

Emergency Department Annual Report 2021





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Message from the Department Head and Executive Director

In many ways, this second pandemic year created even more unprecedented and exceptional challenges for Calgary's Emergency Departments. For one, 2021 saw three of the largest waves of the pandemic strike during the year with the final weeks creating significant uncertainties over the impact of the Omicron variant of concern. Secondly, like many emergency departments across Canada, we have lived significant staffing pressures among our nursing colleagues driven by issues related to retention of all staff but especially experienced nursing colleagues. The fatigue, burnout and weariness of the pandemic was felt more starkly by all of our emergency department teams in 2021. Importantly, the highly successful vaccination and booster program (100% MD compliance) allowed us to keep our staff safe and at least physically healthy with little impact of COVID triggering sick leaves. Emergency department staff also rose magnificently to the unprecedented challenges and needs of the Zone. Dozens of Calgary emergency department nursing leaders and physicians were deployed to ICU, COVID wards and isolation facilities for our vulnerable populations.

Other departmental highlights included:

1. Our pandemic and operational leadership remained laser-focused and poised to adjust to all the changes in emergency care that relate to COVID and non-COVID care providing in-depth and regular updates to all staff.
2. Brining a human dimension to the pandemic was achieved by two of our most talented MDs. Health Patterson and Grant Kennedy have created inspiring and heartrending [content](#) that is being noticed across Alberta and beyond.
3. A renewed attention to Equity Diversity and Inclusion was led by our Anti-Racism group whose guidance has influenced a wide range of departmental processes including hiring.
4. Increased attention to the mental health pandemic that has followed the current crisis is being met in large part through innovative collaboration led by Dr. J Jennifer Nicol, our Mental Health liaison is a position supported by the Department of Psychiatry and the Calgary Health Foundation.
5. Geriatric emergency care is receiving significant boosts in visibility and impact through our lead physician on this portfolio, Dr. Margaret McGillivray.
6. A wide range of activities focusing on physician wellness are now being led by the leader of the Wellness Hub, Dr. Sarah McPherson.
7. Calgary remains a highly attractive place for emergency physicians to work. Our Physician Resource Committee, now with revised terms of reference, aligned with EDI principles has re-cruited 8 new physicians into the Zone in 2021.
8. Our virtual grand rounds program continued to exemplify the transformation in how information and education are disseminated to a large department consisting of over 220 emergency medicine faculty, as well as over 1000 nurses and many allied health and supporting departmental staff.
9. A shift in departmental culture emphasizing generosity, gratefulness and kindness exemplified in this [video](#).
10. While all of our MDs stepped up in remarkable ways as part of the pandemic response, 30 of our emergency MDs stepped up and volunteered to work and support our ICU and COVID unit Internal Medicine colleagues in a time of great need.

Message from the Department Head and Executive Director

Our ongoing pandemic response in 2021 was led by Dr. Neil Collins, Deputy Department Head and Operational Lead, whose commitment to staff safety, prompt and clear communications was exceptional. All of our operational leaders stepped up in extraordinary ways, keeping our department members aware and on top of frequent changes in policies related to the testing and isolation of suspected COVID 19 patients. Emergency department operations while having to give back some of the 2020 improvements achieved early in the pandemic saw a return to baseline performance measures comparing well to comparable sites in Alberta. <https://focus.hqca.ca/emergencydepartments/patients-time-to-see-an-emergency-doctor/> continues to highlight how ED functioning is fundamentally a function of the integrity of downstream capacity. Despite the pandemic or perhaps because of it, our department completed a strategic plan in 2021. It highlights a vision for Calgary Emergency Departments providing world class care and missions highlighting, equity, diversity and inclusion as well as anti-racism priorities. Physician wellness and innovation also feature prominently in the plan which achieved wide engagement despite the challenges we faced in meeting face to face.

In summary, 2021 posed extraordinary challenges for our department but also allowed us to transform the crisis into opportunities and innovations that highlight and cement the critical role that our department plays in providing care for all Calgarians with emergency healthcare needs.



Dr. Eddy Lang, MDCM CCFP(EM) CSPQ
Zone Clinical Department Head
Calgary Zone Emergency Department



Karen Foudy RN BN MST
Executive Director & Program Lead
Calgary Zone Emergency Department



Alberta Health Services
Mission & Vision

Our Values

compassion
We show kindness and empathy for all in our care, and for each other.

accountability
We are honest, principled and transparent.

respect
We treat others with respect and dignity.

excellence
We strive to be our best and give our best.

safety
We place safety and quality improvement at the centre of all our decisions.



VISION

Healthy Albertans.
Healthy Communities.
Together.

MISSION

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

Emergency Medicine Mission Statement

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

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

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

[AHS INSITE](#)

[UNIVERSITY OF CALGARY](#)

Cumming School of Medicine University of Calgary

VISION

We partner with University leaders to support the “Eyes High” vision. “Eyes High” is the University of Calgary’s bold and ambitious vision to become one of Canada’s top five research universities, grounded in innovative learning and teaching and fully integrated with the community of Calgary, by the university’s 50th anniversary in 2016.

MISSION

By creating and delivering exemplary human resources services, processes, and outcomes we contribute to and share in the University’s mission and goals to:

- Sharpen focus on research and scholarship;
- Enrich the quality and breadth of learning;
- Fully integrate the university with the community.

