in Atlantic Canada, will transform the diagnosis and treatment of neuroendocrine cancer. **QEII Foundation**

# First cancer patients scanned thanks to donor-funded technology

## Bringing Atlantic Canada's first gallium-68 DOTATATE tracer to the QEII

By **Nicole Topple**

On the six-year anniversary of her cancer diagnosis, Sharon Needham anxiously awaited as a tumour-seeking tracer made its way through her veins.

The radioactive tracer, known as gallium-68 DOTATATE, is the world's best method for detecting neuroendocrine cancer. When injected into a patient and combined with the advanced imaging capabilities of a PET-CT scan, even the smallest traces of cancer — that otherwise wouldn't be detected — light up on screen.

It's a game-changer for patients, like Sharon, who finally have access to this critical diagnostic tool.

This September, she became the sixth patient in Atlantic Canada to undergo a gallium-68 DOTATATE scan at the QEII Health Sciences Centre — a milestone made possible by QEII Foundation donors.

For Sharon, her long-awaited scan felt like a "full-circle moment." Four years prior, she was the first Nova Scotia patient to access gallium-68 DOTATATE through a clinical trial in Sherbrooke, Quebec.

That 2017 scan showed that Sharon's cancer treatment — major surgery to remove the golf-ball-sized tumour in her left lung — was effective.

When her medical oncologist, Dr. Daniel Rayson, noticed a

suspicious mass in Sharon's abdomen earlier this year, it became clear that gallium-68 DOTATATE would be the best tool to determine if her neuroendocrine cancer had returned.

The QEII Foundation had recently launched its own campaign to bring the pivotal technology to the QEII and Sharon soon became the patient face behind its fundraising efforts. The end result was more than \$200,200 raised by 1,321 donors, fully funding the project.

According to Dr. Rayson, its impact on the lives and treatment journeys of neuroendocrine cancer patients cannot be understated.

"This scan is really the gold standard worldwide for diagnosing, staging and monitoring neuroendocrine tumours," says Dr. Rayson, chair of the QEII's neuroendocrine tumour team. "It allows physicians to know exactly where [the cancer] is, if it has spread and to what extent, and then to plan the best treatment options."

He's thrilled to be able to offer these scans to his patients, here at home, for the very first time.

It's a sentiment echoed by radiologist and QEII head of nuclear medicine, Dr. Steven Burrell. His team began performing the first patient scans

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*I'm so grateful to the donors who supported this project...it will truly change so many lives.”*

– Sharon Needham

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in late-August and he says it's already "making a significant difference" in patient care.

"The biggest advantage of gallium is it's much more accurate than anything we've had to this point, but it's also a much faster and more comfortable scan" says Dr. Burrell. "Previous methods involved four hours of scanning over two days, compared with now a 20-minute scan that can take place during a single hospital visit."

It's not hard to imagine the impact that this can have on a patient's comfort and overall experience during an already difficult time.

Both Dr. Burrell and Dr. Rayson are also excited for the research

opportunities, as well as the future clinical implications, that this best-in-class technology offers for diagnosing — and eventually treating — other cancers such as prostate cancers.

"The long-term impact is significant and these opportunities are only possible thanks to donors," says Dr. Burrell.

Once considered rare, neuroendocrine cancer is one of the fastest-rising cancers worldwide. It can develop anywhere within the body and has a wide range of symptoms, including abdominal cramps, diarrhea, wheezing, pounding heart rate, skin rashes and more. This makes it one of the most difficult cancers to detect, but local access to gallium-68 DOTATATE will now help provide a solution and, for many patients, offer long-awaited answers.


For survivor and patient spokesperson, Sharon, her recent scan confirmed that she's cancer-free.

"Words cannot describe my relief," says Sharon, who'll continue to undergo annual surveillance scans to ensure her neuroendocrine cancer remains at bay.

"I'm so grateful to the donors who supported this project...it will truly change so many lives."

## DID YOU KNOW?

Key benefits of the gallium-68 DOTATATE tracer and the impact donors are having on cancer care at the QEII:

-  **SLASHING TOTAL SCAN TIME FROM FOUR HOURS TO 20 MINUTES**, reducing the time a patient must lay still, improving comfort and reducing radiation exposure.
-  **MORE ACCURATE SCANS MEAN FASTER ANSWERS** and that patients receive the most targeted treatments and avoid additional tests, such as MRIs.
-  **LOCAL ACCESS** to a cancer imaging scan that patients in our region previously travelled to Quebec and beyond to receive. This is critical, especially in a pandemic.
-  **OPENS DOORS TO DIAGNOSE AND TREAT PROSTATE CANCER** and other cancers as gallium-based PET-CT scans are being used.
-  **LESS TIME SPENT IN HOSPITAL** by reducing scan appointments from three to one, when compared to the previous method.
-  **NEW TREATMENTS AND RESEARCH OPPORTUNITIES** thanks to best-in-class imaging; this can provide a lifesaving option for patients.