



SIGNAL 1



AI TECHNOLOGY TO HELP CLINICIANS PREDICT CHANGES IN PATIENT NEEDS AND BETTER CUSTOMIZE THEIR CARE

Trillium Health Partners teams up with startup Signal 1 to improve patient care and capacity

April 25, 2023 (Mississauga, ON) – Trillium Health Partners (THP) is set to harness the power of AI technology in health care in a new partnership with Toronto-based company *Signal 1*. The startup's AI-based platform, called the Discharge Solution, can forecast changes in patient care needs, and help improve hospital flow.

The Discharge Solution analyzes patient data to predict changes in patient status, which will support clinicians in prioritizing patient care needs, while enhancing decision-making to improve efficiencies and workflow. In partnership with clinical programs, THP will be leveraging its Institute for Better Health's (IBH) Innovation team to test the platform in its Medicine Program through a six-month project supported by the Coordinated Accessible National (CAN) Health Network. The platform is currently being tested at St. Michael's Hospital, a site of Unity Health Toronto, which partnered with *Signal 1* on the development of the tool.

"THP is one of the busiest hospitals in Canada with over 1.7 million patient visits per year, and improving the efficiency of our discharge process has never been more important," says Craig Campbell, Program Director, Emergency and Urgent Care, Flow and Operations, Trillium Health Partners. "This tool will help support our clinical teams in making the best recommendations for patients to ensure they reach the next step in their care journey sooner."

Signal 1 provides hospitals with an enterprise-wide AI platform. Monitoring patients from admission through discharge, the platform uses machine learning to predict changes in patient care needs, sharing insights with clinical staff.

The company was built out of a collaboration with Unity Health Toronto to improve patient outcomes and transform health care using artificial intelligence (AI). It officially launched in April 2022, making this month the one year anniversary.

"AI has the power to accurately predict changes in patient needs in advance," says Mara Lederman, COO and Co-Founder, *Signal 1*. "For example, predicting which patients will soon be ready for discharge planning. This can be a game-changer for busy clinical staff whose time and attention are constantly being pulled in many directions."

Signal 1's Discharge Solution is designed to help hospitals accelerate the inpatient discharge process, while ensuring the patient's needs are met. The solution predicts which patients are nearing the end of their acute phase of care and automatically identifies these patients, along with their discharge barriers and provides this information to their multi-disciplinary teams in an easy-to-use Discharge Priority Report.



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“Patients don’t want to be in hospital any longer than needed, and this tool helps with that,” says Dr. Muhammad Mamdani, VP, Data Science and Advanced Analytics, Unity Health Toronto. “It also builds on the success of Unity Health and Signal 1’s other AI tools to support clinical decision-making so they can quickly and safely discharge patients who are ready for the next stage of their recovery.”

A critical component of THP’s project with *Signal 1* is integrating the solution with Epic – THP’s electronic health record system. This step will make THP the first hospital to perform this integration, and means that moving forward, other hospitals across the country will now be able to adopt *Signal 1*’s technology more easily.

“It’s exciting to see the impact of the largest community-based hospital system in Canada, working with a Canadian start-up and demonstrating a commitment to help support homegrown innovation,” says Dr. Dante Morra, Chair, CAN Health Network. “Signal 1 has the potential to transform the way hospitals across the country operate and we are looking forward to see the results that this technology has on the timeliness and quality of patient care.”

The CAN Health Network is a federally funded organization that provides Canadian companies with access to real health care environments where they can implement their market-ready solutions, gain valuable feedback from end-users, and scale across the Network and beyond.

“The CAN Health Network is making it possible for entrepreneurs across Canada to match up with health care providers, test their innovations and grow their companies, all while strengthening our universal health care system by encouraging homegrown innovation. As an Integrated Marketplace, the Network will give innovators access to health care providers so they can grow their businesses and create jobs. The work that Trillium Health Partners and *Signal 1* are doing shows the effectiveness of this network and its potential for future successes,” says The Honourable Mary Ng, Minister of International Trade, Export Promotion, Small Business and Economic Development.

In addition to THP, *Signal 1* is also collaborating with Grand River Hospital in Kitchener Waterloo on a CAN Health project exploring its Patient Discharge solution and Nursing Assignment tool.

Images available for media use [here](#).

For media inquiries, please contact:

Lyndsay Carter
Manager, Corporate Communications
Trillium Health Partners
E: Lyndsay.carter@thp.ca



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Pete Cronin
Vice President, Business Operations
Signal 1
E: Pete@signal1.ai
C: 416-219-8384

Natasha Zelinski
Communications Advisor
CAN Health Network
E: Natasha.zelinski@THP.ca

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ABOUT TRILLIUM HEALTH PARTNERS (THP)

Trillium Health Partners (THP) is one of the largest community-based hospital systems in Canada. Comprised of Credit Valley Hospital, the Mississauga Hospital and the Queensway Health Centre, THP serves the growing and diverse populations of Mississauga, West Toronto, and surrounding communities. THP is a teaching hospital affiliated with the University of Toronto, is an associate member of the Toronto Academic Health Science Network and a proud member of Mississauga's Ontario Health Team. THP is committed to reducing inequities and improving health in the community. Visit www.trilliumhealthpartners.ca.

ABOUT SIGNAL 1

Signal 1 is a health start-up that helps hospitals enhance patient care with an AI-powered clinical decision support system. Signal 1's system delivers real-time insights on changes in patients' conditions and care needs, monitoring patients from the time of admission right through discharge. Signal 1 is committed to delivering responsibly deployed AI solutions that are designed with clinician feedback at every stage. Signal 1 launched in April 2022. To learn more, visit <https://signal1.ai/>

ABOUT CAN HEALTH NETWORK

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 was recently awarded \$30 million by the Government of Canada as part of Budget 2022 to expand into Quebec, the Territories and with Indigenous Communities. To learn more, visit <https://canhealthnetwork.ca/>