

2023 annual report

EMERGENCY

MEDICINE CALGARY ZONE

Delivering World Class Emergency Care for Calgarians



UNIVERSITY OF CALGARY
CUMMING SCHOOL OF MEDICINE

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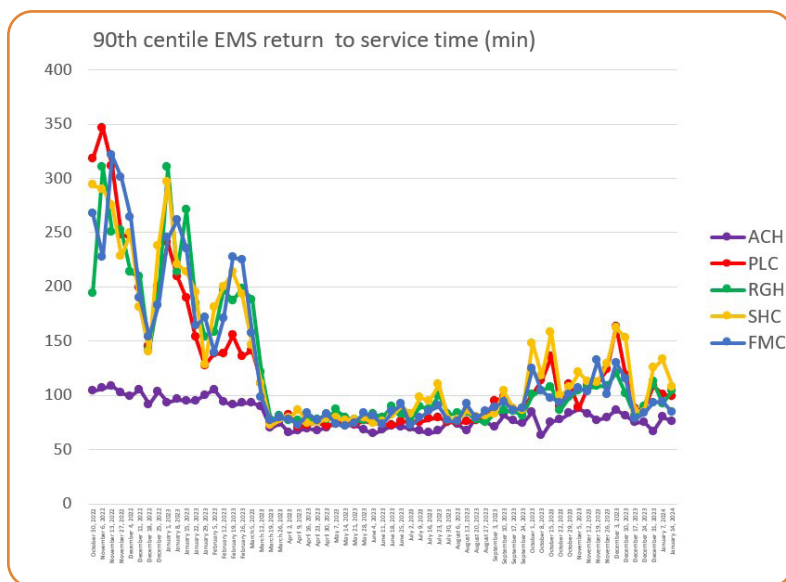
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Message from the Department Head and Executive Director

From a number of vantage points, 2023 was the most positive and successful year for the Department of Emergency Medicine since the pre-pandemic year of 2019. Despite a number of new and continuing challenges the Department and its leaders rose to the occasion and took a number of pressing issues head on with impressive results.

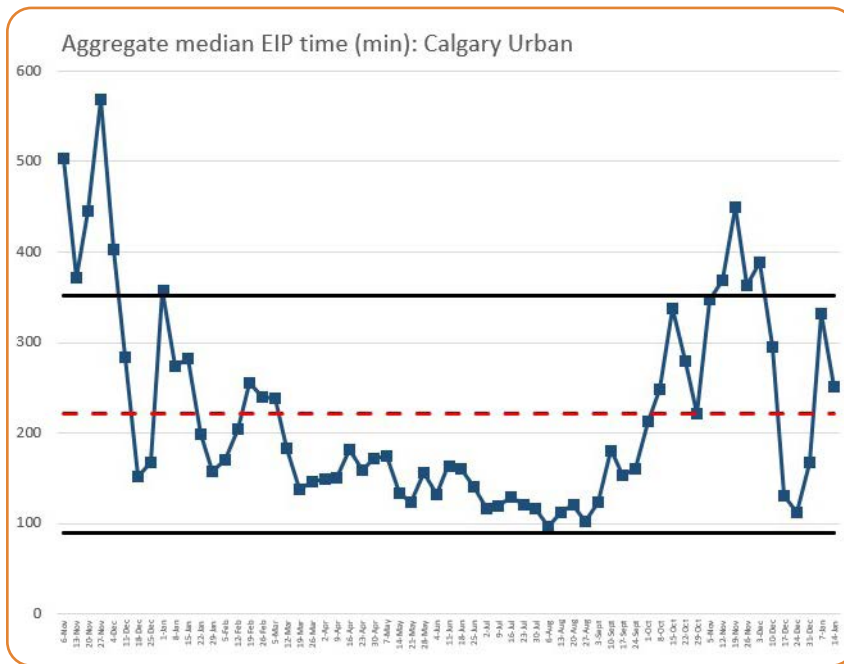
Other departmental highlights included:

1. **Reduced EMS turnaround times.** A dramatic improvement in EMS turnaround times. Paramedic teams, stranded in our ED corridors unable to unload patients for hours due to the ED being bed-blocked was one of the most vexing problems facing our EDs. We did however achieve a seismic breakthrough made possible by reorganizing nursing resources to allow timely handover and return to service for our EMS teams. Although there has been some “give-back” in the last months of 2023 we are very proud of this important achievement.



2. **Improved MD and Nursing staffing.** While many other areas of the Alberta healthcare system are experiencing challenges on this front, our department is fully hired from a physician perspective and has seen marked improvement on the nursing front as well. We remain a 24/7/365 service to all Calgarians in need and function as the ultimate safety net for society. We don't go on diversion and we don't impose caps on the number of patients we see.

3. **Impact of the Health Action Plan focus on ED wait times.** With ED visit volumes still generally below pre-pandemic levels it became abundantly clear that the ED wait time issue was directly the result of EIP burden hampering our staff's ability to provide safe, effective and timely care. Fortunately, with a refocus on limiting the number of EIPs allowed to linger in the ED and consume precious resources we experienced considerable improvement over the first nine months of the year but those gains were unfortunately lost as Zone hospitals returned to operating at well in excess of 100% occupancy turning the emergency department into what often felt like the overflow department. Without a doubt SHC and PLC have experienced the brunt of this resurgence in EIPs.



4. **Alberta’s highest performing urban Zone from an ED perspective.** With an aligned and collaborative governance structure, the Zone Department of EM has consistently been able to achieve high levels of operational performance as well as inpatient experience and quality of care indicators in comparison to our neighbors in Edmonton Zone who experience unique challenges. Alberta is now performing as well as or better than any other

province with a population in excess of one million inhabitants.

<https://focus.hqca.ca/charts/length-of-time-admitted-patients-wait-for-hospital-bed/>
<https://app.powerbi.com/view?r=eyJrIjoiMjU4ODM1MWItMDRkYi00MzE3LWJkNDEtYzU0NzA4NTQ1ZjZkZiwiidCI6ImM3NWYyYzEwLWQyMGQtNDc0Yy04YmVmLWQ4MTEyYjZjZWQyOSJ9>

5. **Physician and AHS Leadership engagement in landmark Town Hall.** Following the publication and coverage of a widely read public letter. <https://www.cbc.ca/news/canada/calgary/calgary-doctors-warn-emergency-rooms-collapsing-1.6852938> Senior AHS officials met with a large and engaged group of Emergency Physician to discuss a range of concerns; many of which have translated directly into changes in communication strategies and departmental policies.
6. **Completion of the WellDoc Alberta assessment of MD well-being.** While the results were not easy to read, you can’t improve what you don’t measure. In 2023, we completed and shared a 2022 assessment of burnout amongst our physician group which confirmed high rates in line with what other Canadian jurisdictions have reported. Here again the results were taken to heart by the ED leadership team and strategies to address them have been put into effect.



- 7. **Return of the ED Gala.** After a four-year hiatus, the MD gala organized by a dedicated organizing committee led by Dr. Laurie-Anne Baker returned with a bang.
- 8. **Our leadership team stable, vibrant and engaged.** We welcomed Emma Folz and said goodbye to Karen Foudy in the portfolio lead dyad role for the Zone Department of EM. Emma joins

Michael Suddes as the co-operational dyad lead for EM. We said goodbye to long-serving Deputy DH Neil Collins and welcomed James Andruchow in assuming that role. We also welcomed Drs. Andrea Boone and David Mainprize to the FMC Site Chief and Assistant Site Chief roles and congratulated RGH Site Chief Nancy Zuzic for also taking on the Medical Leader Physician Relations and Planning role with Medical Affairs. Late in the year we learned that Dr. Shawn Dowling was the successful applicant and will be taking on the role of Senior Medical Director with the Emergency Strategic Clinical Network.

- 9. **Promotions.** We saw the successful promotion of 13 of our clinical faculty to both the Assistant and Associate Professor level, seven of whom identify as women. <https://cumming.ucalgary.ca/departments/emergency-medicine/kudos/academic-appointment-promotions-emergency-medicine>
- 10. **Research achievements.** In a dramatic 50% increase in our GFT contingent we were able to successfully recruit Dr. Jessalyn Holodinsky into our PhD Data Scientist position with a focus on ED crowding and operations research while supporting graduate students and building research capacity in our still non-AMHSP department.

In summary, 2023 was a year of accomplishments and improvement despite considerable challenges for our department. It also allowed us to transform these crises into opportunities and innovations that highlight and cement the critical role that our department plays in providing care for all Calgarians with emergency healthcare needs.



Dr. Eddy Lang
MDCM CCFP(EM), FCFP, CAHS,
CSPQ, CSPL
Zone Clinical Department Head



Emma Folz
Executive Director,
Emergency, Medicine and
Ambulatory Care, PLC



Michael Suddes
Executive Director,
Emergency and Site, FMC

Mission Statements



Alberta Health Services

Vision:

Healthy Albertans. Healthy Communities. Together.

Mission:

To provide a patient-focused, quality health system that is accessible and sustainable for all Albertans.

Values:

Alberta Health Services' core values – compassion, accountability, respect, excellence and safety – guide our actions and behaviours to achieve excellent patient- and family-centred healthcare for all Albertans. Core Values (<https://insite.albertahealthservices.ca/about/vmv/Page13547.aspx> AHS login needed)

Emergency Medicine Mission Statement

Calgary Emergency Medicine is committed to Providing High Levels of Patient Care that Involve Integrated Clinical and Academic Leadership.

Foothills Medical Centre
Main Building, Room C1150
1403 – 29th ST NW
Calgary AB T2N 2T9
[INSITE](#)

Rockyview General Hospital
Holy Cross Ambulatory Care Centre
Room 5A105
1007 – 14th St SW
Calgary AB T2V 1P9
[UNIVERSITY OF CALGARY](#)

Cumming School of Medicine University of Calgary

Our Mission:

To reimage health for all, ahead of tomorrow.

Our Vision Statement:

We are a compassionate, curious and creative team of educators, learners, scientists, clinicians and professional staff.

We are dedicated to generating diverse knowledge that cultivates local impact and carries global relevance.

We drive positive change in health equity and social accountability through discovery, inclusive excellence and continuous learning.

Our Values:

Anti-racism, anti-oppression, collaboration, compassion, creativity, diversity, excellence, inclusivity, innovation, integrity

Message from the Dean

We are pleased to present the 2023 Cumming School of Medicine (CSM) strategic plan. This plan is the result of a year-long engagement process facilitated by J5 Design and led by CSM vice-dean Dr. Bev Adams, MD, on behalf of the school's senior leadership team. The plan was assembled based on the feedback and iterative input from our working and advisory groups, more than 100 consultative meetings and school wide surveys. We are incredibly grateful to all those who participated.

The previous CSM strategic plan (2015-2022) was built on the foundation of precision medicine and our three pillars of people, platforms and partnerships. These principles remain embedded in the 2023 plan.

The CSM has been an important catalyst for the University of Calgary being recognized as a top

five research intensive university. This is the base upon which the plan builds. The strong discovery and transdisciplinary academic work of our seven research institutes underpins what we do.

Universities and faculties of medicine have contributed to the structural inequities that have existed in our society for far too long. As articulated in our responsibility statement (view here), we must make strong commitments to eliminate these barriers -- creating an environment where all people are included, valued and feel a strong sense of belonging.

The core of the plan revolves around six strategic priorities. These should not be thought of as silos. The people and work in these areas will be overlapping and transdisciplinary. Cross-cutting themes will pull these all together. The priorities span the important work our members are doing in discovery science and translational medicine, educational innovation, transformation in the learning health system, health equity and Indigenous health.

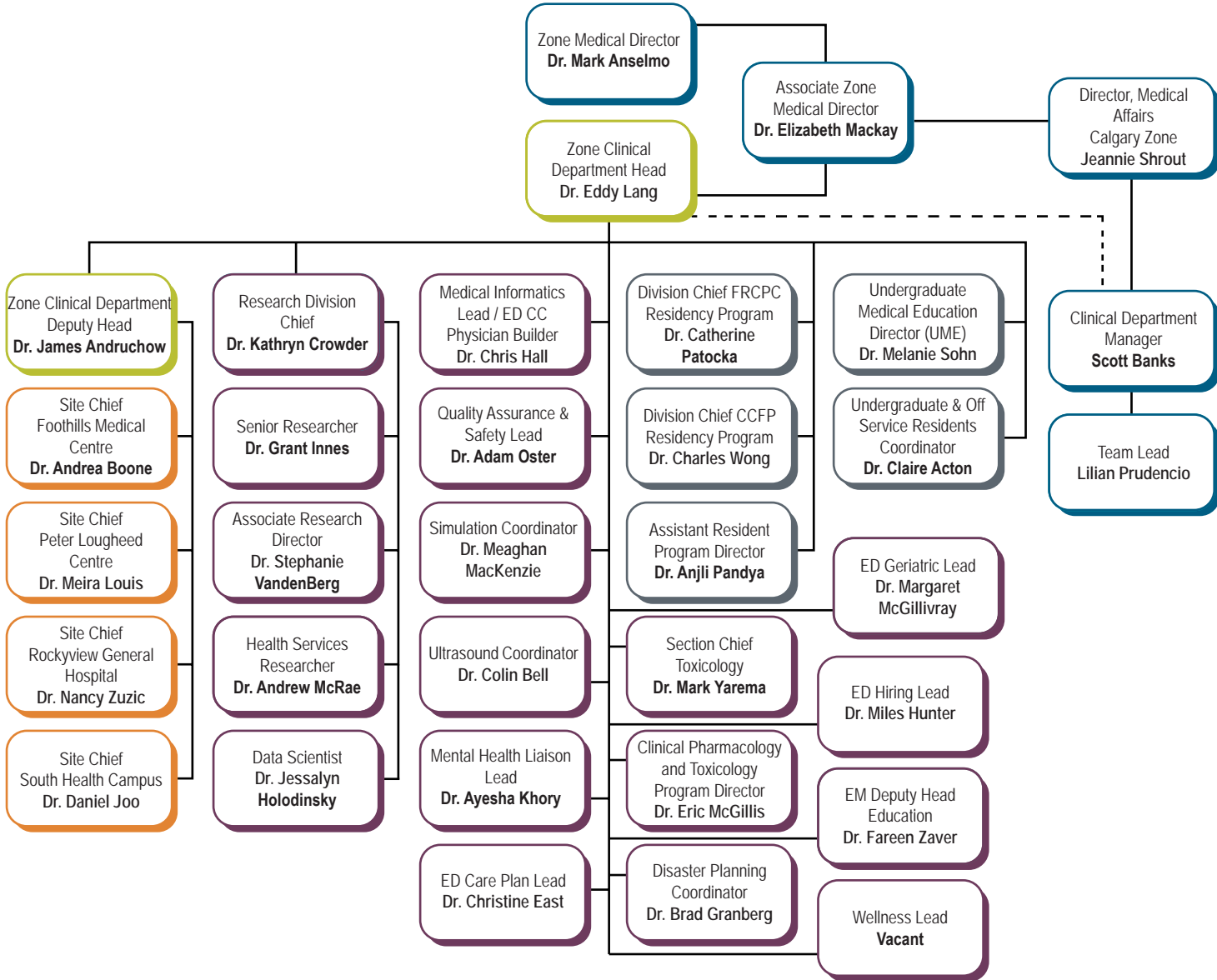
Our long-term goal (2040) is to lead — to be the medical school of choice for new learners, faculty and staff. We will provide the best opportunities for all locally and will have expanded global reach. If we attract and retain the best people, then amazing things will happen. An audacious goal needs to start at some point. This is that time. We are deeply committed to Reimagining Health for All: Ahead of Tomorrow. We invite you to join us on our journey.

Todd Anderson
Dean, Cumming School of Medicine
On behalf of the Dean's Executive Committee

For the full Message from the Dean and more information about the *Strategic Plan 2023: Reimagining Health for All, Ahead of Tomorrow* click on this link: <https://cumming.ucalgary.ca/stratplan2023>

Department Structure and Organization

The Department of Emergency Medicine currently employs 202 active physician staff and treats approximately 300,000 patient visits per year (annualized value based on current and projected inflow volumes). Historically there were two main “practice-groups” (The Foothills Medical Centre-Peter Lougheed Centre group and the Rockyview General Hospital group), but an increasingly zone focus and multi-site practice has changed this model. We now have extensive physician cross-coverage of sites, with a variety of site combinations. Currently all our Emergency Medicine physicians have academic appointments.



Calgary Zone Emergency Department Strategic Planning

Innovative. Nimble. Responsive. Patient Centered.

Members of the Calgary Zone Emergency Department undertook a modified Delphi process to establish a consensus based vision, mission, goals and objectives for the next five years. Four key focal areas arose for the Emergency Department: High quality patient care for high acuity patients, a genuine commitment to provider wellness, adequate funding investment in sustainability, and targeted equity, diversity and inclusion initiatives.

Achieving patient and health care system outcomes cannot be done in isolation. Coordination between providers within the hospital is essential, and in particular with diagnostic imaging and specialty care. Members were also clear that additional investment is required to adequately support the acute needs of patients who require post Emergency Department follow up care. This includes recognizing and supporting the needs of people living with mental health and addiction issues, those living in rural or remote communities, and aging populations, which may require a transition to long term care. Additionally, members were strongly supportive of including a distinct goal targeting equity, diversity and inclusion (related to both the patient and provider experiences. Members acknowledged that the Emergency Department's role is only part of the patient's journey. Better coordination and collaboration with primary care in the community is required.

To implement the strategic plan, the Emergency Department will need to establish key leaders for each goal area and undertake a diligent force planning exercise to ensure retention of key staff and robust requirements to meet future needs. Exploring how physicians are compensated in light of the activities outlined in this plan will be critical. The plan was co designed by members of the department, is supported by senior leadership and is consistent with the goals and values of both Alberta Health Services and the University of Calgary. In several areas research² and EDI there are already strong initiatives underway. As such, the Calgary Zone Emergency Department will build on its current position to achieve national leadership in emergency medicine and beyond.

Innovation

Health innovation improves the efficiency, effectiveness, quality, sustainability, safety, and/or affordability of healthcare. Includes 'new or improved' health policies, practices, systems, products and technologies, services, and delivery methods that result in improved health care.¹ Improvements in research, patient satisfaction, education, and access to care are additional factors to keep in mind.

¹ Emergency Medicine Journal (EMJ). What do we mean by innovation in healthcare? January 10 2017. Available from: <https://www.emjreviews.com/innovations/article/what-do-we-mean-by-innovation-in-healthcare/>

² Emergency Medicine Research Group: 5-year strategic plan (appended)

Our Vision

Our engaged and thriving team delivers world class emergency care to Calgarians.

Our Mission

To provide optimal, patient and family-centered emergency care to Southern Albertans by fostering provider wellness and investing in education and innovation.

Guiding Principles

The Emergency Department will approach all issues with a ‘principles first’ perspective, even if this means challenging existing norms and accepted practices. The core values of both Alberta Health Services and the University of Calgary are reflected in the following five areas. As such, the Calgary Zone Emergency Department will build on its current position to achieve national leadership in emergency medicine and beyond.

Excellence	Safety	Collaboration	Respect	Accountability
We exceed expectations and push boundaries in the pursuit of better care.	We mitigate risk of physical and psychological harm for patients and providers.	We empower each other and work together in a multi-disciplinary approach.	We demonstrate mutual admiration for the experience, expertise and uniqueness of others.	We do what we say and take ownership for the outcome of our actions.
How do we know that we are following our guiding principles?				
Calgary Zone Emergency Department is nationally recognized for developing and implementing innovative clinical practices, educating the next generation of emergency physician leaders, and conducting cutting edge research.	Evidence of a just culture is realized with an increase in reporting risk incidents and a heightened focus on system improvement.	Teamwork is evident in the successful outcomes of committees, education initiatives, research projects, and clinical teams.	Calgary Zone Emergency Department is regarded by staff to be a safe place to work. Where people are valued. Clear standards of professionalism are defined and followed.	Transparent expectations are set and evaluated through regular performance reviews.

FOCUS AREA 1 | PATIENT ACCESS TO CARE

Goal	Objective	Potential Activities
Optimize wait times for patients accessing emergency and acute care services.	1. Deliver high quality emergency care for patients in crisis.	1. Develop a consensus for what quality indicators most optimally reflect the quality of care delivery in Calgary EDs, these include those already tracked and those requiring development. 2. Work with the Emergency SCN patient partners and the HQCA to define measures, including patient-reported outcome measures that can allow us to monitor and improve the patient experience and potential pinch points.
	2. Find sustainable solutions to Emergency Department access block by reducing the impact of emergency inpatients (EIPs).	1. Partner with the SCN to review the literature to identify evidence-based solutions. 2. Work with senior AHS and hospital leadership assure constant vigilance and adherence to mechanisms that mitigate the risks and impact of EIPs.
	3. Optimize existing in hospital and community based partnerships and pathways towards improved continuity of care and follow up of patients who present to the Emergency Department.	1. Conduct a detailed evaluation of ED practice patterns related to patient referrals both inside of the hospital and out to the community. 2. Host a multi-disciplinary stakeholder session to identify solutions to the identified challenges and begin to streamline some of the care fragmentation that impacts our Emergency Department.

FOCUS AREA 2 | PHYSICIAN WELLNESS

Goal	Objective	Potential Activities
Maintain and enhance staff and physician wellness as impacted by working in the Emergency Department.	1. Reduce duplication of clerical duties which interfere with the delivery of care.	1. Determine key areas of duplication and the root cause leading to the duplication. 2. Hold an interactive session to brainstorm ideas on how best to streamline clerical duties. 3. Create a phased approach, including evaluation, to implement the ideas from the interactive session.
	2. Increase retention of nurses and other allied health professionals.	1. Conduct 'employee pulse job satisfaction survey' to help guide departmental workforce planning. 2. Evaluate any new interventions on the outcomes and impact for staff retention.

FOCUS AREA 2 | PHYSICIAN WELLNESS continued...

Goal	Objective	Potential Activities
	3. Enhance physical and psychological safety in the Emergency Department.	<ol style="list-style-type: none"> 1. Draft a communication from leadership to all staff that patient and staff safety is a departmental priority. 2. Discuss patient and staff safety at every executive leadership meeting. 3. Provide a 'lessons learned' forum where staff can present to colleagues on recent cases with adverse events or near misses. 4. Conduct a patient survey to identify expectations of Emergency Department care. 5. Co-design communication to adjust or reinforce expectations as needed. 6. Develop an annual department safety plan with specific emphasis on resilience and coping during a pandemic. 7. Enhance transparency around decision making specific to scheduling, site allocation, and site-based decision-making.
	4. Invest in physician and staff wellness by allocating sufficient resources and advocating for continued financial investment and reallocation.	<ol style="list-style-type: none"> 1. Create a robust mentorship program for new members. 2. Revise the current newsletter format to include a spotlight on physician members who do administrative activities on behalf of the department both to recognize their contributions but also raise awareness of these activities. 3. Include physician burnout through the Wellness Hub program. 4. Develop a robust framework to measure key health and wellness metrics (e.g., # hours of sleep), and regularly report to the full department. 5. Revisit remuneration schedule for administrative physicians to create opportunities for teaching and clinical leadership. 6. Develop overcapacity plans and clearly communicate expectations. 7. Design and implement flow improvement studies and interventions. 8. Encourage adequate investment into vacation/breaks.
	5. Identify and secure funding for both clinical and non clinical leadership positions.	<ol style="list-style-type: none"> 1. Investigate the benefits of emergency physicians on alternative payment plans, and prepare a briefing note. 2. Advocate, through appropriate pathways, for the compensation mix and number of staff to actualize the strategic plan.

FOCUS AREA 3 | FUNDING INVESTMENT AND FINANCIAL SUSTAINABILITY

Goal	Objective	Potential Activities
<p>Increase investment in Emergency Department services and improve financial sustainability.</p>	<p>1. Improve flexibility in staffing to support research, education and quality improvement activities.</p>	<p>1. Prepare a briefing note on the benefits of enhancing the number of emergency physicians on alternative payment plans. 2. Advocate, through appropriate pathways, for the compensation mix and number of staff to actualize the strategic plan.</p>
	<p>2. Improve allocation of resources within the department to priority areas (i. physician wellness and process improvement interventions).</p>	<p>1. Develop a working group to identify a budget plan for identifying sources and potentially re-orienting funding to physician wellness and process improvement interventions. 2. Conduct a mid-year review of budget allocation to determine budget overage/underage and impact of spending to date. 3. Conduct a physician and staff satisfaction survey on the short-term outcomes of funding re-orientation and collect input on long-term objectives for resource allocation.</p>
	<p>3. Improve access to infrastructure, physical plant, equipment and resources required to provide world class patient care in the Emergency Department.</p>	

Emergency Medicine Research Group: 5 Year Strategy 2021-2026

Strategic Goals		Strategic Initiatives
<p>Mission:</p> <p>The Emergency Medicine Research Group exists to improve patient and family care and health system efficiency through actionable research, collaboration, and mentorship.</p> <p>Vision:</p> <p>In five years, we will become a nationally recognized leader in meaningful emergency research, and have a growing cohort of researchers and a stable research infrastructure enabling further growth and success.</p>	<p>G1: “Becoming a nationally recognized leader in emergency research”</p> <p>G2: “Achieve sustainable growth of the research group”</p> <p>G3: “Meaningful engagement of patients and families in emergency research”</p>	<ol style="list-style-type: none"> 1. “Leverage our senior researchers, health systems research, decision support and analytical experience to use the staged implementation of EPIC/Connect Care as an unprecedented opportunity for research, knowledge translation, and clinical practice improvement across the province” 2. “Use access to and relationships with the four adult sites to increase staff engagement across the Calgary Zone” 3. “Recruit, mentor, and support junior researchers” 4. “Use access to and relationships with the Calgary EM zone leadership/operations to identify and continuously evaluate priority projects and procure dedicated funding” 5. “Use previous materials and plans to create a central research funding opportunity database” 6. “Leverage available infrastructure to promote emergency research within Calgary” 7. “Develop a comprehensive system for multi-centre projects” 8. “Engage with the provincial government to identify shared priority projects” 9. “Identify key competencies needed and secure permanent funding for them” 10. “Integrate patient and family experience in EM research” 11. “Identify key scholarly areas for our group”

DEM Faculty Small Group Sessions – Group Emergency Medicine Sessions (GEMS)

Monthly facilitated small group sessions — faculty only, expert facilitated, small group sessions running monthly. Topics are pre-planned with the goal to cover bread and butter Emergency Medicine topics and were facilitated in person by experts in the topic areas. Some of the topics covered in 2023 included: pediatrics (twice), addictions, sports medicine, connect care optimization, geriatrics and neurology. Each session is 1.5 hours long, with a maximum of 20 staff participating in each group. The goal is to have not just the expertise of the facilitator but also that of the various years of practice and knowledge of the staff attending the session for a shared experience.

74 Staff Emergency Physicians signed up and have been attending the sessions. There is representation from all five EM sites including ACH as well as great variation of years in practice amongst each group.

The goal is to have not just the expertise of the facilitator but also that of the various years of practice and knowledge of the staff attending the session for a shared experience.

Dr. Fareen Zaver
Deputy Head - Education (Physician Development and Continuing Medical Education)

Physician Staffing and Recruitment

We are privileged to have an outstanding group of engaged clinicians, educators, administrators and researchers in the Calgary Zone Department of Emergency Medicine. Currently, 205 physicians are employed at four adult hospitals.

As a department, we recognized that challenging working conditions during the pandemic and increasingly strained healthcare resources have led to burnout for many healthcare professionals across Canada. Consequently, the Physician Resource Committee (PRC) conducted a fall survey in order to better understand the needs and practice patterns of our current physician workforce. The group converged on 12 shifts/28 days as the desired 1.0 full time equivalent (FTE) target for the zone. The survey also showed that many of our staff have diversified their practices by taking on clinical and administrative opportunities outside of emergency medicine, including urgent care, sports medicine, hyperbaric therapy, emergency medical services, and a variety of education and leadership opportunities. We see this as a positive development, allowing our staff to avoid burnout while sharing their diverse experiences gained outside of emergency medicine with our department.