VALUES

The strategy also articulates eight core values shared by the university community; curiosity; support; collaboration; communication; sustainability; globalization; balance and excellence.

Dean’s Office Cumming School of Medicine Strategic Plan

VISION

Creating the future of health.

MISSION

We must fulfill our social responsibility to be a school in which the common goal of improved health guides service, education and research. We must foster the collective pursuit of knowledge and its translation, through education and application, to better the human condition.

VALUES

Excellence | Collaboration | Engagement | Respect

STRATEGIC GOALS

We are committed to maintaining the public’s trust and respect as a premier academic health science centre by meeting the following goals:

Serve our diverse communities by understanding and responding to their health needs and by effectively stewarding the resources entrusted to us by Albertans.

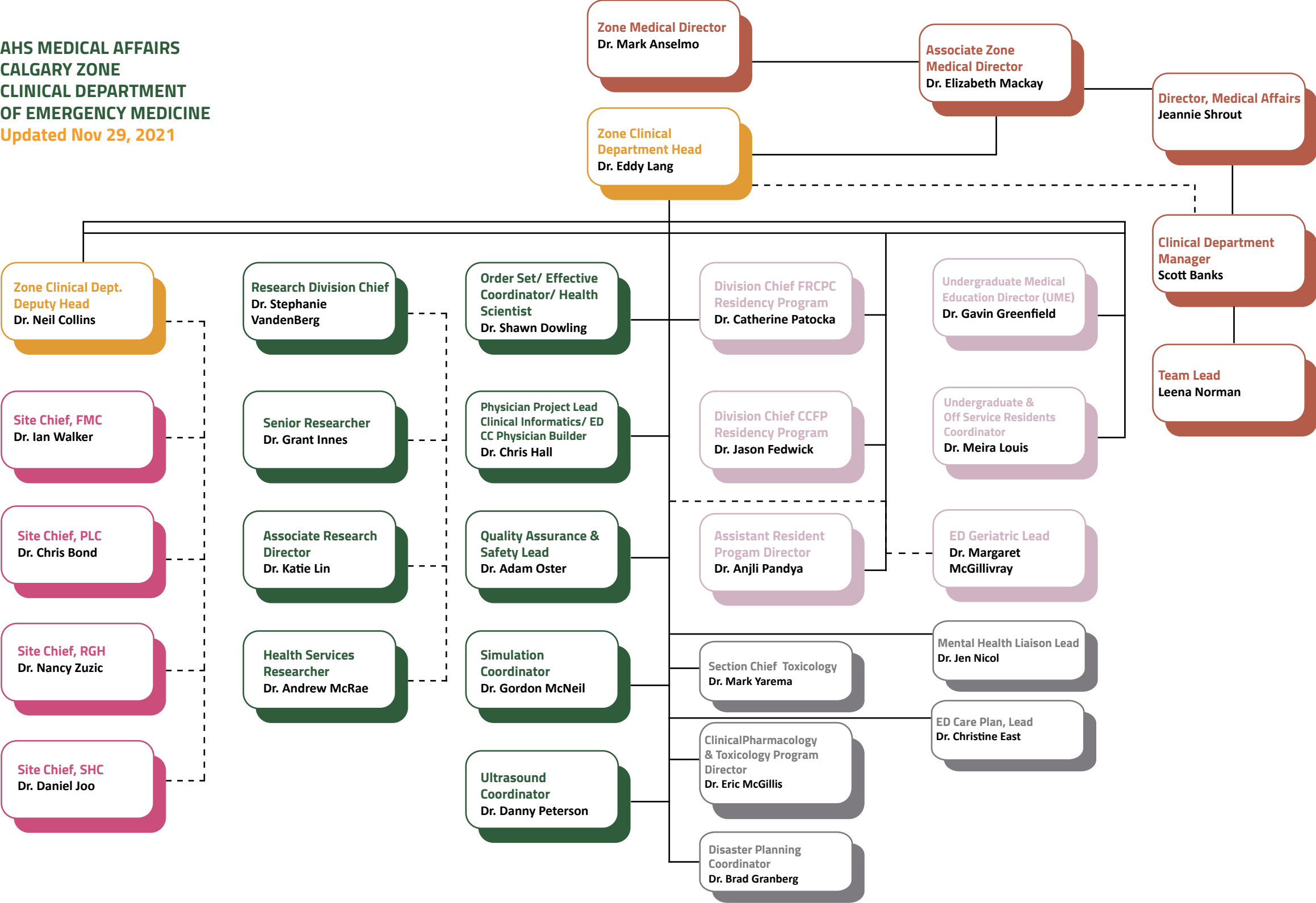
Generate knowledge that has both local and global impact by fostering novel collaborative alignments among basic and clinical scientists, physicians and educators.

Train the next generation of health-care pioneers and providers by rejuvenating the education and career development of biomedical innovators.

Departmental Structure & 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-PLC group and the Rocky view 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.

AHS MEDICAL AFFAIRS
CALGARY ZONE
CLINICAL DEPARTMENT
OF EMERGENCY MEDICINE
Updated Nov 29, 2021



Innovative. Nimble. Responsive. Patient Centered.

