

2024 ANNUAL REPORT

EMERGENCY MEDICINE

CALGARY ZONE

Striking the Balance,
Sustaining the Future



Governance



Sustainability



Investment in People

Territorial Land Acknowledgment

The University of Calgary, located in the heart of Southern Alberta, both acknowledges and pays tribute to the traditional territories of the peoples of Treaty 7, which include the Blackfoot Confederacy (comprised of the Siksika, the Piikani, and the Kainai First Nations), the Tsuut'ina First Nation, and the Stoney Nakoda (including Chiniki, Bearspaw, and Goodstoney First Nations). The City of Calgary is also home to the Métis Nation of Alberta (Districts 5 and 6).

The University of Calgary is situated on land Northwest of where the Bow River meets the Elbow River, a site traditionally known as Moh'kins'tsis to the Blackfoot, Wichîspa to the Stoney Nakoda, and Guts'ists'i to the Tsuut'ina. On this land and in this place we strive to learn together, walk together, and grow together "in a good way."

The Department of Emergency Medicine and the University of Calgary are committed to meaningful reconciliation with Indigenous peoples and communities.



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Message from the Department Head

It is an incredible privilege to serve as the Clinical Zone and Academic Department Head of Emergency Medicine. We are fortunate to have a phenomenal group of people—emergency physicians, operations leaders, administrators, and many others—whose unwavering commitment to excellence and patient care is unparalleled, I will try to highlight as many as I can in this report. However, I must be upfront: while we have exceptional individuals, we face significant systemic challenges that demand honesty, perseverance, and collective effort to overcome.

Over the years, this report has served as a reflection of our department's journey. Unfortunately, our department is not flourishing as it should. This is not due to a lack of effort or talent—far from it. The incredible creative, intellectual, and attitudinal potential of our department remains underutilized. Despite our best efforts, the system as it currently stands does not adequately serve our patients. Instead, it often appears preoccupied with reshuffling priorities rather than addressing fundamental issues with a patient-centered focus.

Our physicians, among the most skilled and dedicated, are confronted with an unrelenting wave of challenges: escalating patient volumes demanding direct care, systemic accountability gaps such as diversions, inpatient capacity issues, denied referrals, and an ever-increasing documentation burden. These demands continue to rise without commensurate resources, creating obstacles at every turn. The strain on everyone is both

profound and palpable.

Despite being steadfast on the frontline before, during, and after the pandemic, our department's contributions often feel undervalued. Our persistent advocacy for resources and academic growth has yielded only incremental progress, leaving us underrepresented in key initiatives like AMHSPs and CARPs. To compound these issues, our leadership and administrative resources are increasingly overextended, further straining our ability to meet both operational and strategic goals.

None of this is shared to foster pessimism but to provide clarity, outline a road map, and, most importantly, inspire hope for the future.

As Rebecca Solnit eloquently captures in **Hope in the Dark**:

"Hope locates itself in the premises that we don't know what will happen and that in the spaciousness of uncertainty is room to act... Optimists think it will all be fine without our involvement; pessimists take the opposite position; both excuse themselves from acting... Hope just means another world might be possible, not promised, not guaranteed. Hope calls for action; action is impossible without hope."

When I walk through our departments and see hallways lined with stretchers, patients tucked into every available space, and staff stretched to their limits, I am reminded of the urgent need for systemic reform. It is disheartening to hear suggestions that emergency physicians or nurses should "just do more," when they are already covering gaps that no other area



of the hospital—or the healthcare system at large—seems willing to address. This work is not sustainable, and it does not reflect the 24/7 reality of medical care.

And so, we must act. We need to push back against the tendency of others to offer apologies in hindsight when foresight and proactive planning could have anticipated and mitigated these challenges. We must be firm in our commitment to the patients who depend on us. This will require a renewed focus on:

- **Advocacy:** Ensuring that decision-makers, other physicians, and politicians understand the realities we and our patients face.
- **Equity:** Fighting for the resources and representation our department deserves, particularly in education, leadership, and administrative support.
- **Innovation:** Leveraging the immense creativity and intellectual potential within our department to find new solutions to old problems.
- **Collaboration:** Partnering across disciplines and sectors to address the broader systemic issues that impact emergency care.

There is much work to be done, but I believe in the resilience, talent, and dedication of this department. Together, we can build a future where our efforts are recognized and supported, where our programs are strong and flourishing, and where the care we provide is second to none. Let this report serve not as a reflection of where we are, but as a vision for where we can go—together.

To all of our members, thank you for all that you do every day. Your dedication and determination inspire me to continue advocating for the future our patients deserve.



Dr. Catherine Patocka
Clinical and Academic Department Head of Emergency Medicine

Message from the Executive Directors

December 2024

Although workforce and system capacity challenges remain front and center in the current context of Emergency Department (ED) care, the frontline clinical and leadership teams have continued to do everything they can to provide the best care possible to increasing numbers of patients with increasing complexity of needs, and at the same time support each other in doing so.

Overall, our teams have continued to hold their own with respect managing the increased demand and have made significant gains with respect to recruitment and retention of team members across all disciplines. This year also saw a successful Accreditation Canada survey of our EDs, further development of our team-based approaches to managing quality of care, and some important leadership changes.

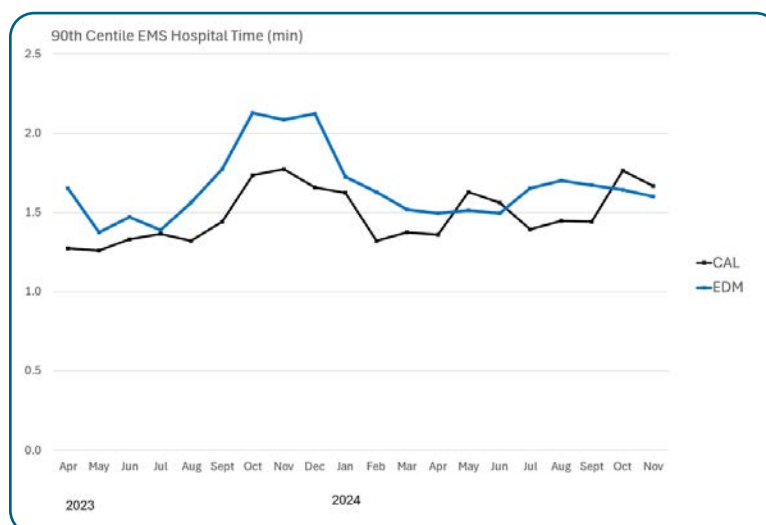
System Capacity

The current Health Action Plan Targets set by Alberta Health are system targets rather than being owned only by our Emergency Departments and Emergency Medical Services (EMS). The leadership teams for ED have

been very well represented in system wide efforts to increase and improve the efficiency of capacity across the Zone, including active membership of task force and working groups, and the leadership of specific projects addressing opportunities with respect to ED input, throughput, and output.

Performance for the Urban Calgary Zone EDs is presented in the following graphs and compared with Edmonton Zone. Despite increased demand in terms of visits, EMS presentations, admissions from ED, and acuity, our teams have been able to maintain our current level of performance and we compared favorably with other Zones and provinces.

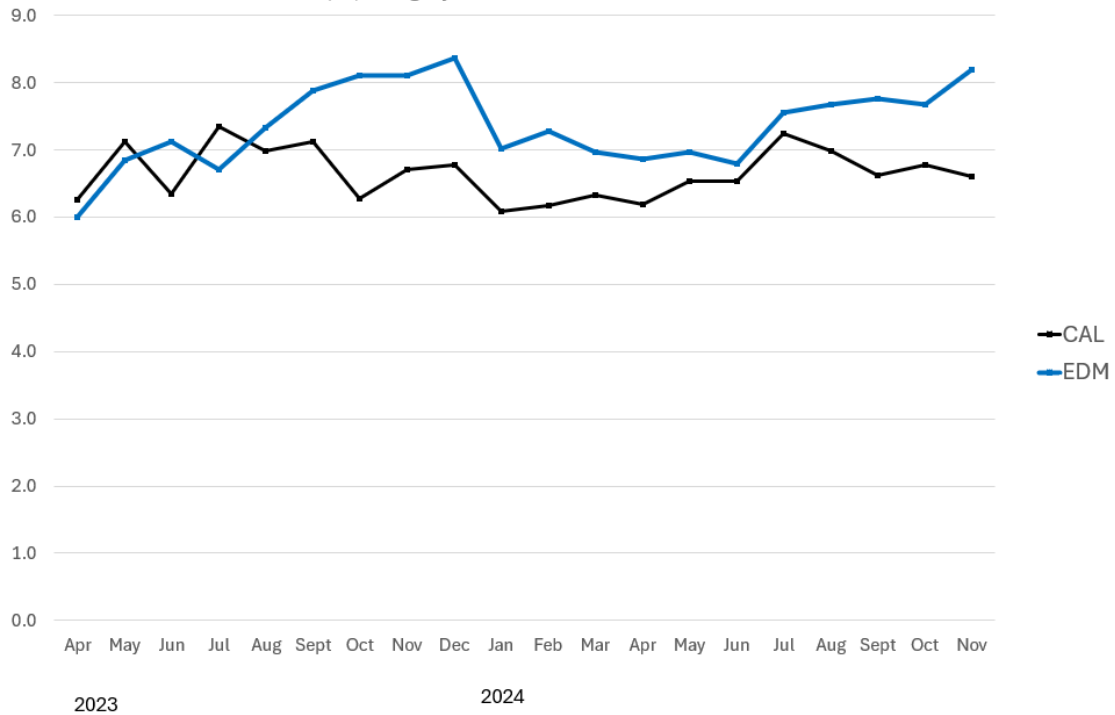
Early next year will see ZDEM focus upon the most important next opportunities to help improve flow within and out of our EDs based upon the publication of data from the Analysis Phase of the Health Action Plan Improvement Project. This is an extremely rich data set for a full month for every patient seen in our five Urban EDs and we are looking forward to working with our frontline teams and system partners on the most important opportunities that this data leads us towards.