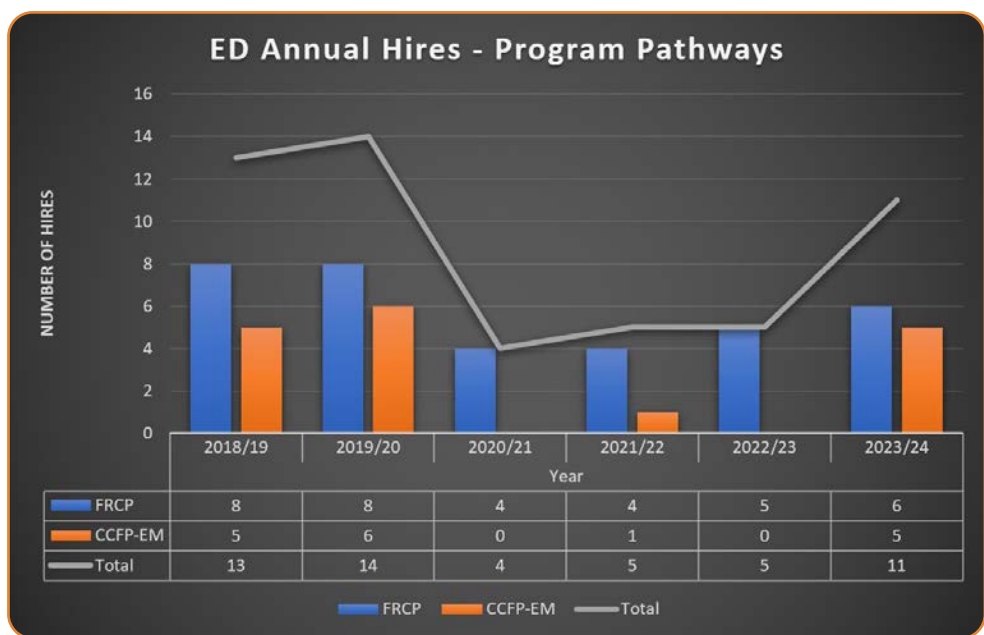
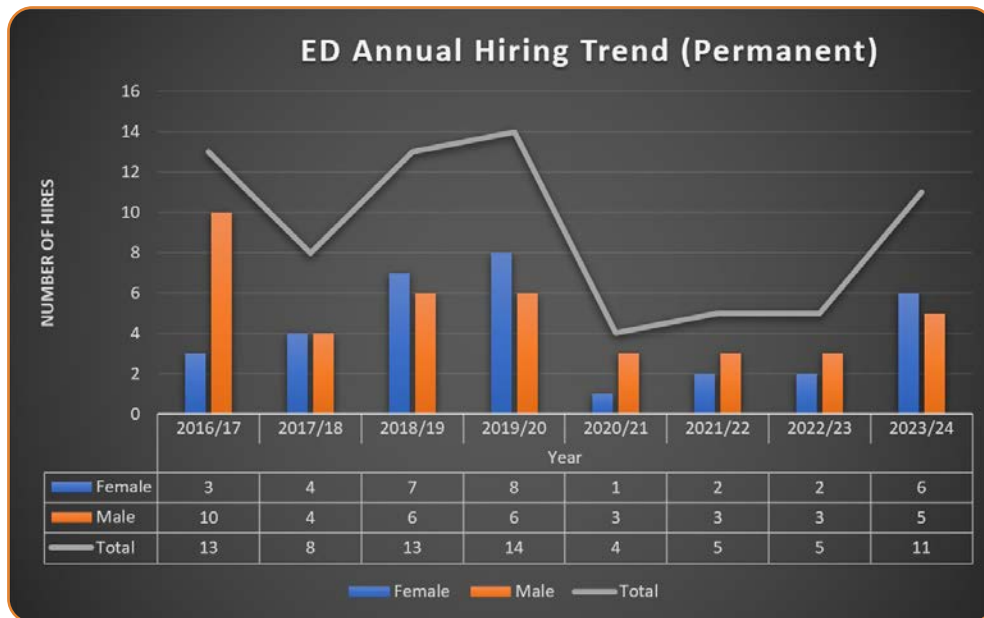
We are pleased to report that the hiring process was revamped over the past year in order to improve the transparency and standardization of recruitment and applicant selection. A diverse group of physicians participated in the ED Hiring Committee which created a CV template for applicants, an interview question bank and a standardized scoring rubric incorporating equity, diversity and inclusion (EDI) principles. Moreover, the committee identified the value of an ED Hiring Lead dedicated to managing and improving the hiring process on a longitudinal basis. We are happy to report that Dr. Miles Hunter was the successful candidate for this position and as a relatively recent hire himself, has brought new energy and insights to this role. A new “Job Opportunities” tab has also been added to the University of Calgary Department of Emergency Medicine website to consolidate relevant information for potential applicants (<https://cumming.ucalgary.ca/departments/emergency-medicine/job-opportunities>).

The hiring process was also separated into two distinct hiring cycles, the associate (permanent) pool which takes place in September-October, as well as a locum pool (offering one-year positions) conducted in November. This system will better allow us to better balance our longer-term departmental growth by recruiting the strongest candidates to permanent positions, while meeting our immediate and dynamic staffing needs with less experienced locum physicians on a shorter-term basis. Simultaneously, the locum pool also provides new emergency medicine graduates the opportunity to continue to gain experience in the diverse and high-acuity practice environment in Calgary while demonstrating their abilities and improving their chances of obtaining permanent employment during the following year’s hiring cycle.

Unlike in prior years, where hiring very closely matched the number of available shifts in the department, we felt that it was important to be somewhat over hired to ensure staffing flexibility. While we are lucky to have a young group, because many of our physicians are now starting families, we wanted to ensure that all parental leaves of absence (LOA) could be fully granted without clinically overloading our other staff. We also wanted to ensure that our group is feeling well-rested enough to have the ability to cover open shifts on short notice. Finally, we hope to provide our established staff the ability to take LOAs for personal or professional reasons to improve their wellness and avoid burnout.

Calgary remains an attractive destination for emergency physicians, and we had a total of 29-candidates apply to the associate and locum hiring cycles. After a rigorous selection process, we hired a total of 11 associate (permanent) and an additional 11 one-year locum positions bringing an additional 21.4 FTE to the Calgary zone for the coming year.

We are happy to report that we will be fully hired as of July 1, 2024, but anticipate that we will continue to have space to recruit strong candidates to the group in Fall 2024 hiring cycle in order to continue to expand and enrich our department.



Dr. James Andruchow
Deputy Department Head and Operations Lead

Emergency Medicine Committees

Main Committees

These committees meet on a regular basis as indicated below.

The Physician Executive Committee (monthly)

The Physician Executive Committee provides leadership, direction, and support for all physician-related activities. The Committee is a decision-making body for physician resources, scheduling, operational, and quality, safety, and financial aspects of the Zone Department of Emergency Medicine (ZDEM).

The ZDEM Operations Committee (monthly)

The Operations Committee is a multi-disciplinary committee including Physician, Nursing, and administrative representatives. Duties include strategic planning, prioritization, quality, safety, innovation and oversight of all ED systems and processes.

The Physician Resources Committee (monthly)

The Physician Resources Committee is a subcommittee of the Physician Executive Committee. It provides leadership and makes decisions with respect to physician resource needs, search and selection, and physician hiring in the Department of Emergency Medicine.

The Quality Assurance Committee (monthly)

This committee reports to the ZDEM Operations Committee. It is one of the few departmental QAC's that have been allowed to continue within the new AHS Safety framework.

Emergency Medicine Research Advisory Committee (EMRAC) (monthly except summer)

The Emergency Medicine Research Group exists to improve patient and family care and health system efficiency through actionable research, collaboration, and mentorship.

The Academic Steering Committee (bi-monthly)

The Academic Steering Committee guides the development of the EM academic program. Primary agenda items for the 2021 year included strategic planning towards short term and long-term academic goals, faculty development and educational programming

Emergency Leadership Group



Dr. Eddy Lang
Department Head for
Emergency Medicine

Dr. Eddy Lang is a Professor and Department Head for Emergency Medicine at Cumming School of Medicine-University of Calgary and Alberta Health Services, Calgary Zone. His areas of interest are knowledge translation, evidence-based medicine and operations research. He is a member of the GRADE working group and has led the development of GRADE-based clinical practice guidelines in pre-hospital care in the US as well as with the International Liaison Committee for Resuscitation. Dr. Lang is also an award-winning educator having received recognition at both the university, national and international levels. He also serves as Senior Editor for the Canadian Journal of Emergency Medicine, Associate Editor for both ACP Journal Club and the International Journal of Emergency Medicine. In addition, he is a member of the Canadian Task Force on Preventive Health Care (CTFPHC). Dr. Lang has served as the chair of the Canadian Association of Emergency Physicians Conference (CAEP) Leadership Committee from 2017 to 2020 and is now the Chair of the CAEP Academic Section and a member of the CAEP Board. He is also appointed as the Scientific Director of the Emergency Strategic Clinical Network ESCN in Alberta. Dr. Lang is co-Chairing the 2022 Preventing Overdiagnosis Conference in Calgary.



Dr. James Andruchow,
Deputy Department Head
for Emergency Medicine
(Oct 2023 – present)

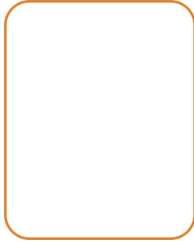
Dr. Andruchow was raised on a mixed family farm northeast of Edmonton, Alberta but did some medical tourism, completing his medical degree at McGill and emergency medicine residency and fellowship at Harvard. His experience in the US created a strong interest in evidence-based practice, reducing unnecessary testing and treatment and pragmatic health policies. His prior research included a randomized controlled trial of electronic decision support for CT imaging, validation of rapid diagnostic protocols for acute myocardial infarction using high-sensitivity troponin, and implementing a multidisciplinary chest pain pathway across the Calgary zone before moving on to administration. When he's not working, Dr. Andruchow can be found outdoors, enjoying mountain biking, wildlife photography, hiking and spending time in nature with his wife Rachel and daughter Ella.

Dr. Neil Collins (Jan – Sept 2023)



Scott Banks,
Emergency Medicine
Zone Department
Manager

Scott is the Calgary Zone Department Manager for Emergency Medicine, Critical Care Medicine and Obstetrics and Gynecology. Scott assumed the Critical Care portfolio in Sept 2017, OBS/GYN in July 2018 and has continued to serve as the Zone Manager in Emergency Medicine since 2008. Scott has a Master of Business Administration degree (MBA) from the University of Calgary specializing in Human Resources and International Management, and a Bachelor of Arts Honors degree from the University of Regina. Scott is a 26 year Chartered Professional in Human Resources (CPHR) in Alberta. Previously Scott served as the Vice President of Operations & Human Resources at The Brenda Strafford Foundation, and as Senior Vice President & Chief Operating Officer at a for profit healthcare college in Oahu, Hawaii. He has also served as an International Development Consultant with the Canadian International Development Agency in Guyana, Manager of the Mount Royal University Small Business Training Centre, and as a Market Research Officer for the Canadian Government at the High Commission in Trinidad. In addition, he served as the Manager of Training & Commercial Accounts with the Business Development Bank of Canada. Scott has lived and/ or worked in Hawaii, Canada, Trinidad, Guyana, Haiti, and Dominica. Scott is married and has very active ten and thirteen year old boys. He enjoys spending quality time with his family, jogging, travelling, and volunteering.



Dr. Andrea Boone
FMC Site Chief
(Oct 2023 – present)

Dr. Dave Lendrum (Jan – Sept 2023) /



Dr. Meira Louis
PLC Site Chief

Originally from Toronto, I finished an undergraduate and masters in Ontario before moving to Calgary for my MD and FR residency in emergency medicine. I have worked as a staff physician at the PLC and FMC since graduating in 2014. Soon after starting work, I took over as the coordinator of Elective and Off Service Education. Recently I have also taken over as course chair for electives in the Undergraduate Medical Education program. In my spare time I help my amazing husband juggle our four kids.



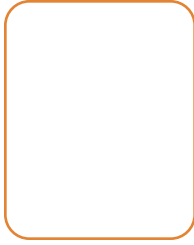
Dr. Nancy Zuzic
RGH Site Chief

Dr. Nancy Zuzic continues as the Site Chief at the Rockyview General Hospital. Dr. Zuzic received her MD at the University of Ottawa in 1997 and then completed her CCFP-EM residency in Calgary in 2000, working clinically at the Rockyview ED ever since. Nancy is fortunate to work with a cohesive and supportive administration team at the RGH ED that continues to find innovative ways to improve flow and patient care.



Dr. Daniel Joo
SHC Site Chief

Dr. Daniel Joo took on the role of Site Chief in June of 2021, proceeding three years as Assistant Site Chief. Dan is a graduate of the University of Calgary (MD 2008, CCFP-EM 2011), and after spending a few years working in Vancouver and Ottawa, returned to Calgary in 2014. He enjoys teaching residents, particularly in the areas of ultrasound and simulation. Dan maintains balance by enjoying the outdoors, playing sports, reading, and spending time with his wife and kids. He laments the loss of his beard - a casualty of the COVID-19 induced requirement to frequently don a N95 respirator.



Dr. David Mainprize
FMC Assistant Site Chief
(Nov 2023 – present)

Dr. James Andruchow (Jan – Sept 2023)



Dr. Haley Cochrane
PLC Assistant Site Chief

Dr. Haley Cochrane is the assistant site chief at the Peter Lougheed Emergency Department. She completed medical school at the University of Sydney in Sydney, Australia. She completed a four year Emergency Medicine residency at the Harvard Affiliated Emergency Medicine residency in Boston, Massachusetts and an extra year of Emergency Medicine Training at the University of Saskatchewan in Saskatoon, Saskatchewan to obtain her FRCPC. Clinically she has an interest in hospital administration, point of care ultrasound and medical education. Outside the hospital you will find her spending time with her husband and daughter, traveling, painting and cooking.



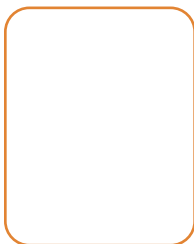
Dr. David Fu
RGH Assistant Site Chief

David is from Edmonton and obtained his MD from the University of Alberta. He then ventured to Ontario where he trained in Emergency Medicine at Western University and completed a Masters of Science in medical education at the University of Toronto. David enjoys listening to podcasts, going to the gym and smoking meats on his kamado grill.



Dr. Carly Hagel
SHC Assistant Site Chief

Dr. Carly Hagel graduated from University of Calgary Medical School in 2012. She completed her residency in Emergency Medicine at Queen's University in Kingston. Following completion of her Royal College certification she embarked in a 15 month locum working in New Zealand. She returned to Calgary in 2019 and started working at the South Health Campus. She now works a split line with SHC and PLC. She took over the position of Deputy Site Lead in September of 2021. Her other interests include medical education and simulation. When she's not at work she can be found reading, bike riding, walking with friends or hiking in the mountains.



Dr. Adam Oster
Quality Improvement and Safety Lead

Dr. Adam Oster graduated from the RCPS EM Program via University of Calgary in 2006, through the FRCPC program. He enjoys cross-country skiing and biking in his spare time.



Dr. Charles Wong
CCFP-EM Residency
Program Director

Charles did his medical schooling at McMaster University and came to Calgary for both the CCFP and CCFP(EM) training, at the time under the Program Directorship of Aaron Johnston. He has been active in the EM Department, working mainly out of the Rockyview General Hospital. His wife is a GP who also works as a hospitalist at RGH, and they have two children together (Emma 7, and Oliver 4). This is Charles' first year as CCFP-EM Program Director. His outside interests include CrossFit, reading (non-fiction), and French wines from Burgundy.



Dr. Catherine Patocka
FRCPC Medical Education
Program Director

Born and raised in Edmonton, Catherine came to Calgary in 2013 after completing medical school and FRCP residency training at McGill University. She works clinically at the FMC and PLC and has a special interest in medical education. She became the FRCPC residency program director in April 2019 and continues to have a strong interest in medical education scholarship and research. Outside of medicine she likes to hike, ski and spend time in the mountains with her husband Stephane and three children Juliette, Samuel and Dominic.



Dr. Anjali Pandya
Assistant FRCP
Director

After completing her undergraduate degree at Queen's University, Anjali returned to Calgary for medical school and residency training. She received her FRCPC in Emergency Medicine in 2017 and has since been working as a full time staff physician at the PLC and FMC. Prior to becoming Assistant Program Director, Anjali worked on helping the program transition to Competency-by-Design by designing an introductory curriculum for incoming residents and acting first as Competency-by-Design Assessment Lead and subsequently stepping into the role of Competency-by-Design Lead. She has also pursued further training in Global Health Policy and obtained her Diploma in Global Health Policy from the London School of Hygiene and Tropical Medicine in 2018. Anjali is passionate about constantly improving the quality of residency training and education in Calgary, and is grateful to be part of such an innovative and dedicated team of educators, who are privileged to work with an excellent group of residents.



Dr. Claire Acton
Off-Service and
Undergraduate
Resident Coordinator

Claire Acton completed her FRCP residency training at the UofT in 2018, and worked in Toronto as a staff physician for two years before moving to Calgary. As a resident, she travelled to Ethiopia as part of the Toronto Addis Ababa Academic Collaboration - EM branch, where she recognized an immediate need for point-of care ultrasound training. After this elective, she founded the POCUS curriculum for TAAAC-EM, of which is still a co-director. Claire also co-founded the Equity, Diversity, Advocacy and Cultural Safety (EDACS) curriculum for emergency medicine residents at UofT, with the goal to help residents gain knowledge and experience to act on health inequities and advocate for their patients in vulnerable populations. With the help of Dr Kelsey Ragan, they have brought the EDACS curriculum to UofC emergency medicine, of which they have just completed their first academic cycle. Claire received a Master Teacher Certificate from the UofT in 2020, and is looking forward to improving curriculum design and postgraduate education in her new role.



Dr. Melanie Sohn
Clerkship Director, UME

Dr. Melanie Sohn completed her medical school at the University of Alberta, her family practice residency at Dalhousie University, and her CCFP(EM) residency at the University of Ottawa. She then did her Masters in Medical Education at the Ontario Institute for Studies in Education at the University of Toronto. Melanie is the Course Chair for Procedural Skills and the Clerkship Director for Emergency Medicine at the Cumming School of Medicine at the University of Calgary. She enjoys reading, running and trying to find the best almond croissant in Calgary.



Dr. Chris Hall
Connect Care and Medical Informatics Lead

Chris is a 13 year member of the Calgary Zone Emergency Medicine team. Since moving here after completing his residency in Hamilton, he has dabbled in a number of roles over the years, including contributions to the Royal College residency training committee, various hospital and zonal quality improvement initiatives, and the Clinical Knowledge and Content Management division of AHS. This year he took over the Medical Informatics Lead role for emergency medicine in the Calgary Zone. In his spare time he enjoys skiing, mountain/road biking, and spending time with his wife and three kids.



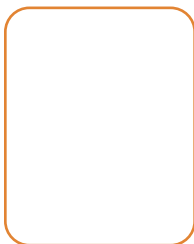
Dr. Mark Yarema
Section Chief Toxicology

Dr. Mark Yarema is the Section Chief for Clinical Pharmacology and Toxicology and the Medical Director of the Poison and Drug Information Service (PADIS). He is a Clinical Professor in the Department of Emergency Medicine and a member of the O'Brien Institute of Public Health at the University of Calgary. His research interests include acetaminophen poisoning, pharmacogenomics, drugs of abuse, and toxic alcohols.



Dr. Eric McGillis
Program Director

Eric McGillis is a Clinical Assistant Professor and works as an Emergency physician with AHS-Calgary Zone and as a Medical Toxicologist with PADIS. He is the Program Director of the RCPSC Clinical Pharmacology and Toxicology subspecialty program. He obtained his FRCPC in Emergency Medicine from the University of Calgary, followed by a Medical Toxicology fellowship at the Minnesota Poison Control System.



Dr. Brad Granberg
Disaster Planning Coordinator



Dr. Colin Bell
Ultrasound Coordinator

Colin Bell completed his FRCPC at Queen's University in 2016 and his POCUS Fellowship at Denver Health Medical Center in 2017. He subsequently became the POCUS director for Kingston Health Sciences Centre and remained in that position until 2021. Dr. Bell is currently the clinical practice lead for the CAEP Emergency Ultrasound Committee.

Colin is active as a POCUS researcher. His focus is POCUS education and automated technical skill assessment. He is a passionate advocate for image archiving.



Dr. Meaghan Mackenzie
Simulation Coordinator

Meaghan Mackenzie completed her FRCPC residency training in Emergency Medicine at the University of Calgary in 2023. As part of her residency, Dr. Mackenzie completed a year of specialized training in Sport and Exercise Medicine and now works at the FMC and PLC Emergency Departments as well as Innovative Sport Medicine.

Her interests outside of work include team sports, skiing and mountain biking, and travelling with her husband and friends.



Dr. Kathryn Crowder
Research Director

Kathryn Crowder is the Department of Emergency Medicine Research Director at the University of Calgary Cumming School of Medicine. She is an Emergency Physician in the Calgary Zone and Assistant Professor of Emergency Medicine at the University of Calgary. Her research interests include ED overcrowding, access and flow interventions, multi-disciplinary collaboration in ED patient care, and care of ED patients with opiate use disorder. She also participates in ED-level quality improvement projects and believes that ED knowledge and practice is advanced by collaboration in research.



Dr. Stephanie Vandenberg
Associate Research Director

Dr. Stephanie Vandenberg is an emergency physician in the Calgary Zone, Research Director for the Department of Emergency Medicine (@uofcemresearch) and Clinical Lecturer at the Cumming School of Medicine. She received her MD from the University of Toronto and holds a Bachelor of Arts & Science from McMaster University with a Minor in Biochemistry and a thesis in Paediatric HIV. She completed a Master's of Science in Epidemiology at the London School of Hygiene and Tropical Medicine and performed a subgroup analysis of the WOMAN trial data (tranexamic acid in postpartum hemorrhage) for her graduate project.

Stephanie uses a "research for advocacy" framework to engage discussions on health systems, harm reduction, and ways to improve vulnerable populations' health outcomes using principles of social entrepreneurship and information design/visualization.



Dr. Jessalyn Holodinsky
Data Scientist

Dr. Jessalyn Holodinsky is an Assistant Professor (Data Science) in the Department of Emergency Medicine, with a cross-appointment to the Department of Community Health Sciences. She received her PhD in Epidemiology from the University of Calgary and also holds a Master's of Science in Health Services Research. Jessalyn has trained in Calgary, Toronto (Sunnybrook Research Institute), Melbourne (Melbourne Brain Centre - University of Melbourne), and Dublin (Royal College of Surgeons in Ireland) lending an international perspective to her work. She has also previously performed research in the Departments of Clinical Neurosciences and Critical Care Medicine. Jessalyn's work focuses on complex problems at the health system level - like overcrowding in the ED - resulting in the optimization of healthcare services and patient outcomes. She is highly skilled in administrative and big data use, complex modelling techniques including machine learning, and health system level research. Jessalyn is an advocate for using data to make change in the healthcare system and profoundly believes that Data Saves Lives.



Dr. Andrew McRae
Health Services Researcher

Dr. Andrew McRae is a clinician-scientist in the Department of Emergency Medicine, with a cross-appointment to the Department of Community Health Sciences. In addition to active research interests in emergency department crowding and operations, his primary interest is in health services dimensions of the diagnosis and treatment of cardiovascular emergencies (myocardial infarction, arrhythmias, stroke).

He is an associate editor at CMAJ, and a decision editor for the Canadian Journal of Emergency Medicine (CJEM).



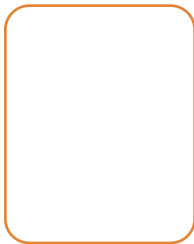
Dr. Christine East
Treatment Plans
Physician Lead

Christine East is an Emergency Physician at Rockyview General Hospital, having completed the CCFP(EM) program in Calgary in 2017. She has led the Calgary Zone ED Frequent Visitors Program (ED Treatment Plans) alongside Ken Mont (Nurse Clinician, RGH) since 2017. In this role, Christine leads a multidisciplinary team including EMS, social work, nursing leadership, physicians and others to identify frequent ED visitors and develop individualized care plans to improve safety and redirect care into the community whenever possible. In 2022, Christine and her team were awarded the RGH Medical Staff Association Innovation Award for this important work. Outside of work, Christine loves getting outdoors with her husband Scott and her two boys, Cooper and Gus.



Dr. Marge McGillivray
Geriatric Care Lead

Dr. Margaret McGillivray graduated with her MD from the University of British Columbia (UBC) in 2002. She subsequently completed her family practice residency at the UBC Prince George site and her EM fellowship at St. Paul's Hospital in Vancouver graduating in 2005. Since then she has worked in various Emergency Departments and Urgent Care Centres across Canada including Nanaimo Regional General Hospital, Thunder Bay Health Sciences Centre and Sheldon Chumir Urgent Care. Dr. McGillivray has worked at the SHC ED since 2018 where she has been involved with various geriatric initiatives including the development and implementation of the SUPER (SUPporting seniors in the ER) volunteers.



Dr. Ayesha Khory
Mental Health Liaison Lead

Originally an engineer in the oil and gas industry Ayesha eventually found her way to medicine. She completed her medical degree at the University of Alberta and then the CCFP EM program in Calgary where she has worked as a staff physician since. Ayesha is interested in working to find improved care for vulnerable populations with mental health and addictions issues.



Dr. Tania Principi
Section Chief
Pediatric

While at SickKids, Tania was the Director for Strategic Operations as well as the Director of Quality Improvement for the Pediatric Emergency Department. She is a Pediatric Emergency Physician who enjoys working with others to problem solve and leverage data to improve care delivery and the patient experience within the hospital through continuous improvement. She has implemented several strategies to improve operations including the use of artificial intelligence to improve ED flow and optimize inpatient and ED capacity planning. Tania received her MD and Pediatric training at the University of Western Ontario and pursued her subspecialty training in Pediatric Emergency Medicine at SickKids. In addition to completing her Masters in Health Research Methodology at McMaster University and a fellowship in Quality Improvement, she has recently completed her MBA at Rotman.



Dr. Fareen Zaver
Deputy Head -
Education

Fareen Zaver is a Clinical Associate Professor for Emergency Medicine (EM) at the University of Calgary. She is the Deputy Head of Education as well as the Grand Rounds Coordinator for the Department of Emergency Medicine. Fareen has completed her Masters in Medical Education - focusing on the challenging transition of the first two years of independent practice across multiple specialties. Fareen continues to publish in medical education journals as well as on the CanadiEM and AliEM Emergency Medicine blogs as well as speak at national and international conferences. She was awarded Top 40 under 40 in Calgary in 2019 for her work in medical education. While not at work, you may find Fareen following her taste buds travelling to exotic destinations around the world.



Dr. Miles Hunter
Hiring Lead

After completing his FRCPC Emergency Medicine at the University of Calgary in 2022, Dr. Miles Hunter works clinically at Foothills Medical Centre and Peter Lougheed Centre Emergency Departments. With an area of focused interest and CASEM Diploma in Sport Medicine, Dr. Hunter also works at Innovative Sport Medicine clinic, aiming to build positive connections between our local emergency departments and the sport medicine community. Dr. Hunter carries additional clinical interests in evolving resuscitation strategies and residency education. In his role as Chair of the Hiring Committee, Dr. Hunter is passionate about refining a transparent, equitable and sustainable hiring framework that continues to seek engaged and clinically excellent physicians with a diverse skill set to serve our growing Calgary community. When not working, Dr. Hunter enjoys playing hockey and baseball in local Calgary leagues. He also enjoys skiing, mountain biking and finding a sunny patio with his wife, family, and friends.

Site Updates

Foothills Medical Centre

Physician Clinical Leadership

The past twelve months have again been a time of transition and growth for the FMC ED physician leadership team. Dr. Lendrum continued to manage the role as the interim site chief until October 2023, when Dr. Boone returned from parental leave and started her role as the site chief. Dr. Lendrum continued to assist with departmental operations until December 2023, when Dr. Mainprize assumed the FMC Assistant Site Chief role. Dr. Lendrum is looking forward to working clinically at the FMC and thinking about the next challenge he may take on. Dr. Boone and Dr. Mainprize are excited to take on the physician leadership roles at the FMC. They are thankful for Dr. Lendrum and Dr. Walker, who have managed the clinical group through many significant challenges over the past many years such as COVID-19 and Connect Care. They are also thankful for the ongoing mentorship that has allowed for a smooth transition of leadership.

Physician Workforce

The size of the physician workforce has remained relatively unchanged over the past year. Currently, approximately 125 physicians are working at the FMC ED. Most physicians also have a clinical position at one of the other Emergency Departments in Calgary. All physicians working at the FMC ED maintain a minimum of three-monthly shifts at this site to ensure familiarity with the site-specific challenges. Most FMC physicians work at the Peter Lougheed Centre and Alberta Children's Hospitals as their secondary sites. An increasing number of physicians call the South Health Campus and Rockyview General Hospital their secondary sites.

