Lessons learned from a pandemic
Hospital CEOs weigh in

Page 16
WITHOUT NURSES, HEALTH CARE WILL FAIL

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Contents

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IN THIS ISSUE:

▲ Cover story: Lessons learned from the pandemic 16

▲ Special focus: Canadian Association of Radiologists 22

▲ Why addressing the health workforce crisis can’t wait 10

▲ First ever Robotic intramuscular injection 33

▲ Global study on heart valve repair surgery will improve patient outcomes around the world 20

▲ Accreditation helps keep quality in the forefront during COVID-19 8

▲ 100 years of diabetes research: Building on Banting’s legacy 14

COLUMNS

Editor’s Note ......................... 4
In brief .......................... 6
From the CEO’s desk .....32
Long Term Care ...............34
Evidence matters ..........37

Global study on heart valve repair surgery will improve patient outcomes around the world

Why addressing the health workforce crisis can’t wait

Accreditation helps keep quality in the forefront during COVID-19

100 years of diabetes research: Building on Banting’s legacy
Almost half of healthcare workers are not doctors and nurses

Health policies must address their burnout too

By Irving Gold

Vaccination rates are climbing, and COVID-19 cases are decreasing. While this is surely a relief to most of us, many healthcare workers are bracing themselves for a significant post-pandemic fallout. Far from getting a much-needed reprieve from an emotionally and physically draining 20 months, these professionals will be forced to work under similar strain to deal with the backlog of procedures now being scheduled again.

There is abundant evidence of increasingly high levels of stress and burnout among all healthcare workers in the system.

National and local television, radio, and print media have been covering the situation extensively with horror stories of doctors working around the clock with no end in sight, and nurses burning out in unprecedented numbers. The warnings are consistent: we are headed towards a full-blown crisis.

Unfortunately, this tells only half of the story. In Canada, 42 per cent of healthcare workers are neither nurses, nor doctors, but hail from other, equally essential professions. We ignore their well-being at our peril.

Every time these professionals see “doctors and nurses” used to refer to healthcare workers, they shudder, and yet they are the ones who are actually bearing the brunt of the work.

This media shorthand may be convenient, it only serves to reinforce the alarming tendency of healthcare decision makers to make policy based on considerations that exclude almost half the workforce.

We’ve already seen the potentially deadly consequences of health policies forgetting almost half the health workforce earlier in the pandemic.

Medical Radiation Technologists (MRTs) have been one of the oft-ignored professions. While many Canadians aren’t familiar with the term MRT, most have relied on them as part of their healthcare team at some point of their lives. MRTs are the professionals who do the X-rays, nuclear medicine, MRIs and CT scans that allow doctors to diagnose and provide medical treatment. They also administer radiation therapy to cancer patients.

MRTs have been on the frontlines of the pandemic, providing the imaging required to monitor and manage COVID-19 patients, and through all the extreme challenges of this pandemic, have maintained the integrity of the health services for other diseases and conditions.

MRTs are the third largest contingent of healthcare professionals working in hospitals, and they also work in clinics, cancer centres and other settings across the country.

Continued on page 6

UPCOMING DEADLINES

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COVID-19 has impacted our health systems – but how much?

By Julie Bortolotti

Data drives better decisions. Throughout the pandemic, the availability of credible and timely data has been at the core of many conversations and decisions related to COVID-19. The Canadian Institute for Health Information (CIHI) has been a key partner in the response – collecting and providing data, and supporting all levels of government through modelling, standards, resources, analysis, and expertise.

Although COVID-19 has undoubtedly disrupted our health systems, many of the challenges were known well before the pandemic. The health care workforce, the sustainability of health spending, and Canada’s aging population continue to be drivers that test our systems.

Below are a few highlights of what we’ve learned about COVID-19 over the past year.

There were considerably fewer emergency department (ED) visits during the first wave
• Visits to EDs across Canada declined by almost 25,000 a day during the first wave of the pandemic – about half the usual number of patients.
• Although ED activity declined during the first wave, people with unplanned health concerns like cardiac events and trauma still received care.
• People waited less time to see a physician in the ED because of the decreased number of people coming in for care.

Hospital stays for substance use harms increased
• During the first months of the pandemic there were 81,000 hospital stays for harm caused by substances like alcohol, opioids, stimulants and cannabis – an increase of about 4,000 compared with the same period in 2019.

A COVID-19 hospitalization costs about three times more than a stay for a heart attack
• From January 2020 to March 2021, there were over 42,240 hospital stays in Canada (excluding Quebec) for patients with COVID-19.
• There were longer wait times for some priority procedures
• Cancelled and delayed procedures because of the pandemic led to longer wait times for joint replacements and cataract surgeries in 2020.
• About half of Canadians who needed a procedure didn’t receive it within recommended time frames. However, for urgent procedures like radiation therapy and hip fracture repair, most people continued to receive care within benchmark time frames.

Our health workforce experienced many effects of the pandemic
• Canada’s supply of health care workers increased as nearly 6,000 nurses, pharmacists, physiotherapists and occupational therapists returned to their practices to help respond to the pandemic, as well as new entrants to the professions.

• Despite the increase in supply and the ability to call on health care workers who weren’t working in profession-specific roles, infections and exposure to the virus among health care workers contributed to staff shortages.
• To reduce the spread of COVID-19, many health care professionals transitioned to virtual care, with about 83 per cent of physicians providing at least one virtual care service (in selected provinces).

COVID-19 costs are expected to reach $23 billion in 2021
• Canada is expected to spend a new record of $308 billion on health care in 2021.
• Total health spending is expected to have increased by more than 12 per cent between 2019 and 2020, a rate of increase we haven’t seen in more than 30 years.
• Hospitals, physicians and drugs continue to make up the largest areas of spending.
• A new spending category COVID-19 Response Funding will make up about seven per cent (approximately $23 billion) of total health spending.

As we continue to navigate the pandemic and receive more timely data, we’ll learn more about COVID-19’s effect on health systems across the country.

For more information, visit the COVID-19 resources web page for key reports and resources.

Julie Bortolotti is a Communication Specialist, Canadian Institute for Health Information.
Increasing organ donation by increasing consent to donate

When seeking consent for organ donations, in-person requests made to substitute decision-makers, with physician involvement, are more likely to result in a positive response, according to a study of organ donation in Ontario, Canada, published in CMAJ (Canadian Medical Association Journal).

“Optimization of the approach of potential organ donors to support consent decisions is critical to ensure patient wishes are respected and to remove any barriers to organ donation,” writes Dr. Jeffrey Singh, a critical care physician at the University of Toronto and the Trillium Gift of Life Network, Toronto, Ontario, with coauthors.

Organ donation rates are still low in Canada, ranging from 8.8 to 21.2 donors per million population, with almost 4500 people on organ transplant waiting lists. Many people die while on transplant waiting lists, as the demand for donated organs is greater than the supply.

In many parts of the country, substitute decision-makers are asked to give consent for organ donation, even if the potential donor has registered consent to donate.

“Substitute decision-makers faced with consent decisions often do so in emotionally charged circumstances, and many do not know the explicit wishes of the patient,” write the authors. “Given this context, the process of obtaining consent and the supports provided may have a substantial impact on the decision.”

Researchers looked at factors associated with positive consent for organ donation in Ontario with an aim to identify those that could be modified to increase rates of consent. The study included 34,837 people aged 18 years and older referred for organ donation between 2013 and 2019. The average number of referrals received by Trillium Gift of Life Network, Ontario’s sole organ donation network, doubled from 300 per month in 2013 to 600 per month in 2019, and the number of consents increased from 36 to 64 per month in the same time frame.

Demographic characteristics, such as older age of the patient and a request by telephone rather than in person, were associated with declined donations. In addition, religion and faith had an effect, as substitute decision-makers who identified with Aboriginal spirituality or Buddhist, Christian Orthodox, Hindu, Jewish or Muslim faiths were much less likely to consent than people who said they were atheist, agnostic, Christian or had no religion. Patients from small centres were more likely to consent than those in large urban centres, and people living in high-income neighbourhoods were less likely to consent than people in middle-income neighbourhoods.

The authors found that timely referrals to donation, in-person requests and those involving physicians along with a trained donation coordinator increased the likelihood of a positive response.

“Specific interventions to ensure timely referrals to organ donation organizations, to increase in-person approaches to substitute decision-makers for consent and to encourage physician participation in the approach process may increase rates of organ donation consent,” the authors conclude.

Doctors and nurses

Throughout the pandemic, many MRTs have been forced to fight for access to adequate personal protective equipment (PPE), vaccine priority, and acknowledgement that they too were working on the front lines and putting their lives in danger for the well-being of other Canadians. This, despite their numbers and importance to diagnosis and care.

To add insult to injury, they are now being ignored, yet again, in conversations about healthcare workers who are struggling to do their work in the face of enormous challenges to their mental health. For one public example, Quebec Premier Francois Legault, in defending the move to provide relief to Quebec nurses, explained that this relief was not being extended to other healthcare workers and compared them to convenience store workers doing overtime.

I wish these kinds of statements were surprising.

According to our recent survey of MRTs, two thirds of respondents reported high levels of emotional exhaustion (a symptom of burnout). It’s time MRTs and other healthcare professionals were included in policies and programs that address burnout in our health system.

This month celebrates MRT Week (November 7 to 13), a chance to recognize the indispensable work that these tens of thousands of healthcare professionals do every day to keep the COVID response strong, to keep the healthcare system running, to battle the backlogs in the system and give us the chance to get back to normal.

As we begin to look at how healthcare workers are going to deal with the immediate future, conversations and solutions that focus exclusively on doctors and nurses will have devastating consequences and ultimately undermine efforts to address the crisis.

We will never solve our healthcare crisis by ignoring close to half of those who are paying the price.

New Canadian Cancer Statistics report reveals 50 per cent decline in prostate cancer death rate since peak in 1995

A new report released by the Canadian Cancer Society (CCS) reveals significant progress is being made in saving the lives of people with prostate cancer. Since its peak in 1995, the prostate cancer death rate has declined by 50 per cent.

The report showed the prostate cancer death rate has been cut in half over the last 26 years – from 45.1 to an expected 22.7 per 100,000 males. Nevertheless, an estimated 4,500 will die from prostate cancer this year.

Advancements in precision surgery and targeted radiation treatments have played a major role in helping to cut the prostate cancer death rate in half.

Despite advancements, prostate cancer continues to be the most commonly diagnosed cancer and the third leading cause of cancer death in males, expected to account for 20% of all diagnoses in males for 2021 and 10 per cent of all cancer deaths. Prostate cancer is also one of the least preventable types of cancer based on currently known risk factors.

OTHER KEY FINDINGS IN THE REPORT

Cancer continues to be the leading cause of death in Canada. One in four Canadians are expected to die from cancer.

- About 43 per cent of Canadians are expected to be diagnosed with cancer at some point in their lifetime.
- Five-year survival for cancer is now 64 per cent, up from 55 per cent in the early 1990s.
- The cancer death rate has decreased an estimated 29 per cent since its peak in 1988.
- In 2021, almost 239,000 Canadians are expected to die of cancer.
- In 2021, almost 239,000 Canadians are expected to die of cancer and nearly 85,000 are expected to die of cancer.

To learn more about cancer in Canada, visit cancer.ca/statistics.
CMAJ supports mandatory vaccination of physicians against SARS-CoV-2

Physicians should be vaccinated against SARS-CoV-2 to protect patients and other health care workers and should be prevented from practising in person if they refuse, argues CMAJ (Canadian Medical Association Journal), Canada’s major medical journal.

Physicians who refuse to be vaccinated “are undermining public confidence in the safety and effectiveness of SARS-CoV-2 vaccines and putting patients and health care colleagues at risk,” write Drs. Andrew McRae, Editorial Fellow, and Andreas Laupacis, Senior Deputy Editor, CMAJ. “Physicians who refuse SARS-CoV-2 vaccination and do not have a valid medical exemption should be barred from conducting in-person practice.”

Although the vast majority of physicians in Canada are vaccinated, a small minority insists on the right to opt out. CMAJ editors argue these resisters should not be allowed to practise medicine in person, unless they have a valid medical exemption, as there is a robust body of evidence showing SARS-CoV-2 vaccines’ effectiveness against severe COVID-19, and the benefits of vaccination outweigh any potential rare adverse events. Vaccination will prevent transmission to patients and to health care colleagues, which is especially important given the virulence and increased transmission of the Delta variant.

“Mandatory vaccination against COVID-19 is consistent with current policies. Many hospitals already require mandatory vaccination of physicians and staff against influenza. Vaccination against rubella is required for health care workers providing care in hospitals in Alberta and Ontario,” write Drs. McRae and Laupacis. “Physicians who choose not to be vaccinated against SARS-CoV-2, hospital and regulatory bodies should take action to curtail their professional activities.”

“Vaccine-resistant people are free to choose not to be vaccinated. But they ought not to be free to refuse SARS-CoV-2 vaccination and to work as physicians,” they conclude.