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

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

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

Innovation

Health innovation ‘improves the efficiency, effectiveness, quality, sustainability, safety, and/or affordability of healthcare.

Includes ‘new or improved ’ health policies, practices, systems, products and technologies, services, and delivery methods that result in improved healthcare.¹

Improvements in research, patient satisfaction, education, and access to care are additional factors to keep in mind.



Credits: Dr. H Patterson

Our VISION

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

Our MISSION

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

Guiding Principles

The Emergency Department will approach all issues with a ‘principles first ’perspective, even if this means challenging existing norms and accepted practices. The core values of both Alberta Health Services and the University of Calgary are reflected in the following five areas.

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

¹ Emergency Medicine Journal (EMJ). What do we mean by innovation in healthcare? January 10 2017. Available from: <https://www.emjreviews.com/innovations/article/what-do-we-mean-by-innovation-in-healthcare/>
² Emergency Medicine Research Group: 5-year strategic plan (appended)

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

FOCUS AREA 2 PHYSICIAN WELLNESS		
Goal	Objective	Potential Activities
Maintain and enhance staff and physician wellness as impacted by working in the Emergency Department	1. Reduce duplication of clerical duties which interfere with the delivery of care	1. Determine key areas of duplication and the root cause leading to the duplication. 2. Hold an interactive session to brainstorm ideas on how best to streamline clerical duties. 3. Create a phased approach, including evaluation, to implement the ideas from the interactive session.
	2. Increase retention of nurses and other allied health professionals	4. Conduct ‘employee pulse job satisfaction survey’ to help guide departmental work-force planning. 5. Evaluate any new interventions on the outcomes and impact for staff retention.
	3. Enhance physical and psychological safety in the Emergency Department	6. Draft a communication from leadership to all staff that patient and staff safety is a departmental priority. 7. Discuss patient and staff safety at every executive leadership meeting. 8. Provide a ‘lessons learned’ forum where staff can present to colleagues on recent cases with adverse events or near misses. 9. Conduct a patient survey to identify ex-pectations of Emergency Department care. 10. Codesign communication to adjust or reinforce expectations as needed. 11. Develop an annual department safety plan with specific emphasis on resilience and coping during a pandemic. 12. Enhance transparency around decision making specific to scheduling, site alloca-tion, and site-based decision-making.

FOCUS AREA 2 PHYSICIAN WELLNESS		
Goal	Objective	Potential Activities
	1. Invest in physician and staff wellness by allocating sufficient resources and advocating for continued financial investment and reallocation	<div>1. Create a robust mentorship program for new members.</div> <div>2. Revise the current newsletter format to include a spotlight on physician members who do administrative activities on behalf of the department both to recognize their contributions but also raise awareness of these activities.</div> <div>3. Include physician burnout through the Wellness Hub program.</div> <div>4. Develop a robust framework to measure key health and wellness metrics (e.g., # hours of sleep), and regularly report to the full department.</div> <div>5. Revisit remuneration schedule for administrative physicians to create opportunities for teaching and clinical leadership.</div> <div>6. Develop overcapacity plans and clearly communicate expectations.</div> <div>7. Design and implement flow improvement studies and interventions.</div> <div>8. Encourage adequate investment into vacation/breaks.</div>
	2. Identify and secure funding for both clinical and non clinical leadership positions	<div>1. Investigate the benefits of emergency physicians on alternative payment plans, and prepare a briefing note.</div> <div>2. Advocate, through appropriate pathways, for the compensation mix and number of staff to actualize the strategic plan.</div>

FOCUS AREA 3 FUNDING INVESTMENT AND FINANCIAL SUSTAINABILITY		
Goal	Objective	Potential Activities
Increase investment in Emergency Department services and improve financial sustainability	1. Improve flexibility in staffing to support research, education and quality improvement activities	<div>1. Prepare a briefing note on the benefits of enhancing the number of emergency physicians on alternative payment plans.</div> <div>2. Advocate, through appropriate pathways, for the compensation mix and number of staff to actualize the strategic plan.</div>
	2. Improve allocation of resources within the department to priority areas (i. physician wellness and process improvement interventions)	<div>3. Develop a working group to identify a budget plan for identifying sources and potentially re-orienting funding to physician wellness and process improvement interventions.</div> <div>4. Conduct a mid-year review of budget allocation to determine budget overage/underage and impact of spending to date.</div> <div>5. Conduct a physician and staff satisfaction survey on the short-term outcomes of funding re-orientation and collect input on long-term objectives for resource allocation</div>
	3. Improve access to infrastructure, physical plant, equipment and resources required to provide world class patient care in the Emergency Department	

FOCUS AREA 4 EQUITY, DIVERSITY AND INCLUSION		
Goal	Objective	Potential Activities
Equity, diversity and inclusion is a collective responsibility of every department member.	1. Support anti racism and equity, diversity and inclusion initiatives	1. All members of the department take unconscious bias training. 2. Conduct a pre/post survey to measure shifts in self-awareness. 3. Develop an Education, Awareness and Outreach Committee to mobilize EDI activities within the department and in the community
	2. Deliver culturally competent care to patients accessing emergency services	4. Co-develop a tailored approach to delivering BIPOC emergency care.
	3. Improve diversity of our physician population intentionally inclusive of sex, gender, race, and ability	5. Develop an equitable hiring policy statement that reflects the population of those the department serves. 6. Where possible, create a diverse hiring panel. 7. Develop diversity resources to help plan and inform hiring decision-making and leadership appointments in the department.

