

## “Revolutionary” hepatitis C therapy at The Ottawa Hospital cures more patients



Photo by Jean Levac, Ottawa Citizen

Not long ago, BillyBob McPherson believed he had come to the end of his journey. That assessment would have been fair, were it not for recent advances in the treatment of hepatitis C.

Today, McPherson, a former carnival worker on a disability pension, is disease free, thanks to new drugs developed to cure this devastating infectious disease that affects the liver.

A clinical trial at The Ottawa Hospital led by Dr. [Curtis Cooper](#) was key to curing McPherson and opening the door to safer and more effective treatment for thousands of others. This particular trial tested a combination of four new anti-viral medications, called the Holkira Pak. The hospital has been involved in developing several other antiviral regimens for hepatitis C as well.

Dr. Cooper, an infectious disease specialist at the hospital and the University of Ottawa, and Director of the Regional Viral Hepatitis Program, said the impact of these new drugs on patients is nothing short of “revolutionary.”

Until recently, hepatitis C treatment was primarily based on a protein called interferon, but side effects were so severe that only a minority of patients could tolerate it.

“Now we have something to offer almost everybody living with hepatitis C that is safe, well-tolerated, of short duration, and highly curative,” explained Dr. Cooper. The rate of

cure has jumped from below 50 percent to over 90 percent. While the new treatments are expensive, Dr. Cooper said he believes they will ultimately save the health-care system money by preventing hepatitis C complications such as liver failure and liver cancer.

“Over half of the people with hepatitis C do not know they have it,” he said. “Over the next 10 to 20 years, many of these people will begin to develop liver complications. We are looking at a tidal wave of sick patients.”

About 300,000 Canadians are living with hepatitis C, and many have high levels of poverty, substance abuse and mental health issues. In addition to researching many aspects of this disease, Dr. Cooper and his team are working with psychologists, community partners and telemedicine programs to better engage marginalized populations and develop individualized, patient-focused management plans.

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## Decision aids help patients weigh options and make choices



***“This process is not to second guess the doctor,” explained Brian Cullen, reflecting on his experience with using a decision aid. “It’s about having information to make an informed choice.”***

Brian Cullen had just retired when a routine annual physical in 2014 showed signs for concern. Cullen’s father had died of prostate cancer at 61, so 56-year-old Cullen and his doctor were on the lookout for signs.

Blood work and screening tests led to a biopsy. Within a month, Cullen was deep into deciding between surgery or radiation for prostate cancer. But, he soon learned that a lot had changed since the day his dad was diagnosed.

“My father never spoke about his prostate cancer. He was so scared of the disease, he would have done anything he was asked to do,” said Cullen.

Today, prostate cancer patients at The Ottawa Hospital are encouraged to use a decision aid to help them understand their condition and reflect on treatment options that include watchful waiting, radiation or surgery.

A decision aid is a series of impartial questions, either on paper or online. As patients work through the questions, they learn about the risks and benefits of the various treatments they could choose.

“The decision aid made the pros and cons very clear and it also confirmed to staff that I had enough knowledge to make an informed decision,” explained Cullen. “Treatment is an individual decision because one person may accept certain side effects that another would not. The whole process was brand new to me, but decision aids make you more comfortable about the facts.”

Dr. [Dawn Stacey](#), a scientist and nurse with the hospital and the University of Ottawa, has been developing and implementing decision aids for more than 15 years, both nationally and internationally.

“A lot of patients are conflicted and they do not know how to weigh their options,” she explained. “Decision aids are unbiased tools that help patients understand the options, risks and side effects. They can also help patients think about what outcomes are most important and what side effects they prefer to avoid.”

Stacey is the Director of the hospital’s [Patient Decision Aids Research Group](#), which leads the world in this area of research and is celebrating its 20th anniversary. Since its inception in 1995 by Dr. Annette O’Connor, the group has led the development of about 50 decision aids for conditions including arthritis, diabetes, various cancers and heart disease. The group has also led international teams to establish standards for about 300 decisions aids.

There is still a lot of work to do, particularly in encouraging doctors and patients to use decision aids, but satisfied patients like Cullen are helping to spread the word.

## Blood clot research saves unnecessary tests for patients



*“I’m glad that I could contribute to research that will help patients and save the health-care system money,” said Jamie Dossett-Mercer (left), who was treated by Dr. Marc Carrier.*

It came on intermittently over a few weeks. One day Jamie Dossett-Mercer had just completed his daily fitness routine and was back at his desk, when he noticed his left leg was swollen, again. Imaging tests ordered by his family doctor revealed the silent foe.

“I knew that something was not right. My leg was ballooning, on and off. So, following the tests, I was told to head to The Ottawa Hospital emergency room immediately,” said Dossett-Mercer. “They were quick to admit me.”

Dossett-Mercer was seen by Dr. Marc Carrier, a hematologist and scientist with The Ottawa Hospital and professor with the University of Ottawa. Dr. Carrier began treatment for major blood clots in the veins of the left leg. If one of those clots had broken off, it could have traveled to a lung and caused a pulmonary embolism – often fatal.

About 60,000 Canadians are diagnosed each year with blood clots in the lungs and legs (called venous thromboembolism). In some cases, the clots are caused by trauma, surgery, prolonged immobility or a known cancer. In about half of cases, the cause of the clots is unknown.

In Dossett-Mercer’s case, the cause is still unknown.

The condition led to Dossett-Mercer’s involvement in a ground-breaking clinical trial, with results published in the [\*New England Journal of Medicine\*](#).

“Unexplained blood clots have long been thought of as a possible early warning sign of cancer,” explained Dr. [Carrier](#). “Some clinical guidelines recommend a CT scan of the abdomen and pelvis, in addition to other cancer screening. But there’s little evidence to show that this CT scan is helpful. We did this study to find out.”

What Dr. Carrier and his research team, along with patient volunteers like Dossett-Mercer, proved is that CT scans in patients with unexplained blood clots are unnecessary and can do more harm than good. The study showed there was no difference in the number of new cancers detected through the use of CT scans and also no difference in the number of cancer-associated deaths.

“Unnecessary CT scanning can cause stress and anxiety in patients, as well as radiation exposure, and it can lead to over-investigation of false-positive findings,” explained Dr. Carrier. “Our study means many patients will now be able to avoid this.”

The results could also lead to more than \$9 million in savings for Canada’s health-care system.

As testimony to the importance of this research, Dr. Carrier has been selected as the 2015 Dr. Michel Chrétien Researcher of the Year by the Ottawa Hospital Research Institute Awards Committee. He will receive the award on Nov. 21 at The Ottawa Hospital Gala.

For more information, please listen to this television interview with [Dr. Carrier and Jamie Dossett-Mercer](#).