“SARS-CoV-2 vaccination should be required to practise medicine in Canada” is published November 9, 2021.

Canada ranks 43 out of 116 countries and territories on women’s health

Hologic, Inc. a global leader in women’s health, today shared the Canadian findings from its inaugural Hologic Global Women’s Health Index, the world’s most comprehensive, globally comparative survey about women’s health. Canada ranks 43 out of 116 countries and territories, coming in well behind Australia (9), United Kingdom (12) and United States (26).

“The reality is, when it comes to women’s health in Canada, we’re still not doing nearly enough,” said Jennifer Bernard, President and CEO of Women’s College Hospital Foundation. “The Hologic Global Women’s Health Index has tapped into serious issues facing Canadian women. This data is essential to better understanding the root of these inequities.”

Developed in partnership with Gallup World Poll, the Hologic Global Women’s Health Index represents the feelings and actions of approximately 2.5 billion women and girls globally. Its findings are based on the experiences of more than 60,000 women and girls from 116 countries and territories, captured in more than 140 languages.

KEY CANADIAN FINDINGS

The Hologic Global Women’s Health Index identifies discrepancies in perceptions related to Canadian women’s well-being:

• Canada has one the largest gender gaps among high-income countries on the view that domestic violence is a widespread problem: 81 per cent of women say it is vs. 58 per cent of men.
• Canadian women were significantly more likely in 2020 than in 2019 to say they felt sad for much of the previous day – 36 vs. 26 per cent. There was no corresponding increase among Canadian men.
• About one-third of Canadian women with a high school education or less (32%) say they have health problems that keep them from doing things other people their age can do, versus 15 per cent of women with a bachelor’s degree or more.
• Canadian women are behind on their preventive care examinations, increased poverty levels, and insufficient access to medical facilities and education – including postponed or canceled preventive care examinations, increased poverty levels, and insufficient access to medical facilities and education – have created a more urgent need for leaders and policymakers to prioritize women’s health.
• High-income Canadian women are most likely to be satisfied with healthcare availability, with those in the wealthiest 20 per cent of the country’s income distribution most likely to be satisfied.

While the Hologic Global Women’s Health Index was initiated before COVID-19 affected the world, the pandemic and its effects on the already precarious state of women’s healthcare – including postponed or canceled preventive care examinations, increased poverty levels, and insufficient access to medical facilities and education – have created a more urgent need for leaders and policymakers to prioritize women’s health.

For more information about the Hologic Global Women’s Health Index and year one findings, please visit: hologic.womenshealthindex.com.
Accreditation helps keep quality in the forefront during COVID-19

By Leslee Thompson

Health care organizations across Ontario have noted that despite significant challenges brought on by the recent COVID-19 pandemic, upholding standards and continuing with external evaluations of quality of care remains a top priority. Even in the chaos of a pandemic, organizations were keen to utilize new tools and methods to help them continue their quality improvement journey.

In response to the COVID-19 pandemic, Accreditation Canada (AC) and their many surveyors pivoted to offering accreditation surveys utilizing both virtual and on-site assessment approaches to help clients continue their accreditation work even in the most challenging time. Other resources were released such as toolkits for Infection Prevention and Control Practices Virtual Care, webinars and COVID-related Leading Practices.

Sean Molloy, Director of Patient and Family Centered Care and Care Transitions at North York General Hospital said the accreditation process is “extremely important” even during the COVID-19 pandemic. “It’s extremely important for organizations to continue their accreditation process, as the standards are integral to patient safety, quality and family-centered care,” he said. “The pandemic has changed what we need to do every day, but it hasn’t changed the fact that we need to deliver care in a safe way.”

Utilizing AC’s temporary hybrid, virtual and on-site survey model – born out of COVID-19 – North York General was able to continue its accreditation work through the pandemic.

Stephanie Robinson, Manager, Quality and Service Innovation at North York General, noted that the hybrid experience “worked well” for the organization. “It needs to be highly facilitated, organized and planned but moving forward, we would have no hesitancy in doing it again,” Robinson said.

She added the hybrid survey was a positive experience as it allowed more people to connect without everyone having to be in the same room. “We would definitely continue,” Robinson said. “That’s one of the benefits of the pandemic requiring our hospitals to rapidly become more virtual. It’s been wonderful to connect with people wherever they are.”

In the face of COVID-19, the Children’s Hospital of Eastern Ontario (CHEO) also had to move towards more virtual care delivery.

The organization credits the accreditation process with keeping its systems and practices “at their best,” allowing it to adapt to change quickly. “Our continuous focus on safety, supported by Accreditation Canada’s rigorous process, ensures we are ready to quickly and safely adapt to any situation, even one as all-encompassing as the COVID-19 pandemic,” said Dr. Ken Farion, Medical Director of Strategy, Quality and Systems Improvement at CHEO.

Like most health organizations in Canada, CHEO was forced to suspend most in-person appointments when COVID-19 began. Dr. Farion adds that with the emergence of COVID, CHEO’s ER, which is one of the busiest ERs in Canada, saw a significant drop in patients. “It suddenly went quiet, and we realized that we needed to reach these families and reassure them and ensure they were getting the care they might need,” he said.

He noted that as the accreditation process required CHEO to have best practices and processes in place, the organization was able to quickly mobilize a virtual ER department. “Providing virtual care is not new to CHEO, but the pandemic increased the need, seemingly overnight, to be able to provide safe online care,” Dr. Farion said.

For AC and HSO, the COVID-19 pandemic has only reinforced the need for high-quality standards and for vigilance on maintaining safe, reliable, person-centred care that can withstand unexpected disruptions such as outbreaks, another pandemic or other disasters.

As quality improvement is an ongoing process, moving forward from COVID-19, AC is working to establish a continuous assessment model. Under OnboardQi, AC and HSO clients will be able to access new assessment methodologies that include virtual surveys, as well as new survey instruments and new, revised and existing standards.

Like North York General and CHEO, Toronto-based Safehaven also credits its early COVID-19 success to AC’s accreditation process, which helped to refine the organization’s health and safety protocols.

Susan Bisaillon, CEO of Safehaven, noted that as the organization was accredited prior to the pandemic in June 2018, they were provided with a sustainable framework for all their policies and procedures during regular operations, as well as in a scenario that required them to manage an outbreak such as COVID-19.

“Even though no one wants to think about dealing with a pandemic, we knew we were prepared,” she said. “When there were challenges and barriers, the thing that kept us grounded was the framework we adopted from Accreditation Canada. We knew that we were in a good place.”

Safehaven offers residential, respite and recreational programs. In the summer of 2020, the organization remained COVID-free. “The measures we put in place because of accreditation actually kept us out of outbreak,” Bisaillon said.
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As we collectively start to plan for a post-pandemic future, the Canadian Medical Association (CMA) and other health care partners continue to sound the alarm about Canada’s health workforce crisis. Health workers are dealing with long work hours, increased workload, harassment and intimidation, and ongoing distress caused by the pandemic, among many other challenges.

These are not new problems. Before the pandemic, 30 per cent of physicians reported high levels of burnout. But COVID-19 has exacerbated the cycle of health worker burnout and staff shortages, pushing hospitals to the brink. The lack of primary care capacity means that emergency rooms are perpetually congested and surgery backlogs continue to increase.

In October, during the fourth wave of the pandemic, the CMA and the Canadian Nurses Association (CNA) hosted an emergency summit, bringing together nearly 40 national and provincial health organizations. Health care workers and advocates made it clear that creating a comprehensive health human resources plan should be a top priority. Since then, I have continued to hear from health workers across Canada that this issue can’t wait.

But during these conversations, we are also continuously confronted by obstacles when we try to move the dial on health workforce planning. One key barrier we face is that we can’t measure what we can’t measure. In short, we don’t have the data we need: Where is the biggest need for physicians and primary care providers? How many physicians are needed in each area? How does technology including virtual care affect these numbers? And how do we incentivize physicians to stay in primary care?

The data we do have is discouraging. For example, Canada is lagging behind other member countries of the Organisation for Economic Co-operation and Development (OECD), with 2.7 physicians per 1,000 population compared to an average of 3.5. And along with a shortage of physicians, the way we distribute our health workforce is problematic. About eight per cent of physicians practise in rural areas, caring for the 19 per cent of Canadians living there. The lack of pan-Canadian licensure limits mobility of the workforce.

We also work in provincial siloes, hindering a coordinated national response in areas where health staff shortages are the most severe. Recently in Newfoundland and Labrador, where nearly one in five people do not have a family physician, the provincial government proposed new measures including a team-based care approach.

And in a recent study from B.C., where one in six people do not have a family physician – a statistic matching the national average – researchers pointed out that workforce planning in the context of primary care needs to account for shifting models of practice. The study found most physicians are finding alternative ways to model their practice by blending community-based practice with work in other locations.

While trying different approaches to improve primary care access is commendable, the compartmentalization of health care – both within provinces and across Canada – means the full scope of Canada’s health workforce crisis is unknown.

While there are no quick fixes for this decades-long struggle, our actions now will determine how we recover from this pandemic. We have an opportunity to create tangible solutions for a robust and sustainable health care system. We are all accountable, and together, we can pave the way for a better health care future.
Changing the future of vascular care one patient at a time

Imagine waking up one morning with symptoms often associated with heart attacks: shortness of breath, pain in the chest or back radiating down the arm. These are alarming symptoms that without question would send someone to the emergency room immediately. But for the majority of people, getting winded at the top of a flight of stairs or aches and pains in the lower legs are the symptoms that people tend to endure or ignore – symptoms of coronary artery disease (CAD) or peripheral artery disease (PAD) that creep up on you gradually until they can be ignored no longer. The entry point into the health care system for treatment of chronic vascular diseases is not as straight a path as, say, myocardial infarction. We know this from the recently published results from Abbott’s multi-year global research initiative, Beyond Intervention. This year, Abbott delved further into understanding the challenges that arise during the earliest stages of the vascular patient journey – from screening and symptom detection/recognition to specialist referral. Abbott surveyed over 1,800 stakeholders across 13 countries from April to June 2021, including 1,289 vascular disease patients, 408 physicians, and 173 healthcare administrators.

The study uncovered many variations in how people experience the journey to diagnosis, treatment, and recovery, driven by factors such as disease state, socioeconomic status, and inter-physician communication. In particular, the research confirmed that patients with peripheral artery disease (PAD) face an even greater number of challenges to early and accurate diagnosis than patients with coronary artery disease (CAD) – as do women and patients from underserved communities.

It was clear from the research the patient experience is not as positive as healthcare administrators think it is. The perspectives of Canadian patients and physicians are aligned with the global data – 46 per cent of patients feel their experience went as well as it could have, compared to a 40 per cent global average. 50 per cent of physicians feel the patient experience is ideal, compared to a 46 per cent global average. However, 90 per cent of Canadian healthcare administrators feel the experience is ideal, whereas the global average is only 64 per cent.

If the future of vascular care is going to change the current patient experience for the better, the research suggests that setting industry-wide standards in diagnostic technologies, including tools, processes and training, can optimize the patient experience. This will enable physicians to make faster, more accurate diagnoses and referrals – one patient at a time.

While access to or lack of technology is not sited as a key barrier to an early and accurate diagnosis for patients in Canada, physicians, healthcare administrators and patients have a difference of opinion about which technology solutions they think would be most helpful in diagnosing vascular diseases before they become an emergency. Patients ranked state of the art imaging as their top choice. For physicians, wearables and implantable digital health trackers ranked as the top technologies of choice. And finally, healthcare administrators ranked connected home care services, telemedicine, and remote adherence monitoring as their top choices.

The desire for more cohesive, individualized and efficient vascular care continues to surface in Abbott’s research. Achieving this ideal patient experience is possible – the technologies designed to automatically detect blockages in arteries and help physicians make better treatment decisions do exist, as do the technologies that educate and monitor patients about their symptoms. While there is no simple solution to the challenges of improving the patient experience, we continue to make progress on the future of vascular care, one patient at a time.

Learn more: cardiovascular.abbott/beyondintervention

Percentage of HCPs/healthcare leaders who agreed the current patient experience is ideal vs. percentage of patients who agreed their experience went as well as it could have:

The key findings highlight one crucial truth: The patient experience may not be as good as healthcare leaders and physicians think it is, with healthcare leaders especially disconnected from the nuanced challenges of PAD care.
Almost all of us know and love people. It is likely the same in Canada as well. Providers and experts when it comes to public health systems. The risk they pose to their communities’ health decisions, it’s crucial to listen to their points of view about vaccines, and ask them if they want to discuss the information they share. The decision is ultimately theirs to make. Once engaged, the conversation must focus on retaining or rebuilding trust and avoiding conflict and judgement.

These conversations are very challenging for most people, even more so for people who are deeply worried about loved ones or frustrated with how long the pandemic is dragging on. They can also be tough for people who don’t have the science background or technical understanding of vaccines to respond to common questions with confidence. That being said, family and friends are so important for vaccination decisions, and the need to get people vaccinated is so urgent that it’s crucial for healthcare providers, scientists and experts to provide support for everyone who is trying.