EMS Hospital Time

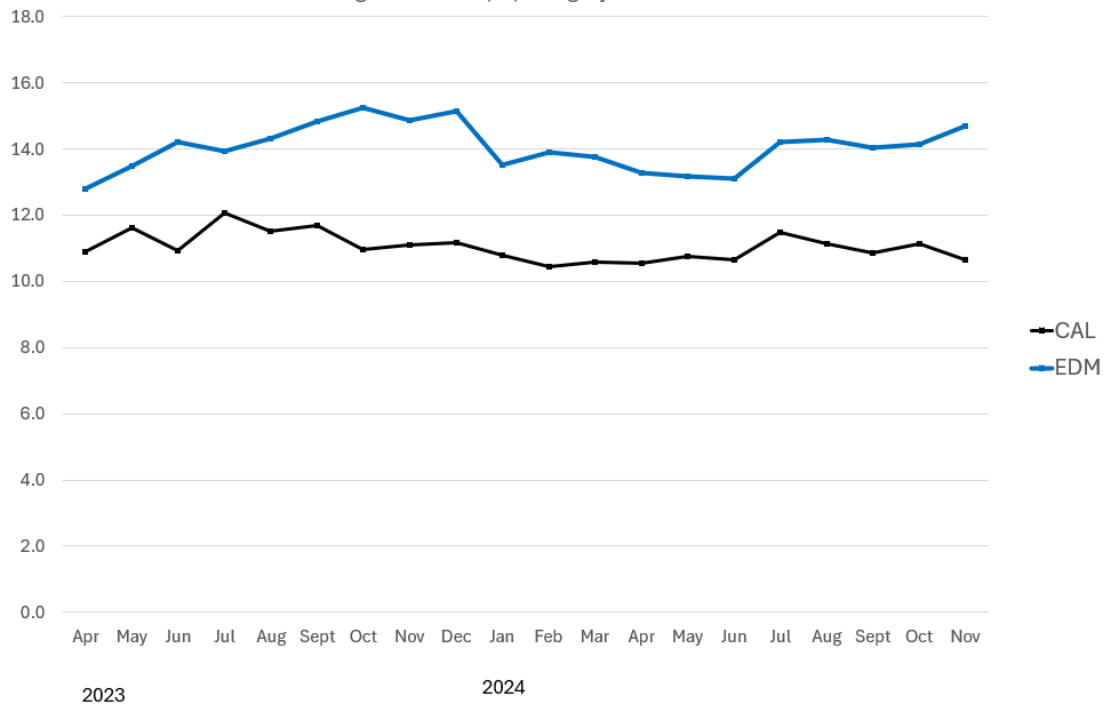


90th Centile ED Wait Time (hr): Calgary Urban

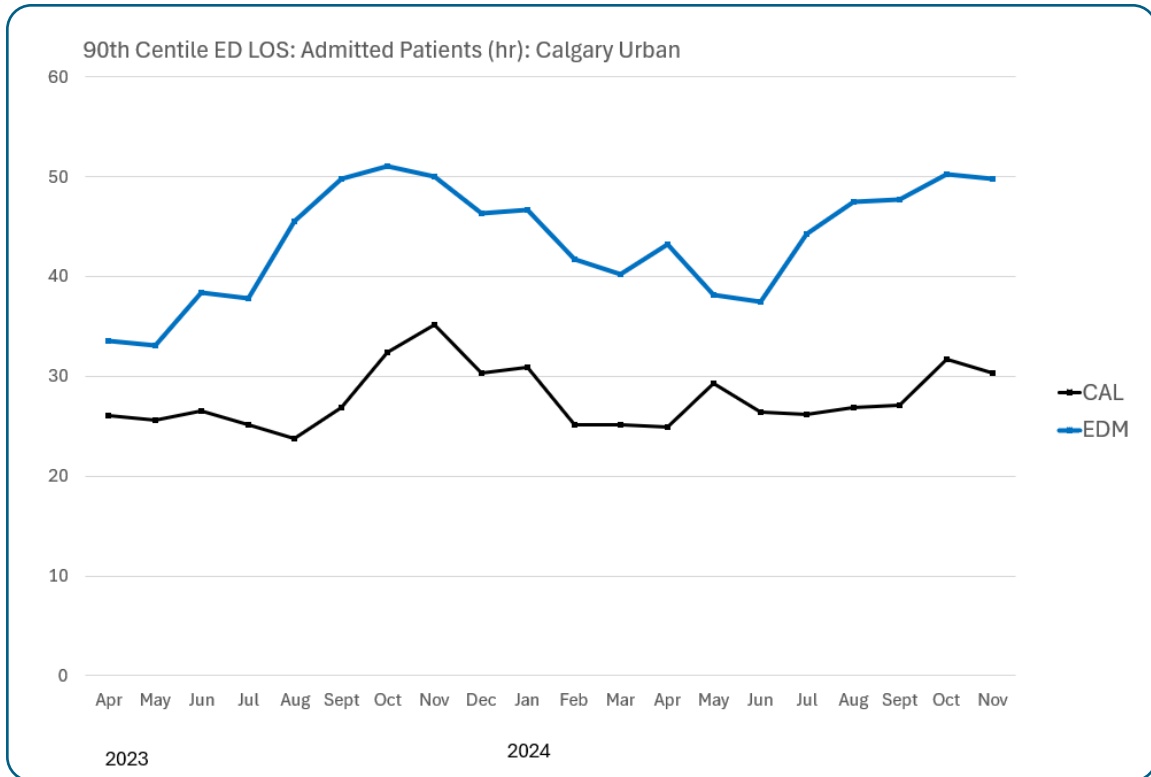


PIA

90th Centile ED LOS: Discharged Patients (hr): Calgary Urban



LOS Discharged Patients Calgary Urban



LOS Admitted Patients Calgary Urban

Focus Upon Workforce Recruitment and Retention

The management teams at each of the EDs in the Zone have been spending a very significant amount of time and demonstrating all of their expertise and creativity in optimizing staffing in the departments through recruitment, retention, and staff engagement and recognition strategies. This has led to significantly improved recruitment and staffing across the Zone.

The departments, however, continue to be a very stressful place to work and we can expect even more focus upon staff and physician wellness (including some targeted work on violence and harassment, burn-out, and moral distress) in the year to come.

The commitment to the multidisciplinary care that our multidisciplinary teams provide is incredible, but we must continue to explore every opportunity to better support frontline physicians and staff in their work.



Accreditation and Managing Quality of Care

2024 saw a very successful survey and report from Accreditation Canada on both ED and EMS teams. The work to prepare for the survey at both a site and Zone level was superb, and we were grateful for the opportunity to work together across sites in this process. Special thanks to both the management teams and quality leads for each department and also Paul Stewart who helped coordinate this Zone based approach.

The survey findings highlighted strengths with respect to:

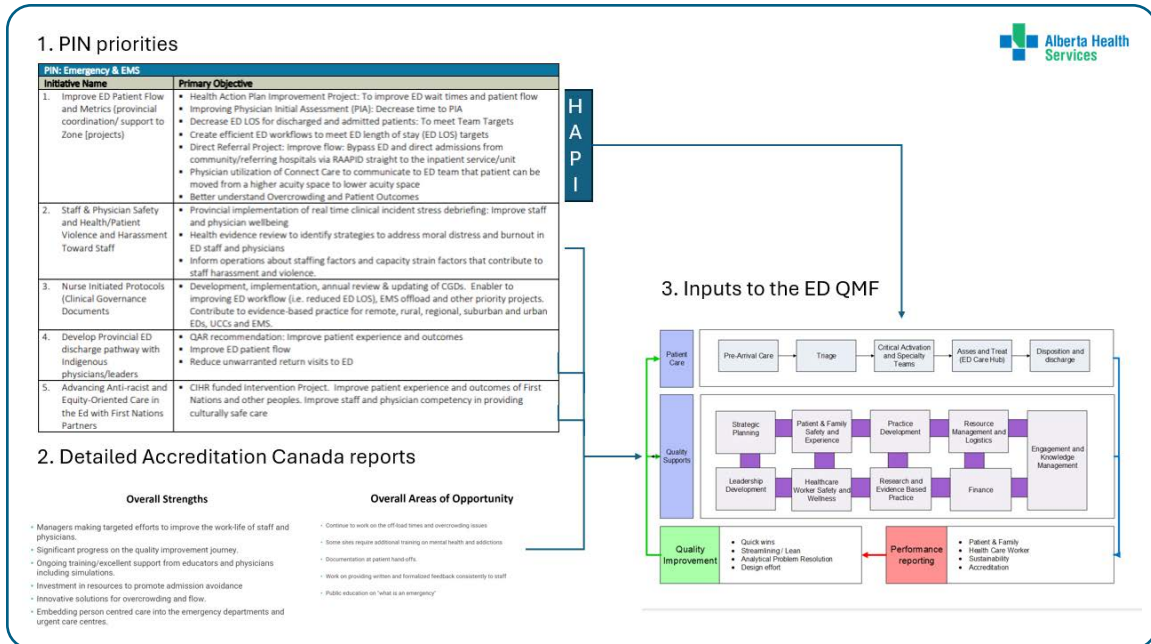
- Satisfaction rates of patients despite some having long waits
- Staff orientation and education and deployment of simulation
- Targeted work to improve the work-life of team members
- Improvements made in supporting staff following traumatic events
- Partnership working with EMS and others and the level of interprofessional collaboration
- The energy, perspectives, commitment and enthusiasm of new leaders within the ED teams
- The significant progress being made in the overall quality improvement journey for ED
- Embedding people-centred care into our practices (e.g. patient advisors in quality work, cultural sensitivity and awareness, and the contribution that volunteers make within the departments)

Encouragement to continue to focus upon the following opportunities was also provided:

- Continued work on system capacity, EMS transition of care and overcrowding
- Ensuring patients and families are aware of both their rights and responsibilities
- Further strengthening communication hand offs
- Working on providing more formal performance feedback more consistently

This year also saw the publication of a new dashboard representing the next steps in bringing to life a more integrated approach to the measurement and reporting of quality for ED care in the Zone, and the detailing of the elements of the patient care pathway and practices from pre-arrival to disposition and discharge. Both are important components of the overall quality management framework we are building for ED care in the Calgary Zone.

The ED and EMS Program Improvement and Integration Network (PIN) has published our five priority initiatives for the coming years. We are excited to integrate the recent accreditation survey findings for the early part of 2025, prioritizing the context of our overall approach to managing the quality of care we provide. Further information on how we will be engaged will be provided soon.



Quality Arrangements and Priorities

Leadership Changes within ZDEM

This year has seen some important changes with respect to the ZDEM leadership group. We are excited to welcome several new members of the departmental management and physician leadership teams to our community. We would like to thank both Dr. Eddy Lang and Dr. Adam Oster for their outstanding service to our department and teams and wish them well in their next steps. ZDEM has raised the profile of Calgary Zone Emergency Departments to be a leader in emergency care within the province.



Dr. Catherine Patocka
Clinical and Academic
Department Head of
Emergency Medicine



Dr. James Andruchow
Deputy Department Head
Department of Emergency
Medicine



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



Michael Suddes
Executive Director,
Emergency and Site, FMC

Emergency Medicine Mission Statement

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.

Foothills Medical Centre
Main Building, Room C1150
1403 – 29th ST NW
Calgary AB T2N 2T9

[INSITE](#)

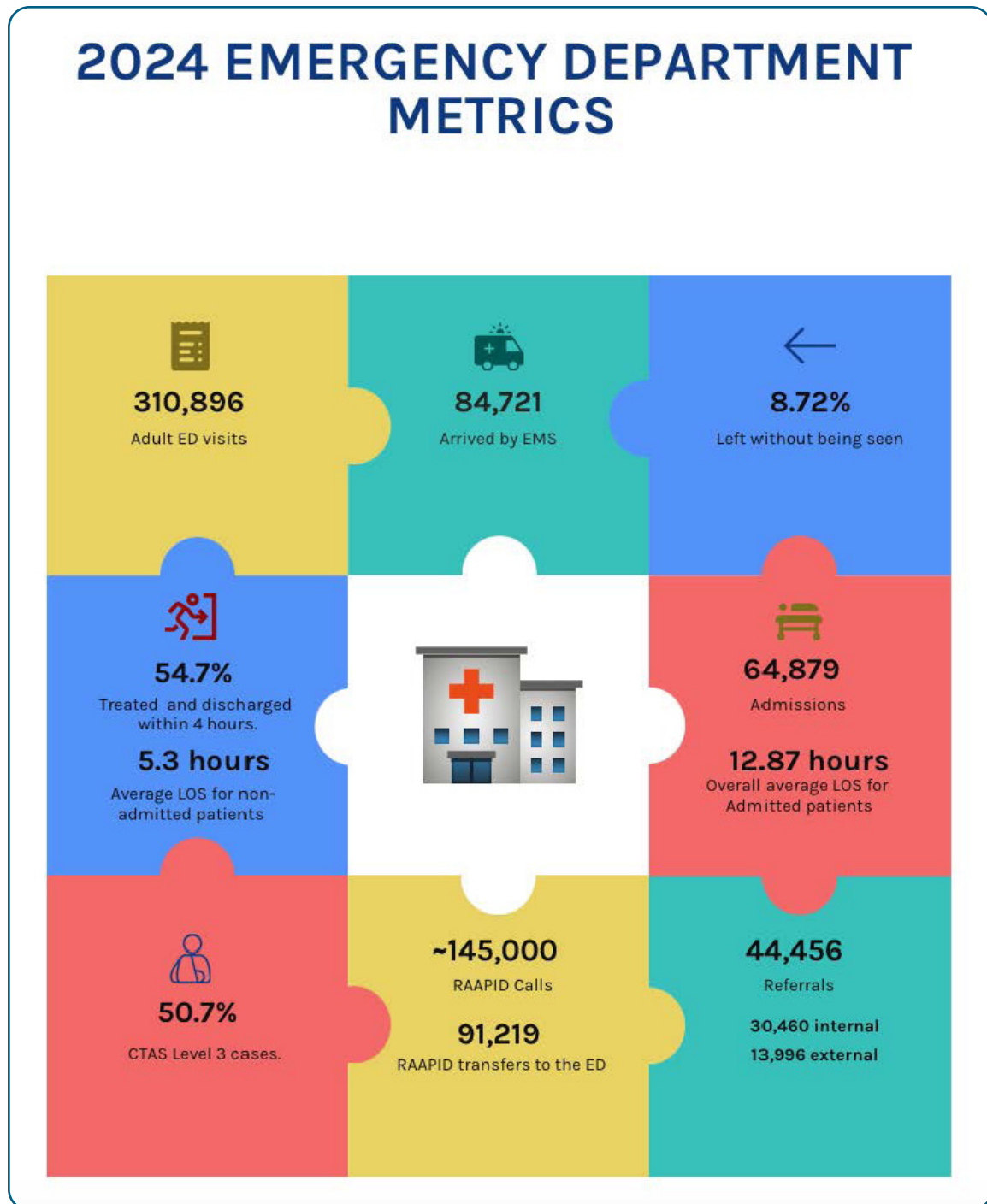
Guiding Principles

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.