Over the past year, the FMC trialled having a small group of physicians who chose to work at the FMC as their only clinical site. This trial assessed whether a small group of physicians working at one site could help identify and solve site-specific challenges that will help the entire physician workforce who work at that site.

This trial led to several clinical improvements of the day-to-day tasks that physicians are required to manage. However, the impact of having these physicians only working at the FMC site led to some concerns regarding the number of FMC shifts available to the physician group at large. To address this concern, the physicians in this trial pivoted from working at the FMC only to a plan where they would also work at another site. These physicians will still have the majority of their shifts at the FMC to ensure the initial goals of the trial are maintained. However, they will work at an alternative sites as well to help all physicians who work at the FMC have access to an adequate number of shifts.

The physician leadership group feels that this trial has identified a significant number of benefits of having a clinical group with frequent and close connections with the site and its specific challenges. As such, this is no longer a trial; a group of FMC-focused physicians is planned to continue. The next step for the administrative team is to work with this group of physicians to ensure their experiences are translated into improvements in practice for all physicians working at the site. Additionally, they will work on maximizing equitable access to this group for all physicians who work at the FMC.

Physician Scheduling

Over the past year, the scheduling of physicians has not changed with respect to the start times for physician shifts or the number of shifts each day. However, the ongoing challenges with departmental resources continue to affect physician workflow during their shifts.

The administrative team hoped the FMC minor treatment area would re-open for regular use once adequate staffing was available to facilitate this. Unfortunately, this clinical area is only intermittently open for patient assessment and management due to persistent staffing challenges. Once adequate resources are available, we hope to see this department area open permanently.

Thankfully, we have continued to see efficiency gains in using our intake area to manage our ambulatory, non-critically ill patients. We will continue to have five physician shifts where each physician starts their shift with a two-hour block dedicated to managing intake care space patients. These two-hour blocks give a physician a protected block of time to work with a small group of intake nurses to manage patient care efficiently. This scheduling change has worked well in improving patient flow in the department. Over 30% of the daily patient volume is commonly managed through the intake care space. A well-functioning intake space is vital to managing ED patient flow. We will continue to maximize the efficiency of this clinical workspace to ensure physicians are able to manage patients as quickly and safely as possible.

Physician Scheduling Innovations

To address rising patient wait times in our department, the FMC was asked to restart the previously trialled Emergency Physician Liaison physician (EPL) position in a hope to improve departmental efficiency and patient flow. This was a six-hour physician shift scheduled during the mid-day to early evening hours, where the physician would work with the RN team at triage and in the EMS park area to assess and initiate treatments for patients waiting to be seen. This was a voluntary shift for the physician workforce and due to many physicians not feeling like they had the capacity to work more than their allotted number of shifts, a limited number of these shifts were filled. Most physicians who worked these EPL shifts enjoyed the collaborative role they needed to play with the nursing team in the triage area. Currently, there are no plans to bring the EPL position back at the FMC.

In the early part of the pandemic, the physician group chose to start a daily physician backup schedule to ensure there was a physician available to cover a shift for an ill colleague. As the number of ill physicians significantly decreased and the burden of this self-supported backup schedule was no longer justified, in September 2023, the physician backup schedule was removed. Thankfully, the number of ill physicians is significantly less than what it was during the pandemic. However, lacking a physician backup schedule has led to some unfilled shifts.

Connect Care Implementation

We have now completed our first full year of Connect Care implementation and most of the clinical team feels comfortable with its use. Over the past year, we had the implementation of the hospital laboratory system into Connect Care as well which thankfully did not lead to any significant interruptions in clinical care. Most physicians feel that Connect Care has significantly improved their ability to enter a comprehensive patient care record and have found efficiencies in using the secure chat function with the entire care team.

We continue to work through challenges printing documents, making outpatient referrals, documenting on handover patients, and efficiently visualizing results.

Emergency Medical Services

We continue to experience EMS offload delays leading to EMS crews being detained in hallways at the FMC. We did see some significant improvements to this during the first part of 2022 due to efficient nursing implementation of new protocols in allowing EMS to handover the care of their patients as soon as possible.

Recently, multiple factors have overwhelmed this system, and we are again experiencing patients being held by EMS providers in the hallways of the department. This issue has been particularly acute at the FMC, given the large number of high-acuity patients arriving by EMS. Managing patients in the EMS hallway is a challenging place to work for physicians and nurses, especially given the need for dedicated assessment spaces, privacy, and difficulty in promptly completing orders. Still, we continue to work with site and zone leadership to work toward getting these patients into dedicated treatment spaces in a timely manner.

ED Overcrowding / Admitted Patients In ED

The Calgary Zone Department of Emergency Medicine leadership team has been working tirelessly to address unprecedented ED overcrowding across all Calgary EDs resulting from system-wide capacity issues leading to admitted emergency inpatients (EIPs) boarding for prolonged periods in our EDs. Our ongoing advocacy has led to meaningful changes, including creating an EIP task force and zone-wide surge strategies designed to limit the number of EIPs boarding in our EDs.

This work has led to some noticeable changes, however, we are aware that long-term solutions to these problems are still required.

Looking Forward To 2024

We look forward to the challenges ahead in 2024 for the FMC ED. The entire administration team continues to identify common goals for the upcoming year and is optimistic that we now have increased capacity to improve workflow and patient care. We hope to work on departmental projects that will improve the ED MD working experience such as addressing stocking issues, as well as projects that improve patient care, such as simulation-based quality improvement projects as they relate to trauma care. We hope to contribute to building a work environment that will foster a healthier and happier healthcare team. We will continue to seek efficiency improvements via collaboration with our inpatient consultant colleagues to collectively reduce EIPS. And finally, we aim to maintain the shrives that have been made in 2023 to shorten EMS offload times. Thankfully, we have an incredibly talented, passionate, and caring group of physicians and nurses to work through whatever comes forward in 2024.

Dr. Andrea Boone
FMC Site Chief
on behalf of the FMC Emergency Leadership Team

Peter Lougheed Centre

New Department

The most exciting change to the Peter Lougheed Centre (PLC) in 2023 was the opening of 1/3 of our new department this fall. The move required considerable coordination for a live transition into the new space, while also caring for active patients who had to be moved out of the old space. The spacious four bed resuscitation bay, five dedicated EMS park spaces and new triage, waiting room, and registration area have been well received. Our ER psychiatry colleagues also moved into a dedicated space with more privacy and modern assessment spaces. We have temporarily repurposed the new intake area for higher acuity monitored patients until phase two of construction is complete. The move has created logistical challenges as we navigate the temporary tighter care area. We have been fortunate enough to have the support of our hospital services who are navigating the same challenges beside us. We continue to utilize the Pandemic Response Unit tent to bridge us to our full department opening in 2025.

Operations and Bed Pressures

We have seen the continuing challenges of bed block and high volumes of Emergency In-Patients (EIP) in our department for most of 2023. In response we created new service models to support patient care. One innovation that was highly successful was the creation of a dedicated space in the ER for those in-patients awaiting beds that was staffed with contract nurses, allowing our own highly skilled ER nurses to continue providing ER specific care. We were able to aggressively recruit to fill empty nursing lines. This led to fewer bed closures and facilitated rapid offload times for our EMS crews to meet provincial targets. We are continually streamlining our ED staffing model and have added extra physician coverage overnight and in the early mornings to best support patient volumes. Despite these interventions, we continue to face intermittent service disruptions across the zone, ongoing high volumes, and a temporary smaller physical space. We continue to think outside the box to respond to these challenges and provide strong patient care.

Staffing

Across the country, emergency medicine is facing a crisis of burnout and staffing shortages. We have had consistent nursing recruitment for open lines and ongoing onboarding of new nursing staff thanks to the dedication of our nurse management team. We have increased the presence of allied health in the ER to assist with flow, better connect patients to resources, and limit unnecessary admissions. We have also expanded the ED pharmacy team who support patient care through the abnormal lab call back programs, patient medication reconciliation, and home medication ordering for patients with prolonged assessment times. We have also benefitted from the trial of a new Internal Medicine consultation model called the “Triagologist in the ED” or “TED” role where an Internal Medicine staff physician is present in the ED to provide guidance for admission pathways, outpatient referrals and managing service disputes. We hope to identify supporting data from this pilot project to expand this service to 24hr coverage at PLC and start similar programs at our other ERs. With regards to staff physicians, we were fortunate to recruit our largest pool of new hires ever, which has allowed us to support some site transfers and delayed FTE reductions. Our physicians bring expertise in many high yield areas at PLC, including addiction medicine (Dr. Zoë Polsky with formalized addictions training), pediatrics (Dr. Hilary Ambrose, Dr. Brit Sunderani,

and Dr. Omar Damji with fellowships in pediatric emergency medicine), and toxicology (Dr. Scott Lucyk, Dr. Steve Liu, Dr. Alexandra Hamelin and Dr. Jackie Hiob with fellowships in toxicology and lines at PADIS). Their knowledge helps to shape our protocols and care to ensure PLC emergency remains at the forefront of care for these vulnerable populations.

Connect Care

We continue to streamline the use of connect care in our departments and have finally had our last provincial sites go live in November of 2023. PLC remains actively engaged in advocating for the most efficient EMR for patient care and has several leaders in the zone developing protocols and flow pathways that take advantage of the strengths within the system.

Leadership

The PLC ER has survived the many logistic and clinical challenges of 2023 thanks to our strong nursing and physician leadership and their collaboration. Suzanne Wickware (PCM), Terri Roth, and Maria Vera have provided solid and consistent leadership in nursing management, aided by Aaron Shaw, Brock Love, and Janine van Beurden as our nurse clinician educators. They were also recently joined by Aggie Kot this fall in the position of nurse mentor. Jackie Miller continues her important work as our department QI lead, managing patient care plans and safety concerns. Dr. Meira Louis and Dr. Haley Cochrane continued their roles as physician site lead and assistant site lead in the department. Our team enjoys a strong working relationship, excellent communication, and genuine respect for the strengths of the other team members. The PLC continues to be a department that is valued for its strong role in the hospital and commitment to exceptional patient care.



PLC Emergency Leadership Team

Dr. Meira Louis
PLC Site Chief
on behalf of the PLC Emergency Leadership Team

Rockyview General Hospital

Rockyview Emergency Department (RGH ED) continues to see the highest volume of patients in the Calgary Zone, seeing 79 830 patients in 2023. The average daily volume was 219 patients per day, including an average of 55 daily EMS arrivals. Department distribution was similar to last year, with 28% of patients going to Main ED, 22% to minor treatment and approximately 50% of patients going to Intake, including record high numbers going through Intake this fall. Acuity has continued to increase over the last several years, with 41% of patients assigned CTAS 2 this year compared to 39% in 2022. The ED nursing and physician leadership team continues to monitor key metrics, such as volume, distribution throughout the department, physician assessment and length of stay and adjust processes accordingly. 2023 saw some large scale changes within RGH ED, most notably the creation of ED Park for EMS Offload and the implementation of Connect Care.

Leadership

RGH ED bid farewell to Patient Care Manager Kyla Craig in November 2023 and welcomed Julie Meyer, formerly FMC ED Unit Manager, into the Patient Care Manager position in January 2024.

2023 Highlights

Nursing

Assignments were altered to better support flow in Intake Area by having a dedicated Intake Lead and dedicated Intake Check in Nurse. Roles were more clearly defined to ensure equal focus on input, throughput and output.

Staffing

Retention and recruitment was a major priority. This year RGH ED saw approximately 60 new nursing staff, including the introduction of LPNs and Transitional Grad Nurses. In addition, travel/agency nurses were utilized throughout the year, which drastically improved staffing levels this summer and enabled RGH ED to continue to operate at close to normal capacity going into fall, including the reopening of E Area after a yearlong closure.

ED Park Care Space

In March 2023, all Calgary Zone EDs were tasked with adding a 10 bed ED Park care space to expedite EMS handover and improve community response times. RGH ED continues to collaborate with staff, Human Factors and RGH site leadership to improve patient flow in this area and to address challenges presented. The Calgary Zone Health Action Plan Improvement (HAPI) project continues to work on EMS offload as one of its priorities.

Connect Care

Connect Care launched at RGH ED in May 2023. It was a successful launch, thanks to our physician and nursing super users and all of the interdisciplinary work prior to launch. Staff continue to learn efficient ways to use the system find ways to optimize processes. Some highlights that we continue to work on are communication within connect care, patient prioritization and referral management.

Psychiatry

The PES (Psychiatric Emergency Services) enhanced 24 hour model had a soft start in spring 2023 and is fully operational as of mid November. The PES team and RGH ED leadership worked closely to

address hiring and training challenges while providing safe patient care. We look forward to the evolution of this model for providing improved flow and focused care for our mental health patients while continuing to address the challenge of prolonged ED waits for those that require admission.

Geriatric NP

The RGH ED obtained funding for a Geriatric Nurse Practitioner position which began in May 2024. RGH leadership and our Geriatric Nurse Practitioner have been working to identify patients in which the nurse practitioner's geriatric and communication skills with family help to provide patient centered care to these patients. Roles involve medical and medication reconciliation, patient assessment, communication around challenges in the home environment, liaising with family and transition services, identifying patients at risk for delirium and facilitating admission or safe discharge home. We are using expertise from the SHC model to help evolve this role.

Allied Health

2023 saw Extended hours for OT/PT/Pharmacy with extensions to evening and weekend coverage. These allied services are extremely important to our department with their roles including abnormal lab review, medication reconciliation, medication advice and teaching, and assessment for safe discharge. Their contributions are invaluable and help us to provide safer care and to improve flow freeing up physicians and nurses in the areas where these services can provide their expertise.

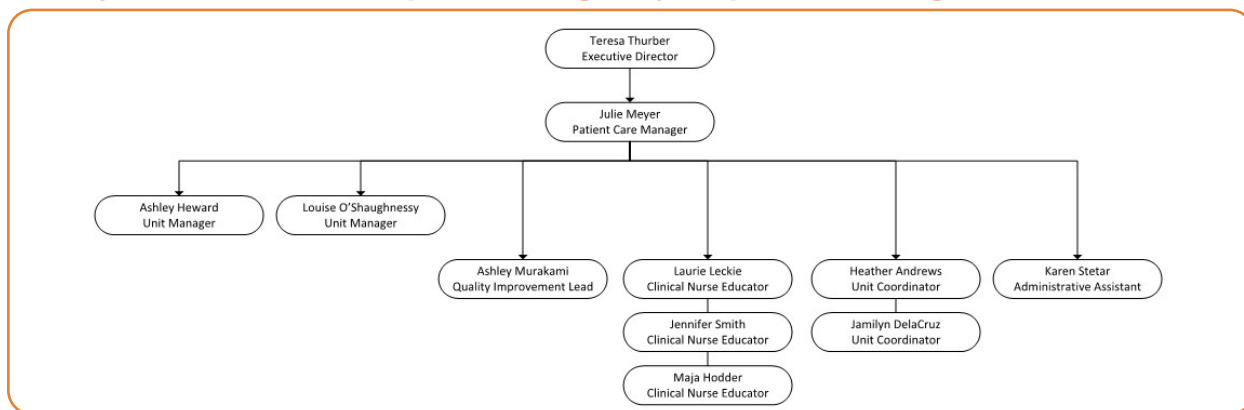
Diagnostic Imaging

Our department continues to have an excellent relationship with our Diagnostic Imaging colleagues. We meet monthly to optimize diagnostic imaging workflow for safety and for streamlining process and communication.

Site

Our department benefits from having strong relationships with RGH site leadership and consultant services allowing us to continue to improve patient care from a multi-disciplinary level.

Rockyview General Hospital Emergency Department Organizational Chart



Dr. Nancy Zuzic
Site Chief RGH
on behalf of the RGH Emergency Leadership Team

South Health Campus

Department

Situated in the rapidly growing southeast end of the city, the SHC ED continued working to expand its services and footprint to provide Emergency Care to Calgarians of all ages. 2023 saw ongoing efforts to deliver more care with the fixed resources we have. Built and staffed a decade ago with 36 treatment spaces, we now run up to 65 treatment spaces during peak hours of the day with effectively unchanged staffing levels we've had since opening. Our footprint today includes a 5-bed Intake Area / Rapid Assessment Zone with 17 Treatment Chairs where our orthopedic stretchers used to be, an 8-bed pediatric emergency pod, a 4-bed Minor Treatment space, and an EMS patient care area in addition to our pre-existing Acute Care pods, Mental Health unit, and Resuscitation bays. While no new capital resources have been allocated to our department, we continue to find incremental improvements in throughput management from our dedicated team of nurses, physicians and allied staff.

Human Resources

We have seen a marked improvement in nurse staffing with fewer empty shifts and bed closures. This has resulted in improved morale and retention for our newly hired nurses and has given us the opportunity to go back to providing more training and continued education from our Clinical Nurse Educators. We are well-hired from a physician perspective with remarkable engagement by our team. While we anticipate the return of our Geriatric NP in 2024, we are grateful to the growing presence of our Allied Health Team (below) and addition of a Pharmacy Technician to offload some tasks from our ED pharmacist.

Flow and Capacity Efforts

Our greatest challenge at the South health campus continues to be our chronic status of being over capacity. Inpatient units and hospital administrators continue to do a phenomenal job, working very hard to maintain patient flow through the hospital to the extent possible. We are an under-bedded site, unfortunately with considerable shelved space that was supposed to be developed by now but has not been. As a result, despite a rapidly growing population in the Southeast of Calgary, our ability to maintain target wait-times is hindered on a daily basis.

We often have 50-80% of our ED capacity occupied by inpatients awaiting their beds upstairs. Our site continues to advocate at all levels for remedies to this situation while working to optimize our internal flow processes.

In response to the EMS crisis last year, we have allocated two nurses to what was formerly called EMS Park: a line-up of patients in stretchers being watched over by paramedics while they await a bed in the ED. These patients now constitute our H pod, effectively an additional treatment area in the emergency department. This has allowed for marked improvement in EMS offload times and returning paramedics to the community.

Overall, even with prolonged wait times related to hospital overcapacity, we maintain a high standard of care and sick patients are seen and managed in a timely fashion. Our admitting services are aware of the bed crunch and have shown extreme dedication to taking responsibility for the elements in their control to maximize throughput.

Achievements in 2023

Allied Health Presence in the ED

Sean Sloan, Program Facilitator of Allied Health (including physiotherapy and occupational therapy) has done an impeccable job of incorporating Allied health services into the emergency department, expediting patient assessment and dispositions as well as inpatient discharges while collecting data for studying outcomes. Scott Madison is a full-time physiotherapist in our emergency department who deserves special mention for his hard work and dedication to assessing patients with musculoskeletal problems in the emergency department and setting them up with the supports that sometimes avoid hospital admission.

Connect Care Launch

Our site launched Connect Care on May 6th with extensive preparation from our nursing and unit leadership. As a result, the transition was as smooth as could be hoped for. The Zone Connect Care team, including nursing and physician coordinators and instructors deserve credit for our successful roll-out.

Site-level physician collaboration

We have enjoyed and benefited from several collaborative discussions and protocols between the ED team and specialist physician teams at our site. I'd like to thank the site leads for Hand Surgery (Dr. Dhaliwal), Plastic Surgery (Dr. Kennedy), Orthopedic surgery (Dr. Batuyong), Gynecology (Dr. Fahey), GI (Dr. Buresi), Hospitalist (Dr. Gohel), Internal Medicine (Drs. Tien and Cotton), Emergency Psychiatry (Dr. Oluboka), ICU (Dr. Posadas), and Radiology (Dr. Patel) for their engagement and willingness to work with our team to learn together and improve our processes. Dr. Colin Del Castilho continues to foster a culture of respect and teamwork at our hospital.

Pediatric Emergency Medicine

Dr. Dana Stys took over leadership of the pediatric emergency medicine physicians at South health Campus. She has done a wonderful job of uniting the team and releasing regular monthly pediatric updates as well as responding to the continuing education needs of our physicians and nurses.

2023 saw the first year of continuous pediatric emergency medicine coverage between the hours of 11 AM and 11 PM. Due to our bed shortage, Dr. Stys and her team have been gracious in sharing a few of the care spaces in our C pod through which we run are fast-track. Combining FastTrack and peds in the C pod have allowed these to streams to share an orthopedic technician as well as nursing resources for overall greater department efficiency.

Looking Ahead to 2024

Geriatric EM: Our Geri-EM lead, Dr. Marge McGillivray, is completing fellowship training in geriatrics. We look forward to her returning in 2024, and in conjunction with our ED Geriatrics focused NP Paige, they will undoubtedly bring our department to a new level of Geriatric expertise.

Quality Improvement: Our QI committee has relaunched in recent months with multiple projects on the go, led by Dr Kathryn Crowder.

Advocacy: In areas outside our direct control that influence our ability to care for patients, we will continue advocating at all levels to shorted wait-times, minimize barriers to care, and improve emergency care delivery.

Dr. Daniel Joo, SHC Site Chief and Dr. Carly Hagel, SHC Deputy Site Chief
on behalf of the SHC Emergency Leadership Team

Nursing Leadership

2023 was another whirlwind year for the South Health Campus ED nursing leadership team. With caution, we viewed COVID-19 in the rear view mirror and resolutely faced the upcoming challenges of recruitment, retention, capacity, changing government and competing priorities. It's been a challenging but satisfying year for us all, with many successes to celebrate.

The leadership team has been laser-focused, directed our efforts on recruitment and retention, relentlessly hiring at a breakneck pace. We have evolved from over 26 nursing vacancies at the end of 2022, to two nursing vacancies at the end of 2023! We are excited and grateful for all new nurses, recruited from around the world, who have chosen to work with us in the South Health Campus ED.

We are also grateful for the resiliency of our existing nursing staff and physicians, who have consistently shown up day after day and have continued to demonstrate kindness and excellence in all that they do. They have been instrumental in our hiring strategy and have been incredibly welcoming and eager to impart their knowledge to create the new, well-rounded, and cohesive team that exists today.

Notably, these accomplishments unfolded amid the complex, resource intensive preparations, and rollout of our new clinical information system, Connect Care. The positive impact of these efforts is evident in the enhanced work-life balance of our team, with a significant decrease in Personal Responsibility Concerns (PRCs), reduced overtime, and improved retention rates. Our commitment to excellence is reflected in these tangible outcomes.

Some of our accomplishments from the past year include:

- We welcomed 62 new nurses, two ROTs, nine PCTs and five unit clerks to the department, in addition to 17 returning staff
- We resumed advanced nursing education (ACLS, PALS, eSIM, and code/pediatric and triage orientation)
- We reduced mandatory and non-mandatory overtime in the second half of 2023
- We successfully implemented the Connect Care clinical information system in May
- We implemented the EMS Park initiative, and part of the Government of Alberta's Health Action Plan, to reduce EMS wait times
- We partnered with allied health to incorporate an OT/PT consult service to avoid preventable admissions and reduce length of stay
- We were the first ED in the province to adopt the Shared Commitments program, to improve the way we provide patient and family-centered care
- We created a dedicated space for our protective services partners, to improve the safety for our team and our patients
- We continued to promote Elder Friendly care by incorporating See the Person training for all new hires
- We resumed our quality improvement focus and are rebuilding our QI Council
- We helped to manage one of the largest pediatric e-Coli outbreaks, ever in Canada



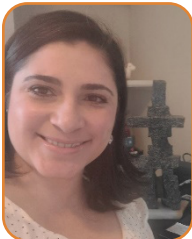
Heather Battle Manager

I have been a nurse with AHS for over 30 years. I graduated from the Foothills Hospital School of Nursing in 1990, and am currently working full time on my MBA, with a focus in Health Leadership. I joined the SHC ED team in January 2020. I am a Mom to an 12 year old, and I'm an avid downhill skier and a frequent but lousy golfer.



Amanda Danks Unit Manager

I graduated in the UK and then moved to Canada in 2001. I have been a Registered Nurse with AHS for over 21 years. Previous roles included working at FMC in Cardiothoracic Dept, RGH Emergency Dept for 13 years (roles included Nurse Clinician for numerous years) and my last position was a supervisor role in SHC Medical Specialty Clinics. I was fortunate to join the SHC ED team May 2022. My interests are Seniors Health, Quality Improvement and Team Development.



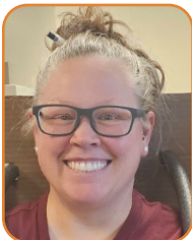
Daniela Moreira Unit Manager

Originally from Brazil, I moved to Canada in 2016 and joined AHS in 2018. I graduated in 2005 from the University of Brasilia and have worked in Emergency and Critical Care settings throughout the years. I have been involved in leadership roles since 2009 and was fortunate to join the SHC ED team in 2022. I have a passion for learning and my areas of interest are sustainability, strategic planning and Quality Improvement.



Danielle Binda Clinical Nurse Educator

I graduated from the U of C/Mount Royal Conjoint Nursing Program in 2001 and have worked as an Emergency nurse with AHS for almost 20 years. I joined the SHC ED team as a Clinical Nurse Educator in 2011 and assisted with the orientation on-boarding of staff, opening of the ED, and have grown with this amazing team over the years! I have a strong interest in nursing education, quality and process improvement, and patient safety.



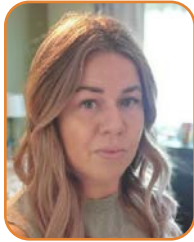
Vanessa Culp Clinical Nurse Educator

I have worked with AHS since 2004 at various sites including FMC, PLC and SHC. I began working at PLC ED in 2009 and transitioned to the SHC ED team in 2014. I moved through the ranks of bedside RN to clinician and then CNE. I'm a born and bred Calgarian and have three crazy pets at home. When I am not running at work, I am busy running after my dog, Nola.



Joanne Yurko Clinical Nurse Educator

I graduated nursing in 2001 from Grant MacEwan University in Edmonton Alberta. I have been an Emergency Room staff nurse for 23 years practicing in both urban and rural. I have spent the last 11 years as a CNE and instructor for many courses. I am proud to say I have worked at SHC ED since its opening Jan 14th, 2013! I have special interests in resuscitation, team dynamics, pediatrics, palliative care and soap suds enemas!



Cassandra Carrier Quality Improvement Lead

I graduated from the Mount Royal University Bachelor of Nursing program in 2010. I started my career at the Rockyview and the Peterlougheed Hospital in inpatient acute medicine and pulmonary. I have worked as an Emergency Nurse for 10 years and have been at SHC ED for the last 6 years. I have developed a passion for Emergency Department flow and patient safety initiatives. I joined the leadership team as the Quality Improvement Lead in 2022.



Paige Guinn Geriatric Emergency Management Nurse Practitioner

I graduated with a Bachelor of Science in Nursing degree from the University of British Columbia Okanagan and worked as a Registered Nurse at the Kelowna General Hospital. This is where I developed my passion for working with seniors. I went back to school to get my Master of Nursing/Nurse Practitioner designation at the University of Calgary with my final focus on seniors' health. I find providing care for older adults a rewarding experience and I am so happy to be a part of the SHC ED team.

We are also grateful for the resiliency of our existing nursing staff and physicians, who have consistently shown up day after day and have continued to demonstrate kindness and excellence in all that they do.

Summer and One Year Locums



Dr. Omar Anjum



Dr. Rachit Batta



Dr. Greg Beller



Dr. Sean Crooks



Dr. Omar Damji



Dr. Lindsay Gibson-Brokop



Dr. Alex Hamelin



Dr. Adam Heath



Dr. Meaghan Hunter



Dr. Robin Liu



Dr. Emma Meeuwisse



Dr. Zoe Polsky



Dr. Dana Stewart



Dr. Rachel Taylor



Dr. Kendra Young

Clinical Programs

Alberta Children's Hospital Pediatric Emergency Research Team (PERT)

The emergency department (ED) at the Alberta Children's Hospital provides care to acutely ill and injured children 24 hours a day, seven days a week. During the past 12 months over 75580 children received care in the Alberta Children's Hospital ED. The high volume and diversity of patients seen in the ED provides a unique opportunity for generating new knowledge and improving the quality of pediatric care. Our research team is one of the largest pediatric emergency teams in Canada. Team members contributed to expanding our understanding of the epidemiology of COVID-19 which guided the national pandemic response. We managed to continue our other research programs focused on resuscitation, precision medicine, quality improvement and simulation. In the past year we published 70 peer reviewed articles and received over \$8,656,663 dollars in peer review funding from local, national, and international sources.