On November 17, COVID-19 Resources Canada launched a free workshop program to help Canadians learn how to have vaccine conversations. The program is accompanied by access to ongoing, unlimited drop-in support so that people having these conversations with others can check in with healthcare providers and scientists about tough questions. They can also meet other people who are having these conversations, and share useful tips for how to handle some questions and scenarios. Finally, the workshop provides a library of multimedia resources with answers to common COVID-19 vaccine questions.

COVID-19 Resources and its team of volunteer scientists, physicians, pharmacists and nurses has been running a COVID-19 Vaccine Q&A program on Zoom since January 4, 2021. We’ve provided nearly 300 hours of Q&A programming and spoken with nearly 17,000 people living in Canada, in a wide range of languages. If you’d like to join a Q&A session or sign up for the workshop program, please visit https://covid19resources.ca/public/vaccine-conversations/.

We are here to share our skills and knowledge, and ensure that everyone living in Canada can speak directly with a vaccine expert. Together, we can help save lives and protect those we love.

Dr. Tara Moriarty is an infectious diseases researcher at the University of Toronto and co-founder of COVID-19 Resources Canada.
Governed by a mandate to provide universal access to high-quality, value-based care, Canada’s healthcare system faces ongoing challenges and opportunities for improving cost- and time-efficiencies across departments and facilities.

Achieving these efficiencies is especially critical for operating rooms focused on cataract and retina surgeries, which have long wait lists that have become even longer because of COVID-19. According to the Canadian Institute for Health Information, in 2020 around half of Canadians did not undergo their cataract surgeries within recommended time frames, compared with roughly one-third in 2019.

Yet by making just one change – in particular, switching from generic to comprehensive surgical packs – in their operating rooms, Canadian hospitals can realize numerous benefits for patients, doctors and for the healthcare system. Before a cataract procedure can be performed, each item required for surgery must be ordered, received, stored, and brought to the operating room storage space. The circulating nurse pulls each required item from inventory, and then unwraps each element for the scrub nurse prior to every surgery. Each step has a hidden cost of labour hours.

A recent budget impact model study by Alcon found a community hospital performing 2,500 cataract procedures per year can save up to 287 labour hours for materials management by using one system of pre-assembled instrument trays (Custom Pak®) customized for each practice, surgeon and case, and that include both pure disposable supplies, such as syringes, and sterile equipment-specific surgical supplies, such as surgical handpieces.

Surgery preparation time is also reduced by making this change. This in turn allows for potential additional procedures totalling almost 200 a year. From a financial perspective, the OR realizes more than $37,000 in cost savings.

At an aggregate level, a province that does 50,000 cataract surgeries per year realizes savings of more than 5,600 hours and frees up room and time for more than 3,900 additional procedures. The total potential hidden costs would be reduced by close to $737,000.

The results are similarly positive for retina procedures. At a facility with 1,000 retina surgeries annually, switching from a generic pack to a complete custom surgical pack saves about $10,270 each year in potential hidden costs. This one solution could allow for 127 additional retina procedures.

“As a user who switched to a complete custom surgical pack system, our quality, efficiency and value were taken to a much more elevated level,” says Donna Jacob, past Clinical Director, Kensington Eye Institute. “The custom pack system hit all the buttons, streamlining operations while at the same time adding superior quality and significant savings.”

At an aggregate level, a province that does 50,000 cataract surgeries per year realizes savings of more than 5,600 hours and frees up room and time for more than 3,900 additional procedures. The total potential hidden costs would be reduced by close to $737,000.

The benefits of switching to complete custom surgical packs go beyond ophthalmological procedures. In a study of custom surgical splint packs for orthopedic surgeries, pre-surgery preparation went from 209 seconds using a bulk supply pack to 86 seconds using a custom splint pack, while materials retrieval time decreased from 68 seconds to 33 seconds. Total splinting time shrank from 526 seconds to about 350 seconds.

For doctors and patients, the benefits of upgrading to complete custom surgical pack systems mean smoother, more seamless OR experiences and higher-quality care delivered within recommended timelines. Ultimately, these benefits translate into greater opportunities to ensure the sustainability of the healthcare system, today and in the future.

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Dr. Frederick Banting’s discovery of insulin began with an idea he had as a young doctor and instructor at Western University in London, Ontario.

On October 31, 1920, Banting had just prepared a lecture about the role of the pancreas in digestion and regulating blood sugar. That night, he woke up from a dream and wrote down a hypothesis that became the catalyst in the discovery of insulin.

Carrying on Banting’s legacy, the ongoing, collaborative work of London's research-intensive institutions and hospitals is paving the way for innovation in diabetes research, education and care.

**100 years of diabetes research:**

**Building on Banting’s legacy**

**GENETICS MAPS END OF THE ROAD FOR DIABETES**

Type 2 diabetes is a life-altering disease. And it’s known to cause 30 per cent of Canada’s strokes and 40 per cent of the country’s heart attacks.

Can it be cured? Not yet. But every day, Dr. Robert Hegele works with patients to improve outcomes, reduce risks and discover the disease before it takes hold.

As one of the world's leading authorities on cholesterol, Hegele routinely advises patients on how they can live longer and reduce their risk of serious health issues. Among the more than 2,500 patients in his care, he has noticed that when a patient has diabetes and high cholesterol, a hazard warning starts flashing on their risk of suffering a stroke or heart attack.

The good news, he says, is that it's entirely within their power to fight the risk.

In the lab, Hegele targets one tiny molecule at a time and moves one step closer to preventing the onset of diabetes.

“We used to have this idea that there’s one gene responsible for diabetes, but it’s not quite that simple,” says Hegele, an endocrinologist and the medical director of the London Regional Genomics Centre. It’s at the Centre where his team studies the variants in the genetic code that can cause diabetes and cholesterol disorders.

“Research shows it’s usually a combination of multiple genetic factors, many small defects, scattered throughout the genome, all culminating to create risk.”

A pioneer in developing diabetes medications, Hegele has used innovative treatments and game-changing technologies for patients with Type 2 diabetes at London Health Sciences Centre throughout the course of his career.

Using a diagnostic DNA panel that his lab invented, Hegele has discovered causal genes and mutations for more than 20 named medical conditions, including several inherited forms of diabetes.

His lab has shown that, in some cases, a single misprint in the DNA barcode is all that it takes to explain why...
PATIENT-CENTRED APPROACH KEY TO DIABETES MANAGEMENT

When it comes to effective diabetes patient care, health experts must look beyond the clinics and clinical trials. It’s a revelation from research conducted by endocrinologist Dr. Kristin Clemens, which identified the socio-economic challenges confronting patients while managing their diabetes and advanced kidney disease.

“Many patients in our study came from lower-income backgrounds, so it can be difficult for them to pay transportation and parking costs for medical appointments,” says Clemens, a clinician-researcher at St. Joseph’s Health Care in London. “It can also be challenging to take time out of their workday to see specialists for their various health conditions.”

Researchers have made significant strides in improving quality of life for people with diabetes. New medications and technologies – like insulin pens that connect directly to smartphones – have made self-guided disease management easier for these patients. But research has historically focused on treatments for patients in the earlier stages of diabetes, and fewer studies address best practices for those with later-stage diabetes living with multiple health complications. These comorbidities typically exclude patients from clinical trials and research studies, limiting foundational research for this patient population.

Aiming to change that dynamic, Clemens has focused her research on diabetes patients with comorbidities, or additional medical conditions, including advanced kidney diseases.

Clemens recently examined diabetes care in a population-based study of more than 4,000 Ontarians with diabetes undergoing dialysis treatment for kidney disease. Over a two-year period, the study found 40 per cent of patients experienced a gap in their diabetes care, a disconnect between best practices and their actual quality of care.

Her team then conducted a qualitative, patient-oriented study to uncover the factors contributing to those gaps. This work revealed several unique challenges patients faced while managing diabetes and advanced kidney disease. The cost of transportation and parking, and taking time away from work are factors that are preventing patients from accessing diabetes care. Many patients also voiced a desire for professional help in coordinating their diabetes care.

Building on these insights, Clemens’ team implemented a diabetes outreach program in the dialysis unit at London Health Sciences Centre’s Kidney Care Centre. Led by a diabetes educator, the program offers health management assistance to patients with diabetes while they receive dialysis treatment. The educator helps patients stay on schedule with insulin shots and other medications. They also remind patients to have screenings conducted in optometry and podiatrist units to help prevent impaired vision and foot ulcers that may result from increased blood sugar.

To ensure consistent care, the educator communicates regularly with the patient’s nephrologists, family doctors and endocrinologists. Clemens says the program has improved the patients’ self-management skills, blood sugar levels and overall satisfaction with their level of care.

Clemens hopes her team’s research will support similar programs for patients living with diabetes and comorbidities.

“Before we pour our dollars into clinical trials, it’s essential to understand what matters to patients,” she affirms. “Through this work, I’ve developed an even deeper understanding of what my patients experience on a daily basis, and that has transformed how I practice as a physician. I hope this research helps emphasize the importance of patient-centered efforts to improve the health and quality of life of all patients with diabetes.”

PAUSING THE DIABETES PUZZLE

Dr. Irene Hramiak isn’t ready to say they’ve found a cure for a Type 2 diabetes just yet. But the renowned endocrinologist and her collaborators are developing new treatments that may force the disease into remission, and for now, she’ll take it.

A professor of endocrinology and metabolism at Western’s Schulich School of Medicine & Dentistry and a doctor at St. Joseph’s Health Care London, Hramiak has led or co-led more than 50 clinical research trials for people whose lives have been altered instantly by a diabetes diagnosis.

Ordinarily, doctors prescribe lifestyle changes, such as diet and exercise, until the disease progresses and additional medications are added – ultimately, to the point where insulin is required. Hramiak’s trials explore whether it’s possible to ‘reset’ the pancreas from the beginning – to slow down the progression – by starting with an intensive course of insulin and medications at the outset, in addition to conventional lifestyle changes.

“We’re seeing if we can cause a remission – we can’t call it a cure – in people who are newly diagnosed by changing the way we treat the disease from day one,” explains Hramiak.

The research is collaborative and cumulative, and Hramiak says even trials that don’t meet the desired results are considered a success.

“You have to keep asking the questions and keep doing the work. It’s bit-by-bit, step-by-step, and everybody adds their piece to the puzzle,” she says.

Greg Ackland added one of the pieces.

With a family history of diabetes, Ackland knew his turn wasn’t a matter of if, but when. So when he was diagnosed with Type 2 diabetes in his forties, he was already prepared for what was to come. Over the years, Ackland watched his family members’ disease progress and their reliance on medications and insulin steadily increase.

“I couldn’t see any way out,” he said. Enter Dr. Hramiak.

Ackland enrolled in one of her clinical trials, and his treatment – and more importantly, his outlook – changed. Hramiak’s game-changing approach to treatment put Ackland’s disease into remission, completely eliminating the need for any diabetes medication for more than a year after the trial ended.

“If I was offered a chance like that again, I would jump at it,” he says. “I know that by being involved in research, it’s benefiting others, and advancing the care of diabetes.”
Lessons learned from the pandemic:
Time to act

By Jaason Geerts

Confused by the seemingly insurmountable workload before us and led by a depleted workforce, we are in grave danger of surrendering an unprecedented opportunity.

A multitude of lessons from the pandemic thus far are available but untapped… stored – with increasing frustration – in the minds of people whose advice we haven’t yet sought. These insights could potentially inform system-wide improvements in the engagement and care of staff, the care of patients, the way services are delivered, the way we lead and learn, and how equity, diversity, and inclusion are prioritized in our organizations.

And yet, realizing this potential in the current context is no mean feat. Even those not imminently on the brink of collapse are facing an escalating health human resources (HHR) crisis, which is more dire than it’s been in decades, and a daunting service backlog, with predictions that it could take upwards of 10 years to resolve.

We want the pandemic and all its restrictions and latent repercussions to be over, however, the hope for a near and definite end appears misguided. Accepting an endemic reality can be cumbersome and the temptation is to either postpone formal debriefs of key lessons until it’s all over (the Waiting it Out Syndrome), or to revert to the cognitive comfort of the way things were pre-COVID (the Back to Before Syndrome), or to retool to the cognitive comfort of the way things were pre-COVID (the Back to Before Syndrome), or to retool to the cognitive comfort of the way things were pre-COVID (the Back to Before Syndrome).

Remarkably, nearly 50 unique potential improvements were proposed. The responses can be grouped into eight overarching themes: staff well-being, HHR, and engagement (29%), work/operations (21%), models and quality of care (19%), and leadership; emergency preparedness; communication; equity, diversity, and inclusion; and decision-making (30% combined).

Dr. Verna Yiu, CEO of Alberta Health Services, highlights potential to increase the speed of innovations, the scale and spread, the use of real-time evidence, and bringing in new technologies, which requires sharing data and analytics.