Rockyview General Hospital
Holy Cross Ambulatory Care Centre
Room 5A105
1007 – 14th St SW
Calgary AB T2V 1P9

[UNIVERSITY OF CALGARY](#)

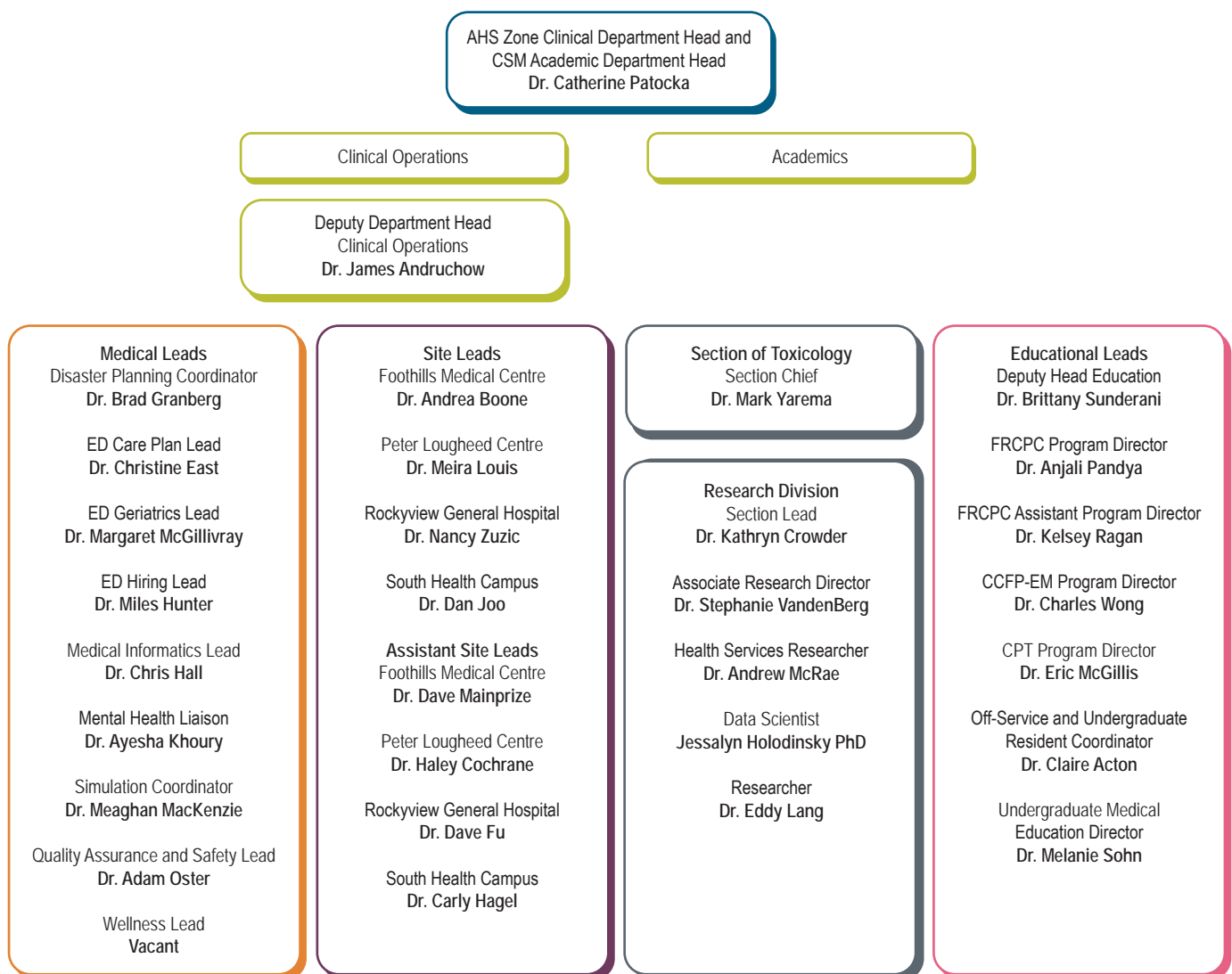
Geographic Scope



2024 Emergency Department Metrics

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.





Operational Leaders

- Dr. Catherine Patocka, Clinical and Academic Department Head of Emergency Medicine
- Dr. James Andruchow, Deputy Department Head for Emergency
- Dr. Andrea Boone, FMC Site Lead
- Dr. David Mainprize, FMC Assistant Site Lead
- Dr. Meira Louis, PLC Site Lead
- Dr. Haley Cochrane, PLC Assistant Site Lead
- Dr. Nancy Zuzic, RGH Site Lead
- Dr. David Fu, RGH Assistant Site Lead
- Dr. Daniel Joo, SHC Site Lead
- Dr. Carly Hagel, SHC Assistant Site Lead
- Dr. Colin Bell, Ultrasound POCUS
- Dr. Christine East, Treatment Plans Physician Lead
- Dr. Chris Hall, Connect Care and Physician Builder Lead & Medical Informatics Lead
- Dr. Marge McGillivray, Geriatric Care Lead
- Dr. Adam Oster, Quality Improvement and Safety Lead
- Dr. Tania Principi, Section Chief Pediatric Emergency Medicine
- Dr. Mark Yarema, Clinical Pharmacology and Toxicology

Full bios can be read on our webpage: <https://cumming.ucalgary.ca/departments/emergency-medicine/about/operational-leaders>

Academic Leaders

- Dr. Charles Wong, Certification in the College of Family Physicians (CCFP) Emergency Medicine Residency Program Director
- Dr. Anjali Pandya*, Fellow of the Royal College of Physicians of Canada (FRCPC) Emergency Medicine Program Director
- Dr. Kelsey Ragan*, Fellow of the Royal College of Physicians of Canada (FRCPC) Emergency Medicine Assistant Program Director
- Dr. Kathryn Crowder, Research Director
- Dr. Stephanie Vandenberg, Associate Research Director
- Dr. Claire Acton, Off-Service and Undergraduate Resident Coordinator
- Dr. Eric McGillis, Clinical Pharmacology and Toxicology Subspecialty Program Director
- Dr. Melanie Sohn*, Clerkship Director, Undergraduate Medical Education
- Dr. Brittany Sunderani*, Deputy Head of Education

Full bios can be read on our webpage: <https://cumming.ucalgary.ca/departments/emergency-medicine/about/academic-leaders>

*New Leaders 2024



Cross-Departmental Leaders

Alberta Health Services

- Dr. Kat Bateman, EMS Provincial Leadership Emergency Medical Services
- Dr. Laurie-Ann Baker (ACMO) (AHS)
- Dr. Ping Chen, Shock Trauma Air Rescue Services
- Dr. Steve Clark, RAAPID Provincial Medical Director Referral, Access, Advice, Placement, Information and Destination
- Dr. Colin Del Castilho, Associate Zone Medical Director
- Dr. Shawn Dowling*, Acute Care Program Improvement and Integration Networks Director
- Dr. Brad Granberg, Integrated Operational Center
- Dr. Kevin Hanrahan, EMS Provincial Leadership
- Dr. Pauline Head, Calgary Sexual Assault Response Team Medical Director
- Dr. Gerald Lazarenko, Provincial Pharmacy Medical Director
- Dr. Jen Nicol, STARS Assistant Medical Director
- Dr. Mandeep Sran, Calgary Fire Department Medical Director
- Dr. Arthur Tse, STARS Medical Director
- Dr. Ian Walker, EMS Medical Director Calgary Zone
- Dr. Charles Wong, Urgent Care Medical Director
- Dr. Mark Yarema, Clinical Pharmacology and Toxicology Lead and the Medical Director of the Poison and Drug Information Service
- Dr. Nancy Zuzic*, Medical Affairs / Physician Relations and Planning

Cumming School of Medicine

- Dr. Jessalyn Holodinsky*, Director of AI and Data Education and Ethics
- Dr. Aaron Johnston, Associate Dean Distributed Learning and Rural Initiatives
- Dr. Ian Walker*, Pathways to Medicine Program Lead
- Dr. Fareen Zaver*, Associate Dean, Office of Faculty Development

Full bios can be read on our webpage: <https://cumming.ucalgary.ca/departments/emergency-medicine/about/cross-departmental-leaders>

*New Leaders 2024



Physician Staffing and Recruitment

The Calgary Department of Emergency Medicine (DEM) continues to have the ability to successfully attract and recruit emergency physicians into the zone.

Wins

- **1.0 FTE Reduction:** After surveying our group, the definition of a 1.0 full-time equivalent (FTE) was adjusted to 12 shifts/28 days, improving sustainability and workload balance for Emergency Medicine physicians.
- **Enhanced Hiring Streams:** Two hiring pathways—**Associate** (permanent roles for experienced FRCPC or CCFP(EM) physicians) and **Locum** (short-term opportunities for recent CCFP(EM) graduates)—continued to provide clarity and flexibility for applicants and members alike.
- **Streamlined Recruitment:** A proactive hiring strategy led by Dr. Miles Hunter included:
 - Launch of a new Calgary DEM Job Opportunities webpage
 - National recruitment targeting FRCPC and CCFP(EM) trainees
 - Advertising in CJEM
 - Coordinated hiring timelines across Western Canada to improve transparency and decision-making for candidates

Challenges

Ongoing resource constraints and the transition to the new FTE structure created pressure to balance recruitment with sustainable operations. Despite these hurdles, the Calgary DEM Hiring Committee, with representation across leadership and clinical teams, successfully recruited to meet these demands while maintaining excellence in care delivery. This year’s hiring cycle was able to successfully meet the FTE requirements of the Calgary DEM, mitigate open shifts, allow for physician FTE reductions to be approved while also ensuring a balance of sustainable hiring for years to come.

Hiring Comparison	Year	
	2023	2024
Candidate Applications	29	38
Hired Associates	11	18
Hired Locums	11	8
Total Hires (FTE)	22 (21.4 FTE)	26 (25.4 FTE)

A huge thank-you to all those involved in the hiring process this year. We look forward to continuing to grow our group of outstanding physicians and reputation of clinical excellence!

Dr. Miles Hunter
Hiring Lead

Accomplishments

Promotions

Clinical Professor
Jennifer Thull-Freedman
Clinical Associate Professor
Colin Bell
Conor McKaigney
Gord McNeil
Katie Lin
Clinical Assistant Professor
Fayaz Harji
Eileen Kabaroff
Lorissa Mews
Braden Teitge
Nancy Zuzic



Awards

PGME Clinical Teaching Awards 2024

Dr. Kathryn Crowder

Dr. Shawn Dowling

Dr. Jonathan Lubin

Dr. Dennis Nesdoly

National Awards

Dr. Huma Ali – Canadian Association of Thoracic Surgeons award

Dr. Ian Blanchard – Paramedic Association of Canada – Paramedic of the Year

Dr. Niklas Bobrovitz (Resident) – Grant Innes Resident Research Award / CAEP QIPS Grant

Dr. Haley Cochrane – CAEP Physician of the Year Prairies Urban

Dr. Cody Dunne (Resident) – CAEP Resident Research Award

Dr. Mary Freymond – CAEP Resident Research Award

Dr. Joe Vipond – CMA Award for Political Advocacy

Dr. Fareen Zaver – American Express Emerging Leader Award / Top 100 most Powerful Women

Team Awards

Drs. Margaret McGillivray and Eddy Lang – Institute of Aging Prize: Yves Joannette Award of Excellence in Research in Aging

Institutional Awards

Dr. Michael Betzner – Recipient of the Long Term Education Contributions Award – Cumming School of Medicine

Dr. Christine East – Calgary and Area Medical Staff Society Advocacy Award

Dr. Margriet Greidanus – Recipient of the Guenter Award for International Health Award – Cumming School of Medicine

Site Updates

Foothills Medical Centre

Over the past year, the Foothills Medical Centre (FMC) Emergency Department has undertaken significant operational and clinical improvements. This report highlights key changes, challenges, and advancements over the course of 2024.

Leadership

The **site lead** Dr. Andrea Boone started in her role in late 2023 and was subsequently joined by a new **assistant site lead** Dr Dave Mainprize

Operational and Scheduling Updates

Shift Modifications: Adjustments were made to minor treatment shifts, including a summer hiatus and intermittent fall reopening. Further efforts are ongoing to ensure consistent operation.

FMC Home Site Initiative: A new program introduced to create a core group of dedicated FMC physicians, fostering long-term engagement and ownership. The goal is to expand this group to 25-35 physicians over the next five years.

Hiring and FTE Management: FMC remains slightly over-hired for 2025 to reduce unfilled shifts. Interest in FMC positions remains high, particularly among recent graduates.

Clinical and Procedural Enhancements

RAAPID DOC at Home (RDH) Trial: Implemented to improve physician workflow by reducing on-shift interruptions. The trial was largely successful and will resume in March 2025.

B-Pod Physician Procedure Cart: A dedicated stocking system was introduced, streamlining physician access to essential procedural supplies. Plans are in place to expand this to A-Pod and phase out mobile suture carts.

Specialty Consultation Pathways: Updated procedures for Cardiology, Medical Oncology, and Hematology referrals to streamline communication and reduce inefficiencies.

Facility and Equipment Improvements

Translation Services: FMC introduced a new authentication code for language access via mobile devices.

Pump Space for Nursing Mothers: Identified a 24/7 accessible space, with ongoing advocacy for a more suitable location.

Future Priorities

- Continued expansion of the FMC Home Site Initiative
- Further evaluation and optimization of the RAAPID DOC at Home model
- Implementation of additional procedural equipment stocking solutions
- Refinement of consultation and referral workflows

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



Peter Lougheed Centre

New Department

This year brought challenges and opportunities with our physical space. We navigated renovations while operating between the main side and the Surge Response Unit (SRU). We adapted flexibly, creating transition spaces for admitted patients and pivoting operations during the winter freeze. Staff resilience was a highlight of this demanding period.

Operations and Bed Pressures

High patient volumes persisted throughout 2024. We adapted with extra overnight and early-morning physician coverage to reduce wait times, despite ongoing challenges with space and intermittent service disruptions. Creativity and adaptability remain key to maintaining patient care quality.

Staffing

Amid a national burnout crisis, we strengthened our team with skilled recruits, simulation training, and focused education. Physiotherapy, occupational therapy, and social work support increased, alongside consistent pharmacy and respiratory therapy coverage. New physician hires included both recent grads and experienced practitioners.

