



*Your Impact  
in Action*

EMERGENCY MEDICINE

Transforming emergency care  
2024 Activity Report



## Thank you

Looking back at more than a century of care and discovery at Mount Sinai Hospital, we owe our progress to the donors who enabled our physicians, scientists and health providers to push the boundaries of care across the lifespan. Donors like you.

In emergency medicine, your impact starts at the Schwartz/Reisman Emergency Centre (SREC) and the Schwartz/Reisman Emergency Medicine Institute (SREMI) — two international leaders in emergency care and research — and extends across the hospital to cancer care, early pregnancy and psychiatry. It is nothing short of extraordinary.

We are making incredible advancements in care, education and research with your help. This past August, we completed the final phase of renovations in the Emergency Department (ED). The RBC Pathway to Peers Program hired a new program manager to lead

its upcoming expansion. We established a Chair in Emergency Medicine in honour of Dr. Howard Ovens and the SREC team launched a new website for ED physician recruitment. We are also leading education and research in emergency geriatric, pregnancy and cancer care, and recently published new clinical guidelines on alcohol use disorder and cannabis hyperemesis syndrome management in the ED.

Through your support, SREMI and SREC stand as prime examples of what we can achieve when like-minded people come together with a singular goal: to revolutionize health-care delivery and improve patient care. Thank you.

*Dr. David Dushenski*  
*Chief of Emergency Medicine, Sinai Health*

# Improved spaces in emergency medicine



In November 2024, ED staff celebrated the final completion of the Schwartz/Reisman Emergency Centre redevelopment with a ribbon-cutting ceremony.

After more than seven years of phased renovations, Sinai Health is proud to announce the completion of the newly redeveloped Schwartz/Reisman Emergency Centre at Mount Sinai Hospital.

Officially completed in August 2024, the ED is now more than double its original size, with a footprint of 24,000 square feet. This expansion will allow the hospital to accommodate up to 80,000 emergency patient visits per year, while enhancing our ability to deliver safe, high-quality and exceptional emergency care.

The improved space was designed with a focus on patient flow and communication, state-of-the-art technology and infection control, including:

- Medical procedure rooms with ceiling-suspended booms to maximize space and enable safer work environments
- Medical Imaging co-located in the ED, making Mount Sinai Hospital one of Canada's first EDs to have dedicated in-house diagnostic services
- Assessment rooms for medical and surgical specialties
- Airborne-isolation rooms and a negative-pressure zone for infection control
- Dedicated EMS entrance for streamlined patient arrival and faster emergency response
- Private rooms to enhance patient privacy, safety and overall care



## RBC Pathway to Peers

**For young people who struggle with mental health, substance use and chronic health issues, the ED is often their first or only option to get medical attention. The RBC Pathway to Peers program is focused on supporting these young adults aged 16 to 29 in their time of need.**

Since 2020, the RBC Pathway to Peers (P2P) program has supported more than 6,500 young adults in the ED experiencing a mental health crisis or struggling with substance use. Today, the program boasts a dedicated team of seven P2P support workers, each bringing their own lived experiences to offer compassionate, peer-led support. They are available up to 12 hours a day, seven days a week, ensuring consistent care and assistance for those in need. Working alongside the clinical team, P2P support workers bridge the gap between traditional ED staff and young patients, offering in-person, real-time emotional support. They provide self-advocacy education, coping strategies and practical resources, empowering patients to navigate their care with confidence and resilience.



## Meet Rhiannon Thomas

In September 2024, we welcomed Rhiannon Thomas as the new P2P program manager. Rhiannon brings a wealth of experience from her background in community-based health and social service organizations, where she focused on supporting individuals experiencing homelessness, living in poverty and those facing mental health challenges or substance use. Her expertise and passion for working with these patient populations will be invaluable as she leads the continued growth and impact of the P2P program.

“ I am thrilled to work in a program that recognizes the multitude of challenges people face — alongside people who see that we need to do better and want to find ways to make that happen. I can’t wait to expand this care model to other hospitals, where I know we can make a positive difference in how people access ED care. I am excited to collaborate with hospital and ED teams to build on the foundations of this program — to improve patient experiences, develop policies and resources for better clinical care and address gaps in literature regarding illicit drug use and ED interventions. ”

Rhiannon Thomas  
RBC P2P program manager



## Expansion to another hospital

Rhiannon will lead the expansion of our program to a second hospital ED in the greater Toronto area, specifically at Michael Garron Hospital. This partnership is part of the Pathway to Peers Expansion Pilot Project – supported by the Slaight Family Foundation – which aims to bring ED-based peer support to an additional location in Toronto.