In terms of where to begin, Dr. Jackie Schleifer Taylor, CEO of London Health Sciences Centre, suggests: “We have potential learnings in all spheres but, leadership – the approaches, the models, and the key ways in which we succeeded and failed, is a worthy start. From there, listening to, and hearing from, all stakeholders whom leaders (at all levels) have supported, we can ensure there is a foundation of trust and a renewed commitment from us, as leaders, to model (with openness) and challenge (with courage) what we thought we knew was working, and/or what we have not prioritized to do better.”

INFORMING IMPROVEMENT: WHO’S AT THE TABLE?

To inform priority areas for improvements, 29 different groups were proposed, some of which overlapped. The most frequent were: employees at all levels (14%), senior/executive leaders (13%), public health officials, and the global imperative to improve healthcare based on the pandemic. A diverse mix of stakeholders is important, as well as ensuring that executives and board members, those closest to the work (frontline leaders and staff), and end users (patients, families, and community representatives), among others, are at the table.

Physicians, policy makers, unions, communications experts, government, researchers, HR teams, partners, public health officials, and the Royal Colleges and universities were also mentioned. To enhance learning and to avoid insularity, it is beneficial to compare results with other organizations who are undertaking the same process.

BUILDING BACK BETTER (ACTIONING LESSONS)

How to best operationalize the lessons is “the billion dollar question,” says Dr. Tim Rutledge, CEO of Unity Health. This has a threefold implication: classic knowledge to practice challenges, the heightened prominence of sector financial stresses, and the global imperative to improve healthcare based on the pandemic.

Before exploring lessons learned, Mr. Paul Heinrich, CEO of North Bay Regional Health Centre, suggests that the starting point should be to celebrate and honour the dedication and achievements of staff and leaders as a successful launching point for improvements.

Continued on page 18
Launching December 13th
Episode 3: Zayna Khayat, PhD, Vice President of Business Development & Strategy at Teladoc Health.
Topic: Changing the healthcare game through tech innovation.

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Dr. Margaret Lawson, Co-Director of CHEO’s Diversity Clinic and Site Principal Investigator for Medtronic Hybrid Closed Loop Outcomes Study pediatrics site.
Topic: Evolution of diabetes innovation & research.

Dr. Robert Reid, Chief Scientist at the Institute for Better Health, Trillium Health Partners.
Topic: Building health systems through an integrated, patient centered approach.

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“Next, guided by clear priorities and objectives, based on stakeholder feedback, one way of determining first steps is using the effort/impact and benefit matrix to identify quick wins and concomitantly, opportunities for maximum long-term results,” says Patrick Gaskin, CEO of Cambridge Memorial Hospital.

The extent of change leadership required is contingent on the recent evidence, potential, and scope: some ideas invite a pilot, trial, or further data support, some are as simple as “just do its” at the unit or service level, some can be implemented through HR processes, others can be supported by the Quality Improvement/Patient Safety team, some require system-wide formal change leadership processes and integration into existing systems, and some warrant lobbying government for policy changes.

The ultimate goal is to embed the best ideas in the organizational DNA. How is this achieved? Ms. Hélène Sabourin, Co-Chair of Organizations for Health Action (HEAL), clarifies that this means institutionalizing proven successes in revised policies, structures, processes, people engagement, and communication, especially using many forms of media. Another layer, as Mr. Alex Munter, CEO of the Children’s Hospital of Eastern Ontario (CHEO), adds, is to use evidence-based methods to evaluate, iterate, and spread improvement throughout the organization. Brigadier Scott Malcolm, MD, Deputy Surgeon General of the Canadian Armed Forces, reinforces that beyond vocal endorsement, this requires dedicated resources (financial and human).

A crucial point is that this should not be a one-time event. Ms. Jo-Anne Marr, CEO of Markham Stouffville Hospital, advocates becoming an adaptive, learning organization through adopting, system-wide, the process of trying new things, with management support, experimenting, and not being afraid to fail in a continuous cycle of change, testing, feedback, and re-learnings. This approach to learning and leading is the way forward, redundancy is the alternative.

Though manifold system improvement is an important and exciting prospect, Ms. Julia Hanigsberg, CEO of Holland Bloorview Kids Rehabilitation Hospital, cautions that it is vital to be cognizant and respectful of staff change fatigue and capacity limits. Finally, throughout this process, Ms. Marianne Walker, CEO of Guelph General Hospital, contends that it is paramount to share lessons and best practices through research publications, practice tools, and guides.

Lest we forget, now is the time to gather and implement lessons learned, as one anonymous respondent stated, since, as General Marc Bilodeau, MD, Surgeon General of the Canadian Armed Forces, warns, if we do not do this in the first year following the stabilization of the crisis, it will never happen. Looming over the potential improvements is an “or else” component to squandering this opportunity:• We will miss ideas that could likely improve our systems and care,
• We will miss an opportunity to increase staff morale and engagement,
• We could expose ourselves to vulnerability to being devastated by future crises, and
• We will miss an unprecedented opportunity to transform our organizations by embedding a system-wide, iterative process and becoming a more agile, innovative, and effective learning and leading organization.

This isn’t a one-off; it could be our DNA.

With the utmost appreciation for the strain on health leaders now and gratitude for their tireless and invaluable work, when the prospect of debriefing the pandemic and building back better is posed this way, how can anyone afford to miss this opportunity?

(*** This article is the fourth in a series on health leadership during the pandemic and is informed by more than a year and a half of national and international research projects by the Canadian College of Health Leaders (CCHL)).

Jaason Geerts, PhD is the Director of Research and Leadership Development at The Canadian College of Health Leaders.
Scientists studying carbon monoxide as a possible treatment for sepsis

By Celine Zadorsky

Sepsis is a life-threatening condition that occurs when the body’s response to an infection triggers excessive inflammation. The inflammatory response can cause damage to organs such as the heart, liver, lungs and brain. While there are currently limited treatments for sepsis, researchers at Lawson Health Research Institute are working to change that by examining the use of carbon monoxide releasing molecules to treat patients. “This is an unusual approach that is looking at using carbon monoxide which is the infamous gas molecule,” says Dr. Gedas Cepinskas, Scientist and Director of the Centre for Critical Illness Research at Lawson. “If administered and used in small non-toxic concentrations, carbon monoxide can offer very potent protective and anti-inflammatory effects.”

Dr. Cepinskas is one of just a few scientists worldwide studying carbon monoxide releasing molecules to treat inflammatory conditions such as sepsis. While carbon monoxide is commonly known as dangerous, using it in a controlled manner does not pose a danger and may have therapeutic potential. “Our immune system is usually our defense system, but with sepsis it becomes so activated it starts to attack our own cell tissues, resulting in injury and dysfunction of the affected organs,” explains Dr. Cepinskas. “Almost each and every cell in our body naturally produces carbon monoxide which is used in defense against harmful and injured stimuli, so we are taking advantage of this knowledge and currently we are the only lab in Canada working on this potential carbon monoxide-based therapy.”

In studies on the subject, including the most recent one published in the journal of Experimental Biology and Medicine, the research team was able to demonstrate efficacy in using carbon monoxide releasing molecules to protect individual cells in the liver and lungs of sepsis induced inflammation in preclinical models. “We have been working on isolated organs and organ specific cells to test carbon monoxide releasing molecules to narrow down which specific cells are more sensitive to treatment and which biochemical pathways are involved,” says Dr. Cepinskas. “We are making great progress in our work and have had success in addressing the efficacy of carbon monoxide releasing molecules in preclinical models.”

Dr. Cepinskas is also collaborating with clinicians at London Health Sciences Centre (LHSC) to study the use of carbon monoxide-releasing molecules to treat limb compartment syndrome and to improve organ transplantation.

Celine Zadorsky is a Communications Consultant at Lawson Health Research Institute
Global study on heart valve repair surgery will improve patient outcomes around the world

By Celine Zadorsky

Researchers at Lawson Health Research Institute and Western University had a leading role in a new global study that will change the way surgeons repair leaky valves in the heart. It’s one of the most common heart valve conditions, where many patients don’t even realize they have a leaky valve and are asymptomatic, often presenting to doctors once they are late stage into the disease.

“If the leak in the mitral valve is not repaired, a patient will have problems with fluid retention, shortness of breath and heart failure,” says Dr. Michael Chu, Lawson Scientist and Chair/Chief of the Division of Cardiac Surgery at Western’s Schulich School of Medicine & Dentistry. “That will then lead to complications requiring hospitalization and eventually an increased risk of death.” Dr. Chu is also a cardiac surgeon at London Health Sciences Centre (LHSC).

There are two related valves in the heart that can potentially leak and lead to further complications, the mitral valve and the tricuspid valve. Traditionally, the mitral valve is surgically repaired first, with the belief that it will lead to improvements in the tricuspid valve, however, scientists have discovered that isn’t always the case. “What we were concerned with was, if we repair the mitral valve only, will the tricuspid valve still leak?”

To answer that question, the Division of Cardiac Surgery research team engaged in a multicenter, randomized trial run by the Cardiac Surgical Trials Network, an important clinical trials network from the National Heart, Lung, and Blood Institute in the United States. The study took place in 39 hospital sites across the world with more than 400 cardiac patients. Dr. Chu and his team in London worked with patients through LHSC to be the top recruiting hospital and research team in this study. Patients were randomized in the trial, half receiving mitral valve repair alone, and half receiving mitral and tricuspid repair surgery at the same time.

“What we found two years after the operations was that the group that had both mitral and tricuspid repair had significantly less severe residual leak of the tricuspid valve,” explains Dr. Chu. “These findings suggest that concomitant tricuspid repair is extremely effective and those patients who present with a tricuspid leak, should have both valves repaired at the same time.”

The study findings have been published in the New England Journal of Medicine, which has a high impact worldwide within the medical community, especially when it comes to medical practices. Dr. Chu, joint first author in the paper, believes these findings will have an important impact worldwide to how surgical teams repair leaking heart valves, and is extremely proud that this top tier, practice-changing research is being performed at Western’s Schulich School of Medicine and LHSC.

Moving forward, the next steps will be to follow these patients for five years and further investigate various aspects of the study, with the ultimate goal of improving long term outcomes for patients.
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The Canadian Association of Radiologists (CAR) working in collaboration with national medical bodies and specialty societies is undertaking an update of the 13 Diagnostic Imaging Referral Guidelines. The project mandate is to “Produce a comprehensive set of evidence-based diagnostic imaging referral guidelines as a public good that are context-specific to the Canadian healthcare system. These guidelines will be produced following the grading of recommendations, assessment, development and evaluations (GRADE) framework, with recommendations integrated into a clinical decision support (CDS) system. An inaugural meeting took place in January 2021, to determine the order in which the guidelines would be updated.

The CAR established an Imaging Referral Guidelines Working Group with representatives from the Canadian Medical Association (CMA), the Canadian Association of Emergency Physicians (CAEP), the College of Family Physicians of Canada (CFPC), Choosing Wisely, the Nurse Practitioners Association of Canada (NPAC), and the Society of Rural Physicians of Canada (SRPC), the Canadian Spine Society, and the American College of Radiology, to produce a comprehensive set of evidence-based imaging referral recommendations for referring physicians. These guidelines will be informed by evidence from systematic reviews, which are considered essential to produce trustworthy guidelines.1 Assessing the certainty of the evidence of the primary studies and determining the strength of the recommendations will be performed following the GRADE framework.2,3

Last, these evidence-based recommendations will be made publicly available and integrated into a referral clinical decision-support (CDS) system to promote their adoption.

THE CAR IMAGING REFERRALS GUIDELINE WORKING GROUP

The working group is made up of 19 members, with 18 members from across Canada and one member from the American College of Radiology. The working group co-chairs are Drs. Ryan Margau, radiologist, and Paul Pageau, emergency physician, with an additional 17 members consisting of radiologists and health care professionals, including surgeons, family physicians, nurse practitioners, and a patient advisor. The trauma and musculoskeletal sections were identified as the first modalities to establish the evidence review and guideline recommendation process to be used in all 13 sections of the CAR Diagnostic Imaging Referral Guidelines.

TRAUMA EXPERT PANEL

In February and March, the Trauma Expert Panel was formed, with Dr. Nicolas Murray, an emergency and trauma radiologist at the Vancouver General Hospital, as the chair and six other members. Over the course of two meetings in March and April 2021, the group discussed the project mandate, conducted a topic prioritization exercise, and selected the area of cervical spine trauma as the pilot topic for the conduct of an evidence review and guideline recommendations.

MUSCULOSKELETAL EXPERT PANEL

The musculoskeletal (MSK) system was selected to be undertaken concurrently with the trauma section. Recruitment of the MSK expert panel began in March 2021, with Dr. Kawan Rakhra, Head of the Musculoskeletal Imaging, Department of Medical Imaging at The Ottawa Hospital and Associate Professor of Radiology and Orthopaedic Surgery at the University of Ottawa, as the chair. Members for this expert panel are being finalized.

The objective of CDS is to ensure that patients are accessing the right test at the right time and that frontline physicians have the necessary resources to help them with their recommended referrals for medical imaging in Canada.