Report Data – May 1st, 2022 to April 30, 2023	
Total children seen in ED	75580
Peer-reviewed publications	70
Grant funding	\$8,656,663
Co-investigator/Collaborator funding	\$4,920,173
Patients enrolled	2208
Physicians	66
Nurses	199
Medical Trainees	195

Physicians

Tania Principi - Section Chief, Pediatric Emergency Medicine

Antonia Stang - Department Head, Department of Pediatrics

Graham Thompson - Research Director, PEMRAP and PERT Lead

Adam Cheng - Simulation Research Lead

Stephen Freedman - Alberta Children's Hospital Foundation, Professor in Child Health and Wellness Associate Dean, Clinical Trials, Cumming School of Medicine

Vincent Grant - Medical Director for eSIM Provincial Simulation

David Johnson - Senior Medical Director, AHS Maternal Newborn, Child and youth Strategic Clinical Network (MNCY SCN)

Kelly Millar - Education Lead

Jennifer Thull-Freedman - Physician Lead for Quality, ACH Emergency Department, Clinical Associate Professor, University of Calgary

Research Nurses

Kimberly Wolf

Kristen Kersey

Ruza Goulden

Sarah Weisbeck

Vicki Jacobs

Coordinators/Research Assistants

Alicia Kanngiesser

Alissa Kazakoff

Ashley Jones

Bailey MacLellan

Becky Emerton

Beata Mickiewicz

Conné Lategan

Elaine Chau

Jacinda Larson

Jena Shank

Jessica Dalere

Jianling Xie

Joseph Lee

Joy Gobran

Kassi Prisnie

Kate Winston

Kelly Kim

Krishna Patel

Myka Estes

Nidhi Lodha

Ximena Huertes-Mancipe

50+ Volunteer Research Assistants

(Pediatric Emergency Medicine Research Assistant
Program PEMRAP)

Pediatric Emergency Medicine Fellows

Alexandra St-Onge-St-Hilaire

Dana Stewart

Mary Tong

Omar Damji

William MacDougall

Research Trainees

Frederick Dun-Dery – Post-Doctoral Fellow

Kaden Lam - Summer Student

Hannah Byles – Pediatric Resident

Kosar Lotfali Khani – Graduate Student

Madeleine Sumner – Medical Student

Madison Riddell - Pediatric Resident

Minea Hill – Summer Student

Sarah Tougas - Medical Student

Sarah Williamson-Urquhart - Graduate Student

Administration

Gertrud VanDerMey

Heather Numrich

Jeffrey Stone

Tanya Borthwick

Dr. Graham Thompson

Clinical Informatics

Continuing in his role this year with the Calgary clinical informatics team was Dr. Chris Hall as the Adult ED Medical Informatics Lead. After many years as a local and provincial leader in the field of clinical informatics, Dr. Tom Rich stepped aside from his role as the Associate Chief Medical Information Officer. Meanwhile, our team was augmented by the addition of the following Superusers, whose selfless efforts made the transition to Connect Care possible: Drs. Meira Louis, Mike Betzner, Marta Broniewska, Kari Mcfarlane, Ayesha Khory, Fayaz Harji, Mirna Nahas, Rhonda Ness, Colin Bell, Carly Hagel, Huma Ali, Conor McKaighney, Kelsey McLeod, and Fareen Zaver.

Notable events from 2023

Connect Care

The final Connect Care launch involving Calgary Zone Emergency Departments took place in May this year when both the South Health Campus and Rockyview General Hospital Emergency Departments transitioned to the new EMR. Our clinical staff benefitted tremendously from the dedicated work of our Superuser group, who undertook additional training and devoted extra time from their already hectic schedules to assist their colleagues in learning the new system. Numerous physicians and nurses contributed to this effort, selflessly contributing their time to make this transition as seamless as possible and their work should be applauded.

At a provincial level, the Calgary Zone's interests continue to be represented by Dr. Hall, with a focus on expanding the content and streamlining the layout of order sets and workflows within ASAP. The future will hopefully see continued growth in this area, as the focus across the zone shifts from implementing Connect Care to improving the end user experience.

Local Initiatives

The myED online resource continued to represent the defacto hub for accessing Calgary Zone clinical pathways, guidelines, and protocols. With the arrival of a province wide EMR, the existence of a repository of local clinical workflows has become ever more important, and will continue to represent an important supplement to the clinical guidance provided within Connect Care.

The creation of a Calgary Zone referral document has helped provide a roadmap for clinicians looking to manage the new outpatient referral system accessed through Connect Care. Work continues on synchronizing this document with the provincially maintained Alberta Referral Directory with the goal of creating a single 'source of truth' accessible directly from within Connect Care to help guide Calgary ED physicians in making the right referral to the right resource as the right time.

Additional local initiatives have included the production and progressive refinement of a Calgary Zone Emergency Department Common Workflows tip sheet to provide online support to clinicians working in the Connect Care system, as well as the creation of a CZ Connect Care Downtime Survival Guide to help physicians navigate this disruptive but relatively infrequent event.

Looking forward to 2024

The focus of the informatics team going forward will now shift from implementation to optimization, with particular attention being paid to optimizing the Calgary Zone ED user experience within Connect Care. Specific areas of attention will include new order set creation and optimization of existing order sets to improve clinician efficiency while on shift.

The future will hopefully see continued growth in this area, as the focus across the zone shifts from implementing Connect Care to improving the end user experience.

Dr. Chris Hall
Physician Project Lead Clinical Informatics

Clinical Pharmacology and Toxicology

The Section of Clinical Pharmacology and Toxicology members are incredibly pleased to present a summary of our activities for the 2023 calendar year.

PADIS continued to host residents from Emergency Medicine (Adult and Pediatric), Internal Medicine, Anesthesia, Family Medicine, Psychiatry, and Critical Care Medicine for our popular Medical Toxicology rotation. This rotation involves a combination of bedside medical toxicology consultations in Calgary hospitals and small-group teaching sessions on management of common poisonings. We also continued to have Saskatchewan RCPSC and CCFP-EM residents take calls from Regina and Saskatoon and had two CPT fellows from Western University complete electives. We even had one internal medicine resident from Peru do an elective at PADIS in 2023.

In April, the annual Mike Hodson Memorial Lecture was dedicated entirely to toxicology. Drs. Scott Lucyk and Eric McGillis were speakers at this event, along with keynote Dr. Tim Erickson. The lecture was entitled “Big Top Toxins.” We are grateful to the planning committee for this event for inviting PADIS to speak and for recognizing the expertise this department brings to the Calgary Zone.

In July, we welcomed Drs. Jason Elzinga and Nick Sajko as first-year fellows in our CPT fellowship, with Drs. Alexandra Hamelin and Jacqui Hiob entering their second year. Both Alex and Jacqui are also working clinically at the Peter Lougheed Centre as staff Emergency Physicians.

In September, the section was well-represented at the annual North American Congress of Clinical Toxicology in Montreal. We had three posters accepted, and Drs. Hamelin and Riggan were on hand to present their posters.

In 2023, we had two resignations (Drs. Steven Liu and Lisa Thurgur) and one retirement (Dr. David Johnson) from our Medical Toxicology group. In response, we are excited to announce that Drs. Hamelin and Hiob will be joining the PADIS Medical Toxicology Group in July 2024 and working in the Calgary Emergency Departments as well.

In addition, we are pleased to welcome Dr. Colin Heath from the Department of Medicine to the Clinical Pharmacology Consultation Service group as of January 2024. Dr. Hiob will also be joining this group once she completes the CPT fellowship.

Finally, PADIS hosted a successful in-person conference at the Health Sciences Centre on November 4, 2023. The guest speaker was Dr. Jon Cole from Minnesota who gave an excellent talk on treatment of cardiovascular drug poisoning. There were 240 registrants for the conference, making it our most attended conference ever.

In mid-2023, we began our midcycle review of our 2021-2025 Strategic Plan. A revised plan will be posted in March 2024. The current [strategic plan](#) and its [key elements](#) can be found on our [CPT website](#).

Dr. Mark Yarema
Section Chief, Clinical Pharmacology and Toxicology

Distributed Learning and Rural Initiatives

Dr. Aaron Johnston leads the Office of Distributed Learning and Rural Initiatives (DLRI) at the Cumming School of Medicine as Associate Dean. DLRI believes in providing quality healthcare to the people of rural Alberta. We strive to accomplish this goal through fostering meaningful relationships between medical educators, health-care professionals in training and individuals and families in rural Alberta. Our vision is to engage communities, inspire social accountability and create opportunities. We believe that our commitment to education and research in rural Alberta is a key part of developing skilled and dedicated rural physicians.

DLRI manages two large Government of Alberta grants that support rural education for medical students, clinical clerks, and residents. Our office coordinates rural placements for learners at all levels from pre-clinical medical students to residents. We support medical student placements that can be as short as a single day of shadowing and as long the entire clerkship for our University of Calgary Longitudinal Integrated Clerkship (UCLIC). We support residency programs in both Family Medicine, Emergency Medicine and wide variety of specialties including to place resident physicians in rural training environments. DLRI also supports our rural preceptors and educators through a range of conferences and Faculty Development opportunities.

Highlights of the past year include expansion of the UCLIC program, expansion of the rural Family Medicine residency program and significant progress towards opening a regional medical school campus based in Lethbridge and serving rural and regional Southern Alberta.

DLRI scholarship and research activities continue. This past year we published papers on teaching medical students to manage comorbidity and using narrative as a teaching tool. We reported on the national advocacy needs of Distributed Medical Education and we partnered with the O'Brien Institute to publish a policy paper on the importance of healthcare access for rural citizens, towns, and economies. Finally, we supported student groups on a number of amazing research projects including artificial intelligence in rural healthcare, rural surgical access and the impact of rural Emergency Department closures.

Dr. Aaron Johnston
Associate Dean Distributed Learning and Rural Initiatives

Emergency Strategic Clinical Network™ 2023 Initiatives and Achievements

Responding to ED Pressures and Long Wait Times

Over the past year, the Emergency SCN (ESCN) has been part of the implementation and evaluation of an initiative to add 127 FTE allied health (social workers, physiotherapists, and occupational therapists) and pharmacy resources to support patient flow in the 16 busiest emergency departments (EDs) across the province. Working alongside Clinical Operations, Health Professions Strategy and Practice, and Provincial Pharmacy, the ESCN led the creation and rollout of standardized workflows, resources, and an “ED 101” education package. Additional contributions include collaborating on change management, communications, and evaluation plans to support the successful transition and integration of these staff into the ED environment.

Anti-Racist and Equity-Oriented Care In Alberta Eds: Research and Strategic Initiatives

The ESCN continues to partner with First Nations organizations to co-lead and co-present research on First Nations (FN) members’ emergency care in Alberta. Through a \$1.75 million four-year grant from the Canadian Institutes of Health Research, this project will work with eight FN organizations and three Emergency Departments (EDs) to combat racism against FN members, educate and support ED clinicians, address barriers to continuity of care, and ultimately to improve care in EDs. Each of three study ED sites will be sponsored by local FN organizations to participate, and the project will consist of four activities: 1) Build and strengthen partnerships between FN organizations and EDs; 2) Train ED staff in anti-racism and equity-oriented care; 3) Make structural changes to department policies and processes, 4) Collaboratively document and advocate around health systems issues that impact FN members’ emergency care, but that are outside ED control.

Working with Clinicians to Develop Emergency Department and Urgent Care Protocols

The ESCN Clinical Governance Documents Working Group continues to produce provincial policies, protocols, and guidelines to assist front line clinicians in providing evidence-informed care prior to physician/NP initial assessment.

The ESCN also partnered with Emergency Medical Services to develop and implement the [AHS Provincial - Emergency Departments and Urgent Care Services - Emergency Medical Services Transfer of Patient Care to the Emergency Department / Urgent Care Centre Triage Team \(link will need AHS login\)](#) policy which was mandated by the Ministry of Health and approved by the Clinical Operations Executive Committee.

Development of a Pediatric Equipment List for All Emergency Departments and Urgent Care Centres

Working with emergency representatives from all zones, the ESCN has developed a complete list of essential equipment that all sites should have to effectively care for pediatric patients. This list will be released in early 2024 and will include the essential details for ordering the disposable equipment.

Quality Improvement and Innovation Forum

The annual ESCN Quality Improvement and Innovation Forum fills a gap between local and national

events. It is devoted to sharing methods and results of ED projects in Alberta among those working in emergency care. The event provides an opportunity for those pursuing quality improvement initiatives in emergency medicine to network with one another, share innovative work and experiences, and translate promising works to new settings. After providing an online forum throughout the pandemic, this year's event was held in-person in Red Deer, Alberta, and live-streamed for those who wished to attend virtually. Nineteen oral presentations were delivered including a keynote address by Dr. Leigh Chapman, Chief Nursing Officer of Canada. The next Forum is scheduled to be held in May 2024.

Building Research Capacity

The ESCN funded four undergraduate summer studentships in 2023. Students supervised by Scientific Director Eddy Lang completed a research update on intravenous paracetamol for acute pain in ED in Internal and Emergency Medicine. The work prompted a related review by the Canadian Agency for Drugs and Technologies in Health. [IV Acetaminophen for Acute Pain in Emergency Departments | CADTH](#)

Two summers students worked with ESCN Assistant Scientific Director Patrick McLane through Canadian Institutes of Health Research project funding. Dr. McLane also supervised a Masters Practicum student to work on a scoping review of interventions to improve emergency care for Indigenous patients.

Advancing Knowledge

The ESCN funded three Alberta-based systematic review projects aligned with improving quality of emergency care in Alberta.

Dr. Maria Ospina's ESCN supported systematic review, funded in a prior year, has been published in *Annals of Emergency Medicine* – the most prestigious scientific journal in the field of emergency medicine. [Social Determinants of Health and Pediatric Emergency Department Outcomes: A Systematic Review and Meta-Analysis of Observational Studies - ScienceDirect](#)

Dr. Andrew McRae's ESCN supported systematic review on Risk Scores for Clinical Risk Stratification of Emergency Department Patients With Chest Pain was a feature article for the *Canadian Journal of Cardiology*. [Risk Scores for Clinical Risk Stratification of Emergency Department Patients With Chest Pain but No Acute Myocardial Infarction: A Systematic Review \(onlinecjc.ca\)](#)

Publications led by ESCN leaders included a manuscript on the scale and spread of the [buprenorphine/naloxone in emergency departments project](#), and a first of its kind qualitative study on [First Nations patients experiences of paramedicine in Alberta](#).

To learn more about the ESCN, visit www.ahs.ca/escn.

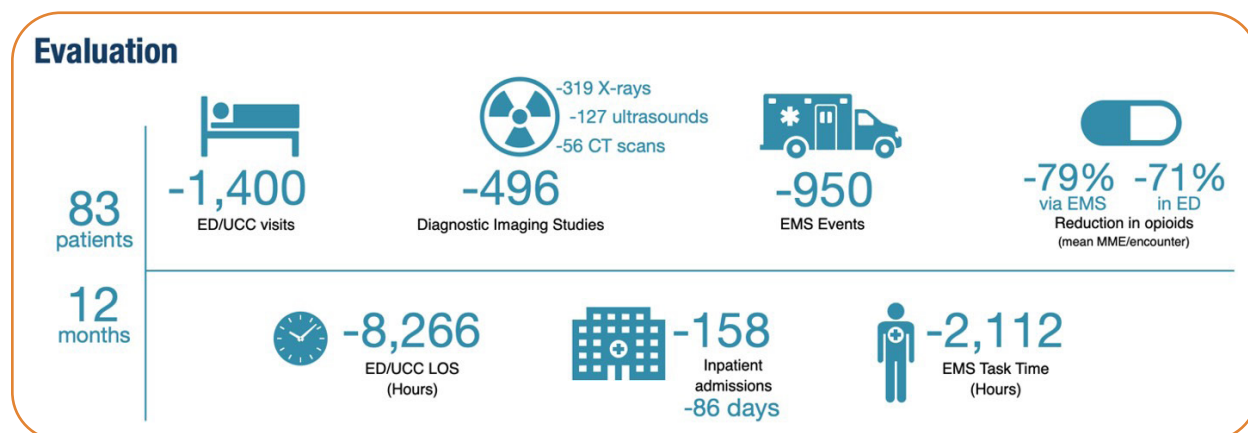
Andrew Fisher
Manager, Emergency Strategic Clinical Network™ (ESCN)

Frequent Visitors Program (ED Treatment Plans)

The Frequent Visitors Program is a clinician-led initiative combining three interventions: 1) case management, 2) care coordination, and 3) individualized care plans. Dr. Christine East and Ken Mont (RGH ED Nurse Clinician) launched this program at the Rockyview General Hospital in 2017 and continue to lead it. The program expanded to all adult sites in Calgary Zone in 2019 and continues to grow.

Dr. East and Ken Mont lead a multidisciplinary zone-wide committee to develop consistent and supportive care plans for patients who have a high volume of ED visits. The program collaborates across the system, including EMS Quality and Patient Safety, primary care, Addictions and Mental Health, Clinical Ethics, the Calgary Chronic Pain Centre, Mobile Response Team, PACT, HealthLink and others. In 2022, the program received growing interest from outside the zone and Dr. East presented to stakeholders, clinical, senior and executive leaders across the system in support of program expansion. Efforts are underway to obtain secure funding to support the current caseload and facilitate further expansion within the Calgary Zone, and a presentation to Provincial executive leadership is pending in early 2024.

There are currently 115 active ED Treatment Plans, with additional plans under development and a lengthy wait list. The latest results of this important work are summarized in the infographic below.



In a subset of patients with at least 12 months of data available post treatment plan implementation, we assessed the following metrics: ED/UCC visit counts, length of stay (LOS), inpatient admissions, diagnostic imaging (DI) studies performed, EMS events and EMS task time. There was a significant and sustained reduction in all of these metrics after plan implementation ($P < 0.01$). Additionally, significantly fewer x-rays, ultrasounds and computed tomography (CT) scans were performed after plan implementation, and average EMS and ED administration of opioids per visit decreased significantly. A survey of ED staff revealed strongly positive attitudes to the program's aims and outcomes. A full analysis of cost avoidance associated with the program is pending, but a preliminary analysis identifies more than \$994,209 in cost avoidance per year for the subset of 83 patients analyzed (more than \$11,978 cost avoidance per patient per year).

ED Treatment Plans were transitioned to Connect Care in Wave 6, creating new opportunities for expansion, as well as some technical challenges that continue to be addressed. We anticipate further growth and enhancements to the ED Frequent Visitors Program in 2024 and beyond.

Dr. Christine East
ED Treatment Plans Physician Lead

Geriatric Emergency Medicine Hub

The Geriatric EM working group is a multi-site, multi-disciplinary collaborative team of dedicated Calgary Zone health professionals including ED Patient Care Managers, Unit Managers, RN CNE's, OTs, Pharmacists, Senior's Health Clinical Nurse Specialists and Educators and Geriatricians from each site. The team is guided by our focus on developing tools and improving systems to address concerns for older adults in the ED.

- Dr. Margaret McGillivray and Dr. Zahra Goodarzi are physician co-leads.
- SHC: Amanda Danks RN, Vanessa Culp RN, Paige Guinn GEM NP, Nicole Bonin CNS Geriatrics
- PLC: Suzanne Wickware RN, Brock Love RN, Marsha Jayne MacDonald Geriatric NP
- RGH: Cory Banack CNS, Jennifer Smith RN Patient Care Manager, Jessie Trenholm OT
- FMC: Kym-Shae Goerzen RN PCM, Jennifer Evangelista CNE, Trent Moser CNE, Suzanne Nicol CNS Geriatrics

ED Physician representation from each site include:

- RGH: Dr. Tash Wright and Bretton Hari: New position of GEM NP Chris Stephens
- PLC: Dr. Mike Kenny
- FMC: Dr. Elizabeth Williams
- SHC: Paige Guinn GEM NP and Dr. Margaret McGillivray

SUPER Volunteer program: Supporting Seniors in the ER

- FMC launched their SUPER volunteer program by April 2023 with the assistance implementation toolkit to assist with the successful launch of the program.
- SHC continued commitment to building a robust SUPER volunteer program, with a new recruitment drive and orientation planned for January 2024.
- RGH implemented the SUPER volunteers in February 2022: currently on hold with plans to relaunch this important volunteer initiative.

Completion and implementation of practice improvement initiatives

- Approach to Agitation in the Older ED Patient algorithm
- Mobility in the ED: Exercises to Preserve Function
- NPO avoidance initiative
- ABCD's of Agitation
- Addition of topical analgesics to ADC at SHC

SHC Priority Inpatient Bed Allocation project for older patients that are delirious or at risk of developing delirium: On HOLD

Process built by a multi-disciplinary collaboration within SHC included executive leadership and bed placement staff support, ED managers, CNEs, GEM NP and our QI leads and consultants. SHC CNEs and GEM NP educated SHC RNs on the delivery of the bCAM to identify actively delirious patients. Concurrently a delirium prediction tool has been applied by admitting services to identify those patients at high risk of developing a delirium who are then highlighted on admission for prioritization to available inpatient treatment spaces. The main goal of the project is to reduce exposure to the ED for patients

that are delirious or at risk for delirium as the ED environment has been shown to be independently deliriogenic and an ED associated incident delirium prolongs a patients total ALOS by 4-7 days.

This project has been negatively impacted by our staffing crisis and inpatient bed capacity limitations. We plan to re-visit this project in the future given important groundwork has been completed.

Advocacy

We have met with ESCN leadership to share our ideas and initiatives, which has contributed to the ESCN advocating for funding for GEM nurses at various sites. We have also been advocating for a rapid response home care team that will be able to emergently address home care needs for patients that can be safely discharged from the ED from a medical perspective.

ED to Home project

Home care and ED collaboration to pilot the ED to home project from January to April of 2023 when funding was lost.

Project Overview:

Emergency to Home is an existing model of collaborative care within three acute sites across the province; Expansion to the Calgary Zone was informed by outcomes from these sites. The home care consultant supported discharge planning responding quickly to set up home care services with a priority of existing home care clients. This position augmented existing transition services support in the ED. The projected impact was aimed at reducing EIP volume, decreasing acute care admission and reducing ED visits.

This project lost funding in April 2023. Home care noted that during the development process for this project a rapid response workflow was created and tested, and they intended to include that in their current home care processes.

The main goal of the project is to reduce exposure to the ED for patients that are delirious or at risk for delirium as the ED environment has been shown to be independently deliriogenic and an ED associated incident delirium prolongs a patients total ALOS by 4-7 days.

Guide: ER Agitation Treatment in Older Adults

By Dr. McGillvray, Dr. Goodarzi and Geriatric Emergency Medicine Team.

Initial Measures

Refer to tool: 'The ABCDs of Agitation in Older Adults in the ED'

Assess for **staff safety**

Attempt to calm with **de-escalation** techniques

Assess for **reversible causes** of agitation

Invite designated **support person** to sit with patient

Ensure **home medications** are ordered / given (if appropriate)

Ensure home meds given, including psychotropic medications as appropriate, consider this first.

Refer to **AHS Restraint as a Last Resort Toolkit**

Does patient have **UNTREATED** pain?

NO

YES

Refer to tool: 'The ABCDs of Agitation in Older Adults in the ED'

Reposition in bed or to chair

Try topical diclofenac gel

Try Acetaminophen 1000 mg PO tid if no contraindications

Offer opioid if above measures not effective:

Hydromorphone 0.125-0.5 mg PO once (may repeat dose in 4 hours)	Hydromorphone 0.125-0.5 mg SC/IVPB once (may repeat dose in 4 hours)	Fentanyl 12.5-25 mcg IV/SC/SL once (may repeat dose in 1 hour)
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Use lower dose if opioid naïve; higher dose if severe pain / not opioid naïve

Pharmacological intervention necessary?

Physical aggression

(i.e. hitting, pushing, kicking) towards staff or other patients, which is not limited to specific situations

Psychotic symptoms

(i.e. hallucinations or delusions) which are severe and distressing to the patient, other patients, or staff

Refusing essential care

despite non-pharmacological interventions

YES

NO

1. Obtain informed consent from patient or substitute decision maker (As soon as possible, given the urgency of the situation)

2. Select appropriate drug therapy

Avoid mechanical restraints.

- use one agent (do not switch agents) due to the risk of adverse events;
- use lowest dose possible - older adults are more susceptible to adverse events;
- drugs take longer to accumulate and may have a delayed onset of effect

Ensure adequate resources & staff safety

1. Continue to target and document behaviors
2. Continue implementing non-pharmacological interventions

Behaviors that do not respond to Antipsychotics:

- Wandering /crawling out of bed
 - Repetitive activity /restlessness
 - Vocally disruptive behavior/calling out
 - Inappropriate dressing/undressing
- Refer to 'Helpful Strategies' resources

There are many approaches, consider completing the "See the Person Workshop" or at bedside consider the below approach:

- Tolerate behaviour (if safe)
- Anticipate care needs
- Don't Agitate

Known Parkinson Disease or Lewy Body Dementia?

NO

YES

If on antipsychotic use that agent

ORAL* Lorazepam 0.5-1 mg SL Q2H prn, to a max of 2 doses (peak effect 1 hour) Quetiapine 6.25 mg PO once (may repeat dose in 90 minutes if needed, to a maximum of 12.5 mg total)	PARENTERAL Lorazepam 0.5-1 mg IM/IV Once, Max 2 Doses. (peak effect 15-45 mins) (onset 5-10 min) Olanzapine 1.25 mg IM once (may repeat dose in 6 hours, to a maximum of 2.5 mg total) Avoid if known seizure disorder.
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*oral preferred, unless contraindicated or not tolerated
**contraindicated to use IM olanzapine in combination with parenteral benzodiazepines

Document response to each dose of antipsychotic, using Behaviour Mapping Log, please document non-drug strategies tried! After treatment monitor and assess for adverse events:

All atypical antipsychotics are associated with approximately a 1% increased risk of stroke and death • Sedation (prolonged with higher doses); aspiration • Seizures • EPS: Parkinsonism (tremor, rigidity), akathisia/restlessness • Anticholinergic effects • QTc prolongation • Dysphagia • Orthostatic hypotension • Increasing confusion, cognitive, or functional decline.

Refer to 'AHS Restraint as a Last Resort Toolkit'

Choose ONE antipsychotic - do not combine

ORAL*

Risperidone 0.25 mg PO Q1-2H PRN to a max of 1 mg total (use with caution if renal failure) (peak effect 60-90min)

Quetiapine 12.5 mg PO Q90 min PRN to a max of 25mg total (use with caution if QT prolongation) (peak effect 90 mins)

Olanzapine 2.5 mg PO/SL once (may repeat dose in 6 hours if needed, to a maximum of 5 mg total) (peak effect 5-8 hours)

*Oral preferred, unless contraindicated or not tolerated

PARENTERAL

IV Warning

IV Haldol should be avoided in older adults, due to risk of Torsades. Continuous cardio-respiratory monitoring is recommended for 90 minutes. Dose 0.5mg (max of 2 doses)

Haloperidol 0.25 mg SC/IM/IV Q30 min PRN to a max of 1 mg total (peak effect IM 20 mins, PO 2-6 hr)

Olanzapine 2.5 mg IM Q2 hour PRN to a max of 5 mg total Avoid in known seizure disorder, note risk of prolonged sedation with higher doses (peak effect 15-45 minutes)

Presentations

See the Person and ABCDs of agitation at the ESCN Innovation Forum: Presentation by Dr. Margaret McGillivray, Jennifer Yeung RN, and Theresa Gutierrez.

EMS Grand Rounds: **The approach to the agitated older adult**: Dr. Margaret McGillivray and Dr. Zahra Goodarzi.

Research

Restraining Restraint Use in Older Adults in the ED: CIHR grant proposal submission. PI Dr. Zahra Goodarzi.

Imaging cervical spine fractures in older adults with ground level falls: A Scoping Review: Lead author Dr. Zahra Goodarzi, co-authors Dr. Kathryn Crowder and Dr. Margaret McGillivray; Received grant funding from the ESCN Systematic Review Grant competition April 2023.

Urgent Geri follow-up clinic

The pilot project is in the development and planning phase. The clinic would offer geriatric assessments, focusing on the acute concern that brought the patient to the ED. The clinic would have allied health support and streamlined access to downstream referral services such as home care, day hospital, senior's health clinic, the dementia care team (home visits), and geriatric consult team (home visits). The clinic would provide one follow-up visit either via telephone or in person when necessary and would provide a consult letter with diagnostic and management recommendations to the patient's primary care provider. This clinic would not act as a longitudinal care option for the patient. The goals of the clinic would be to prevent avoidable admissions, and re-visits to the ED by providing focused, timely and expert follow-up for the patient's primary ED concern.