## New supports in mental health

The Psychiatric Emergency Services Unit (PESU) launched in response to the mental health crisis during COVID – offering assessment and treatment planning for patients with mental health or substance use challenges in the ED. We now have two psychiatrists and a nurse practitioner on staff and patients can get psychiatric consultations in our ED, a service not offered before. It has increased our ability to integrate peer support workers alongside psychiatrists within the PESU, for better support of young patients experiencing mental health concerns.

# Dr. Howard Ovens Chair in Emergency Medicine

The Dr. Howard Ovens Chair in Emergency Medicine is one of 18 Mount Sinai 100 Chairs and was named in honour of Dr. Howard Ovens – a visionary in emergency medicine and a beloved leader at Sinai Health.

Under Dr. Ovens' leadership, Mount Sinai Hospital gained international recognition for its exceptional emergency care of older adults and its commitment to the respectful treatment of marginalized populations.

In 2024, Dr. Ovens was appointed to the Order of Ontario in recognition of his extraordinary contributions to health care in the province. This chair will be held by future leaders in the department of emergency medicine, ensuring the continued excellence and innovation that will define the next century of care at Sinai Health.



## Finding talent in emergency medicine

Sinai Health's ED is not immune to the current challenges facing the health-care system, and volumes and the complexity of patient presentations have increased in recent years.

Recruiting new staff to meet this need – eight shifts per day for approximately 60,000 patient visits every year – has become increasingly competitive. In response, Dr. Michelle Yee, a staff

physician and co-director with the Supplemental Emergency Medicine Experience program, developed a website for interested residents and doctors to learn more about the ED at Mount Sinai Hospital. Funded through the Ovens Chair, the website [www.MSHEDrecruitment.com](http://www.MSHEDrecruitment.com) is both friendly and comprehensive – an accessible introduction to the ED team and a unique vehicle for new recruitment.

# Geriatric Emergency Medicine

Emergency departments frequently and increasingly play a role in the care of older adults, who experience higher rates of ED usage compared to other populations. The Schwartz/Reisman Emergency Centre is an international leader in the care of older adults in the ED, and our ED clinicians and researchers are hard at work to ensure it remains a place for patients to receive the specialized care they need.



## Dr. Don Melady Chair in Geriatric Emergency Medicine

Mount Sinai Hospital is known internationally for delivering innovative and effective care to older adults – due, in large part, to Dr. Don Melady. He has been instrumental in developing the concept of the older person-friendly ED through clinical education, quality improvement and knowledge dissemination of geriatric ED care.

This past year, he was promoted to full Professor in the Department of Family and Community Medicine at the University of Toronto's Temerty Faculty of Medicine in recognition of his outstanding contributions to the field. In June 2024, Mount Sinai Hospital also celebrated the establishment of the Dr. Don Melady Chair in Geriatric Emergency Medicine – one of 18 fully endowed academic chairs. This chair will enable SREMI to continue supporting research, education and system change to improve care for older patients in the ED for generations to come.

After more than 35 years serving as an emergency physician, Dr. Melady is retiring, and we are grateful for his contribution to emergency care at Sinai Health.



## SREMI Research Chair

### Research in social isolation, loneliness and delirium

As the inaugural SREMI Chair in Geriatric Emergency Medicine Research, Dr. Jacques Lee is leading research to better understand social isolation, loneliness and delirium – to improve outcomes for older people who need emergency care. These studies include:

#### **“HOW-RU” (HOspitals WoRking in Unison) –**

Dr. Lee is leading an innovative study aimed at reducing loneliness in older ED patients by connecting them with volunteers over the phone or by video. Enrollment for this study is almost complete, with 139 of 142 participants secured. Interestingly, the team has discovered that many participants did not identify as lonely, despite reporting high measures of loneliness, shedding light on the stigma surrounding social isolation. This unexpected finding has prompted new scientific inquiries into the complexities of loneliness. To explore these effects further, we have enlisted 10 medical students to conduct a 500-person validation study.

#### **FIND-UM (Femoral fractures – Identifying New Delirium with Urine Metabolomics) –**

This five-year, multi-institutional study is looking to develop a simple urine test to detect impending delirium in older people with hip fractures. In 2024, we expanded recruitment to two sites at The Ottawa Hospital. Along with Sunnybrook Health Sciences Centre, we have enrolled 175 patients including 40 cases of delirium. We launched enrollment in Quebec City this past fall and will conduct a preliminary analysis early this year.

#### **PREDDICT (Predicting Emergency Delirium with an Interactive Customizable Tablet) –**

PREDDICT is a senior-friendly app – a “Whack-a-Mole” game – developed to help recognize patients at risk for delirium in the ED. We validated and refined a prediction rule based on their performance in this game. It identified 96 per cent of cases of delirium compared to 50 per cent recognition clinically. Currently, Dr. Lee is collaborating with Dr. Marc Chignell at the University of Toronto to further refine the game using artificial intelligence.