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- Dual Energy CT: How it Works, and How it Adds Value in the ER Setting
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- Pediatric Cancer Screening
- Paragangliomas of the Head, Neck, and Spine

Canadian Association of Radiologists
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#CAR2022  @CARadiologists  info@car.ca
Pressure from the ongoing viral pandemic has forced a change in how we see our relationships and our connection to those around us both in our personal and professional lives. For Dr. Elsie Nguyen, cardiothoracic radiologist and Vice-President of the Canadian Society of Thoracic Radiology (CSTR), a Canadian Association of Radiologist Affiliate organization, that meant making the urgent decision to step in and care for the newborn of someone who has helped Dr. Nguyen with her own childcare needs—her nanny Lola Saliko.

Lola required an emergency Caesarian section to deliver her baby boy, due to a worsening COVID-19 infection that threatened her life as well as the life of her baby, as first reported in the Toronto Star this past summer. Lola had just begun her maternity leave at eight months pregnant and a day before her last day working with Dr. Nguyen. Her husband Flori came down with a fever and eventually tested positive for COVID but had mild symptoms. Days later, Lola also became symptomatic with fever and cough and eventually tested positive for COVID. Her symptoms rapidly progressed over the course of the next few days, and she was struggling to breathe. “I could not get any air in my lungs”, she said. In the middle of the night, she and her husband called for an ambulance and they were brought to Mount Sinai Hospital. She was terrified at this point, more concerned for the health and well-being of her baby than for her own.

“I never saw my baby, actually,” she told Bruce Arthur of the Star. “I just gave birth, and they took the baby away. I was intubated right after. I never woke up.”

Meanwhile, Dr. Nguyen was examining a series of x-ray images taken of the lungs of COVID positive pregnant women in Toronto ICUs. She stopped on an image of a particularly severe case. The patient’s name was familiar, and it dawned on her that she was looking at the COVID-ravaged lungs of her nanny.

“I definitely think being a radiologist and seeing Lola’s x-ray made me feel the trauma even more because I had reported so many chest x-rays in people who did not survive COVID-19.” Dr. Nguyen said. “I have seen tragedy repeatedly. Lola might have been another tragedy among many. I was terrified that Lola would not survive her COVID/ARDS-acute respiratory distress syndrome and her baby would be motherless.”

For some, what happened next was far beyond a radiologist’s duty, but Dr. Nguyen believed she was in a position to help. “I don’t know if you believe in karma,” she told the Star. “If you’re met at a crossroads where you could do one thing to help or look the other way. If you make the wrong choice, it could haunt you for life.” She phoned Lola’s husband, Flori immediately to arrange care for the newborn.

The baby’s delivery was successful, but the newborn needed oxygen and was eventually stabilized in the neonatal ICU at Mount Sinai Hospital under the expert care of their doctors and nurses. Lola was still intubated and ventilated and had to remain in the hospital ICU in a medically induced coma. After a week in the neonatal ICU, baby boy Lorik was ready to be discharged from hospital. Dr. Nguyen accompanied Flori to Mount Sinai Hospital to pick up baby Lorik. Dr. Nguyen had to wait outside in

A karmic choice of caring in a pandemic
the waiting room because she was not
the baby’s mother. Driving separatel-
y, Flori and Dr. Nguyen met back at
her house where Flori handed over
Lorik. During this time, Dr. Nguyen
watched several YouTube videos to
refresh her memory on how to bottle
feed newborn babies and how much
formula was average consumption. It
had been over five years since she held
a newborn baby in her arms. Dr. Nguy-
en reached out to friends for baby sup-
plies as all her newborn baby supplies
were already given away to family and
friends. She took time off work to take
care of the newborn. The first night
out of the hospital was trying and rest-
less for her and the baby, she says, but
they progressively got better as she got
better at reading Lorik’s signals.
“Taking care of baby Lorik helped
me pause and reflect on my own life.
We talk about essential and non-es-
tential businesses. What was essential
to me and my life? What was truly im-
portant and how do I want to live my
life going forward?” Dr. Nguyen said.
“Many of us made changes during this
pandemic because it gave us time to
think and reflect while in lockdown. I
decided to move away from lofty and
sometimes overly ambitious goals and
to start setting smaller goals for my-
self. I decided to put less pressure on
myself in general and just be in the
moment to enjoy time with family
and friends. I decided to simplify my
life, to declutter things I no longer en-
joyed and to spend more time with my
kids doing simple things like playing
cards, riding our bikes, and cooking
together.”
Several days had passed before
Lola awoke from being sedated and
intubated in the ICU. She was told
that Lorik was doing well in his tem-
porary home. He was healthy and safe
with Dr. Nguyen. Like her baby, Lola
made a remarkable recovery under the
expert care of the doctors and nurses
who cared for her. Lola was discharged
safely after nearly two weeks in hospi-
tal and went straight to Dr. Nguyen’s
house for a moment most often shared
from a hospital bed, holding her new-
born baby for the first time.
“Ultimately,” Dr. Nguyen said, “I
learned that human connection is what
brings me true happiness and to put
my energy into nurturing relationships
which had been neglected due to the
chaos and trauma of the pandemic.”
This incredible act of kindness
should be applauded.

Providing optimal radiology
care in Northern Quebec

Dr. Marie-Constance Lacasse, a dedicated CAR
member and neuroradiologist at McGill University
Health Centre (MUHC) has been the
acting Radiologist Liaison for patients
in Northern Quebec (Nunavik) since
2020. Prior to joining the team at Mc-
Gill, Dr. Lacasse was working at the
University of Sherbrooke for three
years, also in neuroradiology. Original-
ly from Montreal, she is happy to be
back to her roots at McGill.
In her current role, Dr. Lacasse is
responsible for ensuring that patients
in Nunavik receive the quality imaging
care they deserve. Small community
hospitals are located in the two main
villages of Puvirnituq and Kuujjuaq.
They are run by family physicians,
with specialists providing regular on-
site and teleradiology services.
The role of the team at these hos-
pitals is to treat and stabilize patients,
much of which consists of requisitions
for medical imaging. Onsite they have
the ability to perform both x-ray and
ultrasound. Medical radiation tech-
nologists (MRTs) and sonographers
perform these procedures. The images
are then sent to Dr. Lacasse and her
team at McGill directly through their
central imaging PACS system. Dr.
Lacasse delegates the imaging reads
to various subspecialties within the
very remote communities, who have
no easy access to larger hospitals,
to enhanced diagnostic care. In the
event that more advanced imaging is
required, the patient will then be mo-
bilized to McGill University Health
Centre (MUHC) so that they can re-
cieve the care required.
Radiology coverage of Northern
Quebec does come with its challenges,
the main one being issues with unre-
liable internet connectivity, hence
delaying the transfer of images to the
McGill Radiology team. This prevents
the team’s current ability to perform
efficient emergency radiology, howev-
er, projects are in place to improve the
system.
The partnership between McGill
and the hospitals in Nunavik is gradu-
ally improving diagnostic care for pa-
tients in these communities as it min-
imizes the need to move patients to
different locations and allows them to
receive medical services within their
own regions.
“Providing patients in remote loca-
tions with rapid diagnostic care with-
out the need to mobilize lets them
remain in their own communities and
receive treatment and care where they
are most comfortable. For non-emer-
gent procedures it reduces the com-
plexity of serving patients, which is
better for everyone, says Lacasse.”

There is currently a government
approved plan to expand diagnostic
imaging services in Nunavik by adding
CT scanner to provide more urgent
imaging care onsite. Dr. Lacasse is
hopeful that this will be sooner rather
than later as everyone in the commu-
nity can benefit from this service.
The pandemic had not had a signif-
icant impact on imaging in the North.
Some delays were experienced for
non-urgent procedures in Northern
Quebec due to the initial fear in trans-
ferring patients for advanced medical
procedures given there was a very low
instance of COVID cases in Nunavik.
Things have pretty much returned to
normal now, however.
During her medical training at Mc-
Gill University, Dr. Lacasse completed
a family medicine rotation in Puvirni-
tuq. This experience provided her with
a unique understanding of the many
challenges of providing medical care
to the remote communities of North-
er Quebec compared to radiologists
working primarily in urban settings.
This knowledge made her a very suit-
able candidate for this role.
Dr. Lacasse thoroughly enjoys her
role and is looking forward to the op-
portunity to travel to both Kuujjuaq
and Puvirnituq so that she can meet her
colleagues in person who are working at
these hospitals once it is safe to do so.

Dr. Marie-Constance Lacasse is a
neuroradiologist at McGill University
Health Centre.

McGill radiology department and en-
sures that the results are communicat-
ed to the referring physician in these
Northern facilities. In instances where
an exam may be more complex or if an
MRT/sonographer requires support,
there is the ability for Dr. Lacasse or
one of her team members to connect
with the staff to provide live guidance
and assistance through teleradiology.
This collaboration between the
Northern hospitals and McGill pro-
vides the capacity for patients in these
Radiology with a dose of humanitarianism

For Commander (Cdr) Giang Nguyen, member of the CAR and British Columbia Radiological Society, working as the Chief Radiologist with the Canadian Armed Forces (CAF) provides the opportunity to do humanitarian work domestically and internationally. It is not widely known that radiology is a deployable medical specialty. When not deployed on an operation, radiologists with the CAF are embedded within civilian practice, providing care much in the same way as other radiologists within a hospital or community setting.

The decision to join the CAF was straightforward for Cdr Nguyen. Both her parents served in the Vietnamese army and she was always drawn to the military. When she told her parents she was joining the CAF, her mother broke out in tears. Her dad, on the other hand, pulled her aside and said, “That’s my girl.” Joining the military is a personal decision that is not for everyone, but Cdr Nguyen feels it is important to highlight the possibilities for radiologists within the CAF and to ensure the perspectives of radiologists are seen and heard within the CAF.

The CAF attempt to maintain four to five practicing radiologists, but this is a challenge due to attrition. There is currently one other practicing radiologist in addition to Cdr Nguyen and two more in training. There are also two officers in the reserves that were past radiologists with the CAF. Currently, most radiology is provided remotely. Since active military radiologists are sparse, the CAF hires civilian contractors for in-garrison work. All studies performed domestically, and even some performed internationally, are sent to one database in Borden, Ontario, and are read by contractors based in Halifax. There is also a group in Valcartier, Quebec that reads the French material. If there are security concerns with sending image files, a large time lag associated with image transfer, or it is a long-term operation, radiologists will be deployed to a local theatre.

Radiologists with the CAF have been deployed to Lebanon to help with Syrian immigration, to Haiti following the 2010 earthquake, and to Kandahar, Afghanistan in the campaign against terrorism. It has been 10 years since a radiologist has been deployed on an operation. Cdr Nguyen herself served in Kandahar as a family physician and recounted the extreme and harsh conditions where she saw patients exposed to unimaginable trauma and diseases you would not see in developed countries such as tuberculosis that affects the spine, parasitic diseases, and other conditions related to poor sanitation and nutrition.

Dr. Dan Lindsay, a civilian radiologist based in Manitoba, spent 19 months in theatre in Kandahar between 2006-2011. Radiologists were fully embedded with the clinical team and their contributions were visible and valued. He described the excitement and enthusiasm working with medical specialists from around the world on the one hand to witnessing and treating extreme trauma and serious injuries on the other. To reconcile these opposing states, medical personnel working in intense environments possess a very high level of flexibility, commitment, and passion.

“People are there because they want to be part of something bigger than themselves,” says Dr. Lindsay.

The CAF recognizes the mental stress of being in these situations and provides considerable, and widely accessible support, including a buddy program, social workers, mental health screening, leave systems, follow up and check ins. This is a significant shift from the historical practice of denying the mental toll of this type of work and is an attempt to de-stigmatize mental health in response to post-traumatic stress disorder and suicides among personnel.

The COVID-19 pandemic necessitated a shift in radiology within the CAF, just like it did worldwide, and the CAR guidelines and position statements have been invaluable in this context. At the outset of the pandemic, the CAF had set up a dedicated imaging system for COVID-19 patients, but this was adapted once the CAR released imaging guidelines. The CAF played a role in the quarantine and care for Canada’s first COVID-19 patients, repatriation of COVID-19 patients, and testing crew that may have been exposed.

Anticipating where the practice of radiology may lead, Cdr Nguyen sees great promise for artificial intelligence (AI):

“It’s very exciting actually! The CAF hope to be a leader in this field. AI can assist clinicians when there is no radiologist on hand to give them confidence in what they are seeing.”

Cdr Nguyen is passionate about radiology and believes in the CAF; it is a winning match.

Supporting Olympians through imaging: Tokyo 2020

There were many unforgettable highlights that occurred during the Tokyo 2020 Olympic Games.