Culture and Leadership

The PLC thrives on a friendly, collegial culture, bolstered by events like trivia nights and a holiday party. Strong leadership by Suzanne Wickware, Terri Roth, Maria Vera, and our nurse educators ensures stability. Drs. Meira Louis and Haley Cochrane provide excellent physician leadership, maintaining a department valued for teamwork and patient care.



Jackie Miller, Terri Roth, Maria Vera, Meira Louis,
Haley Cochrane (missing Suzanne Wickware)

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



Rockyview General Hospital

In 2024, RGH ED handled the highest patient volumes in the Calgary Zone, with 82,656 visits (226/day), including 63 EMS arrivals daily. Despite these demands, RGH maintained the lowest triage-to-physician times and left-without-being-seen rates in the city. Patient acuity remained stable: 1% CTAS 1, 40% CTAS 2, 49% CTAS 3, 8% CTAS 4, and 1% CTAS 5.

Intake Redesign

Launched September 2024, the redesign optimized intake and fast track areas:

- Expanded recliner capacity from eight to 16, added private reassessment space, and improved throughput
- Fast track and intake reassessments enhanced by staff realignment and dedicated physician times
- Evaluation metrics and surveys are ongoing for 2025

EMS Offload Process

- Improved EMS hand-off documentation and accountability in Connect Care
- Implemented emergent offload in July 2024 during red alerts, expediting patient movement to inpatient units or waiting areas
- Seasonal nursing funding supported ten ED Park beds operating 24/7

2024 RGH ED Initiatives

- ****Physician Assignment Schedule:**** Developed for RAAPID calls and ECG reviews
- ****ECG Review Process:**** Implemented RN-ordered ECG reviews for timely identification of high-risk cases
- ****Stroke Protocol Update:**** Collaborated with Dr. Katie Lin to refine stat stroke processes and criteria
- ****Standardized DI Process:**** Worked with DI colleagues to streamline after-hours/outpatient imaging workflows
- ****Expanded HCA Scope:**** Health Care Aides began assisting with POCT, vital signs, and documentation (March 2024)
- ****Unit Clerk Council:**** Formed in May 2024 to optimize referral management; clerks assumed Calgary Zone ophthalmology overnight booking (September 2024)
- ****Accreditation Success:**** Achieved provincial recognition for best EMS offload data; focused on suicide risk screening and handover improvements
- ****Surgical Admit Pathway:**** Launched in November 2024 to reduce ED visits for direct-to-surgery patients

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



South Health Campus

Department Update

The department remains unchanged in layout and bed count compared to last year. The 24/7 operation of the H-pod and EMS park has significantly improved ambulance turnaround times, allowing EMS units to return to the street more quickly. Additionally, the acquisition of a new ultrasound unit has enhanced access and image quality for point-of-care ultrasound (POCUS), benefiting patient care.

Human Resources

Nurse staffing has seen substantial improvements through an aggressive and continuous hiring strategy, complemented by the integration of licensed practical nurses (LPNs) alongside registered nurses (RNs). There have been no leadership changes this year on either the RN or MD side. Pharmacy technician coverage has been expanded to assist with best possible medication history (BPMH), though some nighttime pharmacy coverage was lost. Physical and occupational therapy (PT/OT) presence in the emergency department has also increased further this year, enhancing patient mobility and discharge planning.

Our site welcomed a record number of ten new physicians this summer. They have integrated exceptionally well into the team and continue to provide high-quality care to our patients.

Flow and Capacity Efforts

The Quality Improvement (QI) Committee has been re-established, bringing together nursing and physician volunteers to identify and implement QI projects aimed at optimizing patient flow. Despite these efforts, the Emergency Inpatient (EIP) burden remains a significant challenge, with our site experiencing the highest EIP percentage and longest emergency department length of stay (LOS) in the zone.

Emergency department volumes have risen from approximately 170 visits per day in 2023 to 190-200 visits per day in late 2024. This increase is partially attributed to higher pediatric volumes, likely influenced by the introduction of a separate ED waiting time dashboard for pediatric patients. Previously, only adult wait times were displayed, which are typically much longer than pediatric wait times.

To enhance patient care and follow-up, we have renewed our collaboration with the South Calgary Primary Care Network (PCN). A new protocol is set to go live, allowing ED physicians to arrange urgent (potentially next-day) follow-up with a family physician for up to eight patients per day. Additionally, final refinements are being made to a referral-from-triage process to streamline access to primary care services.



Quality Improvement Initiatives

The Sustainable QI (SusQI) competition has led to a significant reduction in the use of IV mini-bags when administering ketorolac. New physiotherapy pathways have been implemented, allowing PTs to assess pre-selected patients with low back pain or vertigo, reducing their overall length of stay.

A cohort of our nurses has been trained in ultrasound-guided peripheral IV placement, improving patient access to IV therapy. Additionally, our team has undergone training in Dual-Sequential External Defibrillation (DSED), enhancing our ability to manage critical cardiac cases.

We have also incorporated volunteer staff in the intake process to assist with patient comfort needs such as blankets, pillows, and water, contributing to a better patient experience.

Geriatric Emergency Medicine

Dr. Marge McGillivray has returned from her fellowship training in Geriatrics and is actively working towards establishing a dedicated Geriatric Emergency Medicine pod at our site. This initiative represents a groundbreaking advancement for emergency medicine in Canada and is expected to significantly enhance care for our older patient population.

Dr. Daniel Joo, SHC Site Lead
on behalf of the SHC Emergency Leadership Team



Quality and Safety Update

The Patient Safety/Quality Assurance space has had a busy 2024 with many Quality Assurance Reviews, the identification of areas of risk within our care processes and robust recommendations for risk mitigation. Thank you again to the ED Staff and ED Residents who participated in a Quality Assurance Review: Your efforts improved the care of ED patients. There will be additional opportunities to participate in future QARs and I hope DEM members consider doing this.

Improvements in patient safety are not inevitable. They require the concerted efforts of curious and detail-oriented individuals to make it happen and participating in a QAR is one way to do this.

Quality Assurance and Educational rounds presented in 2024 provided unique learning to our ED group. These rounds, while centred typically on a patient safety incident, emphasized the processes around identifying the system risk(s) contributing to the incident and efforts around future risk mitigation. Many high-quality recommendations were made and several of these have been implemented.

Additionally, these rounds presented some common cognitive biases that at times are part of the anatomy of an adverse event. The hope is to get people thinking about cognitive bias and how they may affect each of us in our work.

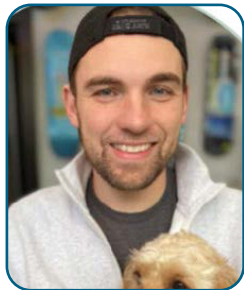
At the beginning of December, I moved to a zone position in Quality, and I wanted to take this opportunity to thank all of you who have contributed to both patient safety and quality improvement projects over the last ten years. I also wanted to thank the people who allowed themselves to be interviewed for a Quality Assurance Review. I know that this is not always easy but your willingness to be open and honest, and your appreciation of the role that these activities play in improving care, is both appreciated and an example of significant professional maturity.

The DEM will soon have a new Patient Safety Lead and while the job description may change slightly the role remains unique in the DEM and I know this group will continue to support it.

Dr. Adam Oster
Patient Safety Lead

Associates, Fellows and Locums

Associates



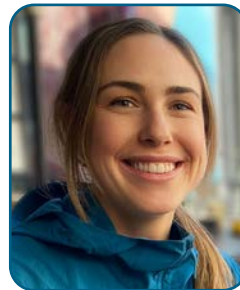
Dr. Cody Dunne



Dr. Natasha Goumeniouk



Dr. Landon Leinweber



Dr. Cara McCulloch

Fellows



Dr. Jason Elzinga



Dr. Nick Sajko

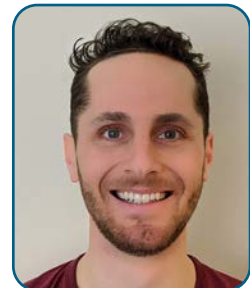
Locums



Dr. Stephen Andrews



Dr. Alicia Briggs



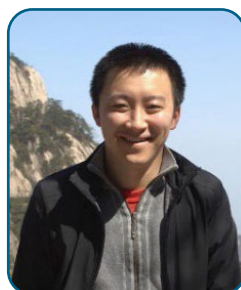
Dr. Ira Carson



Dr. Liz Cook



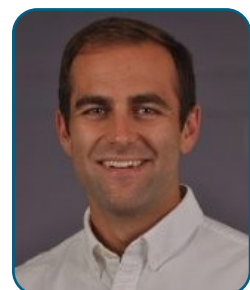
Dr. Christina Dennehy



Dr. Alex Dong



Dr. Mika Hemphill



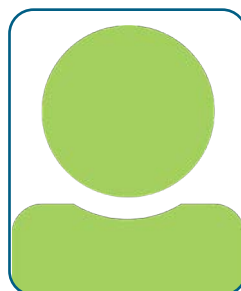
Dr. Rory Killam



Dr. Alex Love



Dr. Yuda Shih



Dr. Tyler Clarke

Divisions/Sections/Areas of Focus

Clinical Informatics

Connect Care Update

The final Connect Care launch in Alberta took place in November, bringing Public Health, Healthlink, and several home care departments online. With implementation complete, efforts have shifted to optimization, focusing on high-priority improvements within the EMR.

The ED Sprint Pilot Project was a major step in this process, using end-user feedback to drive targeted optimizations. Key enhancements included improved flow-sheet functionality, EMS documentation accessibility, the Sidebar window, the ED Synopsis chart review tab, and an EMS ECG hyperlink within the Workup tab. Future ED Sprints will continue to refine system usability based on frontline input.

The CMIO team has also been engaged in longer-term projects, including optimizing ED/UCC order sets to enhance functionality and incorporate evidence-based decision support. Order sets for VTE, Stroke, and ACS are undergoing this process and will soon be deployed with input from ED MILs across the province.

Local Initiatives

The myED (Eolas) online resource remains the primary hub for Calgary Zone clinical pathways, guidelines, and protocols. With a province-wide EMR, maintaining a repository of local workflows is increasingly vital.

The Calgary Zone Referral Workflows document continues to support clinicians navigating outpatient referrals within Connect Care. Ongoing collaboration with the Alberta Referral Directory (ARD) aims to make it the single 'source of truth' for referral workflows, with a strong push to include ED-specific referral guidelines to improve usability.

Additional local initiatives include refining the Calgary Zone Emergency Department Common Workflows tip sheet and enhancing the CZ Connect Care Downtime Survival Guide to support clinicians during system outages.

Looking forward to 2025

Informatics will undergo restructuring in 2025 as part of broader AHS organizational changes. Despite this, the focus remains on Connect Care optimization, ensuring improvements align with end-user feedback and clinical priorities.

Dr. Chris Hall
Physician Project Lead Clinical Informatics



Clinical Pharmacology and Toxicology

The Section of Clinical Pharmacology and Toxicology (CPT) members are very pleased to present a summary of our activities for the 2024 calendar year.

PADIS continued to host residents from Emergency Medicine (Adult and Pediatric), Internal Medicine, Anesthesia, Family Medicine, Psychiatry, Lab Medicine, 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 call from Regina, Saskatoon, and Swift Current.

This year, Drs. Alexandra Hamelin and Jacqui Hiob passed their Royal College examinations in CPT and joined our staff of Medical Toxicologists. Dr. Katrina Assen also joined our group in July. Katrina is a pediatrician who graduated from the Western University CPT program and passed the Royal College CPT exam this year.

In July, Drs. Jason Elzinga and Nick Sajko entered their second year of our CPT fellowship. Both Nick and Jason are also working clinically in the Calgary Zone as staff Emergency Physicians and will join the PADIS group of toxicologists in July 2025.

Drs. Assen and Hiob joined our Clinical Pharmacology Consultation Service group in July 2024. This brings our total to seven physicians taking call for this group.

In September, the section was well-represented at the annual North American Congress of Clinical Toxicology in Denver. We had three posters accepted, and Drs. Hiob and Sajko were on hand to present their posters. Dr. Riley Hartmann assumed the role of PADIS Associate Medical Director, replacing Dr. Lucyk who had been in the position for seven years.

Finally, our CPT program matched one candidate for a start date of July 2025. Dr. Meghann Pasternak is a Nephrology fellow at the University of Calgary. She has already completed some PADIS and Clinical Pharmacology electives with us and will be the first Internal Medicine-trained physician to enter our fellowship.



As part of the Strategic Planning process, we developed a series of metrics to help us determine our success in meeting our goals and objectives. What follows are our metrics for the 2024 calendar year up to December 23rd. The 2023 numbers are in parentheses for comparison.