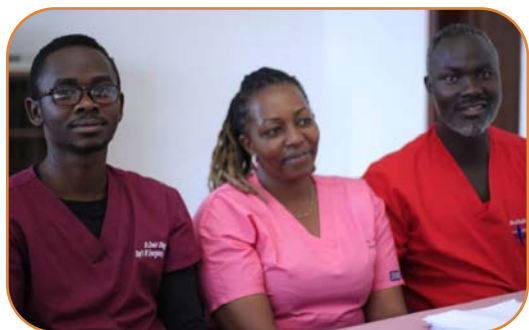
Dr. Marge McGillivray
Geriatric Care Lead

Global EM (GEM) Hub

The Global Health Hub is dedicated to enhancing opportunities for engagement, collaboration, and education in emergency medicine worldwide. Our goal is for Calgary to become a beacon for global health by harnessing our collective experiences and offering a variety of ways to grow them.

2023 was a very exciting year for the Hub. Dr. Margriet Greidanus again travelled to Mbarara University of Science and Technology (MUST) in Uganda, accompanied by Dr. Alex St-Onge-St-Hilaire, a pediatric EM fellow from University of Calgary (UC). While there, Dr. Greidanus functioned as a consultant EM physician at the university hospital and guest lecturer in the residency program. Dr. St-Onge-St-Hilaire facilitated a focused pediatric learning experience during her time as a fellow in the university hospital. A highlight was teaching the Pediatric Advanced Life Support (PALS) course to pediatric and EM residents at MUST. This trip laid a new precedent for international medical education between MUST and UC. Currently, the pathway for UC EM faculty and senior postgraduate trainees travelling to MUST is reasonably well established.

A novel aspect of our collaboration is the opportunity for MUST EM residents to complete training in Calgary. This fall, three senior residents from MUST completed clinical rotations at UC. They were the first residents from East Africa to have undertaken clinical rotations in Canada. Their goal was to experience how a highly resourced EM system functions. The MUST residents were embedded within the UC EM residency program and worked one-on-one with volunteer EM faculty at FMC, PLC, and ACH. The learning curve was steep due to the complexity of the systems and processes in Calgary. But overall, feedback from this program has been overwhelmingly positive. Faculty and residents have been engaged and energized by the opportunity to teach and learn from MUST colleagues. The residents from MUST had an enjoyable experience and brought new knowledge and skills home with them.



From Left to Right Dr. Daniel Olinga,
Dr. Evelyne Mwende Musau, Dr. Ambrose Okello

We look forward to hosting more residents from MUST in 2024. There are also ongoing opportunities for faculty and residents to travel there as well. Please reach out to me if you are interested.

The Calgary-Mbarara Emergency Medicine (CMEM) collaboration is funded through generous grants from the Indigenous, Local, and Global Health Office, The McLaughlin Travelling Medical Education Fund, and private donations. The ongoing support of the Department of Emergency Medicine and its faculty members is also critical. Thank you. For more information on the CMEM collaboration, please visit the website:

<https://cumming.ucalgary.ca/community/calgary-mbarara-emergency-medicine-collaboration>

We are excited for the future of the Global Health Hub! Please contact me with any questions.

Dr. Andrew Battison

Health Link

As a trusted resource for Albertans, Health Link is often a first point of contact for health inquiries. Health Link 811 serves as a critical triage and wayfinding contact point for Albertans as well as a data source for Alberta Health Services (AHS)

and Alberta Health (AH). The 2022-23 fiscal year saw a decrease in the number of calls to Health Link 811 from the public, still at 33% above pre-pandemic levels.

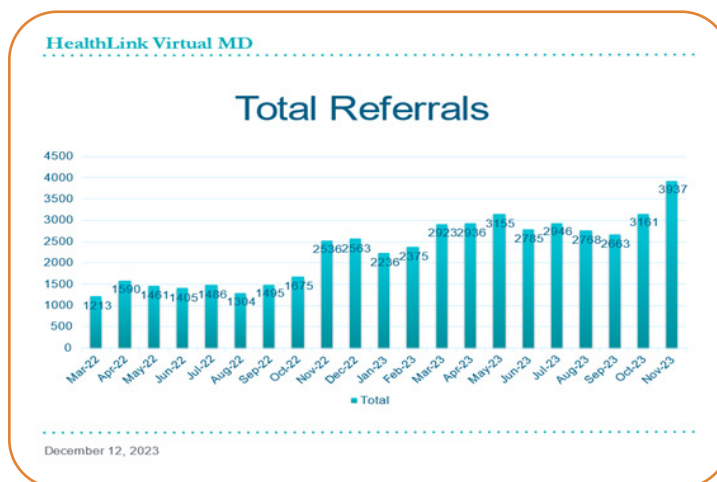
Year	Call Volume	Average Weekly Call Volume
2018-19	881,722	13,316
2019-20	1,073,348	17,059
2020-21	2,515,148	43,924
2021-22	4,290,621	65,679
2022-23	1,743,091	19,702

Health Link by the Numbers

New Initiatives in 2023

Virtual MD Secondary Triage

This program was launched in January 2022 at the height of the omicron wave. A group of physicians (family and emergency medicine) assess patients virtually by phone or Zoom to determine if they can be managed at home or in another setting other than the ED. Callers to Health Link who are triaged by a RN and determined to need an assessment within four hours, or 24 hours who meet eligibility criteria, are offered Virtual MD. To date, over 50,000 patients have been assessed by this service, with only 12% given the recommendation to seek care in an ED. About half of these patients would previously have gone to an ED. Over half of patients assessed virtually are given self-care advice. Patient satisfaction survey results have been overwhelmingly positive. To date, there are over 80 MDs working on this service and four nurse practitioners. Patient volumes continue to increase, and hours have expanded to 0600-0200 daily. A robust program evaluation is underway.



Indigenous Support Line (ISL)

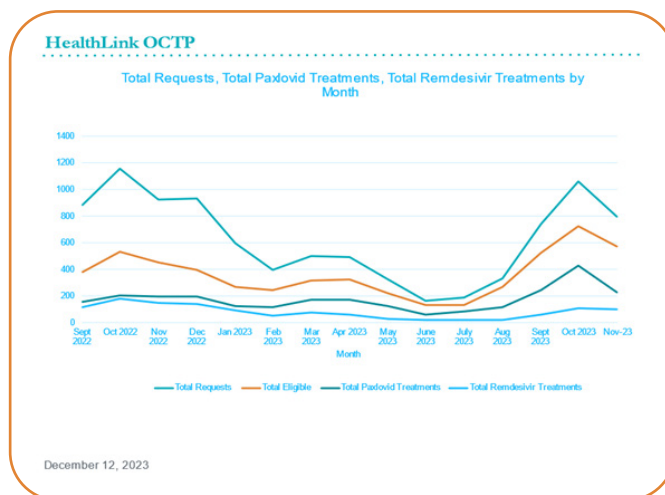
This service was launched in June 2022 in North Zone. It serves First Nations, Metis and Inuit Albertans who are seeking culturally sensitive health services navigation support. It is staffed by Indigenous health care professionals.

The ISL represents an innovative approach to addressing service gaps and lack of trust in the health care system and is being recognized nationally and provincially. In October 2022, the ISL was recognized as the top health diversity and equity innovation across Canada at the i4 Launchpad competition, and in 2023 was recognized by Healthcare Excellence Canada for its virtual care impact as well by the Health Quality Council of Alberta (HQCA) as a recipient for the Patient Experience Award. The team has been

asked to share information with Ontario and the Northwest Territories and NWT has started a similar Line. Expansion into Edmonton Zone is planned for January 2024.

Out-patient COVID Treatment Program

The Outpatient COVID treatment program is an initiative between AHS and AH, administering several outpatient treatments. These include Paxlovid and Remdesivir, to prevent high risk patients with mild to moderate COVID-19 symptoms from progressing to severe disease. Since September 2023, the physician services are now operated by Health Link in parallel to the Virtual MD program. Patient volumes are shown here.



Alberta Innovates Grant Application

Health Link 811 and AHS IT have applied to the Alberta Innovates program for a Virtual Assistant. The goal of the tool is to improve efficiency and accuracy of clinical triage and navigation. The Health Link team utilizes multiple databases and thousands of knowledge articles to reference the caller's situation, so this tool will help streamline the processes.

EMS/811 Shared Response Line

EMS has experienced significant resource demands. One alternative to help address some system pressures is to find alternative emergent response other than ambulance response and transport. Together, 911 and 811 launched a shared response line on January 17, 2023. A subset of Albertans who contact 911 and meet criteria are routed to 811 for nurse assessment, triage, advice and referral to appropriate pathways (for example self-transport to ED/UCC, follow up with primary care, self-care advice, referral to 811 virtual MD). About 50% of these callers are transferred back to EMS for a variety of reasons; immobility and lack of other transport options being the most frequent. We are now referring some of these callers to Mobile Integrated Healthcare for in-home assessment by community paramedics.

Mobile Integrated Healthcare (MIH) partnership

New in 2023 is a referral process between 811 nurses, Dementia Advice nurses and Virtual MDs to refer patients directly to MIH (formerly known as Community Paramedic Program). MIH staff will assess the patient in their home, get orders through the Family MD on Online Medical Control MD, and are able to investigate and treat many conditions without transport to acute care. This partnership has resulted in many patients getting the care they need without an acute care visit.

Dr. Denise Watt
Medical Director Health Link and MyHealth.Alberta.ca

Mike Hodzman Memorial Lecture

The Hodzman Legacy Lecture is an annual lecture series dedicated to providing expert teaching in Emergency Medicine, and this year took place on April 20, 2023. The series started to honour our late colleague, Dr. Mike Hodzman and his great love of learning, and each year we honour the career contributions of another valued colleague in the department who have recently retired. This year, Dr. David Johnson was highlighted for his outstanding career in the Calgary Department of Emergency Medicine as a Pediatric Emergency Physician and Medical Toxicologist. We were also excited to host our Keynote Speaker, Dr. Timothy Erickson, Emergency Physician and Division Chief of Toxicology at Harvard Medical School. Along with our local toxicologists Dr. Mark Yarema, Dr. Scott Lucyk, and Dr. Eric McGillis, the four speakers reviewed a number of key toxicologic presentations, both common and uncommon; and Dr. Erickson reviewed the global health implications of biochemical poisoning in his recent time spent in Ukraine. The morning was well attended with about 150 physicians, residents, learners and allied health care professionals, in person and via Zoom; and generally very positive feedback.

Thanks



Dr. Bretton Hari

Pharmacy Update

Pharmacy Adding Valued Emergency Department Support

Earlier this year, Pharmacy was approved to add up to 45 temporarily funded pharmacist and pharmacy technician FTEs across AHS' 16 largest hospital sites to provide dedicated Emergency Department (ED) operations support. Along with additional Allied Health resources, these FTEs are dedicated to helping reduce wait times and improve patient flow – two of AHS' key priorities.

ED staff never know what types of patient care needs and related challenges will come up at any time of the day or night. Close collaboration among many healthcare professionals and support teams is critical in providing care as effectively and compassionately as possible in this environment. These temporary Pharmacy resources are a welcomed addition because they are helping to provide care with increased efficiency.

Amanda Leong, critical care medicine and emergency medicine pharmacist at the Foothills Medical Centre in Calgary points out, "Since this temporary funding has come into play, we've been able to enhance our dedicated Pharmacy support to the ED team, and we've embraced the opportunity to show how great of an impact an increased Pharmacy presence can have. We now have technicians and pharmacists in the ED seven days a week instead of five, and we've been able to do a lot of additional work to help the emergency department. We're working to the full scope of our practice, and the physicians and nursing staff rely on this quite heavily."

Leong explains, "Pharmacists deal with abnormal labs, participate in bedside assessments, prescribe medications, treat infections for outpatients, follow up with patients at home who were recently in the ED to make sure that they're still getting good care, and take on other duties as needed."

Tracy Young, Registered Pharmacy Technician adds, "technicians play a big role in connecting with patients to do detailed medication reviews. This gives the rest of the care team a clearer understanding of the patient's baseline and history, which is really helpful for optimizing assessments and treatment plans."

Amanda has also experienced the positive impact that Pharmacy can have on patients directly. She reflects,



“I can spend time at the bedside with patients and their families, where I can explain the purpose of medications and potential side effects. The patients and their family members have expressed their thankfulness for my care and support.”

Pharmacy’s Program Performance and Analytics team collaborated with front line leaders to develop a clinical activity dashboard using EPIC iVent data. From April 1st to October 31st, 2023, Pharmacy staff have provided 52,374 interventions to ED patients across all sixteen sites. Evaluation of the impact of these pharmacy enhancements will continue over the coming months to determine whether these additional resources will be funded for the long-term.

Calgary Emergency Department Physician Dr. Katie Lin states, “Our ED pharmacists are an invaluable part of the acute care team across Calgary’s ED sites. They play an important role in medication reconciliation, serving as a real-time resource for high-risk medications or challenging pharmacological cases, and helping to ensure excellent continuity of care through patient follow-ups for any abnormal laboratory tests that return after patients are discharged from ED. They have been a welcome addition to the team and contribute actively to the efficiency and safety of ED operations.”

“Ultimately, this whole program speeds things up in the ED without compromising care. An efficient ED helps to keep things moving in all other hospital departments and units,” says Leong.

Foothills Medical Centre – Pharmacy Update

In 2023, you may have noticed new faces at the FMC Emergency Department (ED) as we undergo a transition to a new team. Phil Boilard has assumed a temporary role as the Clinical Practice Lead at Alberta Children’s Hospital since September 2023. Cheyanne Boehm has temporarily joined the Southern Alberta Clinic (SAC), and Amanda Leong is completing her doctoral studies in epidemiology in the Department of Critical Care Medicine.



Some members of FMC’s ED team pictured on right. Pharmacists: Jes Buhler, Amanda Leong | Pharmacy Technician: Tracy Young | Nurses: Katrina, Trica Physicians: Dr. Mardell, Dr. Pandya)

Due to the new provincial ED initiative as mentioned previously, we’ve had the opportunity to grow and expand our team, and now have a rotating roster of three primary ED pharmacists, five casual pharmacists and one new addition to prior pharmacy technician team. Our new team brings along their varied clinical experiences ranging from cardiology, mental health, to respiratory.

This year, we have had the privilege to welcome two ED pharmacy residents, William Lickley and Megan Hopkins, along with Dr. Jason Elzinga, PGY-5 specializing in clinical pharmacology and toxicology, who joined our team for a 2-week introduction into pharmacy practice.

As we celebrate the one-year anniversary of the Connect Care launch at Foothills, our team remains dedicated to streamlining patient care workflows. Our efforts include expediting medication deliveries, addressing bridging medications delays upon discharge, and addressing delays in order verifications stemming from allergies or weight inputs. We continue to maintain our ED practice by providing abnormal

lab or drug information support for our physicians, participating in nursing orientations, and creating educational resources for our nursing team. This year, we provided a concise summary of the increasing prevalence of xylazine (typically used as a veterinary tranquilizer) in street drugs, how this may impact overdose presentations in the ED, what to expect and the appropriate monitoring parameters.

We are excited to continue working with our colleagues in the Emergency Department and look forward to new opportunities in the new year!

Catherine Chau and Connor White, RPh
on behalf of the FMC Pharmacy Team

Peter Lougheed Centre – Pharmacy Update

In 2023, the PLC Emergency Department (ED) saw an expanded level of clinical pharmacy services. With the provincial ED initiative, pharmacist coverage increased to two shifts per day Monday to Friday plus weekend coverage and pharmacy technician coverage increased to seven days per week. This resulted in increased presence of pharmacy staff in the ED, collaboration with the multidisciplinary team, and involvement in patient care activities. This expansion was made possible by our committed and dedicated staff that were willing to cover additional shifts, select ED as a second practice area, and support the training of new staff practicing in ED.

Although ED practice of pharmacists and pharmacy technicians at PLC was previously established, some changes were necessary to align with the provincial goals and priorities. Pharmacists focused on medication reconciliation and medication management with the goal of improving patient flow, decreasing medication errors/adverse events, improving patient education, and seamless care activities. Pharmacy Technicians prioritized BPMHs which provided tremendous value in improving medication therapy decisions for patients while they were in ED or upon admission. Previously established practices of pharmacist follow-up on abnormal microbiology results and participation in codes by experienced pharmacists also continued. In the past six months, pharmacy staff in ED have created over 4,000 distinct interventions with a total time of more than 2,000 hours with direct interaction with the patient 85% of the time. The involvement of pharmacy staff in patient care activities has been met with tremendous support and appreciation from the multidisciplinary team in ED as well as inpatient clinical teams. The resilience and dedication displayed by the PLC Pharmacy ED team throughout this year is a reflection of their commitment to enhancing patient care each and every day.

As we move ahead to 2024, PLC Pharmacy will remain committed to supporting our patients and colleagues in the ED.

Amnah Rana
on behalf of the, PLC, Pharmacy Team

Rockyview General Hospital – Pharmacy Update

Our ED Pharmacy team at Rockyview General Hospital (RGH) had a busy and exciting year as they simultaneously pulled off a successful Connect Care launch and expanded their pharmacy services.

In early 2023, AHS sites received additional funding to provide more pharmacy coverage in the ED. RGH now has a clinical pharmacist seven days/week including daytime and evening coverage. We have approximately 12 clinical pharmacists trained in the ED. Our goals are to help improve efficiency, provide seamless patient care, and enhance medication safety. In addition to our added pharmacist coverage, we also have pharmacy technicians who will provide services in the ED seven days/week. There are currently six technicians trained in ED and their primary role is to assist with completing best possible medication history's (BPMH) for patient's being admitted to hospital to ensure accurate medication histories and safer prescribing.

With our expanded coverage, we have been able to provide additional nursing in-services and presentations for ED physicians on topics of interest such as the role of the ED pharmacy team, urinary tract infections and C. diff management.

In May, our site successfully launched Connect Care which took a lot of attention to detail to improve patient care and collaboration with healthcare professionals.

Other initiatives from the past year include the addition of a nurse practitioner specializing in geriatric care who we frequently collaborate with, ED pharmacists precepting pharmacy students, and continuing to spear head the abnormal lab results follow-up process to ensure safe and appropriate care after discharge.

We look forward to continuing to support our patients and collaborate with the outstanding ED staff in the upcoming year.

Allison Saade, Mahmoud Elnaggar, Tiffany Woo
on behalf of the RGH Pharmacist and Pharmacy Technician Team

**RGH
Pharmacists**



Allison



Diana



Dylan



Emily



Gray



Joey



Jovan



Kaitlyn



Luke



Mahmoud



Queeny



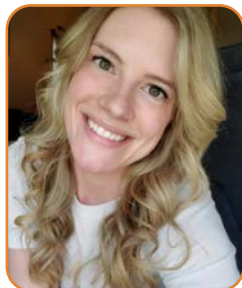
Tiffany



**Pharmacy
Technicians**



Ariel



Brooke



Shelley



Susan



Tamera



Yan

Physician Support Fund

The Physician Support Fund (PSF) would like to thank all contributing members in good standing for their ongoing support. Your contributions make it possible for members of our department to pursue extra-clinical projects that benefit our department and our specialty.

Mandate:

- To support initiatives brought forward to the committee by individual members or departmental leadership which are likely to improve the intellectual, clinical and/or working environment of emergency physicians practicing within the Calgary area
- To provide top-up funding for the residency programs when appropriate other funding is not available. Both the Department of Emergency Medicine and the Support Fund committee group will continue to explore and advocate for appropriate level funding from the appropriate sources.

The following projects were supported by the PSF.

1. Annual Global Health EM Speaker
2. ED research Day
3. ED Treatment Plans
4. Interdisciplinary Simulation Program
5. Hodsman Annual Lecture
6. Emergency Medicine Hub Budget funding
7. Grand Rounds supported
8. ED Vice Chair position funding
9. FRCP Program and Assistant Program Director Top up Funding
10. CCFP program Director Top up Funding
11. Residency Program Budget Support
12. Connect Care billing
13. Me ED appropriate for emergency medicine pathways on line
14. Nurses week support funding
15. Fall Hiring Dinner

Dr. Arun Abbi
Physician Support Fund, Chair and Treasurer

Tuesday Newsletter

The Emergency Medicine weekly newsletter went through a minor reconstruction with the collaboration and guidance from Dr. Meria Louis mid-year. These adjustments have left us with a condensed and more effective communication tool. The newsletter continues to play a significant role in keeping physicians and administration up to date on the latest information. From operation changes to upcoming events, submissions from all facets of the community are welcome. The newsletter is well-received with an average of 72.24% of weekly readership from over 330 recipients.

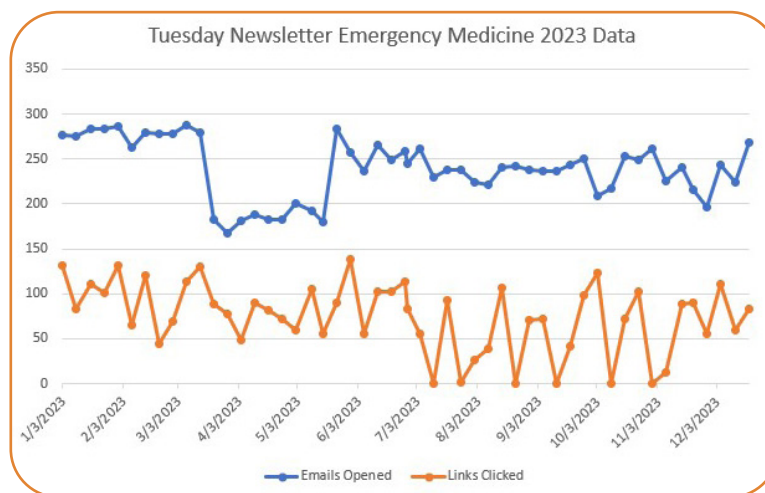
The CME EM website has past copies of the newsletter posted. <https://cumming.ucalgary.ca/departments/emergency-medicine/resources/ed-newsletter>

Content varies weekly and includes the following categories:

- Operations (including town hall summaries, clinical news such as Connect Care and ED Treatment plans)
- Grand Rounds / Journal Club / Pearls of the Week
- Departmental News (including Kudos Corner, department events and announcements, Peer Support)
- Teaching Opportunities — engagement with our residents
- Job Postings
- Research
- CME Learning Opportunities
- Other Opportunities

Percentage of emails opened from Jan 03, 2023 – Dec 19, 2023 = 72.30%

Email subscription lists are now updated on an annual basis for efficiency.



Natalie Sun
Communications Analyst

Ultrasound POCUS

Drs. Kasia Lenz and Hannah Park lead the EM residency POCUS program. Calgary EM residents are readily completing their basic POCUS curriculum and learning advanced POCUS studies like advanced cardiac POCUS, gallbladder, DVT, lung, nerve blocks, and difficult vascular access.

During my first year as the Ultrasound Coordinator, I've spent the first part of the year taking stock of the POCUS program, its assets as well as evaluating the culture and attitudes towards POCUS in Calgary. The second part of the year was spent creating a specific goal to advance POCUS across the Calgary Zone.

The POCUS program goals for the foreseeable future are:

1. To create a Connect Care integrated POCUS storage system. The objectives for this system are to:
 - Facilitate compliance with POCUS documentation best practices and CPSA recommendations.
 - Create a functioning system and process for both Quality Assurance and Quality Improvement.
 - To advance longitudinal POCUS skill development of both faculty and residents.
 - Facilitate departmental POCUS scholarship.
2. To resuscitate and revamp POCUS fellowship. While goal #1 is primarily targeted at base users and elevating the general quality of POCUS studies and the associated documentation, the resuscitation of the fellowship will help display the peak of POCUS in EM and improve its visibility and position across the zone.
3. Update obsolete POCUS equipment.
4. Add TEUS to the Calgary EM POCUS toolbox.

I'm always open to ideas and suggestions so please don't hesitate to reach out with POCUS suggestions and questions.

Dr. Colin Bell
Ultrasound Coordinator

Referral, Access, Advice, Placement, Information and Destination

Emergency physicians are familiar with Referral, Access, Advice, Placement, Information and Destination (RAAPID) as a service that they interact with routinely while on clinical shifts in our departments.

More than referrals to the ER, RAAPID is a 24/7 AHS call center, operating province-wide, to provide healthcare practitioners a single point of contact to:

- facilitate practitioner to practitioner consultations for specialist advice and/or patient transfer
- act as a point for initiation of interfacility transport for the care of critically ill patients in conjunction with partners at STARS and EMS
- aim to connect the right care, in the right place, utilizing clinical and capacity information
- avoid transfers to the ER, with >50% of calls being advice only, keeping the patient on site
- facilitate the movement of patients to higher, equal, or lower levels of care
- coordinate the return of patients from tertiary facilities to sites that are able to safely meet the patients care needs, closer to home, opening up inpatient spaces to help move EIPs out of the ED
- bring patients back to Alberta facilities after being admitted to hospital abroad while travelling out of country to continue their care back home

Over a one-year period RAAPID manages approximately 150,000 calls to service these requests.

New for 2023

Later in 2023, the program medical oversight was restructured from the two previous medical leads (one North and one South), into my new role as a single Provincial-Wide Medical Director. I am getting up to speed on the successes and challenges across multiple zones and look forward to continuing to advance the program developed and championed by my predecessors and the current team. For 2024, we will keep up the work with all stakeholders, including Emergency Medicine, to analyze processes, seek improvements, and monitor outcomes.



Dr. Steve Clark
Provincial Medical Director, RAAPID

Medical Education

CCFP – EM Residency Program

This year's Certification in the College of Family Physicians (CCFP) program welcomed eight keen residents from across Alberta and British Columbia. As of late December, all eight residents have been hired by the Calgary Department to continue on as locums, starting July 2024.

The EM program has also expanded to Lethbridge! We will be matching two residents to the Lethbridge EM program in CaRMS 2024 for a July 2025 start. The express purpose of this program is to support rural and regional emergency medicine. Recruits to that program should have a clear connection to a southern Alberta rural or regional community.



This year, we also had our first military-funded EM position (Dr Tyler Clarke). We will also be bringing in another military candidate next year: Dr Vincent Soh.

The EM program would like to thank the EM department and community for your amazing support. In particular, we would like to thank the PSF and all contributors for their financial support of the program, which is integral to providing a nation-leading clinical training experience to our candidates.

The following individuals have also contributed as program leaders:

- Dr Kathryn Crowder (Research lead)
- Dr Margriet Greidanus (SIM lead)
- Dr Mike Wolf (POCUS lead)
- Dr Kasia Lenz (FR POCUS lead)
- Dr Emily Quick (Written Exam Lead)
- Dr Geo Avery-Cooper (Oral Exam Lead)
- Dr Mel Sohn (Competency Committee Lead)

LPs:

Drs. Mike Su, Braden Teitge, Dave Fu, Paul Tourigny, Amanda Schreiner, Margriet Greidanus, Dan Joo, Sean Fair, Jen Puddy, Geo Avery-Cooper, Amanda Schreiner

Competency Committee:

Drs. Fareen Zaver, Denise Watt, Eileen Kabaroff, Rory Thomson, Dave Fu

CaRMS Committee:

Drs. Rachel Taylor, Braden Teitge, Fareen Zaver, Amanda Schreiner, Hannah Park, Robin Lui, Greg Beller, Travis Novak, Kathryn Crowder

Matched candidates entering our program in 2024:

KESHVARA, Anil	University of Saskatchewan
RASOOL, Alysha	University of Calgary
PARK, Daniel	McMaster University
PAXTON, Andrew	University of Toronto
BOONE, Hannah	Memorial University of Newfoundland
EXNER, Kyle	University of British Columbia
GUNN, Shaila	University of Calgary
HOLOTNAK, Tristan	University of Calgary



Dr. Alicia Briggs



Dr. Ira Carson



Dr. Liz Cook



Dr. Christina Dennehy



Dr. Mika Hemphill



Dr. Rory Killam



Dr. Alex Love

Dr. Charles K Wong
CFPC-EM Residency Program Director

Clerkship Update

136 students from the Class of 2023, completed their Emergency Medicine mandatory clerkship rotation in Calgary. The rotation is two weeks in duration, with seven shifts split between the FMC and one of the other adult emergency medicine sites (Rockyview General Hospital, Peter Lougheed Centre, South Health Campus).

Bed block and staff shortages continue to limit the amount of clinical opportunities for learners. The Undergraduate Medical Education (UME) Hub, Dr. Emmeline Ruka (Evaluations Coordinator), Dr. Ryan Wilkie (UME Simulation Coordinator), and I are continuously exploring ways of trying to enhance the learning of clerks.

A formal simulation teaching session was added to the Emergency Medicine clerkship experience in January 2023, spearheaded by Dr. Wilkie. The sessions are designed to increase exposure to critical presentations and to improve communication and resource management skills.

The clerks also participate in Key Concept rounds, which cover core topics such as chest pain, dyspnea, altered mental status and shock. The Key Concept rounds and Simulation sessions are delivered by a dedicated group of emergency physicians within the UME Hub. Clerks are also expected to attend Grand Rounds (and the resident half day, schedule permitting).