Earning a record 24 medals, our Canadian athletes certainly left their mark on the world stage. One of the most memorable outcomes was 21-year-old swimmer Penny Oleksiak taking home three medals on top of the four medals she won at the 2016 Rio Games, becoming the most decorated Canadian Olympian of all time. Andre De Grasse’s performance wowed us, earning three medals including Gold for the 200-meter sprint and Bronze in both the men’s 100-meter sprint and 4×100-meter relay. The epic sudden death penalty kicks for women’s soccer had the country on the edge of their seats for Canada to win the Gold. We could not be prouder of our champions. Our Canadian superstars however are not the only ones who deserve kudos. We must also acknowledge the hard work of the tens of thousands of volunteers behind the scenes that helped Olympians perform at their best.

Medical imaging had an integral role to play in the success of this event. While we were cheering on the athletes from our living rooms, the Canadian Association of Radiologists very own, Dr. Bruce Forster was our eyes and ears on the ground, providing oversight for medical imaging at the 2020 Tokyo Games as a member of the International Olympic Commission Medical and Scientific Games Group (GG). There was a total of 11,000 athletes who participated in the Games in 33 sports. Radiology support for the Games consisted of an onsite radiology polyclinic with two 1.5T MRI machines, one X-ray unit, and five ultrasound machines. CT scans, which are uncommonly needed in summer Olympics, were performed at local hospitals. There were also an additional four portable ultrasound machines at six venues, including 3×3 basketball, indoor basketball, volleyball, handball, rugby, and BMX. Venue ultrasound, which was piloted at Vancouver 2010 Winter Games, was used for the first time during the Summer Olympics in Tokyo and Dr. Kentaro Onishi from the University of Pittsburgh will be part of the team tasked to determine its role in field of play athlete care and decision-making.

There was a total of 23 volunteer radiologists and 75 medical radiation technologists (MRTs) at the Games. The medical imaging clinic was open

www.hospitalnews.com
Doubling access to medical imaging services in western York Region

By Christina Cindric

When we think about going to a hospital for care, we likely think about visiting the Emergency Department after a fall, having surgery to replace a bad knee, visiting a newborn grandchild or, unfortunately common during this past year and a half, being admitted with COVID-19 symptoms.

What’s not often top of mind, however, is going to a hospital for a routine x-ray, ultrasound, CT scan or MRI scan. That’s typically because of the longer wait times associated with accessing these services in a hospital. While this might have been the case in the past, Mackenzie Health continually strives to lower wait times for patients with most patients receiving a scheduled appointment within days. Patients also experience the convenience of managing their appointments and reviewing their results on their desktop or mobile device through MyChart, an online platform that puts patients in control of their health information.

Mackenzie Health now supports residents across western York Region at two full-service hospitals, each with state-of-the-art medical imaging capabilities and an expert team of radiologists at both sites ready to serve the community’s needs. Since Cortellucci Vaughan Hospital opened to the community in June 2021, Mackenzie Health’s capacity for medical imaging services has doubled. The 30,000 sq. ft. Medical Imaging department on the first floor of Cortellucci Vaughan Hospital can serve an additional 150,000 patients a year, representing almost 200,000 imaging exams. This is in addition to the medical imaging services already provided at Mackenzie Richmond Hill Hospital.

“The Medical Imaging department at Mackenzie Health offers an improved patient experience,” said Amir Soheili, Associate Vice President, Clinical Support and Support Services at Mackenzie Health. “With dedicated waiting areas for most procedures and a separation between inpatient and outpatient services, patients coming into the hospital for a scheduled MRI will use dedicated outpatient waiting areas and routes, in keeping with infection prevention and control best practices.”

At Mackenzie Health, state-of-the-art equipment, including high-definition CT and MRI scanners, help our expert team of fellowship-trained radiologists, specializing in a number of disciplines, diagnose injuries and diseases like cancer earlier and with pinpoint accuracy. They then deliver the information our patients and health care providers need to make the best, personalized treatment decisions. This all supports the goal of helping patients recover faster so they can get home sooner.

The imaging capabilities at both Mackenzie Richmond Hill Hospital and Cortellucci Vaughan Hospital feature a full range of high-resolution imaging technologies, including an upgraded and expanded Picture Archiving and Communication System (PACS) that securely stores and shares clinical scans and images and reports them across our two hospital sites. In this way, the care team has access to patients’ scans and results no matter which of our two hospitals they go to for care.

“As the future roadmap for this system evolves over the next few years, this system will also leverage an artificial intelligence (AI) algorithm that will be able to support our expert clinicians to make more accurate and efficient diagnoses,” adds Soheili. “When a patient receives a CT scan, for example, the system will sort through the hundreds of image slices and flag those of potential concern for the radiologist to review.”

The opening of a second hospital also tripled Mackenzie Health’s capacity for minimally invasive treatments with two interventional radiology suites at Cortellucci Vaughan Hospital which in addition to the suite at Mackenzie Richmond Hill Hospital. Mackenzie Health’s interventional radiologists use imaging technologies to safely and accurately guide procedures such as the insertion of a stent to open a blocked artery or an embolization to stop a major internal bleed. These procedures often reduce or eliminate the need for more invasive surgical procedures and result in shorter hospital stays and recovery times for patients.

“Technology is changing our ability to care for patients in remarkable and hugely beneficial ways. In 10 years, what we do now in operating rooms will be done in an intervention suite because the lines between imaging and surgery are blurring,” said Dr. Peter Law, Chief and Medical Director of Medical Imaging at Mackenzie Health. “And the good news is these advances allow doctors to focus on the patient and let the technology enable care.”

Christina Cindric is a Senior Communications Consultant at Mackenzie Health.
One year ago, on Nov. 19, 2020, a briefing note was circulated within UHN. It read: “Pfizer and Moderna vaccines will be available in Jan-Mar 2021.” A few paragraphs later, it added: “product monograph for either vaccine is not available at this time.”

As executive members responsible for the rollout of UHN’s Vaccine Strategy, we had been watching the vaccine approval process very closely. This note represented an exciting and hopeful time for us. It was the beginning of a journey that neither of us could have predicted at the time – an exciting beginning that was not without challenges.

The missing monographs meant that we didn’t have confirmed details on vaccine storage, stability, handling, distribution protocols and, most importantly, recipient contraindications (the situations in which the vaccines should not be given because it might harm the person.) These were a huge gap in our ability to plan. Internally, we also needed to build new processes around vaccine consent, legal considerations for medical directives, and a protocol for prioritization amongst our staff and community. We also had to design the entire clinic process from scheduling and administration to departure.

This briefing note was a foreshadowing of what was to come, a notice to take action without all the pieces of the puzzle in place. This was going to be a massive undertaking. It was going to be like nothing we had ever done in our careers. We had a few months to prepare a system to deliver thousands of doses a day to our patients, staff, long-term care partners and our community. On top of this, we kept asking ourselves: how do you deliver mass vaccinations to thousands of people while maintaining public safety guidelines? At this point, all we had was our shared experience and best practices.

If this were not enough, just as the briefing note hit our desks, the Ministry of Health notified us that UHN was to be one of the first two vaccine sites in Ontario. This privilege was not lost on us. All eyes were on UHN. We immediately felt a weight of responsibility to rally experts in the organization, figure out all the pieces of the puzzle and be ready to receive the vaccine. Very quickly.

It didn’t take long for us to realize that this work would become all-consuming. Our day jobs were put on hold while we both focused on the design and implementation of this unprecedented undertaking.
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Pandemic perspectives

Before the end of November, we convened a small executive team that began meeting regularly. It represented expertise from Facilities Management, clinical practice, process design, Pharmacy, Data & Analytics, Security, supply chain, and Public Affairs.

It was a team made up of committed leaders from across UHN reaching into their decades of experience and offering it to this historical event in uncharted territory. Sitting in the meetings, you could tell they were proud to be there, proud to share their ideas and fully committed to doing their best – for UHN and for Ontario. It took only a few days for us to bond through the pressures of dealing with a constant bombardment of changing information and new puzzle pieces spawned from media reports, public speculation or official Ministry communication. Little did we know, just as we settled into a cadence, our trajectory was about to be turned on its head.

By the start of December, our plans were in motion. We had ordered -80°C freezers, confirmed our syringe supply, designed our receiving and distribution process, identified space options, planned our staffing needs, simulated our clinic workflow, mapped our vaccine documentation process, and engaged dozens of experts across the organization. We were well on track for the anticipated arrival of the vaccine. That would be in the spring. Or, so we thought.

On the afternoon of Dec. 3, we received word that our vaccine supply was no longer on track for the spring but would be arriving in 11 days! We were told we needed to be ready to start vaccinations the morning it was delivered – Dec. 14 – weeks earlier than anticipated. International logistics were already in motion. The first Canadian-bound coronavirus vaccine vials were about to board a plane in Belgium and land in our freezers. With this turn of events, it felt like we were just told to sprint the last half of a marathon.

Hundreds of tasks were in motion and we had to siphon through them and focus on those critical to us opening the doors on Dec. 14. Speed was key. We quickly shifted gears and problems solved the answers we needed in real-time. We got into a rhythm of bringing solutions to the table, quickly evaluating them in a rapid-fire manner and then moving on. It felt like we did this hundreds of times a day.

It came down to four questions: 1) did we have the space ready and was it big enough to maintain public safety guidelines? 2) was the pharmacy staff ready to receive and prepare the vaccine? 3) had the vaccine clinical processes been thoroughly tested from the point of a vaccine recipient’s scheduled arrival to their departure? and 4) did we have enough staff to administer the vaccine? These four areas became the singular priorities for our team. They were four critical pieces of the puzzle among a dozen others. We had to focus. It became a day, night and weekend effort, with phone calls, texts, and video calls among the team at all hours of the day. The finish line was in sight.

The first vials arrived at 8:00 am on Dec. 14. It was an emotional day for all. We had spent the past two weeks preparing the gymnasium at the Michener Institute of Education at UHN. We arrived an hour before those first vials with some team members to make sure everything was ready. It looked set – signage, vaccination stations, supplies, and technology all in order.

In a small, dark room beside the gymnasium, it was quiet. There, in contrast to the energy from the teams next door preparing the stations, there was a tension along with the anticipation. The Pharmacy team, which had tested the vaccine draw process and simulated the flow days prior, now did it for real. You could feel the excitement and nervousness in the air as the purple cap of the first vial was removed; the first time the vaccine was diluted; the first vaccine draw was made; the first syringes were stacked for administration. Standing there, we were witness to the beginning of a process that would occur hundreds of thousands of times over the next several months.

We watched as the media swarmed the first vial and then the five long-term care workers chosen to be the initial recipients. It was historic and there was eagerness to capture this story of hope and excitement. As the first syringe was pulled from the stack, the protective cover removed and the needle delicately inserted into the arm of recipient No. 1, Anita Quidangen, we held our breath. We could not help but think of the unfathomable number of people who were waiting to be vaccinated in the days, weeks and months to come. The scale of delivery was unimaginable. There we were, standing in Canada’s first vaccine clinic as Kevin Smith, our CEO, declared we were witness to “the shot heard around the world.” Right then, it struck us. We were just stepping up to the starting line.

From that first day, “Get needles in arms” became the singular directive focusing our work. We continued to build up the vaccine clinic: 400… 1,000… 3,000… 5,000 doses per week. Every day, we were asking ourselves: how can we do more? We looked at the numbers, planning our weeks ahead, and pushed the team to empty the fridges.

Over the next few weeks, more pieces of the puzzle began to fall into place. We drafted consent documents, place medical directive agreements and implemented a transparent prioritization process. We were pleased to see our partner hospitals open their doors, joining in, celebrating their first shot and ramping up doses. Many hospitals across Ontario came knocking on our door for advice and insight as more vaccine clinics were opening. Our long days now involved balancing our internal clinic operations as well as ensuring we could pass on as much learning as we possibly could to others across the province.

The spirit of collaboration was high across organizational boundaries, community organizations, and the health system. Little did we know we were about to embark on the roller coaster ride of vaccine supply. In truth, it was more like a weekly lottery: crossing our fingers, hoping to get the vaccine we needed. Some weeks we did, some we didn’t. This made it incredibly difficult to face our community, the people we had built this service for, the people who desperately wanted new hope for themselves and the people they cared for. We were the voice of one of the most unwelcome statements since the pandemic started: “we have no vaccine this week.” These words were met with high emotion from all around us. This was one of the toughest times of both our careers. As uncomfortable as it was, we shoulder the message, did everything we could to advocate for more vaccine and made sure every last drop was used.

One of the by-products of the unpredictable vaccine supply was that we were faced with periodic downtime. For us, this downtime served two purposes: first we were able to provide well-deserved breaks to those who were working non-stop for months since the vaccine work began, and secondly, we were able to re-tool our process and get better at getting needles in arms. These improvement cycles helped us to manage the endless directional shifts and missing pieces we experienced in the early days. These shifts included changes in priority populations, scheduling out and pulling back the second dose interval – multiple times – partially migrating scheduling to the provincial system and managing multiple vaccine brands in the same clinics. We were able to build robust processes that not only managed every twist and turn that was thrown at us, but also to respond proactively to shifts in policy and implement them almost overnight.