Emergency Medicine Research Group: 5 Year Strategy 2020-2025		
	Strategic Goals	Strategic Iniatives
<p>Mission: The Emergency Medicine Research Group exists to improve patient and family care and health system efficiency through actionable research, collaboration, and mentorship</p> <p>Vision: In five years, we will become a nationally recognized leader in meaningful emergency research, and have a growing cohort of researchers and a stable research infrastructure enabling further growth and success.</p>	<p>G1: “Becoming a nationally recognized leader in emergency research” (Eddy)</p> <p>G2:“Achieve sustainable growth of the research group” (Stephanie)</p> <p>G3: “Meaningful engagement of patients and families in emergency research” (Stepahnie,Jennifer S., Heather)</p>	<p>1.“Leverage our senior researchers, health systems re-search, decision support and analytical experience to use the staged implementation of EPIC/C onnectCare as an unprecedented opportunity for research, knowledge translation, and clinical practice improvement across the province” (James)</p> <p>2. “Use access to and relationships with the 4 adult sites to increase staff engagement across the Calgary zone (Stephanie Tiffany)</p> <p>3. “Recruit, mentor, and support junior researchers (Eddy Andrew)</p> <p>4. “Use access to and relationships with the Calgary EM zone leadership/operations to identify and continuously evaluate priority projects and procure dedicated funding (Stephanie, James & Heather)</p> <p>5. “Use previous materials and plans to create a central research funding opportunity database (Stephanie, Jennifer S., and Ian)</p> <p>6. “Leverage available infrastructure to promote emer-gency research within Calgary” (Hina, Heidi, Katrina, Stephanie)</p> <p>7. “Develop a comprehensive system for multi center projects (Andrew)</p> <p>8. “Engage with the provincial government to identify shared priority projects (James)</p> <p>9. “Identify key competencies needed and secure perma-nent funding for them” (Stephanie &Andrew)</p> <p>10. “Integrate patient and family experience in EM re-search” (StepahnieJennifer S., &Tiffany)</p> <p>11. “Identify key scholarly areas for our group” (Andrew, Eddy, Gudrun, Grant)</p>

MD Recruitment and Training

We currently have 202 MD’s working in the Calgary Zone Emergency Departments of the four adult hospitals. Physicians are scheduled to work between 0.5 and 1.0 of a Full Time Equivalent (FTE). Currently a 1.0 FTE equates to 13 shifts worked in 28 days.

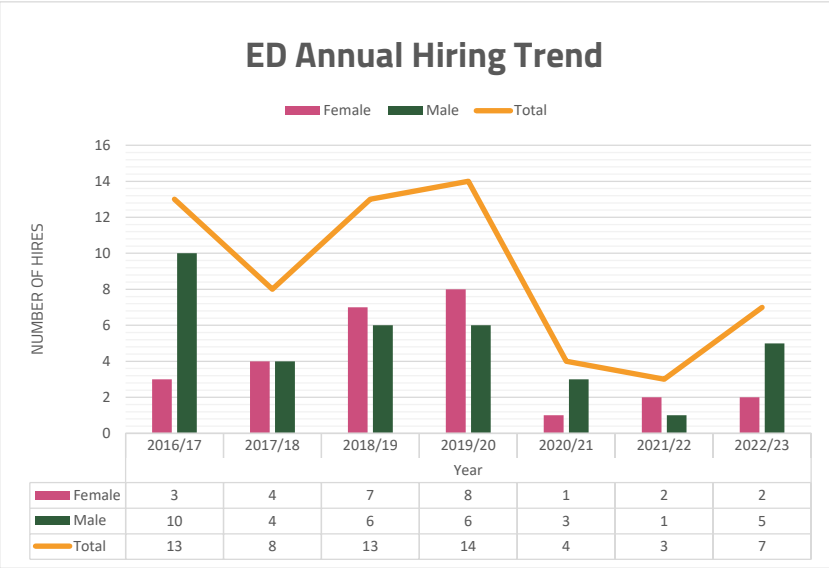
We conduct a hiring process once per year in the Fall. Applications are received from across Canada and as many as 20 candidates are interviewed by multidisciplinary teams. Candidates are ranked by the interviewers and final hiring decisions are made by the Physicians Resource Committee (20 plus voting members).

This year’s hiring process resulted in 7 positions being offered. Successful candidates included newly graduating residents from several programs, as well as experienced physicians from other provinces.