Involving over eighty emergency physicians as preceptors and occurring across all four adult sites, clerks are also scheduled for an individual Observed History and Physical (OHP) teaching session. The 45-minute session involves a staff preceptor observing a history and physical examination by the clerk on an emergency department patient and then providing verbal and written feedback.

As a testament and demonstration of the close-knit relationship we have with our nursing colleagues, clerks also participate in a three-hour Nursing Block. Students gain experience with the concepts of triage and patient assessment, as well as an opportunity to complete procedures such as IV starts and phlebotomy.

For 2023, the overall rating for the EM mandatory clerkship was 4.46 out of 5. A commonly identified strength of the rotation was the opportunity to work directly with staff and the breadth of experience that comes with working at different sites and different areas within the emergency department. Preceptors are “kind, welcoming” and have a “passion to teach”. Over forty emergency physicians and emergency medicine residents were identified by clerks as having made “an outstanding contribution to [their] learning experience”.

The Clerkship has been “an outstanding contribution to [their] learning experience”.

Dr. Melanie Sohn
Clerkship Director, Undergraduate Medical Education

FRCPC – EM Residency Program

It has been another busy but rewarding year for the residency program. The Fellow of the Royal College of Physicians of Canada (FRCPC) program is incredibly grateful to all the education leads, faculty members, and interdisciplinary staff who participate in our education programming, social events, and journal club. As always, the education administrative support team Madhavi Talasila (aka “the boss” and better known as “Mom” to all residents) and Tris Malasani are on top of everything! We would also like to extend a warm welcome to Monica Lee who has been a wonderful addition to the education administrative team.

In the 2023 CaRMS match, we recruited four amazing candidates: Drs. Nik Bobrovitz, Jayelle Friesen-Enns, Katie Gourlay, and Pavneet Singh.



Dr. Niklas Bobrovitz



Dr. Dirk Chisholm



Dr. Julia Cirone



Dr. Kala Draney



Dr. Cody Dunne



Dr. Jason Elzinga



Dr. Mary Freymond



Dr. Jayelle
Friesen-Enns



Dr. Kira Genise



Dr. Natasha Goumeniouk



Dr. Katie Gourlay



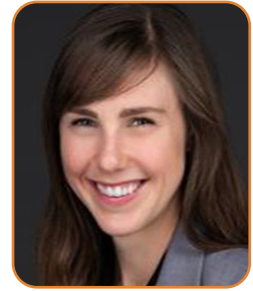
Dr. Bobby Johnston



Dr. Theresa Loch



Dr. Julia Madill



Dr. Cara McCulloch



Dr. Duncan Simmons



Dr. Pavneet Singh



Dr. Allen Vorobeichik



Dr. Scott Wakeham



Dr. Jonathan Wong

The program is already busy preparing for the 2024 CaRMS season as Emergency Medicine in Calgary continues to be a highly desired postgraduate training program among medical students from across the country. This year, we have also opened a position through the Alberta IMG process and are excited to see the candidates we draw through that program. We continue to be committed to principles of equity and diversity in our selection processes and have re-engaged with departmental members committed to equity, diversity and inclusion to come up with our next areas of focus. The Equity Diversity Advocacy Curriculum, spearheaded by Dr. Kelsey Ragan and Dr. Claire Acton, received a special commendation in our last accreditation and will be highlighted at an upcoming PGME retreat.

Our academic day curriculum has undergone some major revisions: we are building a bank of recorded didactic teaching sessions to accommodate for missed sessions due to away rotations, vacations,

and unexpected illness. I would also like to acknowledge and thank our amazing APD Dr. Anjali Pandya for spearheading the move to smaller group-based peer-to-peer learning for some of our most critical topics in Emergency Medicine. The residents are now regularly engaging in case-based discussions with senior residents having the opportunity to pass on tips, tricks and pearls.

Last year we partnered with WellDoc Alberta to develop an Emergency Medicine Resident specific peer support program. Thank you to Dr. Katie Anker who has taken on the role of staff lead for this initiative. WellDoc has conducted an interim analysis of the program and the frequency with which it is accessed demonstrates that it is fulfilling an important need as a wellness support for our residents. Thank you to Drs. Cody Dunne, Natasha Goumeniouk, Cara McCulloch, Bobby Johnston, and Julia Madill for acting as peer supports for our residency group.

We are grateful to the Emergency Department Operations and Leadership team for their ongoing commitment to our resident's education. We would like to acknowledge the tremendous commitment and work that Dr. Neil Collins did in his time as Deputy Department Head and welcome Dr James Andruchow, who has hit the ground running and is already engaging with us and our residents to ensure we continue to have a strong relationship. We acknowledge the ongoing work of the Department and their commitment to continuing a hybrid model of grand rounds which ensures a broad reach of the high-quality presentations given by our colleagues and residents. We've also procured an "Owl" that greatly facilitates hybrid meetings – talk to us if you want to try it out for your meeting!

We are finally through the launch of Competence by Design (and Connect care) and can look ahead to CanMEDS 2025 which is coming in a few years. I believe the program continues to be at the forefront of residency education in Calgary and Canada, and look forward to the innovation that we bring forward over the next few years!

As always, I would like to acknowledge all the physicians who contribute to the physician support fund (PSF), the funding for PDs and residents is essential to our operations and we are incredibly thankful for your ongoing support. We are extremely grateful that the group has maintained our funding, and we are always happy to share the wonderful things that these funds can do for our residents.

The Residency Training Committee

Meets monthly to review the program and to develop improvements and policy.

Members: Catherine Patocka (chair), Anjali Pandya, Charles Wong, Claire Acton, Lisa Campfens, Conor McKaigney, Cody Dunne, Ira Carson, Mika Hemphill, Sarah McPherson (leave of absence), Tess Loch, Jen Puddy, Margriet Greidanus, Geordon Avery-Cooper, Kathryn Crowder, Naminder Sandhu, Russ Lam, Robyn Buna, Cathy Dorrington, Brad Granberg, James Huffman and Eddy Lang.

The Clinical Competency Committee

Meets quarterly to provide a transparent review of resident performance and to make promotions decisions.

Members: Lester Mercuur (chair), Geoff Lampard, Ian Rigby, Julie Kromm, Fareen Zaver, Robyn Palmer, Hannah Park, and Patricia Lee-Nobbee (Resident advocate).

Simulation programs

Multidisciplinary simulation provided bi-monthly for junior residents, monthly for senior residents and in modules for specific CBD teaching and assessment.

- Junior simulation – Patricia Lee-Nobbee and Tyson Savage
- Senior simulation – Lorissa Mews
- CBD assessment simulation – Carly Hagel

The Equity Diversity Advocacy Curriculum, spearheaded by Dr. Kelsey Ragan and Dr. Claire Acton, received a special commendation in our last accreditation and will be highlighted at an upcoming PGME retreat.

Ultrasound and Procedural Skills

Includes annual basic ultrasound training, certification of beginner and advanced ultrasound skills, two annual airway workshops, annual CVC workshop, casting and splinting workshops and an annual advanced procedures cadaver lab session.

Workshop and Skills Leads

- FRCP Senior US Lead: Kasia Lenz
- FRCP Junior US Lead: Hannah Park
- Advanced Procedures: Rob Hall
- Central Vascular Access: Patricia Lee-Nobbee
- Airway: Bryan Weber
- Advanced Communications: Sarah McPherson and Patricia Lee-Nobbee

Members: Danny Peterson, Hannah Park, Kasia Lenz, Rob Hall, Patricia Lee-Nobbee, and Bryan Weber.

Wellness Lead

Sarah McPherson

Peer Support Lead

Katie Anker

Journal Club Leads

Dave Mainprize and Kelsey Ragan

Equity Diversity and Inclusion Curriculum Leads

Claire Acton and Kelsey Ragan

Longitudinal Preceptor

Teachers and mentors who are paired with individual residents throughout the year.

Drs. Bryan Weber, Kelsey Ragan, Colin Bell, Dave Mainprize, Geoff Lampard, Katie Lin, Nick Packer, Marc Francis, James Andruchow, Marshall Ross, Haley Cochrane, Rhonda Ness, Ping Chen, Anita Lai, Karl Phillips, Claire Acton, Jen Nicol, Natalie Cram, Meira Louis, Mandeep Sran and Nadim Lalani.

As I plan to step away from the role of program director in March 2024, I would like to express my deepest gratitude to the Department and the residents for allowing me the privilege to serve in this role over the past five years. It has been particularly rewarding to get to know the incredible people that choose to train and teach in Calgary EM, and I have been very fortunate to have the opportunity to make the residency experience as positive, humane, and enriching as possible. The Calgary Emergency Medicine community is vibrant and strong, and I look forward to seeing the new directions that the program takes under its new leadership. I am confident that the program can only get better!

Catherine Patocka
FRCP Residency Program Director

Grand Rounds

2023 has seen another successful year for Grand Rounds presentations. Emergency Medicine Department Grand Rounds continue to be both in person and virtual — allowing flexibility for those who are unable to attend in person. We have seen record virtual attendance to many of the talks this year. We have had multiple specialist rounds from a variety of departments including General Surgery, Family Medicine, Psychiatry, Hematology, Cardiology to name a few.

We have seen
record virtual
attendance to
many of the talks
this year.

Dr. Fareen Zaver
Deputy Head - Education (Physician Development and Continuing Medical Education)

Off-Service and Elective Medical Education

In 2023, the Emergency Department continued to welcome our full rota of both off service and elective residents and welcomed back medical students from outside University of Calgary, along with shadowing students, for the first time since the pandemic. The majority of off-service residents continues to be from family medicine, with additional residents coming from programs such as orthopedic surgery, general surgery, neurology, and dermatology. We also continue to receive a high number of elective requests from residents from other Canadian residency programs, mostly in family medicine and FR emergency medicine. In the 2021-2022 academic year, we hosted 46 elective residents. Several of our elective residents were successful in obtaining fellowships in CCFP(EM) (family medicine residents) and associate full time clinical positions (PGY5 emergency medicine residents) in Calgary.

We welcomed back medical students from schools outside of University of Calgary (UofC) for the first time since the pandemic. We quickly filled almost all our elective spots with 58 visiting medical students, proving Calgary to be a very popular elective choice for medical students in other schools.

We continue to be a very popular department for UofC medical students looking to complete an elective in emergency medicine, and usually have a wait list for openings. This reflects emergency medicine being one of the most competitive residencies in CaRMS. We hosted 43 elective students from Calgary over the 2022-2023 year which is our maximum capacity at this time.

Our department hosted 50 pre-clerkship medical students, over three 1-week blocks, for Career Development Week. This allows students to explore which specialties might interest them before entering clerkship. Rather than assign a sole preceptor for their four shifts, we scheduled students with a different preceptor each shift, and with an emergency medicine resident for one shift, so that they can experience different practice patterns between emergency providers. Our Applied Evidence Based Medicine (AEBM, formerly Med 440) program continues to be well received; pre-clerkship students have the opportunity to work with a preceptor to learn how to apply evidence based medicine clinically on shift. We are also happy to report that we welcomed back shadowing students into the EM Department for the first time since the pandemic.

Ms. Judy Mackay retired at the end of the summer after several decades of working within AHS, with Ms. Monica Lee being hired into her role as Emergency Medicine Administrative Assistant V supporting education. We wish Judy a happy retirement and thank her for her service, and welcome Monica into our EM administration family.

We look forward to welcoming more elective and off-service learners in 2023 and thank all preceptors for your dedication to teaching them.

Dr. Claire Acton
Off-Service and Undergraduate Resident Coordinator

Simulation Update

The Emergency Medicine Simulation program oversees much of Emergency Medicine simulation in Calgary. The Emergency Medicine Simulation Education Advisory Committee (SEAC) consists of:

- Medical Director - Meaghan Mackenzie
- Educational Leads:
 - Undergraduate simulation – Ryan Wilkie
 - FRCP junior residents – Patty Lee
 - CCFP-EM residents – Margriet Greidanus
 - Resident Assessment Simulation – Carly Hagel
 - FRCP senior residents – Lorissa Mews
 - Staff simulation – Meaghan Mackenzie
 - Nurse educators from the four adult sites
 - STARS representative – James Huffman

This committee brings together the resources of each of these programs under one umbrella. All programs are continuing to develop more facilitators and new scenarios to enhance the education of medical students, residents and staff.

The Emergency Medicine Staff Interdisciplinary Simulation program continues to grow. The weekly sessions gather Emergency physicians, Emergency nurses, respiratory therapists and pharmacists to participate in sessions that focus on teamwork skills, practicing procedural skills and expanding knowledge bases. Over the past 12 years, the program has completed over 400 sessions which include a team of two physicians, four nurses, one respiratory therapist and one pharmacist leading to over 2000 participants. The team is exposed to critical care scenarios and is encouraged to practice in real time, the skills they will need to use in their daily practice of Emergency Medicine. Our team of facilitators are now well recognized as valuable teachers for a variety of simulation courses and have become speakers at international simulation events.

As a recent committee update, I was hired into this role on November 1, 2023. I am a recent FRCPCP graduate from the University of Calgary's EM training program and have been involved in the department's simulation program both as a participant and facilitator over the last five years. I am keen to continue to create opportunities for Calgary Zone Emergency Physicians to gain confidence in high acuity, low occurrence (HALO) scenarios and ensure physicians have the opportunity to practice and walk through high-risk procedures. I also plan to continue to build upon the strong, interdisciplinary relationships set up by my predecessor Dr. Gord McNeil.

I would also like to thank Dr. Gord McNeil for serving with excellence and dedication in this role for the past 13 years. Gord has made countless improvements to simulation in the Calgary Zone Emergency Department, and we are very grateful for all that he has done for the Emergency Department.

Dr. Meaghan Mackenzie
Medical Director of Simulation

Research

Research Director's Summary

Our research team is immensely proud of the year of growth in our team, projects and prospectively recruiting trials in the emergency department in 2023. We welcomed Dr. Jessalyn Holodinsky as our new GFT Data Scientist in September and look forward to her vast expertise in biostatistics and epidemiology in our research program. Our Research Director, Dr. Kathryn Crowder, continues to work with our veteran GFT researchers, Drs. Eddy Lang and Andrew McRae, whose established research interests and programs drive significant research productivity and mentorship in the Department of Emergency Medicine. We also welcomed Dr. Stephanie VandenBerg back to our research team as the Associate Research Director, bringing back her many years of research director experience and warm leadership style to our research team. Our team was rounded out by the return research admin assistant Jillian Vandenbrand in September, as well as Christian Cherian and Stacy Ruddell, Research Coordinators and many research assistants and volunteers.

We are proud of our emergency physicians, residents and collaborators' 2023 research achievements, totalling 56 publications from 24 unique authors. Researchers from the Department of Emergency Medicine, as principal applicants or co-applicants, were awarded an impressive total of \$2,000,016 in funding from a wide range of grants, research awards, competitions and studentships in 2023.

Research Day 2023

The return of an in-person/hybrid Research Day on May 3, 2023, was an immense success, with over 70 participants in attendance, showcasing research excellence in Emergency Medicine Research. The purpose of the event was to support, advance and celebrate clinical research and quality improvement initiatives happening with the Department of Emergency Medicine at the University of Calgary, and we showcased 21 presentations and posters by emergency physicians, residents, undergraduate medical students, Emergency Strategic Clinical Networks researchers and collaborators in Physiatry, Sports Medicine, Geriatrics, EMS and Addictions Medicine. Our keynote speaker, Dr. Teresa Chan, delivered an inspiring address integrating lessons from the COVID pandemic, her vast experience teaching, and the importance of building a research network.

We recognized outstanding projects at Research Day with the following awards: Best resident in-progress presentation: Dr. Zoe Polsky: *High-dose Intravenous Hydromorphone for Acute Stabilization of Opioid Use Disorder*, Best resident completed work presentation: Dr. Scott Wakeham: *Examining justice, equity, diversity, and inclusivity education provided by Canadian emergency medicine residency programs*, Best medical student in-progress presentation: Johanna Jacob: *Utility of Computed Tomography with Angiography for Risk Stratifying Vertigo Patients in a Canadian Emergency Department Setting* and Best medical student completed work presentation: Poshika Dhingra: *Tranexamic Acid in Emergency Medicine. An Overview of Reviews*.

Feedback from Research Day attendees was positive, with comments such as “wide variety of speakers at different point in their career”, “in-person, ability to network, ability to hear about ongoing research in the dept”, “profiles local Calgary research, relevant keynote”, “good interaction with presenters”, and “multiple perspectives”. Areas for improvement were listed as “suggest more time for poster walk about” and “suggest a smaller room for better interactions”. We are excited to host Dr. Shelley McLeod for Emergency Medicine Research Day 2024 on May 2, 2024.

A first in 2023, we hosted a professionally facilitated Emergency Research Townhall after research day, with a goal of identifying areas for improvement and engagement for our research program. We are grateful for the feedback from this session, including creating more “intentional spaces for ideas to collide”, “ensure physicians see the relevance of the research activity to clinical excellence” and “facilitate ongoing dialogue between the research and education groups within the department to promote synergy and informal networking”, that helped shape our new 5-year Research Strategic Plan 2024-2029.

Website: <https://cumming.ucalgary.ca/departments/emergency-medicine/research-0>

Our research team is also pleased to have revamped the Research webpage hosted within the Department of Emergency Medicine’s larger webpage. This resource lists our team members and ED researchers and acts as a way for colleagues both in emergency medicine and other specialties to collaborate on research work with us. Within the website we provide a research support request form, a simple one-step process for staff and learners to engage the research team for support on any step of their research idea and project, from protocol generation to ethics support to logistical support in carrying out research in the ED.

Research Meetings: EMRAC and RID

The Emergency Medicine Research Advisory Committee (EMRAC) continues to meet on the second Thursday of each month to discuss new study protocols and operational aspects of conducting research within our department. We are pleased that many other Departments at the Cumming School of Medicine have approached us to collaborate on research projects by recruiting patients out of the Emergency Department.

Research in Development (RID) Rounds are an innovative and novel way to discuss research project ideas and receive feedback on projects that are in their infancy or are a work in progress. It is also a way we support our Residents and Medical students who engage in Emergency Medicine Research. These rounds are hosted via Zoom the fourth Thursday of every month.

Research Study Highlights:

2023 marked the return of in-person, prospectively enrolling trials at both FMC and RGH EDs. We are also very excited to work with University of British Columbia and University of Alberta EM researchers to recruit at FMC ED for EMED: Evaluating Microdosing in the Emergency Department: A randomized controlled trial of buprenorphine/naloxone microdosing vs. standard dosing. We are collaborating with EM colleagues in Ottawa on RAFF4 Trial: Vernakalant vs. Procainamide for Acute Atrial Fibrillation in the Emergency Department. We are also participating in a multi-center study: Multi-Centre Cluster-Randomized Implementation of Canadian Syncope Risk Score based Practice Recommendations for Emergency Department Syncope Management. We continue to screen and collect data on the University of British Columbia's Drug Impaired Driving (DID) study, with Dr. Ian Wishart being the principal investigator at our site. We continue to collaborate with our psychiatry colleagues, recruiting at the FMC ED for the study RACE study: Rapid, accurate and cost-effective analysis of Glial Fibrillary Acid Protein using a hand-held biosensor for patient with concussion in acute care and at home monitoring. Finally, we continue to contribute data to the large, multi-centre COVID-19 Registry study, a collaboration with the Canadian COVID-19 Emergency Department Rapid Response Network (CCEDRRN).

Current Studies

2.1 Learning in a Time of Crisis: Creating a Canadian Emergency Department COVID-19 Registry

Objective: The national ED COVID-19 registry addresses critical knowledge gaps in emergency care and operations by prospectively and retrospectively gathering data on COVID-19 patients seen in EDs across Canada, and follows patients by telephone after discharge from hospital to ask standard quality of life questions and determine long-term outcomes.

The vision of "Learning in a Time of Crisis" is to create a robust national ED dataset to answer multiple emerging research questions and inform early acute care decisions that are currently being made without any or minimal evidence to inform them.

Our overarching aim is to create a national population-based ED registry of consecutive suspected and confirmed COVID-19 patients who present to Canadian EDs (urban and rural) to generate research capacity and initiate a rapid knowledge-to-action cycle to inform our response to the evolving pandemic, and to help us plan for the next pandemic.

Local PI: Dr. Andrew McRae, for CCEDRRN (the Canadian COVID-19 Emergency Department Rapid Response Network)

2.2 Drug Impaired Driving (DID)

Objective: Assessing demographic and Regional Variation of Drug Impaired Driving in Canada

PI: Herb Chan (UBC) local PI: Dr. Ian Wishart

2.3 Physiotherapy care in Emergency Departments for Patients with Musculoskeletal Disorders: A Pragmatic Cluster Randomized Controlled Trial and Cost Analysis

Objective: This project takes the form of a pragmatic multi-center RCT aiming to assess the effectiveness of a new model of PT-led care in the ED for patients presenting with a minor musculoskeletal disorder (MSKD) compared to usual ED medical care. Patients presenting to the RGH ED with a MSKD will be randomized and independently managed by either an ED PT (PT-led care) or receive usual ED physician care (usual care).

PI: Dr. Francois Desmeules (U Montreal), local PI: Dr. Kathryn Crowder

2.4 Multi-Centre Cluster-Randomized Implementation of Canadian Syncope Risk Score based Practice Recommendations for Emergency Department Syncope Management

Objective: Evaluating the implementation of a clinical pathway integrating the Canadian Syncope Risk Score into management (Very low risk: Discharge; Moderate risk: 15-day rhythm monitor (provided by the study); high-risk: Admit)

PI: Dr. Venkatesh Thiruganasambandamoorthy (UOttawa); local PI Dr. Andrew McRae

2.5 RACE Study: Rapid, Accurate and Cost-Effective Analysis of Glial Fibrillary Acid Protein Using a Hand-Held Biosensor for Patient With Concussion in Acute Care and at Home Monitoring

Objective: Compare blood GFAP concentrations from the nano-biosensor to the gold-standard SIMOA in patients diagnosed with uncomplicated concussion until recovery.

PI – Dr. Chantel Debert; Co-PIs – Dr. Kathryn Crowder, Dr. Amir Sanati Nezhad

2.6 RAFF4 Trial: Vernakalant vs. Procainamide for Acute Atrial Fibrillation in the Emergency Department

Objective: To compare intravenous (IV) vernakalant to IV procainamide for the ED management of acute AF patients.

PI – Dr. Ian Stiell (U Ottawa); local PI – Dr. Andrew McRae

2.7 EMED Study: Evaluating Microdosing in the Emergency Department: A Randomized Controlled Trial of Buprenorphine/Naloxone Microdosing Vs. Standard Dosing

Objective: To compare microdose buprenorphine/naloxone versus standard dose buprenorphine/naloxone for induction treatment of opiate use disorder in patients discharged from the emergency department.

PI: Dr. Jessica Moe (UBC); local PI: Dr. Kathryn Crowder

Emergency Medicine Research Group 5-year Strategic Vision 2024-2029

Strategic Goals	Strategic Initiatives
<p>Mission: <i>The Emergency Medicine Research Group exists to improve patient and family care and health system efficiency through actionable research, scholarly inquiry, collaboration, and mentorship.</i></p> <p>Vision: <i>We will be national and international leaders in impactful emergency medicine research, and have a well-supported cohort of researchers and a stable research infrastructure enabling further growth and success of the research team.</i></p>	<p>G1: “Becoming a nationally recognized leader in emergency research”</p> <p>G2: “Achieve sustainable growth of the research group”</p> <p>G3: “Meaningful engagement of patients and families in emergency research”</p> <p>G4: “Collaborate with local and national research teams to produce impactful research”</p> <p>G5: “Share scholarly knowledge through Knowledge Translation and Implementation Science”</p> <p>I1 “Identify key scholarly areas for our group” ^{1, 2}</p> <p>I2 “Engage with the Emergency Strategic Clinical Network to identify shared priority projects.”</p> <p>I3 “Recruit, mentor, and support junior researchers” ³</p> <p>I4 “Liaise with senior ED researchers, ED leadership and EMRAC members-at-large to identify and continuously evaluate priority projects and procure dedicated funding” ⁴</p> <p>I5 “Use previous materials and plans to create a central research funding opportunity database”</p> <p>I6 “Leverage available infrastructure and relationships with the four adult ED sites to increase staff engagement and promote emergency research across the Calgary zone” ⁵</p> <p>I7 “Develop a comprehensive system for multi-center projects, utilizing current infrastructure within the University of Calgary and Alberta Health Services to facilitate project initiation and operations”</p> <p>I8 “Identify key research roles needed and secure permanent funding for them”</p> <p>I9 “Integrate patient and family experience in EM research”</p> <p>I10 “Leverage our senior researchers, health systems research, decision support and analytical experience to use EPIC/Connect Care as an unprecedented opportunity for research, knowledge translation, and clinical practice improvement in Emergency Departments across the province”</p>
<p>Our research team values: Innovation. Accessibility. Curiosity. Inclusivity. Commitment to scholarly inquiry.</p>	

Key Performance Indicators:

¹Number of research projects: defined as number of active and pre-launch research projects headed by research team staff, including department members and EM residents.

²Number of publications: defined as number of peer-reviewed *and* non-peer reviewed publications in a calendar year by EM staff, residents and research team members listed in any author position.

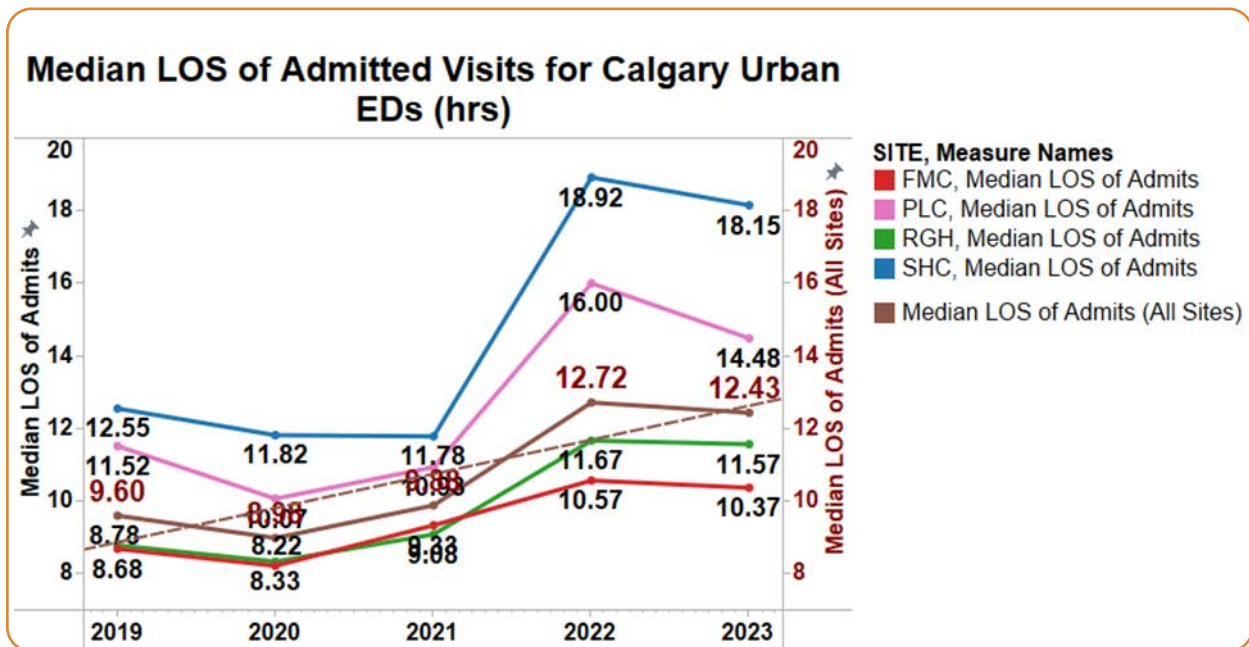
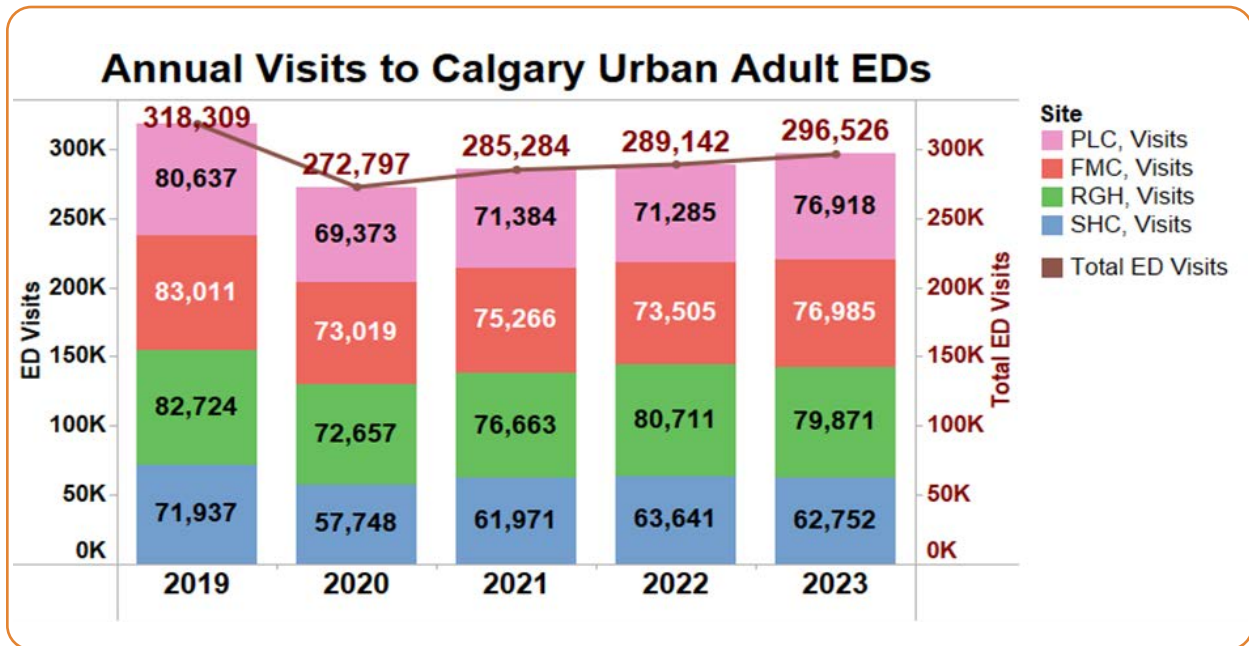
³Number of students mentored: defined as number of graduate students, residents and undergraduate students paired in a formal or informal research activity with members of the research team.

