



Innovative Partnerships in Cardiac Care: Novartis, Cardea Health Inc., Heart Health Institute, and the Future of ASCVD Management in Ontario

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Given the alarming statistic that 36% of chronic illness-related deaths in Ontario stem from cardiovascular disease, innovative approaches for the prevention and management of cardiovascular disease are paramount. For this reason, cardiologists in Ontario are collaborating with Novartis Pharmaceuticals Inc. towards innovative care models for atherosclerotic cardiovascular disease (ASCVD), a primary driver of cardiovascular disease morbidity and mortality.

Central to this collaboration is the establishment of Nurse Practitioner (NP) clinics that aim to address the fragmentation of secondary prevention care in ASCVD.

By focusing on pivotal initiatives such as the launch of NP-led clinics tailored for ASCVD patients, the aim is to transform patient care.

The ability to leverage AI, NLP, and OCR, has also been instrumental in supporting innovative care models such as these. One example of such technology is Cardea Health which 'empowered us to distill essential data' Dr. Andrew Yadegari, CMIO and Co-Founder of Cardea Health Inc. remarked. " Dr. Jason Burstein, a partner at the Heart Health Institute, further emphasizes the value of technology stating, "Our alliance with Cardea Health was instrumental, their technology swiftly pinpointed our target patient demographics across the Heart Health Institute, impacting a significant patient population primarily from underserved areas of Scarborough, Ajax, and Pickering."

Naveed Ahmad, CEO and Co-Founder of Cardea Health Inc., encapsulates the broader vision: "projects such as this one showcases the potential to improve patient care when technology and clinical acumen converge in one mission."

Overview of the Operations:

In March 2023, the Heart Health Institute (HHI) established NP led ASCVD clinics, hosting an average of 2.5 specialized ASCVD clinic days monthly, peaking at 5 clinic days in July 2023.

The impact on patient care was significant. The average LDL levels across the patients seen at these clinics dropped dramatically from 2.5 to 1.2mmol/L, allowing many of these patients to achieve guidelines directed LDL-C thresholds.

This initiative was driven forward by 8 cardiologists at HHI, all engaged in improving patient outcomes through this innovative model.

The value of technology:

Ensuring that ASCVD patients were being efficiently directed into the NP led clinics originally required patient evaluations that took an average of 30 minutes, consuming significant time and resources. With the aid of technology (A true-positive tool with 75-85% accuracy and a named entity recognition (NER) system) efficiency was improved allowing patients and clinicians to save time and resources by facilitating access to the NP led clinics.

Combining technology with human expertise reduced evaluation times to from 30 minutes to 1.5 minutes per patient. Health Informaticists found that combining manual vetting, technology, and expert judgment was most effective.

In closing, innovative care models, supported by technology, that enable better cardiovascular care are setting the stage for a brighter, healthier future.

Data Points:

Start Date: March 2023

Data period: 6 months

Number of Nurse Practitioners: 1 now moving to 2

Average ASCVD clinic days per month over the past 6 months: 2.5

Average ASCVD patients seen per day: 9

Highest number of ASCVD clinic days in a month: 5 days (July 2023)

Patient Impact analysis: LDL decrease from baseline/initial value 2.5 down to 1.2 after 1 visit