We could tell this was working as we not only felt an overwhelming amount of appreciation and support from our colleagues at UHN, but we also started to see positive social media. It was incredibly inspiring to be part of a team that, once with months of runway and then suddenly with only 11 days, embraced the challenge, and
recalibrated to its goal “get needles in arms.” It was controlled chaos at times but our strong bond served us well.

One year later, UHN’s mass vaccination clinics have resumed, at least temporarily. Third doses are now being administered to staff from UHN and four other partner hospitals in downtown Toronto. That is expected to last for much of the rest of November. Toronto Public Health and community providers have continued with the mission to the broader population of the city. Our small executive team no longer meets daily and we can honestly say it feels like we are missing part of our family. We have returned to our regular jobs but a day doesn’t go by that reminds us of the months we spent designing, implementing and running UHN’s, Ontario’s and Canada’s first vaccine clinic.

UHN has administered more than half a million vaccines through our community efforts and vaccine clinics and the numbers continue to grow. This is a result of countless individuals across our system putting their energy, creativity and passion against this historic event. These leaders, at all levels, had to deal with ambiguity, logistical challenges, and endless shifts in priority and focus. While we had challenges, the leaders we interacted with were always driven to bring clarity, wrestle with the connection between policy and reality, and ensure that we always pulled towards our higher objective: “get needles in arms.”

We observed silos being broken down both within our immediate community and across the health system. Our success was based on our strong partnerships with academia, primary care, acute care, First Nations, facility management, staffing and technology organizations and, of course, the Ministry of Health as well as Toronto Public Health. Without the nimbleness of these partners, we would never have been able to accomplish so many things vital to our success: rapidly opening and closing vaccine clinics, almost overnight, due to the changing vaccine supply; building a scheduling system that enabled secure vaccine booking through email or text; sending out invitations to thousands of priority community recipients within a few hours; staffing a vaccine clinic with just a few hours’ notice on a statutory holiday; shifting more than 50,000 second doses to months earlier the very day a change in dose interval policy was announced by the provincial government.

With a common purpose, bridging across all of us, we partnered in ways we have never before. Of course, that exposed opportunities for us all to continue to work on. What lies ahead is a test of our strength to maintain the connections built during the pandemic, across the community, providers, patients and families and those in need.

While we may be in the vaccine business for some time to come, and may never fully return to normal, rolling out the vaccine is one experience that we will both forever remember as uniting the most incredibly collaborative spirit across the health system. We must keep that spirit with us as we journey out of this pandemic and settle back into the new normal. A new normal that has no boundaries, a laser focus on those in need, and a resilience to wrestle with the complexities of our modern healthcare system.

Emily Musing, Chief Patient Safety Officer and VP, Clinical, UHN, gained her first insights into healthcare as a candy striper volunteer at the Mississauga Hospital.

Michael Caesar is the Chief Data & Analytics Officer, UHN, and Adjunct Faculty, University of Toronto, gained his first insights into healthcare during his teenage years as a volunteer at the Wellesley Hospital in Toronto.

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It’s time to heed the healthcare wake-up call

By Paul-Émile Cloutier

The last 20 months have been a wake-up call for Canada.

We continue to grapple with the deadly global COVID-19 virus that has caused over 29,000 deaths, crippled our economy and pushed healthcare system to the brink and even past it.

The effects of climate change facilitated raging forest fires across the country last summer and then rampaging flooding in British Columbia this fall.

The death of Joyce Echaquan and the discoveries of unmarked graves at former residential school sites underscored the ongoing impacts of colonialism and systemic racism toward Indigenous Peoples.

It’s difficult not to feel anxious and overwhelmed in the face of it all.

The gaps in healthcare exploited by the COVID-19 pandemic also have people worried that the health system will not be there for them when they need it. Unfortunately, for many, this is not a new feeling.

COVID-19 has consumed so many healthcare resources that, in far too many communities across the country, vital healthcare services and treatments are being rationed and delayed, raising the risk of poor health outcomes or even death.

As our members of Parliament have finally returned to work in Ottawa, the federal government must prioritize working with their provincial and territorial counterparts and Canadians to address these concerns head on by hosting a National Summit on Healthcare in Canada. This sit-down between Prime Minister Trudeau and all provincial and territorial leaders must include a discussion about increasing health transfers for healthcare, but that is but one issue.

Job one must be to finish the fight against COVID-19. That means ensuring that healthcare organizations have the necessary resources to continue dealing with the pandemic while also providing other vital health services such as surgical interventions and other treatments put off due to pandemic demands. It also means ensuring health research institutions have the support they need to continue to make breakthroughs that innovate the delivery of care, protect people from disease and improve health outcomes for all.

In the long run, the focus must be on more than simply ensuring our healthcare system can barely get by. It needs to be about making sure that our healthcare system achieves excellence, treats everyone equitably and not only meets peoples’ needs, but aligns with their wishes on how they want to live and age.

All of this will require more than promises, platitudes and posturing. We call on our leaders across all levels of government to work together to chart a clear course for improving healthcare in Canada.

Recently our national flag flew for months at half mast acknowledging and underscoring our collective failure to Indigenous people in Canada. How do we acknowledge and respond to the precarious situation of our health care system and the need for immediate attention?

Fixing healthcare is not a federal issue. This is a nation-building issue crucial to every person in Canada. To help our leaders get on with the job, here is a short list of priorities:

STRENGTHEN SUPPORT FOR HEALTH RESEARCH AND INNOVATION

Federal investment in health research pales in comparison to what is invested in many other OECD countries. Canada’s jurisdictional divides and regulatory landscape discourage partnerships and global investment.

IMPLEMENT A NATIONAL HEALTH WORKFORCE PLANNING STRATEGY

Canada does not have enough healthcare workers to meet present, let alone future, demand in the health system. Healthcare is a people business and Canada urgently needs to take a pan-Canadian approach to health human resources planning.

SUPPORT BETTER AGING

Canada must develop a pan-Canadian approach to improve health and social services for older adults, ensuring they align with their needs and wishes.

MODERNIZE CANADA’S HEALTHCARE SYSTEM

The federal government must better support health sector infrastructure, including digital infrastructure and cybersecurity, to streamline the health system, support virtual care, improve access and improve health outcomes.

Healthcare was a major priority during the federal election campaign, but we all know that platform promises mean nothing without action. That is why our new minority federal government must act quickly, decisively, and collaboratively to shore up healthcare in Canada.

This is our wake-up call to protect Canada’s healthcare system and ensure its sustainability. We can’t afford to hit the snooze button as we have done in the past!

Paul-Émile Cloutier is President and CEO HealthCareCAN.

Paul-Émile Cloutier is President & CEO, HealthCareCAN – the national voice of healthcare organizations and hospitals across Canada. We foster informed and continuous, results-oriented discovery and innovation across the continuum of healthcare.
A company founded at the University of Waterloo’s flagship incubator has performed the first autonomous robotic intramuscular injection, paving the way to improved patient care in an industry faced with labour shortages.

Cobionix, an autonomous robotics company located in Kitchener-Waterloo, performed the injection – without needles – using their Cobi platform.

“Cobi is a versatile robotics platform that can be rapidly deployed to complete tasks with 100 per cent autonomy,” says Tim Lasswell, co-founder and CEO of Cobionix. “We outfitted Cobi to use a needle-free injection technology and to demonstrate that patients could receive intramuscular injections, such as vaccines, without needles and no involvement from a healthcare professional.”

Nima Zamani, co-founder and CTO of Cobionix, says there are many benefits to the new technology.

“Autonomous solutions such as Cobi could protect healthcare workers, reduce healthcare costs, and improve patient outcomes,” Zamani says. “The autonomous nature of Cobi also dramatically reduces the infrastructure requirements of vaccine clinics which could help reach populations in remote areas with limited access to medical care.”

Lasswell and Zamani met in their first year of mechanical engineering at the University of Waterloo over a decade ago. Since then, they have both completed their engineering master’s degrees and remained close colleagues. When asked about the idea to start Cobionix in 2019, Nima says it was a “common vision that we shared for the future, followed by a decision to be a part of creating that future rather than watching it unfold in front of us.” The team is currently working out of Velocity, the university’s incubator.

The vision for Cobionix and the Cobi platform extends beyond vaccinations to include a variety of tasks that can be completed with 100 per cent robotic autonomy.

“Initially, we are targeting applications in healthcare, cleantech and hospitality for two reasons,” Lasswell says. “Firstly, all of these industries suffer from labour shortages and low efficiency and secondly, because our founding team has a significant amount of experience in these industries.”

Adrien Côté, executive director at Velocity, expressed delight at the opportunity to work with another company poised to make a significant impact.

“We were incredibly excited that Tim chose Velocity once again to invest in and support his newest venture,” Côté says. “Cobionix’s mission to improve efficiency and reduce labour shortages in healthcare, cleantech, and hospitality is well aligned with Velocity’s focus to support founders building for positive, global impact.”

Lasswell’s previous venture, A-Line Orthopaedics, also incubated at Velocity, was acquired in June 2020.

“Velocity has significantly invested in building an environment in which early-stage technology companies can achieve rapid growth and success,” Lasswell says. “As we continue to accelerate growth at Cobionix, we look forward to further establishing our roots in this community and building out Cobi.”
Innovative co-design leads to empowered aging

By Arielle Ricketts

Technology is transforming our everyday lives. We can travel to another country in a matter of hours, pay for an item with the touch of a button, and access a world of information without lifting a finger. It’s even enhancing the way we age. Thanks to innovations like medication reminder apps and virtual fall detection systems, older adults can age confidently and fearlessly in the setting best suited for them.

There is a wealth of age-related technology (agtech for short) all around us. But the best products are designed with the needs and values of older adults and their caregivers in mind. Without the input of older adults, even the most creative ideas can miss the mark when it comes to successfully meeting the needs of potential users.

It can be challenging for innovators to access the opinions of their target audience. To bridge this gap, the Centre for Aging + Brain Health Innovation (CABHI), powered by Baycrest, is bringing innovators and older adults together to co-design technology and practical solutions that aim to improve quality of life for older adults, people living with dementia, and their caregivers.

Helping to drive this mission forward is CABHI’s Seniors Advisory Panel (SAP) – a community of older adults and caregivers that provide advice and support to CABHI-funded aging and brain health innovations.

Dr. Shoshana Hahn-Goldberg, a scientist at UHN OpenLab, worked with the SAP while developing a virtual community care hub to support seniors aging at home. The SAP helped Dr. Hahn-Goldberg understand older adults’ perspectives on public and private spaces, social connectedness, and remote healthcare resources.

“Over the last four years the SAP has reviewed a range of innovations – from patient information management systems to monitoring devices used to keep older adults safe,” says SAP member Walter Seaton.

In March 2021, CABHI expanded their co-design model to create Leap, a diverse community of older adults.

“By appreciating the broader human context and deeply understanding the needs of their target audience, innovators can create relevant and meaningful products,” explains Bianca Stern, Executive Director, Health Innovations at CABHI.
and caregivers interested in sharing their lived experiences with innovators. Through collaborative feedback sessions, targeted focus groups, and design sprints, Leap members can test emerging agtech and provide feedback to innovators about the usability of their products.

Leap recognizes that all older adults possess unique insights that can enrich the innovation process and help innovators identify which pain points to address.

“By appreciating the broader human context and deeply understanding the needs of their target audience, innovators can create relevant and meaningful products,” explains Bianca Stern, Executive Director, Health Innovations at CABHI.

COVID-19 has accelerated the development of agtech solutions aimed at improving quality of life, reducing social isolation, and maintaining cognitive and mental health among older adults living at home and in long-term care centres. The time for seniors to access these innovations is now. By participating in co-design sessions, older adults can feel empowered to advocate for their individual healthcare needs and shape their present and future aging journeys.

To join or learn more about Leap, please visit cabhi.com/leap

Arielle Ricketts is the Marketing & Communications Content Specialist, Centre for Aging + Brain Health Innovation.

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Recognizing top Canadian health care organizations and trailblazing companies for homegrown innovation

By Cecely Roy

The Coordinated Accessible National (CAN) Health Network recently announced five prestigious awards recognizing Canada’s leading health care organizations and companies at their 2nd Annual General Meeting. Awards were given in the following categories: Network, Edge of the Year, Company of the Year, Disruptor, and Procurement Awards. The virtual AGM was hosted and sponsored by Deloitte Canada.

By Cecely Roy

“Today, we honoured the finest health care organizations and companies within our Network for their accomplishments in transforming health care in Canada,” said Dr. Dante Morra, Chair and Lead of the CAN Health Network. “We brought together over 200 leaders in the health care, technology, and business space to discuss the future of health care in Canada, and how our Network can continue to empower Canadian innovators and leverage winning domestic companies to secure Canada’s prosperity.”

The CAN Health Network is a federally-funded integrated market

Care sector over the past year, against the backdrop of a global pandemic.