⁴Number and dollar value of grants received: defined as total value of grants received by EM team members calculated both individually and cumulatively for the department of Emergency Medicine.

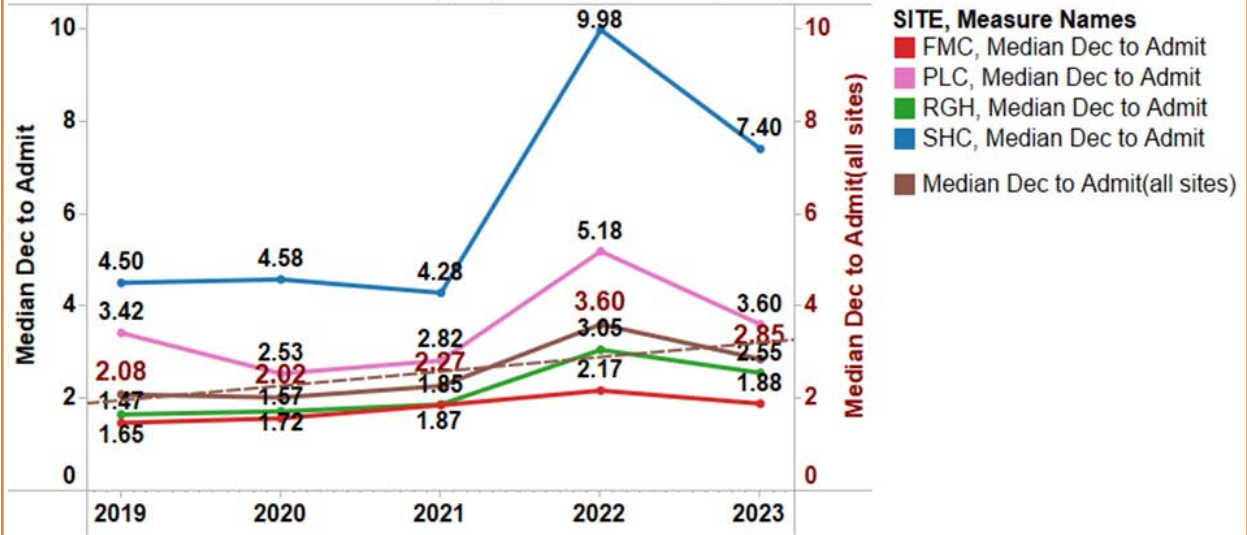
⁵Research Day event abstract submissions, attendance and evaluations: defined as number of in-person and virtual attendees as well as summative evaluations on a standardized evaluation form received and collated from attendees.

Dr. Kathryn Crowder
Director, Research

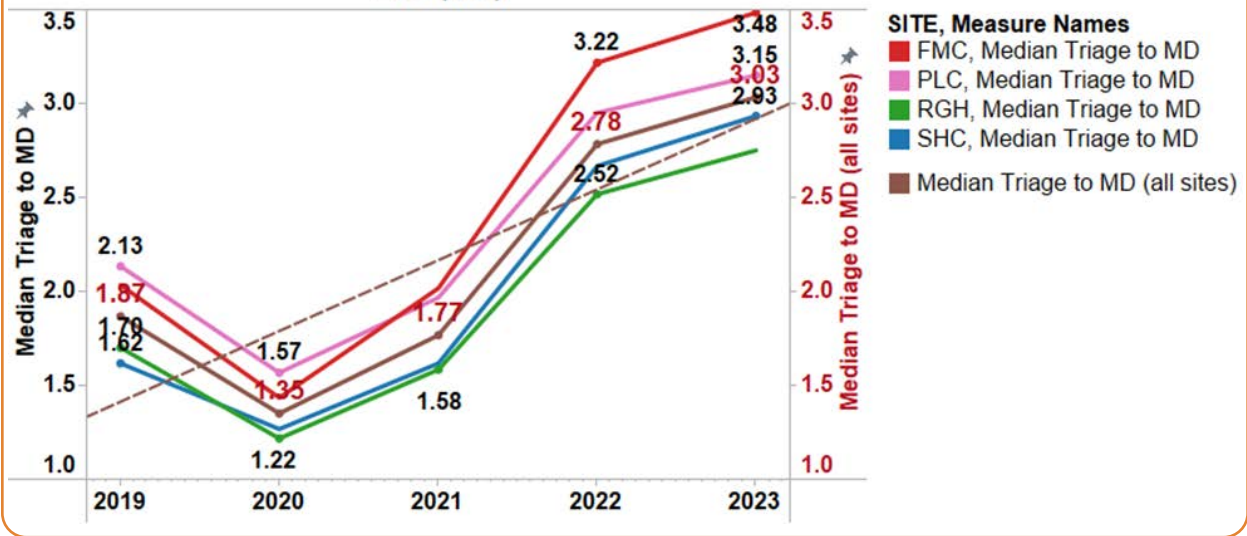
LOS Annual Operational Data



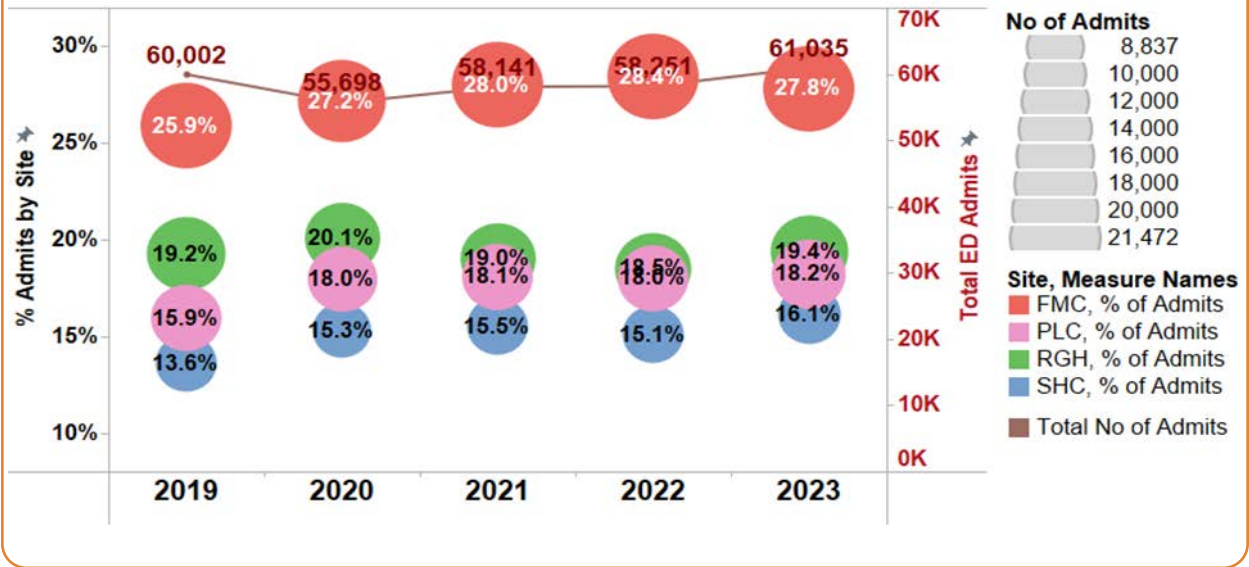
Median EIP Time Calgary Urban EDs (hrs)



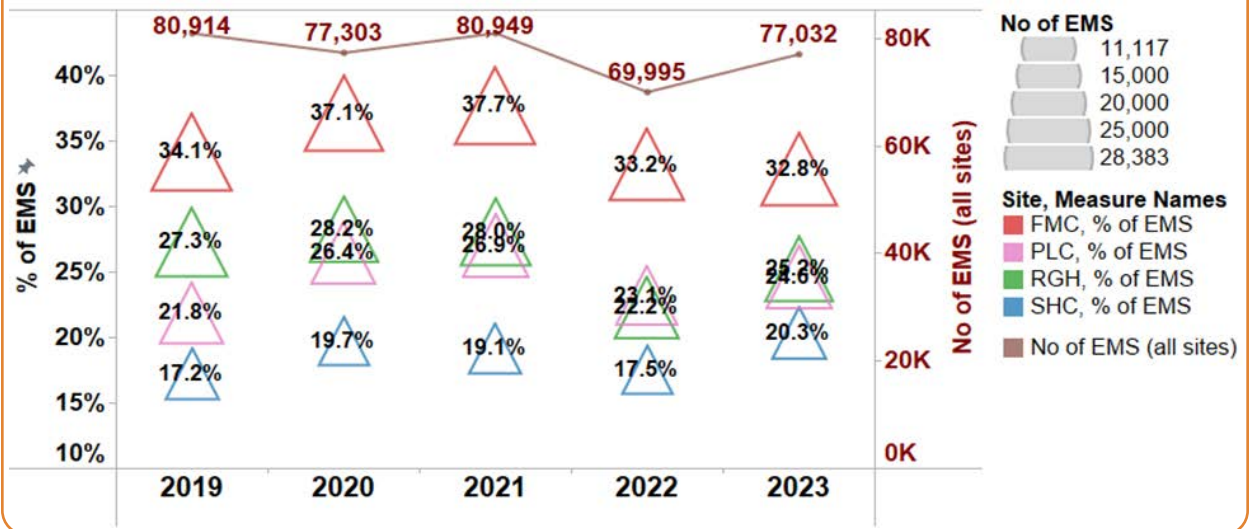
Median Triage to MD of CTAS2&3 ED Visits Calgary Urban EDs (hrs)



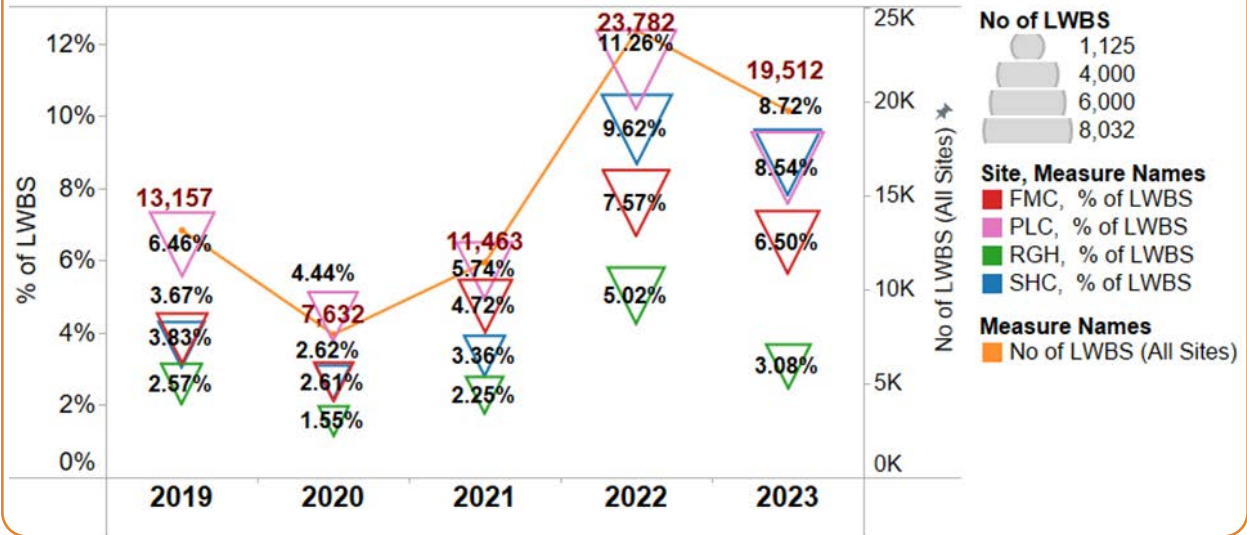
% of Admits and Total Admitted ED Visits in Calgary Urban EDs



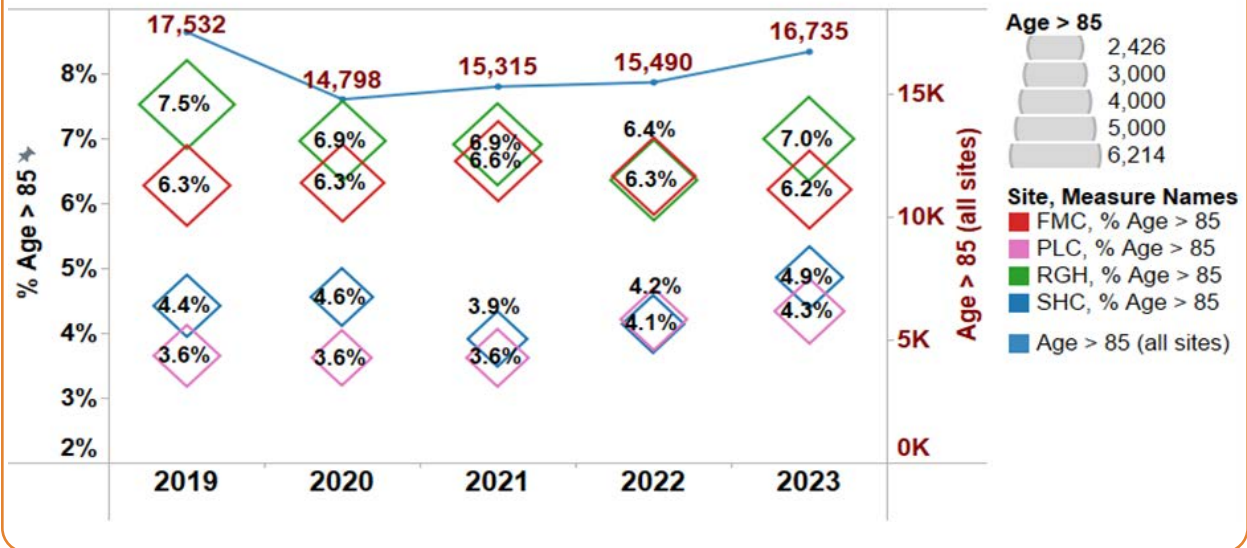
No and % of ED Visits Arrived by EMS Calgary Urban EDs



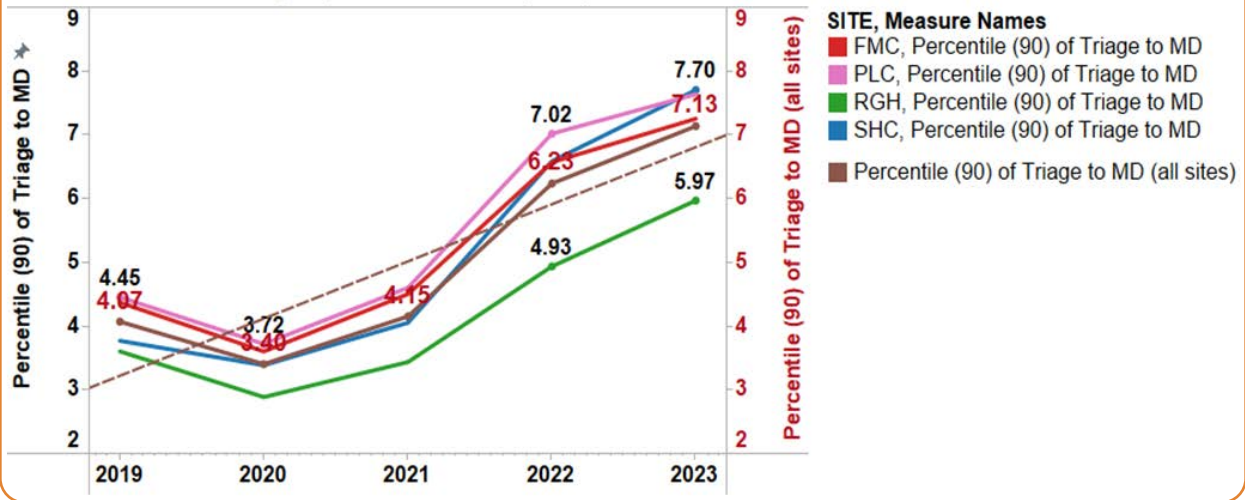
No and % of ED Visits LWBS at Calgary Urban EDs



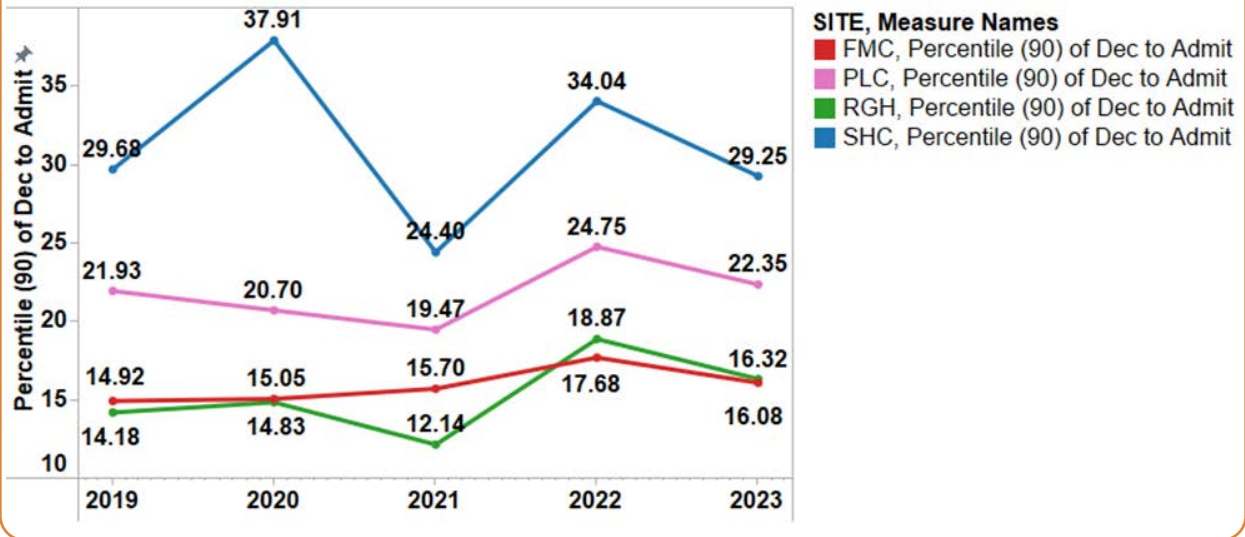
No and % of ED Visits aged over 85 Calgary Urban EDs



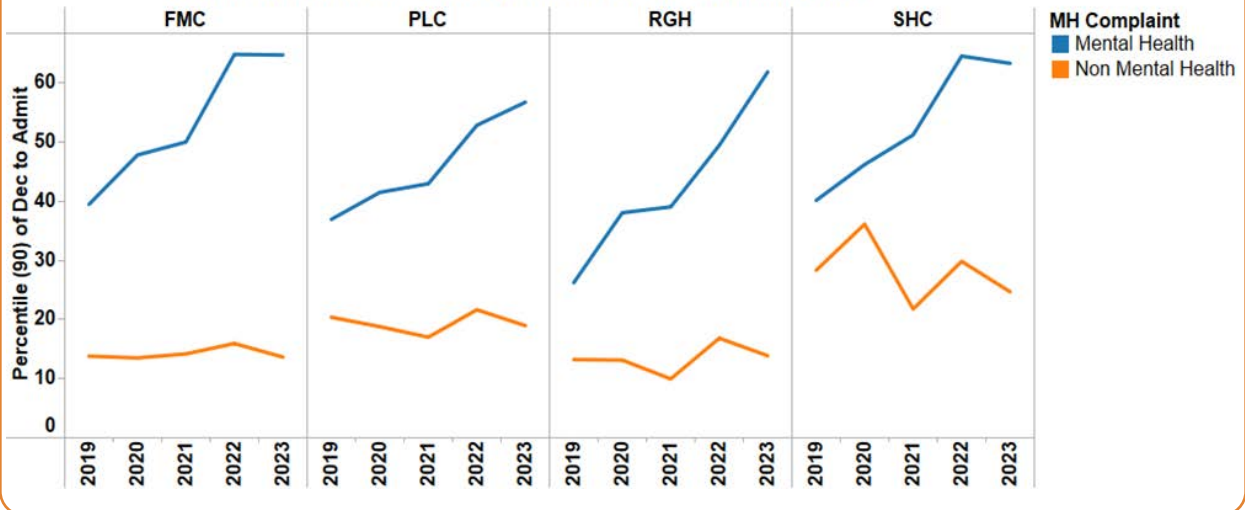
90th Percentile Triage to MD of CTAS2&3 ED Visits Calgary Urban EDs (hrs)



90th Percentile EIP time Calgary Urban EDs (hrs)



90th Percentile EIP Time for MH Visits vs Non MH Visits



Cumming School of Medicine Activity Profile

DORA Aligned Metrics For Researchers and Publications

Rank: All

Member: All

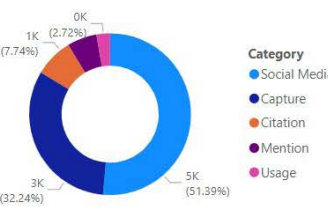
Fiscal Year: 2023

148
of Unique Publications

144
of Publications that have PlumX

Title	Type	FWCI
Intravenous tenecteplase compared with alteplase for acute ischaemic stroke in Canada (ACT): a pragmatic, multicentre, open-label, registry-linked, randomised, controlled, non-inferiority trial	Article	40.84
Effect of Oral Methylprednisolone on Decline in Kidney Function or Kidney Failure in Patients With IgA Nephropathy: The TESTING Randomized Clinical Trial	Article	28.15
Traumatic brain injury: progress and challenges in prevention, clinical care, and research	Review	21.18
Post-COVID-19 Conditions Among Children 90 Days After SARS-CoV-2 Infection	Article	14.28
2022 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations: Summary From the Basic Life Support, Advanced Life Support, Pediatric Life Support, Neonatal Life Support, Education, Implementation, and	Article	10.58

DORA Aligned Metrics by Category



Category	Count
Social Media	708
Capture	2951
Citation	541
Mention	249
Usage	4704

Category	Item	Count
Capture	READER_COUNT	2951
Citation	CITED_BY_COUNT	696
Citation	POLICY_CITED_BY_COUNT	12
Mention	ALL_BLOG_COUNT	17
Mention	NEWS_COUNT	523
Mention	REFERENCE_COUNT	1
Social Media	FACEBOOK_COUNT	4704
Usage	ABSTRACT_VIEWS	25
Usage	DOWNLOAD_COUNT	224
Total		9153

Capture tracks when end users bookmark, favorite, become a reader, become a watcher, etc, indicating that someone wants to come back to the work. It is important because they are an early, leading indicator of future citations. **"READER_COUNT" is determined only by a few sources (CiteULike (historical only), Goodreads, Mendeley, SSRN)**

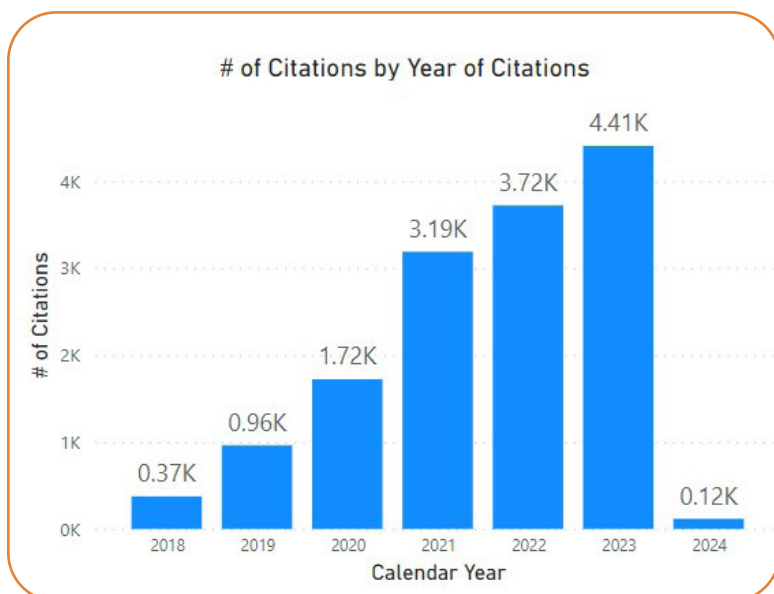
Citation counts are measures of how many times your research has been cited by others (# of citations might be slightly different from the Scopus citation data)

Mention tracks blog posts, comments, reviews, and wikipedia links about the research, where the stories of how people are interacting with research can be discovered. Mention measures when people are truly engaging with the research.

Social media metrics are the +1s, likes, shares, and tweets about research, indicating how well a researcher is promoting their work. It is especially important for early career researchers to measure and understand who is interacting with their work and for institutions to track the buzz and attention surrounding research.

Usage captures the number one statistic that researchers want to know after their citation counts, such as Is anyone reading our work? or Did anyone watch our videos?

NOTE
The data was extracted from PlumX API. Plum X is a suite of altmetrics product from Plum Analytics, owned by Elsevier. Click the categories to learn more.
2024-01-03



148
of Unique Publications

670
Citations

40.84
Max Field-Weighted Citation Impact

0.56
Median Field-Weighted Citation Impact

Academic Medicine: Cultural Diversity;
American Medical Association

Toj

92.85
Prominence Percentile

Funded Projects between 2017 and 2023

Project Title	Amount
Hyperhydration to Improve Kidney Outcomes in Children with Shiga Toxin-Producing E. coli Infection (HIKO STEC): A Multinational, Embedded, Cluster, Crossover, Randomized Trial - Revenue Project	1,645,505.09
A multi-disciplinary, patient-partnered, Pan-Canadian, comparative effectiveness evaluation of an innovative acute pediatric mental health and addiction care bundle	750,000.00
Pediatric ER Covid Surveillance	499,125.00
E-Mental Health for Youth and Young Adults in Alberta	263,697.11
Pragmatic Pediatric Trial of Balanced Versus Normal Saline Fluid in Sepsis (PROMPT BOLUS)	250,537.00
Pediatrics Enhancements - Emerging Needs	240,000.00
Pediatric Outcome Improvement through Coordination of Research Networks	178,750.00
Matching Funds (Part 2) - Implementing Innovative Models of Acute Pediatric Mental Health and Addiction Care	125,000.00
Hyperhydration to Improve Kidney Outcomes in Children with Shiga Toxin-Producing E. coli Infection: A Multinational Cluster Randomized Crossover Trial	114,750.00
Department of Pediatrics Project	96,885.72
Hs-cTnT for the diagnosis of myocardial infarction in patients with decreased kidney function	92,983.00
Childhood Inflammation Research Collaborative (CIRColl)	80,000.00
Department of Pediatrics Innovation grant	68,600.00
KidSIM Fellowship in Simulation Education & Research 2022-2027	60,000.00
Alberta's SPOR Support Unit Phase II	52,500.00
Emergency Strategic Clinical Network (SCN) 2021-2022 Scoping and Systematic Review Awards	45,000.00
Department of Pediatrics	40,000.00
Monitoring Drug Impaired Driving in Canada	38,633.63
Emergency Strategic Clinical Network (SCN) Prevention of Harassment and Violence (POHV)	32,000.00
SPOR Innovative Clinical Trial Multi Year Grant 2016-10-25	24,588.50
Emergency Strategic Clinical Network (SCN) 2022 Summer Studentship Awards	22,500.00
Emergency SC Research Funds (Backfill)	20,000.00
Total	4,669,831.58

4.67M

Total Research Funds Received

32

of Projects

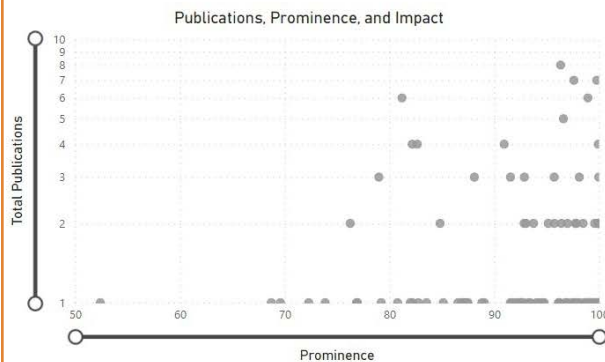
145.93K

Project Average

2024-01-11

Research Topics Prominence Percentile

Fiscal Year: 2023
Member: All
Rank: All



Prominence is an indicator of the momentum/movement or visibility of a particular topic. Prominence does not signify 'Importance'. However, **literature** suggested that there is a correlation between the prominence (momentum) of a particular topic and the amount of funding per author within that topic. On average, the higher the momentum, the more money per author is available for research on that topic.