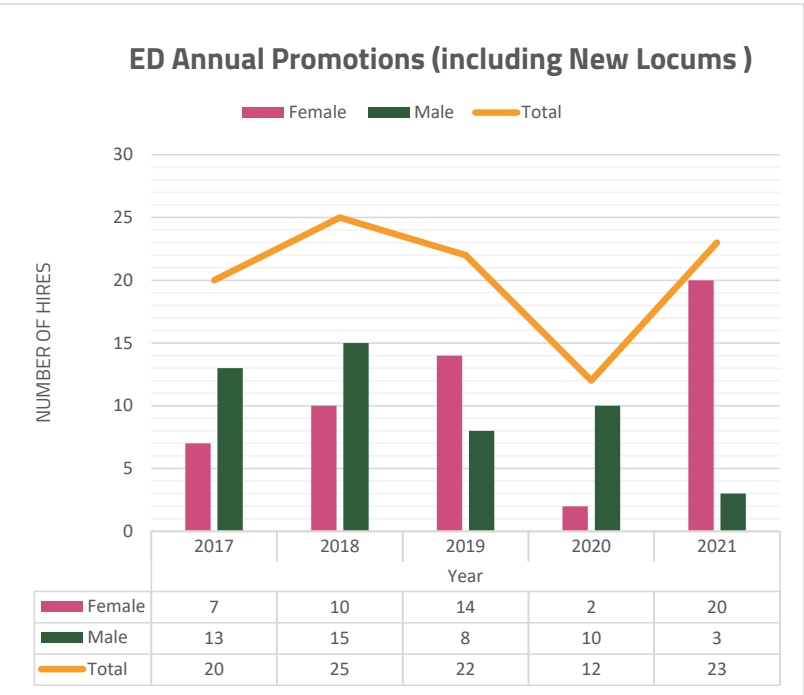
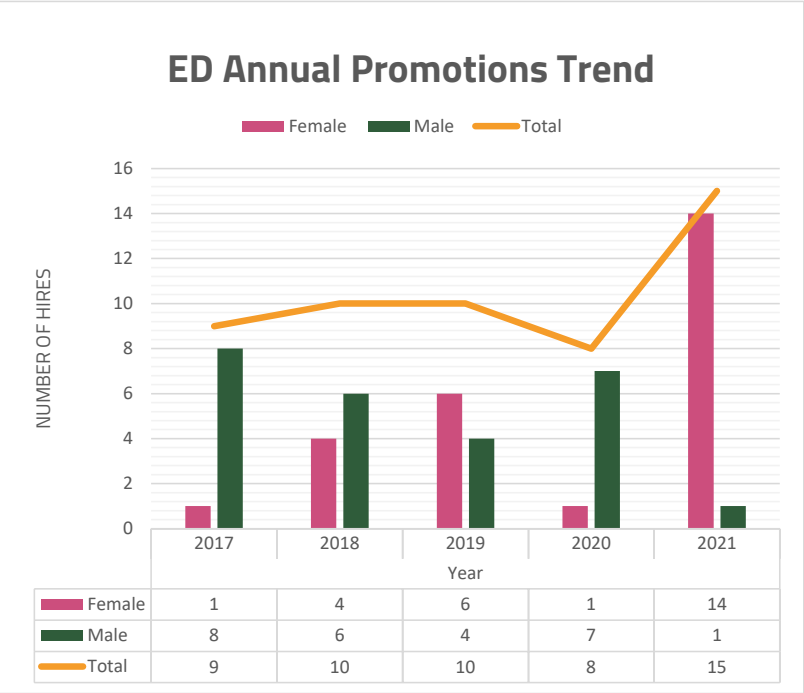
We have currently 4 locums working to fill short term shortages in manpower during the period July 2021 to June 2022. Some of those physicians are going to continue to work in the Calgary zone as permanent members when their locum period expires, expanding our permanent group further.

We will also hire locums for temporary work in the summer of 2022. Hiring summer locums gives much needed tertiary care experience to new graduates and allows time off for permanent ED staff. We aim for no more than 20% of the shifts being covered by locums. Some of these summer locums may have their contracts extended for up to 12 months of total work. All of them are encouraged to apply for permanent positions in the fall hiring cycle.

Turnover and expansion of operations usually results in the hiring of between 2 and 4 new permanent Emergency Physicians per year.



Emergency Department Annual Promotions



Retention Strategies

AHS Calgary Zone Emergency Departments represent the largest single group of ED physicians in Canada. We have on staff 202 physicians with 0-46 years of service in the region. The Calgary Zone provides highly coordinated and well-organized care to a catchment area that includes 1.2 million patients.

Calgary Zone Emergency Physicians staff the Emergency Departments of 4 adult hospitals, and some are cross appointed at the tertiary care Alberta Children’s Hospital. There is a wide variety of work available. Shifting is flexible with most physicians getting time off when they request it. Sabbaticals, parental leave and leaves for international medical work are usually accommodated.

Seniority is currently recognized with enhanced scheduling flexibility including exclusion from nights, or increased holiday time during the summer. Planning is in progress to provide further scheduling flexibility based on seniority, and to rationalize the scheduling process at Christmas and in the summer.

Job satisfaction is enhanced by a collegial atmosphere, and a robust academic program. High level Grand Rounds occur on a weekly basis and in-house procedural skills sessions are offered. A robust simulation program is offered at all Calgary hospitals. Staff physicians have expert simulation sessions available to them where they can practice their resuscitation skills and crisis resource management in a non-threatening collegial atmosphere.