Goals and objectives	2024	2023
Number of Clinical Pharmacology consults	89	130
Number of Medical Toxicology bedside consults	18	46
Number of PADIS Toxicologists	8	5
Number of Physicians on Clinical Pharmacology consult service	7	5
Number of Toxicology Clinic patients seen in outpatient clinic	21	27
Number of research projects published by Section members	2	3
Number of Section of CPT members	11	8
Section members who are also members of University of Calgary research institutes	2	2
Number of residents and/or students mentored by Section members	19	15
Number of publications by CPT fellows	0	1
Number of CPT lectures given by Section members to Undergraduate Medical Education students	3	3
Number of CPT lectures given by Section members at Postgraduate Medical Education academic half days	40	38
Number of CPT lectures given by Section members at CME events	20	19
Number of inquiries about Calgary CPT program	9	11
Number of applicants to Calgary CPT program	2	0
Number of residents rotating at PADIS	59	63
Number of residents rotating on CP consult service	8	6

Dr. Mark Yarema
Section Lead, Clinical Pharmacology and Toxicology
Clinical Professor



Frequent Visitors Program

The Frequent Visitors Program is a clinician-led initiative that develops individualized care plans for patients who frequently visit emergency departments (ED) and urgent care centres (UCC). Recognized with multiple awards, including the Calgary Health Foundation Heroes in Health (2024) and CAMSS Advocacy Award (2024), the program continues to expand and evolve.

Launched in 2017 by Dr. Christine East and Ken Mont at Rockyview General Hospital, the program expanded to all adult sites in Calgary Zone in 2019. In 2024, we welcomed a Program Manager (Julie Meyer) and administrative support (Brianna Clarke) and anticipate hiring a 0.7 FTE Nurse Clinician by early 2025.

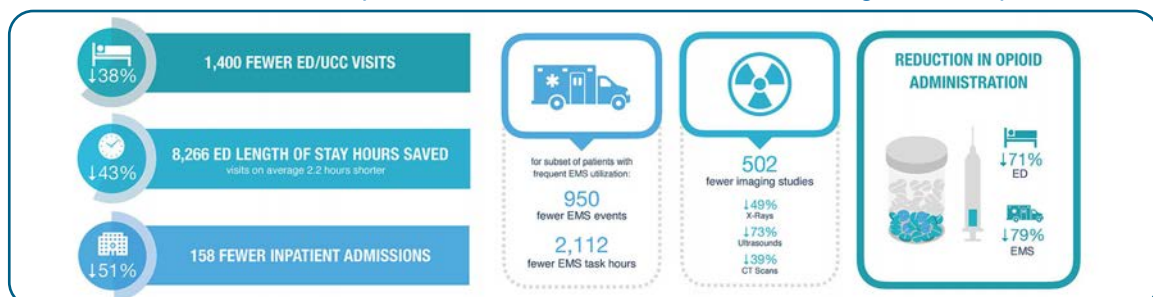
Frequent ED visits highlight unmet healthcare needs and contribute to overcrowding, provider burnout, and patient harm. These patients often require complex, coordinated care. Dr. East and Ken Mont lead a multidisciplinary committee developing supportive care plans in collaboration with EMS, primary care, Addictions and Mental Health, Clinical Ethics, the Chronic Pain Centre, and other system partners. Patient involvement in care planning remains a priority.

The program has gained interest beyond Calgary Zone. Dr. East has presented to stakeholders and executive leaders, advocating for expansion. In 2024, she and Ken Mont presented to the Provincial System-Wide Capacity Committee and supported Edmonton Zone in developing their own program. Efforts are ongoing to secure funding for sustained growth.

As of December 2024, we have 137 active plans, with 57 patients wait-listed. A retrospective quality improvement study (83 patients with at least 12 months of pre/post data) showed significant reductions in ED/UCC visits, length of stay, inpatient admissions, diagnostic imaging, EMS events, and opioid administration ($P < 0.01$). A preliminary financial analysis estimated cost avoidance of over \$994,209 per year (\$11,978 per patient). ED staff surveys indicate strong support for the program.

ED Treatment Plans transitioned to Connect Care in 2022, bringing both opportunities and challenges. Continued growth and enhancements are expected in 2025 and beyond.

For more information, visit: <https://insite.albertahealthservices.ca/edc/Page26721.aspx>.



From: East C, Holodinsky J, Mont K, McCrae A, Lang E. Emergency Department Frequent Visitors Program: A pan-system collaborative approach to improve quality of care, reduce harms and protect capacity. 2024 Physician Learning Program Summit, June 2024, Edmonton AB.

Dr. Christine East
ED Treatment Plans Physician Lead



Geriatric Emergency Medicine Hub

Geriatric Emergency Medicine Hub is a multidisciplinary team guided by our focus on developing tools and improving systems to improve the Emergency department experience for older adults in Calgary.

Dr. Margaret McGillivray and Dr. Zahra Goodarzi are physician co-leads.

ED Physician representation from each site include:

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

SHC

Geriatric Emergency Pod

Calgary Health Foundation awarded funding to the SHC to plan, design and build a purpose-built Geriatric Emergency department pod within existing shelled space at the SHC ED.

The Geriatric pod will promote current best practices for seniors and create a sensitive environment which will improve patient experiences and health outcomes.

The development of a Geriatric ED pod will allow SHC to deliver holistic, culturally safe and patient-centered care. It will function as a geriatric care hub with the centralization of specialized staff and volunteers. Which will improve the quality and consistency of care delivered to our older patients.

An included physiotherapy space would target patients that require discharge planning related to their mobility and function, to assess for discharge readiness, and plan home strength and balance programs that are tailored to the individual. This process will contribute to reducing the risk of future falls and functional decline post ED discharge.

The planned environmental enhancements include: rubber flooring, non-skid surfaces, non-slip floor mats, handrails on walls and hallways, aisle lighting, patient-controlled lighting in their patient care areas, ED beds at levels that allow patients to rise more easily for safe transferring, recliners for comfort and mobility, extra thick gurney mattresses or pressure relief mattresses, acoustic orientation improvements, bathrooms located near the nursing station and easy access to food and drink.

The intentionally designed Geriatric ED will contribute to a reduced risk of delirium, improved patient comfort, assist patient mobility, support autonomy and improve patient safety. This dedicated space will allow patient's families and care takers the opportunity to remain with the patient and have a more active presence in the care we deliver.

We are excited to start the process of collaboratively designing and planning the Geriatric ED at SHC.

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 emergency medicine. A focus of the Hub is offering meaningful ways to become involved in global emergency medicine without necessarily leaving home.

2024 was a very exciting year. We hosted another three EM residents from Mbarara University of Science and Technology (MUST) in Uganda in May and June. They were embedded within the residency program and completed clinical rotations with shifts at FMC, PLC, and ACH. They also completed courses in simulation, ATLS, and did EMS ride-alongs.



Drs. Jacob Busingye, Sarah Oworinawe, Margriet Greidanus, and Balu Mabiala enjoying spring around Lake Louise

The specialty of EM is new (or non-existent) in much of Africa. The visiting residents' goals were to experience how a highly resourced EM system functions and hopefully implement some of the relevant clinical, organizational, and educational techniques learned here in Calgary. The learning curve is steep due to cultural differences and the complex systems we use. But overall, feedback from this program has been positive. Faculty and residents have been engaged and energized by the opportunity to teach and learn from our MUST colleagues. The residents from MUST have had life-changing experiences and bring new knowledge and skills home with them to grow the specialty.



The Department of EM has now hosted six African residents for clinical rotations. This is an entirely novel program in Canada and our experience has been documented in a series of Global Emergency Medicine papers published in the CJEM this year.

We look forward to hosting another three residents from MUST this winter. As well, Dr. Margriet Greidanus, accompanied by a senior Calgary EM resident, are planning to travel to MUST in the spring as part of this program. There are ongoing opportunities for faculty and senior residents to teach, undertake electives, and work clinically at



The visiting MUST residents and Andrew Battison at the Banff Gondola

MUST. This program has university support which adds an additional level of safety and security. Please reach out to me or Margriet 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



Pharmacy Update

FMC

Following 2023's provincial expansion of pharmacy services within Alberta Emergency Departments, our team has continued to develop and further integrate into the FMC ED Pharmacy team throughout 2024. There have been a few team member changes: John Choi joined us full-time after finishing his PGY1 pharmacy residency; Catherine Foote has returned from maternity leave with Mini Chan stepping into her temp position in the interim while Catherine moved to SHC. With heavy hearts we had to bid a goodbye to our retiring long-time clinical technician, Tracy Young, as she begins to navigate both retirement and the unknown streets of the cities, she finds herself in during her travels. In her place, we've been happy to have Alex Huszti and Irish Castro join our clinical technician team.

Heidi Crossland, a Military Pharmacy Resident, joined us for one month to introduce her to clinical emergency pharmacist practice and bring some of that info into her military practice. Dr. Nick Sajko joined us for two weeks as well for his clinical pharmacy and toxicology fellowship. We're looking forward to having more pharmacy learners in the coming months!

Throughout the year, we are committed to supporting our ED colleagues wherever possible. Currently, we are engaging in quality improvement initiatives to ensure positive outcomes and improved medication management while patients await MRHP assessment. Day-to-day, it is always a pleasure working side by side with our colleagues and we're thankful for the support of the team to collaborate and utilize our broadening full scope of practice.

Your ED Pharmacy team is excited to continue working with our colleagues in 2025, and we look forward to all the opportunities the next year may bring. Happy New Year!

John Choi BHSc Honours, PharmD, ACPR
Connor White PharmD
on behalf of the FMC Pharmacist and Pharmacy Technician Team

PLC

In 2024, the PLC ED team underwent exciting changes while also building on established roles within the department. To further enhance patient care, our team expanded with the addition of three pharmacists and three pharmacy technicians, bringing the core team of pharmacists to five and pharmacy technicians to six. This expansion has allowed us to provide more consistent coverage, with day and evening coverage on weekdays and day shift coverage on weekends,



which has better equipped us to support medication management, improve patient flow, and reduce medication errors and adverse events in the department. Since Jan 2024, the PLC ED team reported 6300 distinct workload interventions with a total time of more than 2,600 hours, with 82% of activities involving direct patient interactions. The ED pharmacy technician team continues to play a vital role in ensuring the accurate completion of Best Possible Medication Histories (BPMHs) seven days a week. In the past five months (Jul-Nov 2024), the pharmacy team has completed approximately 1100 BPMHs in the ED. They have also improved medication management for patients in the ED by intervening and resolving over 800 drug therapy problems. This has enhanced efficiency in the medication reconciliation process, especially during transitions in care and improved patient safety in relation to medication decisions.



Back Row: Cody Thompson Rph, Helen Whittaker RphT, Vanessa Stewart RphT, Daniel Robinson Rph
Front Row: Fred Min Rph, Jacob Xiang Rph, Stephanie Templeman RphT, Kim Wevers RphT

In the latter half of the year, multidisciplinary collaboration, particularly with Occupational Therapy (OT) and Physical Therapy (PT), has been a priority on two key initiatives. The first is the Lower Back Pain (LBP) Assessment and Management pathway, where a collaborative PT-Pharmacist approach helps patients manage LBP and reduce opioid use through pharmacotherapy, non-pharmacological interventions, education, and referrals to community



Charlene Talavera RphT, Sharmaine Mirador RphT, Judi Parrott Rph, Kelly Liu Rph

providers, aiming to improve self-management. The ED pharmacist would primarily be involved in providing medication and/or non-pharmacologic strategies for pain management. The second initiative involves Falls Assessment and Medication Review, where pharmacists work with OT/PT to assess patients at risk for falls due to physical limitations (dizziness, syncope, etc.), polypharmacy (6+ meds), or high fall risk medications, with the goal of reducing fall-related injuries and ED readmissions.

These efforts reflect our ongoing commitment to improving patient outcomes and enhancing the care experience in the PLC ED. We look forward to expanding our team further in 2025 and continuing to work collaboratively with our ED colleagues.

Angela Giang BSc Pharm

Amnah Rana BSc Pharm, PharmD

Fred Min, PharmD

On behalf of the PLC ED Pharmacist and Pharmacy Technician team

RGH

This year the pharmacy team at RGH continued to add to our pharmacy coverage, training more technicians and pharmacists to enable the provision of services 7 days/ week and on evenings.



Our technicians have been trained to complete medication reconciliation and are a great asset in the Emergency Dept (ED). This also frees the pharmacist to see more patients and attend to more consults. We continue to be the main team that follows up on abnormal microbiology results where this became very apparent during our STEC outbreak this year. We are also regularly involved in ensuring the process of ordering medications for IT bed patients is done correctly and efficiently. We have participated in nursing orientations and tours to improve communication and understanding between both groups, as well as case presentations to the ED physician group.

We continue to be involved with specific patients that require Treatment Plans in the ED as well as back pain patients with the physio team. Our workload/stats reporting system was upgraded this year to more accurately capture and report pharmacy activities. As a team we also regularly take on learners (2nd and 4th year pharmacy students) and give them exposure to our activities in ED.

Our pharmacy team has come to be a service that's dependent on regularly by physicians, allied health groups as well as patients. We look forward to another upcoming year of great teamwork to deliver exceptional care in the ED.

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

SHC

The South Health Centre Pharmacy Team went from four clinical technicians to none present in the department. Plans to get them back in the new year but nothing confirmed as to dates. Lost two pharmacists on the team due to resignations so it is only Carmen and Lascelles at present. We are training a temporary replacement Catherine Foote who has worked at FMC prior to her tenure here. That is to replace Lascelles who is taking a temporary position on the Medical Surge Unit at SHC. Clinical hours have been cut due to budget constraints. Used to have 7-day coverage 0700-2315 but now there is no coverage on weekend evenings and Monday to Friday hours are: 0700-2230.

