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CAMH expands its information system, creates portal for patients

ORONTO – CAMH, one of Canada's leading providers of mental health care, has deployed information technologies so effectively that it was awarded a Stage 7 designation by HIMSS in 2017. Stage 7 is the highest tier on the HIMSS ladder, which measures the use of IT in patient care.

The organization continues to expand its use of technologies, but the guiding principle is to use IT as an enabler of better care.

"The overarching principle is to make sure that technology meets the needs of our stakeholders – patients, clinicians and physicians. Technology must be a tool to support the delivery of patient care," noted Heather Sulkers, senior director, enterprise project management office and clinical informatics at CAMH.

In 2018, Sulkers was named one of the most influential women in health IT by Chicago-based HIMSS. That international award followed Digital Health Canada's recognition of Ms. Sulkers as one of the top 10 women IT leaders in Canada.

Sulkers observed that CAMH is currently in the midst of a large, physical expansion, with two new buildings on its main downtown Toronto campus set to open in mid-2020. The IT team is working closely with engineers and architects to extend the technological infrastructure into the new facilities.

At the core of the tech system is the Cerner electronic health record, called I-CARE, which supports advanced features like computerized provider order entry (CPOE) and closed-loop medication management.

I-CARE extends to all parts of the hospital, and it ensures "there's one source of truth for everyone."

Sulkers said CAMH wants to make sure it stays current with new features of the system. It also wants to ensure that it's meeting the needs of patients and care teams.

CAMH has been putting a great deal of work into analytics, and recently won a HIMSS Stage 6 award on this front, too.

As part of the process, it showed how analytics have improved the delivery of care in three different areas.

Now, using analytics, the goal is to make the jump to "predictive medicine," she said.

"We have a whole centre researching neuroinformatics," said Sulkers. "It's lever-



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aging information from I-CARE, and marrying the data with genetics for example."

She said a new level of insights and understanding will eventually be created by the team at the hospital's Krembil Centre for Neuroinformatics, which is using high performance computing, and new computational methods such as deep learning. "We'll be able to send that data back to the clinicians."

On another front, CAMH has embarked on creating a patient portal. "We've been working on it for the past number of months, and it will have a phased-in approach," said Sulkers.

Patients will be able to access a sub-set of their electronic record in the portal. It will include lab results, along with information about upcoming appointments. The portal will also offer wayfinding, so that patients can more easily find their way around the large CAMH site, and it will provide self-assessment tools.

"Patients will be able to fill out selfassessments in the comfort of their own homes, prior to seeing their clinicians," said Sulkers. "This will save time, since the clinicians won't have to ask these questions during the appointment."

Easier access to their own data may also help patients with their therapies and recoveries, as it's believed that providing patients with personal data – in a secure way – is empowering.

CAMH is also committed to making the delivery of care as convenient as possible. For this reason, it has been ramping up usage of video visits – which connect clinicians and patients via computers from any location.

"We've seen a 4,000 percent increase in telemedicine appointments in the last three years," said Sulkers, an extraordinary surge. "It's all about removing barriers and enhancing services."

And with smartphones becoming ubiquitous, the organization is also increasing its focus on mobile solutions and apps. "It's incredibly important with our younger patient population," said Sulkers.

The patient portal will be accessible on smartphones, and CAMH is also piloting a number of mental health apps.

The challenge in this area, observed Sulkers, will be capturing the wealth of information from mobile apps in the central I-CARE system. "There's lots of apps out there, and lots of information. The challenge is how to integrate it with our clinical information system."