Goals and Strategies

Our underlying primary goal is to provide safe and efficient care to all patients that present to a Calgary Zone Emergency Department. We continue to modify ED shift scheduling so that we can better match physician capacity to patient demand. This requires ongoing reassessment of demand, but it is also dependent on modifying operations so that added physicians are effective (i.e. able to examine patients in care spaces). Our “surge strategy” takes effect

Neil Collins, Deputy Department Head & Operational Lead & Scott Banks, Emergency Department Calgary Zone Manager

when patient demand exceeds physician resources and a minimum number of assessment spaces are available, the departments proceed with a physician call out to assist in the department. Surge shifts stipends have unfortunately been eliminated due to budget restraints. Surge callouts will continue despite the loss of the stipend.

The increased number of admitted patients remaining in the ED because of a shortage of available inpatient beds in 2020 in the Calgary Zone, has been extremely challenging and has crippled many of our previously successful ED in-patient process changes (i.e. creation of intake area in all adult ED’s; Over Capacity Plan (OCP) triggering and implementation to name a few).

ED overcrowding is not the root of the current crisis rather it is the result of the limited number of available inpatient beds stemming primarily from the province’s shortage of long-term care beds and COVID 19 has exasperated this. Although AHS and the province of Alberta continue to try and find measures to improve access, until more acute care and long-term beds are created, we anticipate the situation will worsen over the coming year.

Impact on other Departments and AHS Resources

Due to COVID 19 and aggressive hiring practices over the past several years, we anticipate only hiring between 2 to 4 permanent physicians next fiscal year. Hiring Emergency Department physicians has an impact on the provincial physician budget (payments are fee for service billings through the physician services branch), but minimal impact on other Calgary departments and the CMO (Medical Affairs) budget, as the physicians are fee for service workers.

Recruitment of 2 to 4 permanent physicians annually will be to maintain current levels of physician staffing accounting for retirements, resignations, mat/pat leaves etc.

EM Committees

Seven main DEM committees meet monthly.

Emergency Medicine Committees

The Physician Executive Committee

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

The ZDEM Operations Committee

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

The Academic Steering Committee

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

The Promotions Committee

This committee processes faculty appointments and promotion requests for the Academic Department of Emergency Medicine.

The Physician Resources Committee

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

The Quality Assurance Committee

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

The Calgary Physician Support Fund Oversight Committee

This committee is comprised of emergency physicians representing each site who oversee a fund that was set up to support education, development and research in the Calgary Emergency Department. Funding for this committee is provided exclusively by emergency physicians who have agreed to support the fund. The maximum emergency physician contributes \$1,800 annually to this fund.



Credits: Dr. H Patterson



Emergency Leadership Group

Calgary Zone Department of Emergency Medicine

Credits: Dr. H Patterson

Emergency Leadership Group

Emergency Leadership Group

Dr. Eddy Lang, Zone Clinical Department Head

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



Dr. Neil Collins, Zone Clinical Deputy Department Head

Dr. Neil Collins graduated from the University of Calgary in 1990, followed with Family Medicine in 1992. He practiced urban and rural family medicine in British Columbia and Alberta prior to completion of his CCFP(EM) residency training in Calgary. He has worked as an Emergency Physician in Calgary since 1996. He has previously held the administrative positions of CCFP (EM) Residency Program Director and Peter Lougheed Centre Emergency Department Site Chief. Since November 2017 Dr. Collins has held the position of Calgary Zone Emergency Deputy Department Head. His administrative interests include ED Resource utilization, ED Flow and Physician Metrics and Evaluation.



Emergency Leadership Group

Scott Banks, Emergency Medicine Zone Department Manager

Scott is the Calgary Zone Department Manager for Emergency Medicine, Critical Care Medicine & Obstetrics & Gynecology. Scott assumed the Critical Care portfolio in Sept 2017, Obstetrics & Gynecology in July 2018 and has continued to serve as the Zone Manager in Emergency Medicine since 2008. Scott completed his Master of Business Administration degree (MBA) at the University of Calgary in 1993 specializing in Human Resources and International Management, and his Bachelor of Arts Honors degree in 1989 from the University of Regina. Scott is a 24 year Chartered Professional in Human Resources (CPHR) in Alberta, and holds a Certified International Trade Professional Designation (CITP) in Canada. Previously Scott served as the Vice President of Operations & Human Resources at The Brenda Strafford Foundation, and as Senior Vice President & Chief Operating Officer at a for profit healthcare college in Oahu, Hawaii. He has also served as an International Development Consultant with the Canadian International Development Agency in Guyana, Manager of the Mount Royal University Small Business Training Centre, and as a Market Intelligence Research Officer for the Canadian Federal Government at the Canadian High Commission in Trinidad. In addition, he served as the Manager of Business Training & Commercial Accounts with the Business Development Bank of Canada. Scott has lived and/or worked in Hawaii, Canada, Trinidad, Guyana, Haiti, and Dominica. Scott is married and has very active eight and ten year old boys. He enjoys spending quality time with his family, his French bulldog, jogging, travelling, and volunteering with World Vision.



Emergency Leadership Group

Dr. Ian Walker, FMC Site Chief

Dr. Ian Walker has been Site Chief at Foothills Medical Centre since 2018, and was assistant site chief for two years prior to that. He completed medical school at the University of Calgary, Family Medicine training at the University of Ottawa and the CCFP (EM) program at University of Calgary. He has been a member of the department since 2001. The majority of his extra clinical roles have been educational in nature, including a prolonged term as Director of Admissions. He is also currently serving as a council member at the College of Physicians and Surgeons of Alberta.