Lascelles Driedger, BSc, BPharm
Catherine Foote, BSc, BPharm
Carmen Leung, BSc, BPharm
on behalf of the SHC Pharmacy Team



Ultrasound Pocus

This is my second year as the ultrasound coordinator for Calgary, with significant progress made in advancing the POCUS program across various areas.

2024 Highlights

Clinical

Acquisition of four new Sonosite PX machines for FMC and SHC, with a strong possibility of additional machines being allocated to sites in critical need.

Implementation of QPath archiving software, now accessible to all ED physicians ([usage instructions HERE](#)).

Successful completion of the GEMS POCUS course, attended by 45 participants. Special thanks to Drs. Joo, Lenz, Park, and Packer for their excellent instruction, and to Dr. Sunderani for organizing the event.

Future Goals

- Continue developing POCUS infrastructure
- Advance efforts to make transesophageal ultrasound (TEUS) a reality in Calgary

Education

Fellowship: Revived and redesigned under the leadership of Drs. Nick Packer and Melanie Willimann. Two fellows, Drs. Bobby Johnston and Alexa Scarcello, have been selected for the 2024/2025 term.

Residency: Drs. Kasia Lenz and Hannah Park continue to lead senior and junior ultrasound rotations. EM residents are successfully completing their basic POCUS curriculum and progressing to advanced studies, including advanced cardiac POCUS, gallbladder imaging, DVT evaluation, lung imaging, nerve blocks, and difficult vascular access.

Future Goals

- Revamp POCUS education and support for staff physicians

Research & Academics

Ongoing Projects

- *Sonographic Assessment of Fasting Emergency Room Sedations:* Led by medical students Sean Park and Lindsey Berthelsen, this study examines the relationship between POCUS-based fasting assessments in the ED and patients' self-reported NPO status
- *CJEM POCUS Top 5s:* Focused on pelvic ultrasound in early pregnancy



2024 Calgary EM POCUS Publications

- <https://doi.org/10.1016/j.emc.2024.05.007>
- <https://doi.org/10.1007/s43678-024-00814-0>
- <https://doi.org/10.1007/s43678-024-00652-0>
- <https://doi.org/10.1007/s43678-023-00611-1>
- <https://doi.org/10.1007/s11548-023-02908-z>

Future Goals

- Expand Calgary's POCUS research portfolio through active participation in the CAEP Emergency Ultrasound Committee POCUS Research Network

Administrative

Future Goals

- Advocate for the addition of a POCUS billing code to the medical schedule of benefits

I welcome all ideas and suggestions to improve the POCUS program. Please don't hesitate to reach out with feedback or questions.

Dr. Colin Bell
Ultrasound Coordinator

Referral, Access, Advice, Placement, Information and Destination

Emergency physicians are familiar with the 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 just 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.

2024 in Review

2024 proved to be a challenging year as system capacity constraints and service diversions tested RAAPID's ability to coordinate advice provision and facilitate patient movement throughout the province. We continuously work with multiple stakeholders locally, zonally and provincially to achieve our goals.

Of local relevance, the RAAPID team worked closely with the Calgary Department of Emergency Medicine Leadership throughout the year to expand RAAPID's service provision to intra-facility clinics that send patients to the ER, trialling the RAAPID Doctor at Home, creating processes to engage R5 ER Resident Learners in telemedicine training, and sharing data to support some of the initiatives of the DEM.

2024 also saw RAAPID creating a net-new leadership role, hiring an Associate Medical Director who will be tasked with regional and rural processes at RAAPID. We are excited that this new position will allow greater engagement with our rural colleagues. Please join me in welcoming Dr. Stephen Annand as the successful applicant, who joined our team this past December.

For 2025, 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

The College of Family Physicians (CCFP) Emergency Medicine residency program has enjoyed another successful year with a new batch of residents. This year, we had a successful “mock” accreditation that should portend a favourable review to the 2-year review that is scheduled for spring 2025.

Current Residents

Drs. Kayla Baker, Hannah Boone, Kyle Exner, Shaila Gunn, Anil Keshvara, Daniel Park, Bryce Paxton, Vincent Soh



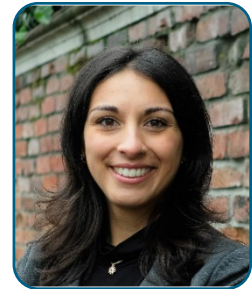
Dr. Kayla Baker



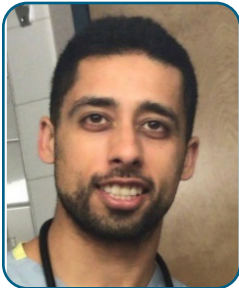
Dr. Hannah Boone



Dr. Kyle Exner



Dr. Shaila Gunn



Dr. Anil Keshvara



Dr. Daniel Park



Dr. Bryce Paxton



Dr. Vincent Soh

LPs

Drs. Chris Bond, Kathryn Crowder, Margriet Greidanus, Dan Joo, Amanda Schreiner, Braden Teitge, Rory Thompson and Paul Tourigny



Core Leaders

SIM: Margriet Greidanus

POCUS: Mike Wolf (supported by FR POCUS lead Kasia Lenz)

Exams: Robin Liu

Curriculum Coordinator: Geo Avery-Cooper

Research/QI: Kathryn Crowder

Ombudsperson: Alex Love

Lead Residents: Shaila Gunn and Bryce Paxton

Incoming Residents

- Philip Bialek
- Celine Edwards
- Tristan Holotnak
- Eric Paxman
- Alysha Rasool
- Andrew Schmaus
- Taranveer Toor
- Sarah Walton

Lastly, this academic year will be the Charles Wong's final as EM PD. He has served since 2022. He will be supporting a smooth transition to a new program director hopefully in April 2025.

Dr. Charles K Wong
CFPC-EM Residency Program Director



Clerkship Update

136 students from the Class of 2024 completed their Emergency Medicine mandatory clerkship rotation in Calgary. The rotation is two weeks in duration, with seven shifts split between the Foothills Medical Centre (FMC) and one of the other adult emergency medicine sites (Rockyview General Hospital, Peter Lougheed Centre, South Health Campus).

The clerks participate in Simulation sessions which are designed to increase exposure to critical presentations, along with 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.

For 2024, the overall rating for the EM mandatory clerkship was 4.29 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 “excellent” and are “passionate about teaching”.



Dr. Melanie Sohn
Clerkship Director, Undergraduate Medical Education



RCPSC — EM Residency Program

It has been another busy but rewarding year for the residency program. The Royal College of Physicians and Surgeons of Canada (RCPSC) EM program is extremely grateful for the excellent support provided by the education administrative support team: Madhavi Talasila, Tris Masalani and Monica Lee. Their support is indispensable. We are thrilled to welcome Dr. Kelsey Ragan into the role of Assistant Program Director. She has hit the ground running, and the program is so fortunate to have her in this role.

In the 2024 CaRMS match we recruited four amazing candidates: Drs. Tyara Marchand, Adrian Teare, Benjamin Campbell and Jade Chow. The program is already busy preparing for the 2025 CaRMS match as Emergency Medicine in Calgary remains a highly desired post-graduate training program amongst medical students from across the country. We are thrilled this year that our perseverance advocating for our specialty has resulted the Allocations Committee granting us a permanent fifth residency spot for CMGs moving forwards starting July 2025.

While we have completed the launch of Competency by Design, we have also transitioned assessment platforms for RCPSC trainees from ePortfolio to MedSIS as part of a University of Calgary decision. We are excited about the increased functionality of this platform and the effect it will have on minimizing administrative load with respect to EPA tracking. We are grateful to all staff and faculty for doing their best to integrate this change.

Program Structure Changes

The program is now in its second year of a change in academic day programming to include more protected time for self-study and more small group sessions to facilitate discussion and near-peer teaching. Feedback on this change has been extremely positive from learners. As the Enhanced Skills stream brings a satellite training program on board next academic year, our academic day programming will also include these learners through a virtual option.

We have officially separated our Residency Program Committee (RPC) from the Enhanced Skills stream and our prior shared governance structure to better allow clear accountability and governance of both programs. This change has been positive and allows each RPC to focus on the needs unique to these individual training streams accountable to different colleges and accreditation standards. We continue to work collaboratively and closely with Dr. Wong, Enhanced Skills PD. Most of our academic programming is organized by the RCPSC Assistant PD but remains shared between both programs so that our longstanding relationship continues to function well.

Inter-Specialty Collaboration

We have had some exciting inter-disciplinary collaboration in the simulation arena. Recognizing that safety in the ED and non-violent crisis intervention skills are an area of ongoing educational need, we coordinated a joint simulation session with the Department of Psychiatry for our



junior residents. This initiative was extremely successful and highlighted at the International Conference on Residency Education in September as part of an oral presentation by PGY-5 Dr. Jonathan Wong. Our next simulation project is a collaboration with the Department of Clinical Neurosciences.

Clinically, we have engaged in fruitful conversations with the Department of Surgery and have been able to collaborate on modifications to our Orthopedics Rotation that have addressed prior learning environment concerns and allowed our learners a higher yield rotation. We will also be returning our PGY-1 learners to a General Surgical rotation starting in 2025, which we suspect will be similarly improved from prior iterations. We continued to be dedicated to building inter-specialty relationships.

Resident Scholarship

The scholarly contributions of the residency program also continue to grow. PGY-2 Dr. Nik Bobrovitz has taken over as the Resident Research Representative and as part of this has generated an intensive report on how we can best support resident research. We are extremely grateful to him for this work, and to our Research Department members including Dr. Jessalyn Holodinsky and Dr. Kathryn Crowder for their engagement with the resident group. PGY-4 Dr. Mary Freymond was recently recognized with a CAEP Resident Research Award for her work entitled “Treatment outcomes of patients transported by helicopter emergency medical services to a comprehensive stroke centre: A work in progress” and prolific researcher, PGY-2 Dr. Bobrovitz, has recently submitted his abstract for his collaborative work entitled “The risk of short term cardiovascular events among emergency department patients “ruled out” using high-sensitivity cardiac troponin assays: a systematic review and meta-analysis”.

Future Directions

As we look to the future and our upcoming Internal Accreditation in a few years, we are busy working on integrating Continuous Quality Improvement to our residency program and look forward to identifying priority directions at our upcoming Annual Resident Retreat in February 2025. We are thrilled that this year we have been able to coordinate with the Physician Executive Committee, who will also be holding a retreat over these dates. We are excited about the future direction of the Department of Emergency Medicine under our new Department Head, Dr. Catherine Patocka, and in particular the momentum towards ongoing accountability towards Truth and Reconciliation and Anti-Racism. We aim to build more partnerships at an institutional level to allow us to better support our learners from equity-deserving backgrounds within the ecosystem of our department.

Educational Leaders

We continue to benefit from the dedication and hard work of many of our departmental educational leaders as we constantly innovate within our academic programming. The dedication of all of our staff members towards educational support is invaluable and is especially



commendable and critical given the large budget cuts our program has faced from the PGME this year. Drs. Claire Acton and Kelsey Ragan continue to lead our Equity, Diversity and Advocacy Curriculum (EDACS). Over the past two years they have collaborated with AHS to offer high yield workshops to our learners focused on Indigenous Health. We continue to offer multidisciplinary simulation and to use simulation for assessment of Entrustable Professional Activities. We'd like to recognize the Dr. Tyson Savage and Dr. Carly Hagel for their leadership of the latter, and Dr. Patricia Lee and Dr. Lorissa Mews for their ongoing dedication in leading the Junior and Senior simulation programs. We would also like to recognize Drs. Bryan Weber, Robert Hall, Patricia Lee, Sarah McPherson, Paul Tourigny and Michael Szava-Kovats for their work organizing our annual skills workshops ranging from Airway Management to Advanced Communications. We would also like to welcome Dr. Cody Dunne and Dr. Omar Damji to the positions of Journal Club leads and thank Dr. Kelsey Ragan and Dr. Dave Mainprize for their hard work in revamping this important educational experience.

We extend our deepest gratitude to all our educational leaders:

The Residency Program Committee

Meets every other month to review the program and implement improvements and policy.

Members: Drs. Anjali Pandya, Kelsey Ragan, Charles Wong, Claire Acton, Alyssa Morris, Brad Granberg, Conor McKaigney, Catherine Patocka, Kathryn Crowder, Sarah McPherson, Geordan Avery-Cooper, Huma Ali, James Huffman, Ryan Deedo, Melanie Sohn, Tyson Savage, Naminder Sandhu, Russ Lam, Jayelle Friesen-Enns, Kira Genise, Katie Anker, Carly Hagel

The Clinical Competence Committee

Meets quarterly to review resident progression, performance and feedback and make promotion decisions.

Members: Drs. Lester Mercuur (chair), Geoff Lampard, Ian Rigby, Jeff Shaw (External Member), Hannah Park, Robyn Palmer, Fareen Zaver, Patricia Lee-Nobbee (resident advocate)

Simulation Programs

Multidisciplinary simulation streams include our Introductory Transition to Discipline Sim, Junior Simulation, Senior Simulation and Simulation for Assessment programs.