For more information, please click [here](#).

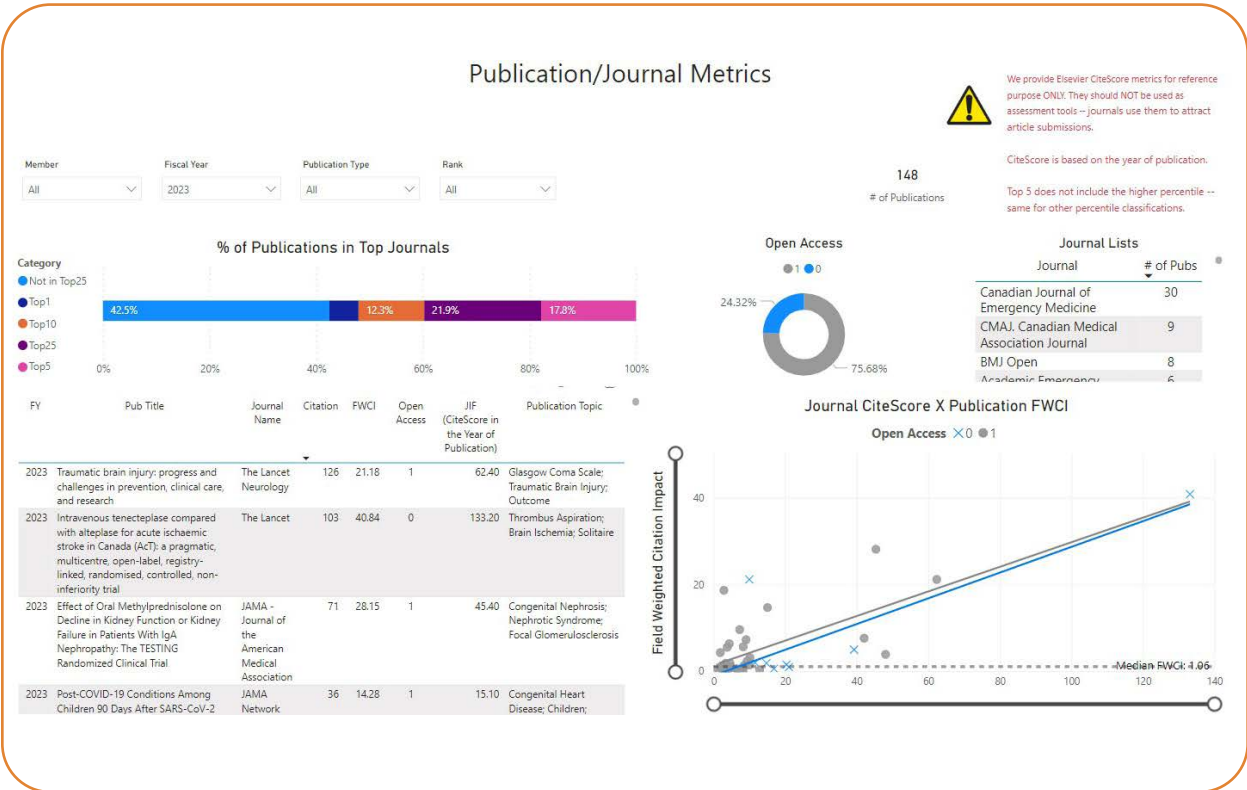
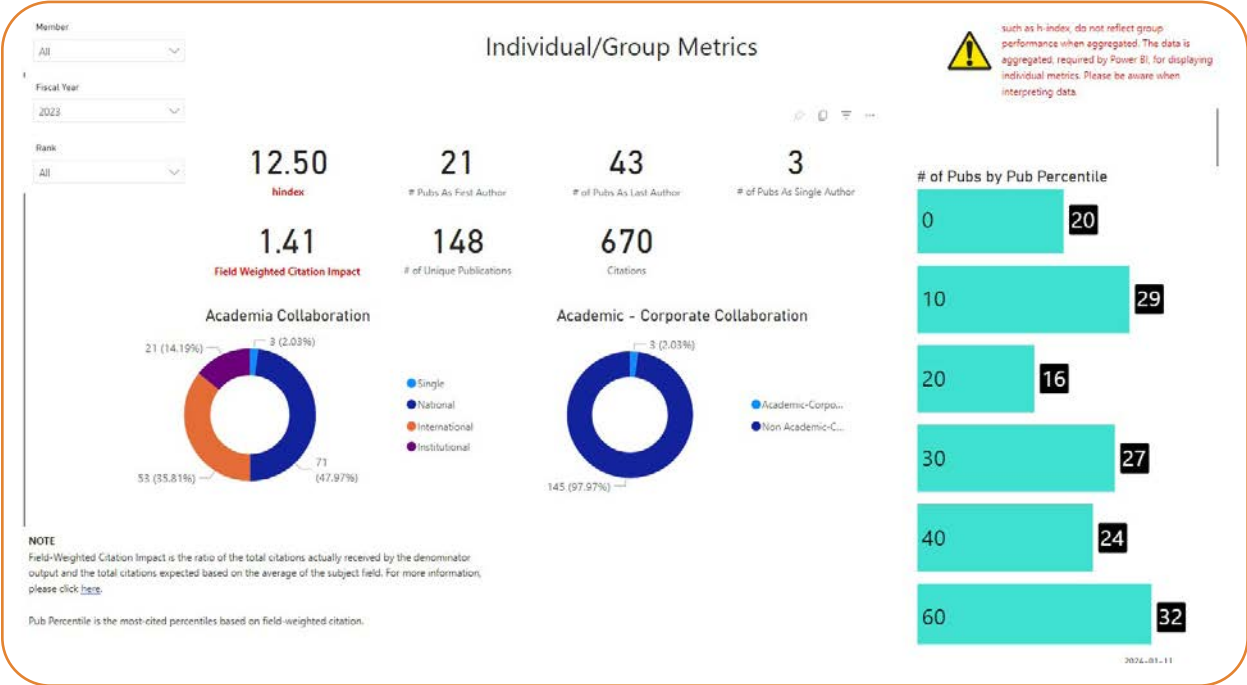
Topic Prominence Metrics

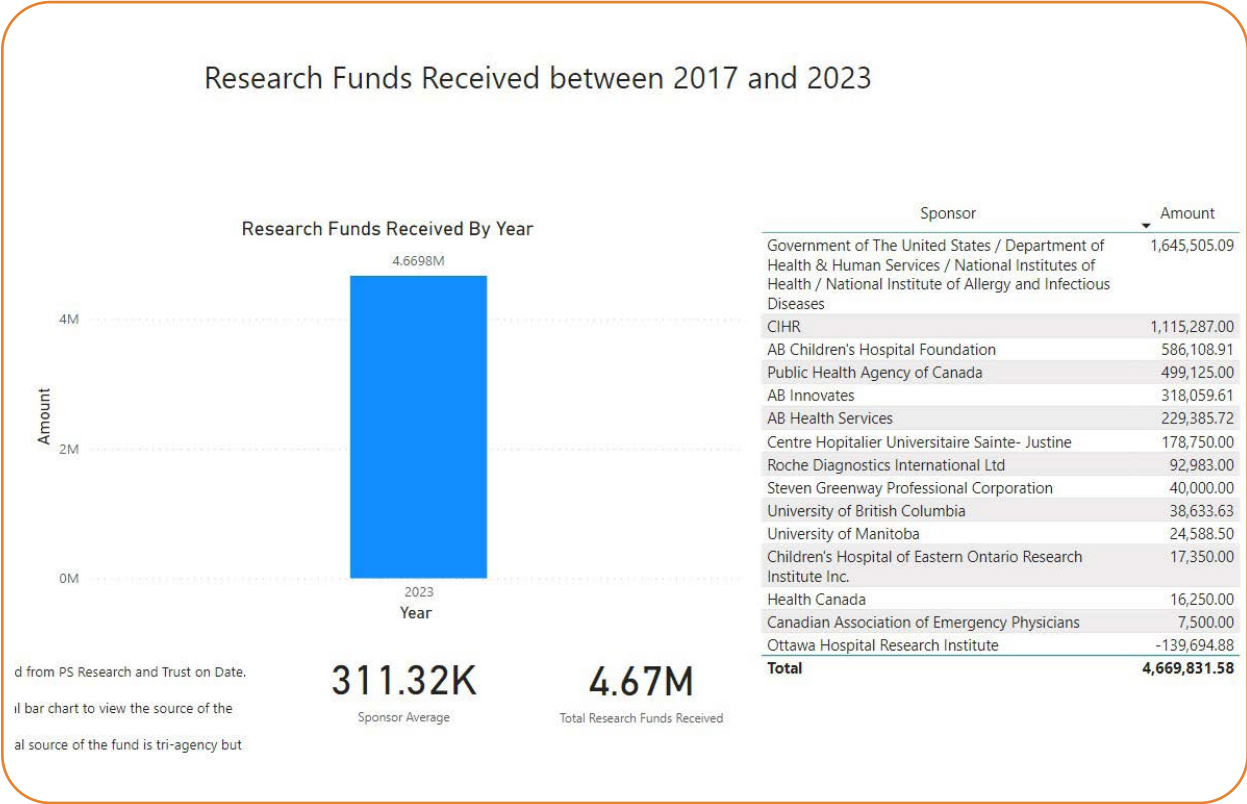
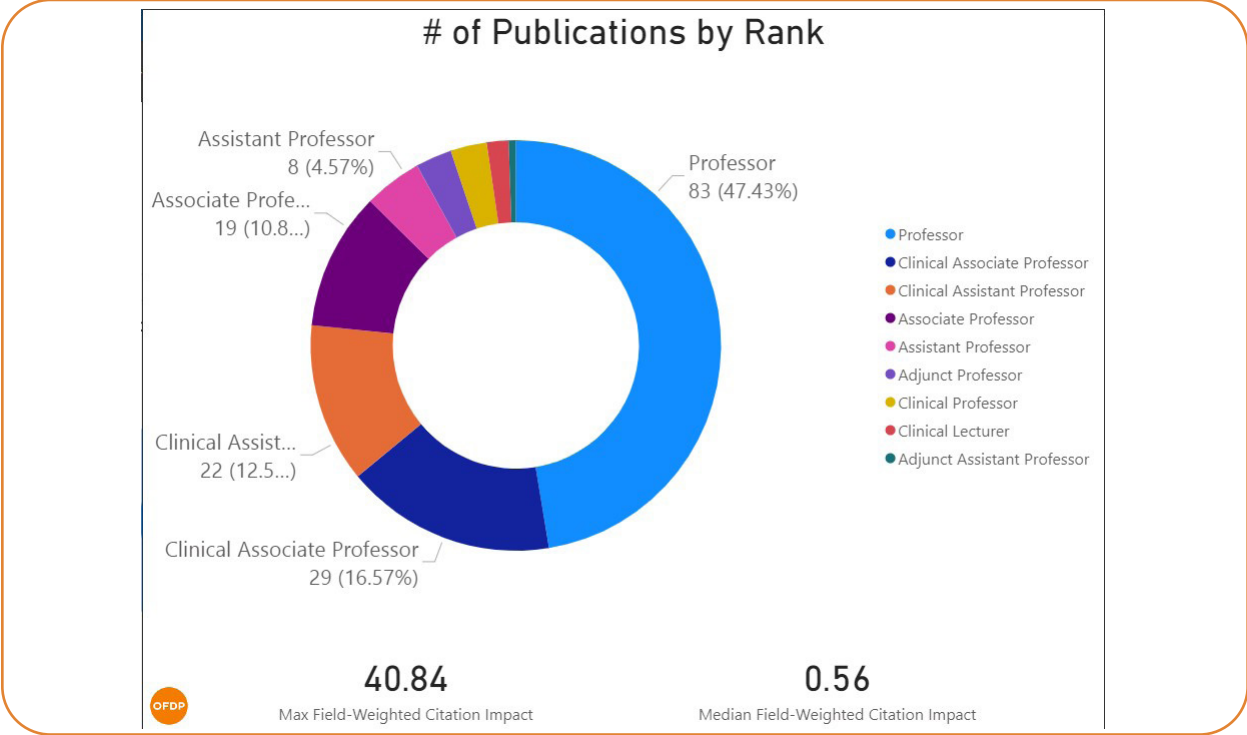
Topic	# of Unique Publications	Prominence Percentile	Max FWCI	# of Topic Pubs
Nasopharyngeal Swabs; Serologic Tests; COVID-19	2	100.00	4.96	28886
Psychological Support; Mindfulness; COVID-19	2	100.00	0.00	23500
Intestine Flora; Ruminococcaceae; Microorganisms	1	99.99	0.47	26028
Vaccine Hesitancy; Measles; Anti-Vaccination Movement	3	99.97	0.67	7018
COVID-19 Coagulopathy; Thrombocytopenia; Patients	1	99.96		8889
COVID-19; Coronavirus; Severe Acute Respiratory Syndrome	2	99.94	0.89	2900
Pharmacotherapy; Prolongation; COVID-19	1	99.94	0.00	6955
Congenital Heart Disease; Children; COVID-19	4	99.92	14.28	5913
Mother; Pregnancies; COVID-19	1	99.90	0.40	4847
Airborne Infection; COVID-19; Operating Rooms	1	99.88		3349
Thrombus Aspiration; Brain Ischemia; Solitaire	6	99.78	40.84	7597
Burnout; Well-Being; Medical Students	1	99.73		6346

Publications Under the Topic

FY	Pub Title	Journal Name	FWCI	JIF (CiteScore in the Year of Publication)
2023	Intravenous tenecteplase compared with alteplase for acute ischaemic stroke in Canada (ACT): a pragmatic, multicentre, open-label, registry-linked, randomised, controlled, non-inferiority trial	The Lancet	40.84	133.20
2023	Effect of Oral Methylprednisolone on Decline in Kidney Function or Kidney Failure in Patients With IgA Nephropathy: The TESTING Randomized Clinical Trial	JAMA - Journal of the American Medical Association	28.15	45.40
2023	Traumatic brain injury: progress and challenges in prevention, clinical care, and research	The Lancet Neurology	21.18	62.40
2023	Post-COVID-19 Conditions Among Children 90 Days After SARS-CoV-2 Infection	JAMA Network Open	14.28	15.10

2024-01-11





Publications

1. Yeung MEM, Lee CH, Hartmann R, Lang E. Opioid-related emergency department visits and deaths after a harm-reduction intervention: a retrospective observational cohort time series analysis. *C open*. 2023;11(3):E537–45.
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3. Wu L, Chen X, Khalemsky A, Li D, Zoubeidi T, Lauque D, et al. The Association between Emergency Department Length of Stay and In-Hospital Mortality in Older Patients Using Machine Learning: An Observational Cohort Study. *J Clin Med*. 2023 Jul;12(14).
4. Worster A, Lang E, Thombs BD, Kimber M, Ramsden K, MacMillan H, et al. Universal screening in the emergency department for intimate partner violence would consume scarce resources without improving patient well-being. Vol. 25, *CJEM*. 2023. p. 462–4.
5. Wilson S, Chen KCJ, Chartier LB, Campbell SG, Dowling S, Upadhye S, et al. Revisiting Choosing Wisely recommendation #1: “Don’t order CT head scan in adults and children who have suffered minor head injuries (unless positive for a validated clinical decision rule)”. Vol. 25, *CJEM*. 2023. p. 458–61.
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13. Rose JS, Brown SK, Lang E. ED overcrowding: “Hey, remember that canary we had? It died in the coal mine.”. Vol. 25, CJEM. 2023. p. 545–6.
14. Primavesi R, Patocka C, Burcheri A, Coutin A, Morizio A, Ali A, et al. Call to action: equity, diversity, and inclusion in emergency medicine resident physician selection. CJEM. 2023 Jul;25(7):550–7.
15. Petkovic J, Magwood O, Lytvyn L, Khabsa J, Concannon TW, Welch V, et al. Key issues for stakeholder engagement in the development of health and healthcare guidelines. Res Involv Engagem. 2023 Apr;9(1):27.
16. Pearce S, Marchand T, Shannon T, Ganshorn H, Lang E. Emergency department crowding: an overview of reviews describing measures causes, and harms. Intern Emerg Med. 2023 Jun;18(4):1137–58.
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21. Newton J, Riazi K, Vashist N, Jarvis H, Lang E, Clement F, et al. Solutions for patients visiting the emergency department with non-emergent issues: results from a deliberative public policy analysis process. Internal and emergency medicine. Italy; 2023.
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Awards, Grants and Achievements

We are so proud of the achievements of the research team and the entire ED group in Calgary. Here is a list of our awards, grants and accomplishments in 2023. Kudos to all Calgary EM researchers!

Dr. Andrew McRae

Characterizing Patient Preferences for Optimal Management of Coronary Artery Disease (co-Applicant): Canadian Institutes of Health Research: 2023/10-2027/09: \$664,800

Characterizing patient preferences and personalizing risk information for optimal patient-centered management of coronary artery disease (co-Applicant): Alberta Innovates (LevMax program): 2023/1-2026/1: \$510,000

A randomized trial of anti-arrhythmic medication to improve the management of emergency department patients with acute atrial fibrillation (RAFF-4) (co-Applicant): Canadian Institutes of Health Research: 2023/10-2025/10: \$302,716

High-dose cephalexin for cellulitis (HI-DOCC): a randomized controlled trial (co-Applicant): Canadian Institutes of Health Research: 2023: \$382,500

Recipient of the O'Brien Institute Research Excellence Award: University of Calgary, 2023

Dr. Grant Innes

Impact of Emergency Department Opioid Prescribing on Substance Misuse & Health Outcomes. (PI): CIHR Project Grant. 2021-2023.

Administrative and Advocacy work: Strategic co-lead (along with Dr. Aleks Chochinov, University of Manitoba, and Dr. David Petrie, Dalhousie University) for the *Future of Emergency Medicine Task Force*, an initiative of the Canadian Association of Emergency Physicians. Otherwise known as EM-POWER (Emergency Medicine: Patient care, Organizational, and Workforce Ecosystem Redesign) this group is developing EM and system level strategies to reshape the future course for Emergency Medicine in Canadian Healthcare. March 2022-March 2023

Honoured with Emeritus Status as Professor Emeritus of Emergency Medicine, Family Medicine and Community Health Sciences: 2023

Dr. Eddy Lang

Acute care Use by Patients with Inflammatory Arthritis Conditions: Health System Impact and Solutions for Ensuring Appropriate Ambulatory Care Access. PI: Barabe, Cheryl C. Co-I: Barber, Claire; Elliott, Meghan; Holroyd, Brian; Homik, Joanne; Katz, Steven; Kelling, Stephanie; Lang, Eddy; Lin, Katie; Luca, Nadia; McLane, Patrick. Project Grant. CIHR. 2021-09. Collaboration with rheumatology Knowledge to Action in Pediatric Emergency Care during the COVID-19 Pandemic. PI: Klassen, Terry. Co-I: Aregbesola, Alex; Costello, Carrie; Freedman, Stephen; Hartling, Lisa; Jabbour, Mona; Knisley, Lisa; Lang, Eddy; MacPhee, Shannon; Reid, Sarah; Scott, Shannon; Sinclair, Douglas. Project Grant. CIHR. 2021-11 2 years

Developing and Testing Educational Materials and Simulation Training Scenarios to support Indigenous directed Anti-Racism Efforts in Emergency Departments. PI: McLane, Patrick; Austen Wiebe, Valerie J; Altabbaa, Ghazwan; Bill, Lea; Roach, Pamela Marie. Co-I: Bartel, Reagan M; James, Ashton; Kashuba, Sherri; Lang, Eddy S; Louis, Eunice J; Barnabe, Cheryl C; Healy, Bonnie A; Henderson, Rita I; Holroyd, Brian R; Oster, Richard T; Rittenbach, Kay. Project Grant. CIHR. 2021-10 1 year

ESCN Undergraduate Summer Studentship Award: supervisor for Cassandra Chisholm and Conne Lategan: (\$8,000 each)

CAEP CanVECTOR Research Abstract Award 2023: Tranexamic Acid in Emergency Medicine. An Overview of Reviews (co-author with Matthew Yeung and Poshika Dhingra)

Dr. Kathryn Crowder

Imaging for cervical spine fractures in older adults with ground level falls: A Scoping Review (co-Applicant): Emergency Strategic Clinical Network Systematic and Scoping Review Competition: March 2023-2024: \$15,000

Dr. Jessalyn Hollidinsky

Respiratory virus vaccination as a public health strategy to protect against occurrence of acute stroke and myocardial infarction (PI): CIHR 2023-2025: \$125,000

Dr. Natasha Goumeniouk

Evaluating diagnostic strategies for suspected venous thromboembolism among postpartum individuals who present to urgent medical attention: CanVECTOR Junior Investigator Grant 2023 (CAEP annual grants competition): \$5,000

Evaluating diagnostic strategies for suspected venous thromboembolism among postpartum individuals who present to urgent medical attention in Alberta: Grant Innes Resident Research Award (GIRR) 2023: \$1000

Dr. Meaghan Mackenzie

The Reliability of the RAT Tool in Assessing Emergency Medicine Resident Competence in Pediatric Resuscitation Scenarios: A Prospective Observational Pilot Study: Grant Innes Resident Research Award (GIRR) 2023: \$300

Dr. Mary Freymond

Treatment outcomes of patients transferred via helicopter-emergency medical services to a comprehensive stroke centre: A Canadian perspective: Grant Innes Resident Research Award (GIRR) 2023: \$1500

Clinical and Education Teaching Accomplishments

2023 Successful Candidates Clinical Associate Professor:

Dr. Charles Wong

Dr. Fareen Zaver

Dr. Lauri-Ann Baker

Dr. Scott Lucyk

2023 Successful Candidates Clinical Assistant Professor:

Dr. Denise Watt

Dr. Hannah Park

Dr. Kelsey Ragan

Dr. Mark Scott

Dr. Marshall Ross

Dr. Marta Broniewska

Dr. Phillips Karl

Dr. Sean Fair

Dr. Yael Moussadji

Dr. Natasha Goumeniouk

PGME Clinical Teaching Award:

Anker, Katie

Betzner, Mike

Cochrane, Haley

Fair, Sean

Francis, Marc

Fu, David

Huffman, James

Krook, Chase

Lee, Patricia

Lin, Katie

Mainprize, Dave

McNeil, Gord

Morris, Alyssa

Morris, Rick

Ness, Rhonda

Packer, Nick

Pandya, Anjali

Park, Hannah

Ragan, Kelsey

Ross, Marshall

Savage, Tyson

Shaw, Brett

Sherlock, Kelli

Su, Mike

Wang, Jessica

Wilkie, Ryan

Zaver, Fareen

CanVECTOR Junior Investigator Grant (CAEP annual grants competition)

Dr. Grant Innes

Honoured with Emeritus Status as Professor Emeritus of Emergency Medicine,

Family Medicine and Community Health Sciences.

Dr. Eddy Lang

CIHR Catalyst Grant: Towards Emergency Department Standards for Youth Requiring Access to Community Mental Health and Substance Use Care

Dr. Andrew McRae

O'Brien Institute Research Excellence Award

Dr. Anjali Pandya

PGME Awards of Excellence – Outstanding Commitment to Residency Education

Dr. Catherine Patocka

CSM Postgraduate Medical Education Award

Dr. Zoe Polsky

Resident Leadership Award (FRCPC) - CAEP

Madhavi Talasila

PGME Awards of Excellence – Service in Support of Residency

Group Awards

Awards Continued

Best Preceptor Award Winners

FR Coffee Award Winner: Dave Fu

CCFP-EM Coffee Award Winner: Braden Teitge

FR Best Emerg Junior Preceptor Award Winner: Kelsey Ragan

PEM Preceptor Award Winner: Gord McNeil

FR Preceptor of the year Award winner: James Huffman

CCFP-EM Emerg Preceptor of the year Award winner: Amanda Schreiner

Off service preceptor of the year award winner: Julie Kromm

Bryan Young Lifetime Achievement Award Winner: Mike Betzner

2023 Emergency Medicine Gala Awards

[Mike Hodzman Lifelong Learning Award](#)

Aaron Johnston

Shawn Dowling

Dept Of EM Humanitarian Award

Margriet Greidanus

Heather Patterson

ACH SITE AWARDS

Outstanding colleagues:

Ashlea Wilmott

Peggy Thomson

Dana Stys

Outstanding Rookies:

Robyn Buna

Karl Phillips

Nick Monfries

FMC SITE AWARDS

Outstanding colleagues:

Anjali Pandya

Steve Clark

Stuart Rose

Chris Hall

Outstanding Rookies:

Katie Lin

Haley Cochrane

Claire Acton

RGH SITE AWARDS

Outstanding Colleagues:

James Huffman

Tony Chad

Ayesha Khory

Outstanding Rookies:

Katie Anker

Ryan Wilkie

Sean Fair

PLC SITE AWARDS

Outstanding Colleague:

Amanda Schreiner

Jen Puddy

Peter Davids

Outstanding Rookie:

Geordan Avery-Cooper

Hilary Ambrose

Kelsey Ragan

SHC SITE AWARDS

Outstanding Colleagues:

Kathryn Crowder

Bryan Weber

Marge McGillivray

Outstanding Rookies:

Elizabeth Williams

Chase Krook

Jolene Bohne

Highlight News Articles and Events

Throughout the year, we've collected a list of other accomplishments from our team:



<https://www.cbc.ca/news/canada/calgary/calgary-doctors-warn-emergency-rooms-collapsing-1.6852938>



<https://calgaryherald.com/opinion/columnists/opinion-albertas-health-menu-doesnt-matter-when-there-are-no-tables-to-sit-at/wcm/4f30e316-b985-4c6e-ad1d-47f600a1f77c/amp/>



<https://caep.ca/who-we-are/caep-annual-awards/2023-annual-award-winners/>

Zoe Polsky
Resident Leadership
Award (FRCP)



The Emergency Medicine Gala was a great success in 2023

After a three-year hiatus due to the pandemic, emergency physicians across the Calgary Zone gathered together in record numbers to reconnect, celebrate, and recognize those colleagues whose achievements have stood out among the group. Additionally, the gala provided a venue for us to say a proper farewell to those who have retired in recent years.

As a part of the gala, we held an always fun silent auction where all funds raised are donated to charity. This year the silent auction raised \$7000 to be shared between the DOAP team and Woods Homes Foundation, certainly something to be celebrated!

Given the popularity of this event, we will strive to keep the Gala tradition going and look forward to planning the next one in 2024. The ED Gala: Celebrating Emergency Medicine in the Calgary Zone and for all who strive for excellence in the care that they provide.

Thank you, on behalf of the Gala Planning Committee,
Dr. Laurie-Ann Baker (chair)

Acknowledgment

The Department of Emergency Medicine Calgary Zone gratefully acknowledges and thanks everyone for their contributions to this report.

Content Organization and Design: Natalie Sun