Dr. David Lendrum, Assistant FMC Site Chief, STARS Transport Physician

Dr. David Lendrum completed his medical degrees at the University of Calgary and Emergency Medicine residency and Masters of Medical Education at the University of Toronto. He has since worked in Calgary since graduating in 2008 and currently split his clinical time between Foothills Medical Centre and Alberta Children’s Hospital. He took the role of Assistant Site Chief of FMC Emergency in early 2018. His extra clinical roles includes working as a transport physician for STARS, as an on-hill medical provider at Sunshine and Lake Louise with an urban search and rescue team known as CANTF2.



Emergency Leadership Group

Dr. Chris Bond, PLC Site Chief

Chris is the site chief at the Peter Lougheed Hospital. He completed medical school at the University of Alberta, Family Medicine training in Calgary and EM training in Saskatoon. His interests include medical education, physician performance improvement and podcasting/ knowledge translation. Outside of medicine you can find him re-en-acting 80s movies, traveling and entertaining others at some level of risk to himself.



Dr. Alyssa Morris, PLC Assistant Site Chief

Dr Alyssa Morris completed her medical degree at the University of Calgary in 2007 and Emergency Medicine residency at the University of Calgary in 2012. She joined the department, working at both FMC and PLC in 2012. Dr Morris worked in a temporary assistant site chief role at the Foothills for six months prior to becoming the assistant site chief at the PLC. She is also a transport physician for STARS.

Emergency Leadership Group

Dr. Nancy Zuzic, RGH Site Chief

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



Dr. David Fu, RGH Assistant Site Chief

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



Emergency Leadership Group

Dr. Cameron McGillivray, SHC Site Chief (January-May 2021)

Dr. Cameron McGillivray completed an undergraduate degree in Physics in 1996 from Whitworth University in Washington State while on an athletic scholarship. Prior to medical school, he worked as a Paramedic in Vancouver and taught for UBCO in their Adult Basic Education and Engineering Technology Programs. He attained his Medical Doctorate from the University of British Columbia in 2004, and proceeded through the CCFP Program with Family Medicine, graduating in 2006. He worked on Vancouver Island before returning to UBC to complete the CCFP-EM in 2008. He then worked in Ontario until coming to the Calgary Emergency Department in 2013. Dr. McGillivray has been the South Health Campus Site Chief since 2017 and was the Assistant Site Chief from 2015-2016.



Dr. Daniel Joo, SHC Site Chief (June 2021-onwards)

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



Emergency Leadership Group

Dr. Carly Hagel, SHC Assistant Site Chief

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



Dr. Adam Oster, Quality Improvement and Safety Lead

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

Emergency Leadership Group

Dr. Tom Rich, Associate Chief Medical Information

Dr. Tom Rich graduated from the University of British Columbia in 1991, then completed his inner city Family Practice Residency at St. Pauls Hospital in Vancouver. He then moved to Calgary to complete his CCFP-EM residency in 1994 and has been working in Calgary as an Emergency Physician ever since. Over the past 25 years he has been actively involved in numerous administrative interests such as Patient Safety and Quality Improvement. The last 10 years he has been focused on Clinical Informatics providing leadership roles within the Calgary Zone, and is now on the provincial Connect Care project. His interests and involvements included STARS, CAEP, McMahon Stadium events, FIS World Cup Ski racing Lake Louise, and Vancouver Olympics 2010.



Dr. Jason Fedwick, Division Chief CCFP(EM) Calgary Zone ED

Dr. Jason Fedwick graduated from the University of British Columbia in Family Medicine after starting residency in General Surgery. He then completed the EM program in Calgary where he has since worked in the Calgary Zone Emergency Departments. He was the South Health Campus site chief from 2014 to 2016. Currently he is the CCFP-EM Program Director, a Transport Physician for STARS and a member of Canada Task Force 2. In his spare time, Dr. Fedwick enjoys mountain biking, snowboarding and climbing



Emergency Leadership Group

Dr. Catherine Patocka, FRCPC (ED) Medical Education Program Director

Born and raised in Edmonton, Catherine came to Calgary in 2013 after completing medical school and FRCP residency training at McGill University. She works clinically at the FMC and PLC and has a special interest in medical education. She became the FRCPC residency program director in April 2019 and continues to have a strong interest in medical education scholarship and research. Outside of medicine she likes to hike, ski and spend time in the mountains with her husband Stephane and 3 children Juliette, Samuel and Dominic.



Dr. Meira Louis, Under Graduate Student and Off –Service Resident Coordinator

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



Emergency Leadership Group

Dr. Anjali Pandya, Assistant FRCP Director

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



Dr. Gavin Greenfield, Emergency Medicine Clerkship Director Cumming School of Medicine, University of Calgary

Dr. Gavin Greenfield graduated from medical school at the University of Western Ontario in 1998. He completed his Family Medicine training (Calgary) in 2000 and after working in various places for a year completed his CCFP(EM) training in 2002 (also in Calgary). He was the Site Chief at the Foothills Medical Centre from 2006 to 2012. Gavin is a Clinical Associate Professor at the Cumming School of Medicine, University of Calgary. In addition to his current role as Clerkship Director he is also the Medical Director of Education at STARS where he has worked as a Transport Physician since 2005. He has a special interest in education around Airway, Mechanical Ventilation and Blood Gases. In addition to his Canadian career he enjoys International Medicine and has spent time in Haiti as well as the Philippines.