- Junior Simulation Leads: Dr. Patricia Lee-Nobbee and Dr. Tyson Savage
- Senior Simulation Lead: Dr. Lorissa Mews
- Assessment Simulation Leads: Dr. Carly Hagel and Dr. Tyson Savage

Ultrasound and Procedural Skills

Includes annual basic ultrasound training, certification of beginner and advanced ultrasound skills, two airway workshops, cadaver lab training, central vascular access training, ventilator training, advanced communications skills and casting workshops.



- RCPSC Senior US Lead: Dr. Kasia Lenz
- RCPSC Junior US Lead: Dr. Hannah Park
- Advanced Procedures Lab Lead: Dr. Rob Hall
- Central Vascular Access Lead: Dr. Patricia Lee-Nobbee
- Airway Lead: Dr. Bryan Weber
- Advanced Communications: Dr. Sarah McPherson and Dr. Patricia Lee-Nobbee
- Ventilator Lead: Dr. Paul Tourigny
- Casting Workshop Lead: Dr. Mike Szava-Kovats

Wellness Programming

Quarterly sessions each year focused on topics to support resident wellness in addition to our ongoing WellDoc Peer Support Program.

- Wellness Curriculum Lead: Dr. Sarah McPherson
- Resident Peer Support Lead: Dr. Katie Anker

Oral Examinations

Quarterly mock oral exams and high volume inter-provincial practice oral exams in PGY-4 are a cornerstone of our examination prep.

- Oral Exam Coordinator: Dr. Chase Krook
- PGY-4 Mock Oral Exam Coordinators: Dr. Brit Sunderani and Dr. Natasha Goumeniouk

Journal Club Leads

Dr. Cody Dunne (also our Critical Appraisal Series lead) and Dr. Omar Damji

EDACS Leads

Dr. Claire Acton and Dr. Kelsey Ragan

Longitudinal Preceptors

Mentors paired with individual residents across the course of an academic year.

2024-2025 LPs:

Drs. Hilary Ambrose, Kat Bateman, Mike Betzner, Mark Bromley, Marta Broniewska, Omar Damji, Dave Fu, Miles Hunter, Chase Krook, Paul McKenna, Gord McNeil, Sarah McPherson, Alyssa Morris, Rick Morris, Rhonda Ness, Jen Nicol, Marshall Ross, Tyson Savage, Brit Sunderani, Ryan Wilkie

As always, we would like to acknowledge all the physicians who contribute to the physician support fund (PSF) and the PSF leadership. Funding for Program Directors 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 prioritized residency education. We are always happy to share the wonderful things that these funds can do for our residents!

Dr. Anjali Pandya
FRCPC Residency Program Director



Dr. Kira Genise R5



Dr. Bobby Johnston R5



Dr. Duncan Simmons R5



Dr. Scott Wakeham R5



Dr. Dirk Chisholm R4



Dr. Mary Freymond R4



Dr. Julia Madill R4



Dr. Jonathan Wong R4



Dr. Julia Cirone R3



Dr. Kala Draney R3



Dr. Theresa Loch R3



Dr. Allen Vorobeichik R3



Dr. Niklas Bobrovitz R2



Dr. Jayelle
Friesen-Enns R2



Dr. Katie Gourlay R2



Dr. Pavneet Singh R2



Dr. Benjamin
Campbell R1



Dr. Jade Chow R1



Dr. Tyara Marchand R1



Dr. Adrian Teare R1



Staff Education

Grand Rounds

2024 has seen another successful year for Grand Rounds presentations. Emergency Medicine Department Grand Rounds continue to be both in person and virtual – providing flexibility for those who are unable to attend in person. We have seen record virtual attendance at many of the talks this year. We have had multiple specialist rounds from a variety of departments, including Family Medicine, Internal Medicine, Obstetrics and Gynecology, Psychiatry and Hematology to name a few.

Group Emergency Medicine Sessions (GEMS)

The first year of this new educational initiative for DEM staff was a success, with 75 physicians from across all four sites attending nine sessions over the course of the year. A wide variety of topics were covered in small group sessions led by our ED colleagues with a practical, evidence-based review of commonly encountered presentations in our ED. Topics this past year included Connect Care Optimization, Pediatric Emergency Medicine, Critical Care, Neurology, Addictions, Sports Medicine and Geriatrics. We are now halfway through the second year with 85 ED physicians in attendance and a new array of topics related to our practice. This was identified by our colleagues in a needs assessment survey following the completion of the 2023/2024 year.

Dr. Brittany Sunderani
Deputy Head of Education



Off-Service and Elective Medical Education

2024 proved to be yet another busy, waitlisted year for those learners interested in pursuing elective time in the Emergency Department in Calgary. We continued to welcome our full rota of both off-service and elective residents, and clerks both internal and external to UofC. Most of our off-service residents continue 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 Royal College emergency medicine. In the 2022-2023 academic year, we hosted 37 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.

Calgary continues to be a very popular choice for visiting elective students from other Canadian medical schools. In 2023-2024, we quickly filled all of our elective spots with 58 visiting medical students. We continue to be a very popular department for UofC medical students looking to complete an elective in emergency medicine and continue to have a wait list for available elective times. This reflects emergency medicine being one of the most competitive residencies in CARMS. We hosted 43 elective students from Calgary over the 2023-2024 academic year which is our maximum capacity at this time.

Our department hosted 54 pre-clerkship medical students, over three one-week blocks, for Career Development Week. This allows students to explore which specialties might interest them before entering into clerkship. We also hosted multiple AEBM and shadowing students.

Ms. Monica Lee completed her first full year with us as Emergency Medicine Administrative Assistant V supporting education, and she has been a welcome addition for administrative support, with her quick reply to emails and ensuring students schedules and requests are processed when possible. We will have two new babies joining us soon in our off-service/electives section – Claire is welcoming her second baby November 2024, and Monica is welcoming her first in February 2025. We appreciate the understanding of any scheduling mishaps that happen as the result of sleep deprived memory loss!

While things have stayed fairly the same for the past two years, next year you will see some new changes. First, we are welcoming our first Physician Assistant students into the ED. You may see them this year completing a shadow shift, and next year you will see them rotating through the ED as part of their 4-week core ED rotation. More details will be sent out closer to the time. Second, the University of Calgary Department of Family Medicine, as requested by the Government of Alberta, is increasing their residency numbers in 2025-2026 by 16 residents, due to increases in medical school class sizes, and a shortage of rural family physicians. Twelve of these residents will be rotating through Calgary EDs, leading to an increase of one learner per block across the zone.



We want to thank you for your dedication to our learners. We often get very positive feedback regarding teaching, engagement and enthusiasm of preceptors. If I can make one plea for the next year, it would be to ask for anyone who is interested in accepting a shadowing student (one shift 2-3 times a year maximum!) please sign up on the Google form: <https://docs.google.com/spreadsheets/d/1Nys-tXcy1s3z6TFH6Dn60roWX8LvDNKanTsbmVBKcGc/edit?gid=0#gid=0>

We are very short preceptors for shadowing and having even an additional five preceptors to draw from would really go a long way. We do not want to have to turn anyone away.

We look forward to welcoming more elective and off-service learners in 2025 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
- Thank you to Tyson Savage for filling many of the above roles during various parental leaves

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 expand. 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 13 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.

Our team of simulation facilitators has grown over the last year, and we coordinated the first faculty education session on the art of debriefing. The goal was to share educational tips and tricks for navigating common simulation education changes. A big thank you to Dr. Patty Lee, Dr. James Huffman, Dr. Tyson Savage and Laurie Leckie for all their work in organizing and leading the excellent session. Look for more education sessions in the future!



In taking on the role of medical director for the staff simulation program, I was keen to create opportunities for Calgary Zone Emergency Physicians to gain confidence in high acuity, low occurrence (HALO) scenarios and ensure physicians can practice and walk through high-risk procedures. We organized the first procedural skills day through the SIM program on October 18th, 2024. We had 15 participants, all of whom had the opportunity to practice central lines, transvenous pacemaker insertions, cricothyrotomies, percutaneous chest tube insertions and intraosseous intentions on mannequins. Another big thank you to Dr. Jen Nicol, Dr. Marc Francis, Dr. Chase Krook and Dr. Nick Romatowski for precepting this session, as well as Raj Gill, Aaron Shaw, Brock Love and Hanin Omar-Crawford for making the session possible.

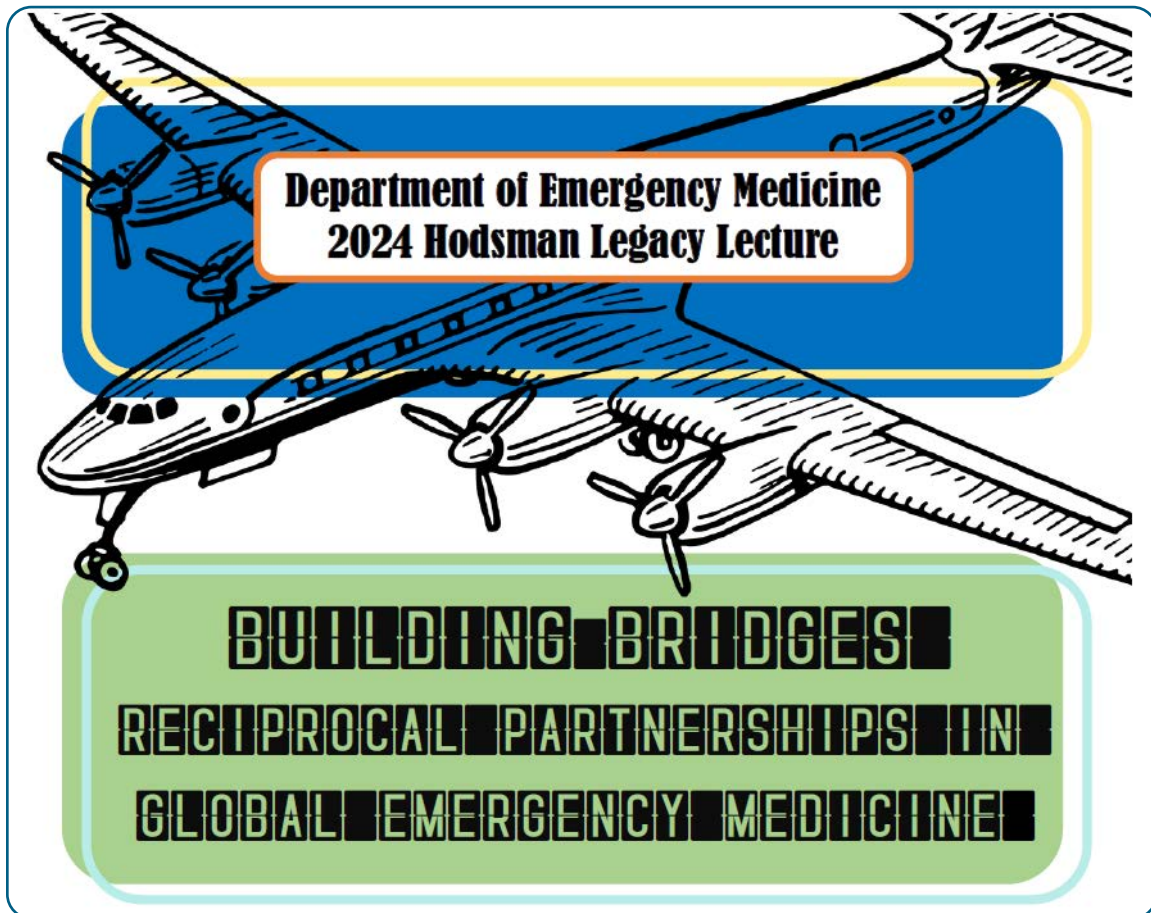
Lastly, I would again like to thank Dr. Gord McNeil for serving with excellence and dedication in this role for the past 13 years. Gord has made countless improvements to simulation in the Calgary Zone Emergency Department, and we are very grateful for all that he has done for the Emergency Department.

Dr. Meaghan Mackenzie
Medical Director of Simulation



Mike Hodsman Memorial Lecture

The Hodsman Legacy Lecture is an annual lecture series dedicated to providing expert teaching in Emergency Medicine in Calgary, and this year took place on April 11th, 2024; titled “Building Bridges – Reciprocal Partnerships in Global Emergency Medicine”. The series started to honour our late colleague, Dr. Mike Hodsman and his great love of learning, and each year we honour the career contributions of another valued colleague in the department who has recently retired.





This year, Dr. Ian Wishart was highlighted for his outstanding career in representing the Calgary Department of Emergency Medicine in his work abroad in the field of Global Health. We were also excited to host our Keynote Speaker, Dr. Megan Landes, Head of Division of Emergency Medicine at University of Toronto's Department of Family and Community Medicine (DFCM), and Strategic Director for the Toronto Addis Ababa Academic Collaboration in Emergency Medicine (TAAAC-EM), which is working with Addis Ababa University to deliver Ethiopia's first emergency medicine residency program.