Drs. Jacques Lee and Bjug Borgundvaag

# Guidelines on alcohol use disorder and cannabis hyperemesis syndrome management in the ED



Alcohol is the most commonly used substance in Canada – causing more substance use-related ED visits than tobacco or all other drugs combined.

SREMI Director, Dr. Bjug Borgundvaag, led the development and publication of the first-ever clinical guidelines on the ED management of alcohol use disorder and cannabis hyperemesis syndrome, an increasingly recognized condition causing repeated and severe vomiting from regular, long-term use of marijuana. Dr. Borgundvaag has presented the guidelines across Canada and internationally to promote awareness of the findings and to translate this knowledge into action. These guidelines are expanding the limited research and education focused on the management of conditions related to the use of these substances with an evidence-based, patient-centred framework.

“ With over 650,000 ED visits for alcohol-related conditions, alcohol use problems are extremely common. It is important that emergency providers are aware of the rarely prescribed treatments which have been shown to be very effective in helping patients reduce alcohol consumption or achieve abstinence, and know how to apply the best evidence for managing alcohol use disorder. ”

Dr. Bjug Borgundvaag  
Emergency Medicine Physician  
Director, SREMI



Alice Gray, Anton Helman, Jacques Lee, Howard Ovens, Don Melady, John McLaughlin, Bjug Borgundvaag, Keerat Grewal, Shelley McLeod and Brittany Ellis at the 10th anniversary event in celebration of a decade of SREMI.

## Celebrating 10 years of SREMI

SREMI is the hub for the hospital's most advanced research in emergency medicine. With more than 40 ongoing projects collecting data to better understand the needs of ED patients, and with care models in pregnancy care and cancer that have been replicated nationally and internationally, the team at SREMI are some of the best in the world. In 2024, they celebrated a decade of research excellence.

**“ I must give special recognition to our generous benefactors, as their support is the foundation of all our achievements. As we look ahead, we remain committed to advancing emergency medicine through innovative research, scholarship and collaboration. ”**

Dr. Shelley McLeod, Research Director, SREMI



## By the numbers

Over the last decade, SREMI has had a big impact on emergency medicine:

**115**

grants totalling more than \$35 million

**326**

manuscripts published in reputable journals like *Canadian Medical Association Journal*, *Academic Emergency Medicine* and *Age and Ageing*

**65**

research excellence awards

**148**

academic and scholarly awards

**125**

medical students, residents and fellows mentored

# Research that matters



## Improving access to early pregnancy care in Canada

Dr. Catherine Varner, Deputy Director at SREMI, and co-authors, found that four in five people experiencing symptoms of early pregnancy loss sought care in an ED in Ontario. They described that pregnant patients who are not critically ill or who experience early pregnancy loss often receive suboptimal care in emergency settings. They have longer-than-average lengths of stay and describe being made to feel as though they are “wasting the emergency department providers’ time” given space constraints and relative stability compared with sicker patients. This research underscores the need for better care models to support this group.

As a direct result, the Virtual Wraparound Care program was launched in the ED. The program has supported nearly 1,000 patients through their loss, providing essential education, emotional support and ensuring timely follow-up care.

In 2024, Dr. Varner published three editorials for the *Canadian Medical Association Journal* advocating for improved streamlined access to pregnancy care in Canada and led a provincial advisory panel for patients experiencing symptoms of early pregnancy loss. Her editorials resulted in multiple media interviews with the *CBC*, *CTV News*, *Toronto Star*, *Globe and Mail* and *National Post*.



## Cancer diagnosis in the ED

Patients with cancer frequently use the ED throughout their cancer journey. However, very little is known about how these ED visits impact outcomes for patients with cancer.

Dr. Keerat Grewal, a clinician scientist at SREMI, is leading a study examining the care of patients in Ontario who are diagnosed with cancer through the ED. So far, they’ve reported that more than one-third of patients diagnosed with cancer in Ontario used the ED in the 90 days prior to diagnosis. This highlights an opportunity to improve care for patients who receive a suspected cancer diagnosis in the ED.

Dr. Grewal recently co-wrote an editorial in the *Canadian Medical Association Journal* discussing the need for better access to care from EDs for patients with a suspected cancer diagnosis. She also published a research article in the *Canadian Medical Association Journal* describing cancer patients’ use of the ED in Ontario prior to their cancer diagnosis. Both articles were featured on the front page of the *Toronto Star* and will lay the foundation to improve access to cancer care in the ED.



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