Awards were granted to the following recipients:

Precision ADM and Shared Health in Manitoba received CAN Health’s ‘Network Award’, the highest honour, recognizing the Edge and Company who leveraged the full scope of the Network and demonstrated considerable growth and success. They introduced North America’s first, 1st grade reusable N95 respirator – Precision AIR – and helped solve a Canada-wide shortage of PPE at the height of the pandemic.

CANImmunize received the ‘Company of the Year Award,’ recognizing the company that has achieved outstanding results throughout their CAN Health commercialization project’s lifecycle and beyond. The Ottawa-based company worked with fellow National Capital Regional health operator, Bruyère, to develop Canada’s first-ever, easy-to-use system to manage staff immunization records. Following the success of the project, the CANImmunize solution was procured by the Government of Nova Scotia for their COVID-19 vaccine roll out.

Bruyère received the ‘Disruptor of the Year Award’ as the Edge or Company who has continued to embody CAN Health’s mission of breaking down barriers and enabling Canadian companies to introduce and scale innovative solutions to improve patient care and operational function. Bruyère is a thought leader in health care and actively works to challenge the status quo in the sector.

Sunnybrook Health Sciences Centre received the ‘Edge of the Year’ Award for consistently engaging and participating in CAN Health initiatives at all levels of the organization. Sunnybrook introduced multiple made-in-Canada solutions, including two transformative projects with Molecultight and Precision BioMonitoring. The world-class institution is now working with MOLLI Surgical to improve breast conservation surgery.

The ‘National Procurement Award’ was awarded to Horizon Health Network for leading Canada’s first-ever national health care Request for Pro-posal (RFP), and CMaRS for achieving one of the highest levels of success as a company through CAN Health’s model by adapting their solution to meet the needs of health operators. Horizon lead the national RFP process, with the CMaRS accreditation solution successfully procured by multiple health operators, across multiple jurisdiction.

For more information on these and other CAN Health Network commercialization projects visit: https://canhealthnetwork.ca/commercialization-projects/.

The Annual General Meeting had an impressive lineup of industry experts and health care influencers in attendance, including remarks from former Governor General, David Johnston and Team Canada’s gold med-al-winning captain, Christine Sinclair. The 3-hour virtual experience marked CAN Health’s second year driving innovation and helping Canadian companies scale to their full potential by enabling health care organizations to work directly with companies on real-world issues and challenges, facilitating transformative solutions.

The CAN Health Network is a Canada-first approach to technology adoption. It helps break down barriers to scaling in the health care system and provides an environment for companies to scale to their full potential. Currently operating in Ontario, Western and Atlantic Canada, the CAN Health Network plans to expand into Quebec and the North. To learn more about the CAN Health Network, visit canhealthnetwork.ca.

Cecely Roy is the Senior Communications Advisor CAN Health Network.
Long COVID and what it means for a struggling health care system

By Sarah Garland

There are lots of names for it. Long COVID and post-COVID-19 condition are the most common. It's an emerging issue that some people with COVID-19, whether or not they had symptoms initially, can develop symptoms that last weeks or months after their initial illness. In the beginning days of the pandemic, most thought that COVID-19 was a short-term, acute illness, and most people would recover in a few weeks. However, it soon became apparent that some individuals were experiencing symptoms long after they first were diagnosed.

CADTH (an independent agency that finds, assesses, and summarizes the research on drugs, medical devices, tests, and procedures) recently published a report on what is currently known about long COVID condition. This report looks at what is known about long COVID, emerging research questions, and implications for the health care system.

There's a lot of uncertainty about long COVID, but it's clear that this condition could have profound impact on health care systems. Recent estimates suggest that 150,000 Canadians may be affected by long COVID (based on a June 2021 report by SPOR Evidence Alliance and the COVID-END Network). Though it's hard to know exactly how many people will develop long COVID – and estimates of current prevalence vary widely – worldwide, long COVID is estimated to affect millions of people.

Part of the variability relates to whether the initial COVID-19 infection was confirmed or was suspected (i.e., an individual's symptoms suggested they likely had COVID-19). In the early days of the pandemic, access to testing was limited, and so not everyone with COVID-19 had a positive test to confirm their illness. The World Health Organization (WHO), in their October 2021 definition of long COVID, acknowledge this variability in testing, stating that the definition includes individuals with probable, as well as those with confirmed, COVID-19 infection.

Timelines for defining what constitutes long COVID also vary. But, according to the WHO definition, it's when a person is thought to have had COVID-19 for (usually) three months with symptoms lasting for at least two months that can't be explained by an alternative diagnosis. There is some variation in this too – people may have recovered from their initial illness, and then symptoms return, or they have new symptoms. When suspected and confirmed COVID-19 cases are combined, current estimates suggest that 21 per cent to 23 per cent of people have symptoms four weeks after being infected with COVID, and 14 per cent have symptoms 12 weeks after their initial illness.

Like acute COVID-19 condition (typically considered to last for up to 4 weeks after infection), there's a variety of symptoms associated with long COVID. In part, this is because COVID-19 can impact multiple organs in the body. Some common symptoms are fatigue, fever, breathlessness, cough, and chest pain. As well, some may experience “brain fog” (or the inability to think clearly), headache, dizziness, and sleep disturbances. Other symptoms may be gastrointestinal pain (e.g., stomach pain); joint and muscle pain; psychological symptoms (e.g., depression); ear, nose, and throat symptoms (e.g., loss of taste and smell, ringing in their ears); and skin issues (e.g., rash). To complicate things further, an individual's symptoms may fluctuate over time, relapse, or be triggered. For example, some people may experience worse symptoms after exercising.

As far as treatment goes, current recommendations focus on personalized care involving multiple clinical disciplines that reflect the complexity and variety of symptoms experienced by each patient. Possible components of treatment include self-management, such as education and support, and guidance for symptom specific management, like breathing exercises to improve shortness of breath.

There's also variability in the treatment and management of long COVID. There are some specialized clinics dedicated to long COVID patients, while other models of care centres on primary care providers referring patients to specialists as needed. There are also hybrid models that use a mix of post-COVID-19 clinics and primary care providers, depending on the needs of each patient.

Regardless of the model of care, long COVID could place demands on health care systems already struggling with the demands of the pandemic. For example, many people who suspect they have long COVID turn to their primary care providers, then to multidisciplinary specialists and rehabilitation services. To rule out other illnesses, they may need medical imaging and blood work. If they experience psychological symptoms of long COVID, they may access mental health treatments and supports. There are many ways the health care system is responding to the needs of individuals with long COVID, and it will take considerable time for us to realize the full impact of this condition. It should also be noted that long COVID has far reaching effects for individuals and may reduce their ability to fully participate in their daily lives, like going to school or work.

To summarize, long COVID is a complex condition with a large degree of variability among individuals. Right now, there is a lot of uncertainty about how best to prevent, treat, and manage long COVID. It will take time to develop a clear picture of post-COVID-19 condition and its full implications for health care systems.

To read the full report, you can access it – "An Overview of Post-COVID-19 Condition (Long COVID)" – in the 9th issue of the Canadian Journal of Health Technologies. Visit CADTH's YouTube page (https://www.youtube.com/user/CADTHACMTS) to view a panel of experts discussing the implications of long COVID. To find out more about CADTH, visit cadth.ca, follow CADTH on Twitter: @CADTHACMTS, or talk to our Liaison Officer in your region: cadth.ca/contact-us/liaison-officers.
Renewing Stroke Distinction™ status

By Shirley Price

West Park Healthcare Centre is a provincial leader in the care and rehabilitation of patients who have suffered from a stroke and our rehabilitation service first received Accreditation Canada’s Stroke Distinction™ status in 2016. In October, while still under pressure as a result of the pandemic, and in the midst of the construction of its new hospital, West Park invited surveyors to conduct this year’s survey, giving the organization an opportunity to renew its Distinction status.

Rachna Chaudhary, Clinical Manager, and an active leader in the accreditation process explains, “West Park’s Neurological Rehab Service is designed to provide high intensity rehabilitation to patients recovering from a stroke, acquired brain injury or neurological condition, however this survey was focussed on the care we provide to stroke patients.” Chaudhary continued, “Our ultimate goal is for patients to reach the level of independence that allows them to return safely to their previous living situation.”

Lisa O’Drowsky, Director, Quality, Risk & Patient Safety, notes the importance of the survey, stating “Stroke Distinction™ is a rigorous and highly specialized process above and beyond the requirements of Accreditation Canada’s Qmentum program.”

There were many highlights over the course of the survey, but it was the strength and unique make-up of the interprofessional team, established relationships with patients, families and community partners, the team’s excellence and innovation project, and a fulsome and thoughtful approach to discharge that made West Park’s stroke care stand out.

Stroke care at the Centre begins with an interprofessional team that is truly led by the patient and the family, and includes care coordinators, nurses, occupational therapists, pharmacists, physicians, physiotherapists, rehabilitation assistants, speech-language pathologists, a communications disorders assistant, registered dietitian, and social worker. The allied health staff aim to provide stroke patients with 180 minutes of daily therapy daily.

Team members reported that they are always learning from colleagues. This was demonstrated by the return of bullet rounds, put on hold in the early days of the pandemic, where the interprofessional team meets daily to discuss their patient caseload, what is going well and what might need to be changed in the patients’ care plans, sharing various perspectives of all clinicians.

Strengthening the unique program design, the organization houses the Spasticity Clinic, which is known world-wide for its expertise in providing care to patients following stroke. The team benefits from the expertise of this program as physiatrists also provide consultation services to the neurological rehabilitation unit and are instrumental in leading weekly interprofessional team rounds.

During the visit, surveyors noted collaboration with CorHealth Ontario and the Toronto Stroke Network, leveraging support to ensure the use of Canadian Stroke Best Practice Recommendations for the standardization and consistency of stroke services. West Park’s clinicians participate in committees and initiatives led by the Stroke Network to ensure patients are receiving the most up to date and evidence based care.

Collaboration and partnership in program planning, design, and implementation was foundational and members of the Patient Advisory Committee proudly highlighted the involvement of patient partners in planning, designing and evaluating the services and have been engaged in the design of the new hospital.

Additionally, patients are involved in continuous improvement through the team’s excellence and innovation project. The initiative aimed to develop an aphasia friendly medication chart and aphasia friendly education materials to assist patients with moderate and severe aphasia to participate in West Park’s self-medication program. The program helps to assess a patients’ ability to manage their medications prior to discharge home. Patient involvement in the design materials along with interprofessional collaboration was a feature of the project design and contributed to its success as patients reported they had a better understanding of the self-medication program and also understood the purpose and use of their medications prior to discharge.

“When each day we learn something from patients that helps us to improve an aspect of the care and the services we provide, noted Clinical Practice Lead, Lynn Suter, “and we’ve always felt that our relationship with patients is a true partnership.”

When speaking with surveyors, patients reported feeling engaged in their care, that families are involved in discharge planning, and that they are supported to transition home with the implementation of a follow-up phone call only days after discharge. The final touch is a smooth transition to outpatient services, reinforcing that the care doesn’t end at discharge was also noted.

The survey report paints a picture of true collaboration between stakeholders, one of West Park’s organizational values, and the outcome is reason for celebration across the organization. O’Drowsky feels, “West Park’s success is a testament to the Centre’s commitment to the ongoing process of quality improvement in ensuring provision of the highest quality of Stroke services.”

Shirley Price is the Director Clinical Programs, Rehab and Ambulatory Services at West Park Health Centre.
Male physicians refer patients to male surgeons at disproportionate rates, study shows

By Jennifer Stranges

A study that analyzed nearly 40 million referrals to surgeons in Ontario found male physicians disproportionately refer patients to male surgeons over similarly qualified and experienced female surgeons.

The study, published in JAMA Surgery, found that the differences in referral volumes and types could not be explained by patients’ choices or by characteristics of the surgeon, such as age or experience. The findings suggest that male physicians hold biases that disadvantage female surgeons, further widening the gender pay gap in medicine.

Researchers at Unity Health Toronto and ICES compared the proportion of referrals made by male and female physicians to male and female surgeons over a 10 year span from 1997 to 2016. Nearly 40 million referrals were made to 5,660 surgeons. Although male surgeons accounted for 77.5 per cent of all surgeons, they received 79 per cent of referrals sent by female physicians, but 87 per cent of referrals sent by male physicians.

“During my 20 years in practice, I always had the sense it was easier for my male surgical colleagues to get referrals than it was for me, and the patients they were referred were more likely to need surgery,” says Dr. Nancy Baxter, senior author of the study and a scientist with the Li Ka Shing Knowledge Institute of St. Michael’s Hospital of Unity Health Toronto. “Our work demonstrates that my observations were not unique, but reflect gender bias that affects the lives and livelihoods of all female surgeons in the province,” adds Dr. Baxter, who is also an adjunct scientist with the not-for-profit research institute ICES.

The study found female surgeons in Ontario earn 24 per cent less per hour while operating compared to male surgeons, and that female surgeons performed fewer of the highest-paid primary procedures than male surgeons.

Jennifer Stranges is a senior communications advisor at Unity Health Toronto

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