From left to right: Drs. Margriet Greidanus, Andrew Battison, and Megan Landes



From left to right: Drs. Andrew Battison, Megan Landes, Ian Wishart, and Margriet Greidanus

Our local Global Health experts Dr. Margriet Greidanus and Dr. Andrew Battison spoke about their work in Uganda along with their innovative new program that brought Ugandan Emergency Medicine Residents to Calgary to gain experience in tertiary emergency care. The morning was well attended with approximately 150 physicians, residents, learners and allied health care professionals, in person and via Zoom; and generally, very positive feedback.

Dr. Bretton Hari

Research

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

PRoMPT BOLUS

Sepsis, or severe infection, is a life-threatening emergency in children. In Canada, approximately 4000 children are hospitalized every year. Intravenous (IV) fluid administration is the cornerstone of treating children with septic shock, however, the most effective and safest IV fluid to use has yet to be established.

The goal of the PRoMPT BOLUS study is to determine if children presenting to the ED in septic shock have better outcomes when treated with balanced fluid than when treated with normal saline. It also evaluates the safety and cost effectiveness of the two types of fluids.

The PRoMPT BOLUS study is a multi-national clinical trial that includes 3 large pediatric emergency medicine research networks from Canada (PERC), United States (PECARN) and Australia and New Zealand (PREDICT). There are 12 Canadian pediatric EDs participating in the study. So far, over 100 children have been enrolled at the Alberta Children's Hospital.

STEC Daycare Outbreak – Long Term Follow-up

In September 2023, Calgary experienced the largest E. coli O157 outbreak ever recorded in children < 5 years of age. While tragic, this outbreak offered an unprecedented opportunity to precisely define the risk of long-term consequences associated with Shiga toxin-producing E. coli (STEC) infection. We initiated this study because although the infection can affect every part of the body, there is an absence of reliable data with which to predict risk of long-term health problems. In this study, funded by the National Institutes of Health, we are seeking to clarify if children infected with E. coli O157:H7 experience greater sequelae in specific clinical domains than those who are uninfected, and to evaluate if the degree longterm complications are associated with the severity of the acute infection. To achieve these goals, we have enrolled uninfected (STEC negative) and STEC-infected (STEC positive) children who attended the affected daycares during the outbreak, including children with varying degrees of severity of initial infections. We are evaluating outcomes across multiple domains at 6-, 12-, 24-months post-exposure/infection including: kidney, intestinal, growth, and overall health. We have already completed the 6-month follow-up visits and are collecting and analyzing biospecimens to evaluate traditional and emerging measures of function and inflammation. The creation of this cohort and the early, detailed investigations we propose, has the potential to create a cohort that can be followed longitudinally beyond our work and can serve to explore additional important long-term effects of STEC infection.



Surveillance Program for the Rapid Identification and Tracking of Infectious Diseases in kids (SPRINT-KIDS)

SPRINT-KIDS is a national surveillance initiative funded by the Public Health Agency of Canada (PHAC) that seeks to enhance the ability to monitor for adverse events following immunization and the epidemiology of severe respiratory infections in children while also being able to assess vaccine effectiveness in children. To achieve these aims the University of Calgary has been contracted to lead a 15-site pan-Canadian initiative that will collect data from children seeking emergency department care and those who are hospitalized. A detailed clinical set of data will be collected regarding all eligible children along which will be linked to vaccination data to optimize the ability to assess for adverse events following immunization. We additionally will be collecting data from all children tested for respiratory viral infections in the participating hospitals along with their vaccination status to enable calculation of vaccine effectiveness. Lastly, by monitoring and tracking all children hospitalized with influenza, respiratory syncytial virus or COVID-19 infections we will be able to closely monitor for changes in the epidemiology of these pathogens and the impact they are having on Canada's children.

Dr. Graham Thompson

Research Director, PEMRAP & PERT Lead

The research team enrolled over
1796 participants
and generated
61 publications
With grant funding totaling
\$22,262,420
Principal investigator or co-principal investigator
\$18,729,302
Co-investigator or collaborator
\$3,533,118



Research Director's Summary – 2024 Year in Review

This year has been a remarkable period of growth and achievement for our research team. We have expanded our projects, strengthened our team, and set the stage for an exciting year ahead with prospectively recruiting trials and major studies in the emergency department in 2024.

A key highlight of the year was welcoming Dr. Catherine Patocka as our new GFT Researcher in May. Dr. Patocka brings a wealth of expertise in qualitative and education research, and we are excited to see the transformative impact her work will have on our research program.

Our emergency physicians, residents, and collaborators made exceptional contributions in 2024, culminating in **134 publications** authored by **29 unique contributors**. These achievements underscore the dedication and innovation within the Department of Emergency Medicine.

2024 Awards, Grants and Achievements

We are also proud to report significant funding success, with Principle Investigators from the department securing over **\$5 million** in grants, research awards, competitions, and studentships. Some highlights of achievements exemplifying the depth and breadth of research excellence in the department include:

- **Dr. Kathryn Crowder:** Received \$15,000 through the O'Brien Learning Health Systems Catalyst Grant. She also contributed as a co-applicant/principle knowledge user for a CIHR grant awarded in the amount of \$535,000 exploring the use of restraints in older adults in the ED
- **Dr. Stephanie Vandenberg:** Secured \$2.5 million from Health Canada's Substance Use and Addictions Program (SUAP) for a Recovery Coaches program
- **Dr. Andrew McRae:** Awarded over \$1.2 million by CIHR for the Coronary Disease Risk Prediction Score study
- **Dr. Jessalyn Holodinsky:** Together with **Dr. Catherine Patocka**, garnered \$15,000 from the O'Brien Institute for Public Health. She also contributed as a co-applicant to multiple grants totaling over \$5.5 million. She was appointed Director of Artificial Intelligence & Data Education and Ethics at the CSM Office of Faculty Development and nominated for several prestigious awards
- **Dr. Eddy Lang:** Secured \$3 million in funding from Health Canada mediated by the Public Health Agency of Canada for the initiative the Canadian Task Force on Preventative Health Care



Research Study Highlights

The year was rounded out with multiple ongoing prospectively enrolling trials at both FMC and SHC EDs. Throughout 2024, Dr. Andrew McRae worked to secure funding and ultimately introduced a Canadian Emergency Department Research Network (CEDRN) study **Development of novel risk prediction tools for emergency department patients with suspected coronary disease**. We continue to work with University of British Columbia and University of Alberta EM researchers to recruit at FMC and SHC EDs for **EMED: Evaluating Microdosing in the Emergency Department: A randomized controlled trial of buprenorphine/naloxone microdosing vs. standard dosing**. In July we completed recruitment in a collaborating partnership with pan-Canadian EM colleagues and the University of Ottawa on the **RAFF4 Trial: Vernakalant vs. Procainamide for Acute Atrial Fibrillation in the Emergency Department**. We look forward to imminently launching FMC as site for the multicentre 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 in Calgary. We continue to collaborate with our physiatry 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 launched SHC ED as a recruiting site for the multicentre trial **HIDOC: High-dose Oral Cephalexin for Cellulitis**, a collaboration with University of Ottawa EM colleagues. Dr. Holodinsky continues to explore unique populations accessing the emergency departments, and utilize real-time big data to help understand and predict ED volumes.

Research Day 2024

The annual Emergency Medicine Research Day on May 2, 2024, was an immense success, with over 70 participants in attendance, showcasing excellence in Emergency Medicine research and scholarly work. 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 by emergency physicians, residents, undergraduate medical students, Emergency Strategic Clinical Networks researchers and collaborators in Pediatrics, Physiotherapy, Public Health, Geriatrics, EMS/prehospital transport and Addictions Medicine. Our keynote speaker, Dr. Shelley McLeod, delivered an inspiring address on how to build your research idea, interest and projects, reflecting on her vast experience in program evaluation, and the importance of building a research network. We are excited to host Dr. Samina Ali for a collaboration Emergency Medicine/Pediatric Emergency Medicine Research Day 2025 on May 8, 2025.



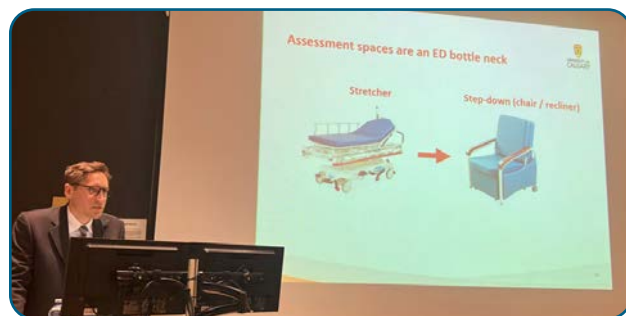
We recognized outstanding projects at EM Research Day with the following awards:

- Outstanding resident work in-progress: Dr. Nik Bobrovitz for Optimizing emergency department stretcher utilization by increasing the proportion and efficiency of patient transfers to step-down areas
- Outstanding resident completed work: Dr. Cody Dunne for A 2-year prospective evaluation of airway clearance devices in foreign body airway obstructions
- Outstanding medical student work in-progress: Cassandra Chisholm for Boarding time in the Emergency Departments is not equal when comparing mental health and non-mental health patients
- Outstanding medical student completed work: Conne Lategan for Effect of scheduled surgery disruptions during the coronavirus pandemic on emergency department presentations for acute inguinal hernia and gallbladder disease: A population-based provincial analysis

Feedback from Research Day attendees was positive, with comments such as “highlighted cutting edge emergency research happening here in Calgary!” “Lots of resident research!”, “Great content, great keynote”, “inspiration to press forward”, and “good



Research Day 2024 Keynote Speaker Dr. Shelley McLeod



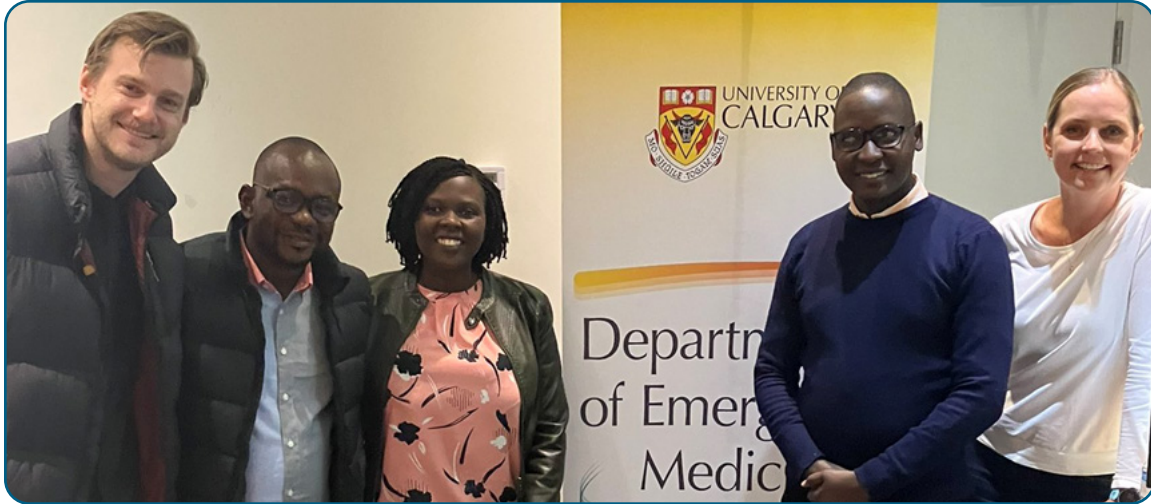
Outstanding resident work in-progress: Dr. Nik Bobrovitz



Outstanding resident completed work: Dr. Cody Dunne



Research Day Presenter Dr. Mary Freymond



From left to right: Drs. Andrew Battison, Dr. Balu Mabiala (DRC), Dr. Sarah Oworinawe (Uganda), Dr. Jacob Busingye (Uganda) and Margriet Greidanus

synergy among presentations e.g. related prehospital research projects grouped together". The research PechaKucha pub night was also a great evening of bowling, socializing and a chilly evening introduction to Calgary for our Mbarara University of Science and Technology (MUST, Uganda) emergency medicine residents just arriving to May snowfall!

Our research team's website is hosted within the Department of Emergency Medicine's larger webpage: <https://cumming.ucalgary.ca/departments/emergency-medicine/research-0>. 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 PechaKucha Pub Night



Research PechaKucha Pub Night



MEET *the* TEAM

Emergency Department Research



Christina Cherian
Research Coordinator



Jill Vandenbrand
Research Administrator



Aysha Maccl
Senior Research Associate



Dr. Jessalyn Holodinsky
Data Scientist



Dr. Andrew McRae
Senior Researcher
Principal Investigator



Dr. Kathryn Crowder
Research Director
Principal Investigator



Dr. Stephanie VandenBerg
Associate Research Director
Principal Investigator



Dr. Eddy Lang
Senior Researcher



Dr. Catherine Patocka
EM Dept Head and
Senior Researcher



Eric Gafos
Research Assistant



Netanya AsnaAshari
Research Assistant

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, medical students and undergraduate students who engage in Emergency Medicine Research. After review with the residency programs, and to facilitate resident opportunities to present within their academic day schedules, we have moved RID to 12:00-1:00 pm hybrid in-person at HSC and on Zoom the fourth Thursday of every month.

We look forward to building on this momentum as we continue to address critical challenges in emergency medicine and healthcare innovation in 2025.

Dr. Kathryn Crowder
Director, Research

Acknowledgment

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