Emergency Leadership Group

Dr. Antonia Stang, Section Chief Pediatric Emergency Medicine

Dr. Antonia Stang completed her medical degree, pediatric residency and pediatric emergency medicine fellowship at McGill University in 2008. She joined the section of pediatric emergency medicine at the Alberta Children’s Hospital in the same year as graduating. Her research interests are in health services research with a focus on quality improvement and patient safety. She is a member of Pediatric Emergency Research Canada (PERC), a national network of pediatric emergency researchers.



Dr. Stephanie Vandenberg, Research Director

Dr. Stephanie Vandenberg is an emergency physician in the Calgary Zone, Research Director for the Department of Emergency Medicine (@uofcemresearch) and Clinical Lecturer at the Cumming School of Medicine. She received her MD from the University of Toronto and holds a Bachelor of Arts & Science from McMaster University with a Minor in Biochemistry and a thesis in Paediatric HIV. She completed a Master’s of Science in Epidemiology at the London School of Hygiene and Tropical Medicine and performed a subgroup analysis of the WOMAN trial data (tranexamic acid in postpartum hemorrhage) for her graduate project. Stephanie uses a “research for advocacy” framework to engage discussions on health systems, harm reduction, and ways to improve vulnerable populations’ health outcomes using principles of social entrepreneurship and information design/visualization.



Emergency Leadership Group

Dr. Katie Lin, Associate Research Director

Dr. Katie Lin is a Clinical Assistant Professor and Associate Research Director with the University of Calgary’s Department of Emergency Medicine. In addition to her work as an emergency physician, she also works as a stroke physician with the Calgary Stroke Program. Dr. Lin completed her residency training through the Calgary FRCPC Emergency Medicine residency program, her stroke training through the Canadian Stroke Consortium (CSC), and her Masters of Public Health through Harvard TH Chan School of Public Health. Dr. Lin’s research and clinical interests include acute stroke, simulation, quality improvement, and medical education. In her spare time, she enjoys reading, painting, hiking, and skiing.



Dr. Eric McGillis, Program Director, Royal College Clinical Pharmacology and Toxicology Program

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



Emergency Leadership Group

Dr. Jennifer Nicol, Emergency Physician Mental Health Liaison Lead

Dr. Jennifer Nicol is a Clinical Lecturer in the Department of Emergency Medicine at the University of Calgary. She has a Masters of Public Health, and works as an Emergency Physician at Foothills Medical Center and Peter Lougheed Centre. She holds an extra-clinical administrative role of Emergency Physician Mental Health Liaison within the Department of Emergency Medicine, with the purpose of improving interdepartmental collaboration and communication, and forwarding agendas and initiatives to improve the care of mental health patients in Calgary Emergency Departments. She is involved with teaching and medical education at the undergraduate and post-graduate levels. Research interests include work with marginalized populations and their interface with the Emergency Department, and has also published in the field of toxicology. In addition to her clinical work in the ED and extra clinical endeavours, she is also a transport physician with STARS. Outside of work she is a busy mom to 3 girls aged 1, 3, and 5 years old, and her young family takes any opportunity to spend time outdoors, whether it be biking, hiking, camping, or a stroll in the park.



Dr. Marge McGillivray, Geriatric Care Lead

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



Emergency Leadership Group

Dr. Christine East, ED Care Plan Lead

Christine East is an Emergency Physician at Rockyview General Hospital, having completed the CCFP(EM) program in Calgary in 2017. Prior to her medical training, she worked as a Technical Writer for AHS and brings a unique skillset to her extraclinical roles. She has been involved in a number of activities and initiatives, including redesigning the CCFP(EM) practice exam curriculum in 2017-2019, assisting with monthly RGH Rounds, and sitting on the CCFP(EM) Competency Committee. Her main area of extraclinical interest is frequent ED visitors, and she has co-chaired the ED Treatment Planning Committee since 2018, continuing the work that Dr. Scott Farquharson started several years prior. In this role, Christine works with co-chair Ken Mont (Nurse Clinician, RGH) and a multidisciplinary team including EMS, social work, nursing leadership, physicians and others to identify frequent ED visitors and develop individualized care plans to improve safety and redirect care into the community whenever possible. This role has recently been formalized as a leadership position (Physician Lead, ED Treatment Plans). Outside of work, Christine loves getting outdoors with her husband Scott and son Cooper.



Dr. Chris Hall, Connect Care and Physician Builder Lead & Medical Informatics Lead

Chris is a 13-year member of the Calgary Zone Emergency Medicine team. Since moving here after completing his residency in Hamilton, he has dabbled in a number of roles over the years, including contributions to the Royal College residency training committee, various hospital and zonal quality improvement initiatives, and the Clinical Knowledge and Content Management division of AHS. This year he took over the Medical Informatics Lead role for emergency medicine in the Calgary Zone. In his spare time he enjoys skiing, mountain / road biking, and spending time with his wife and 3 kids.

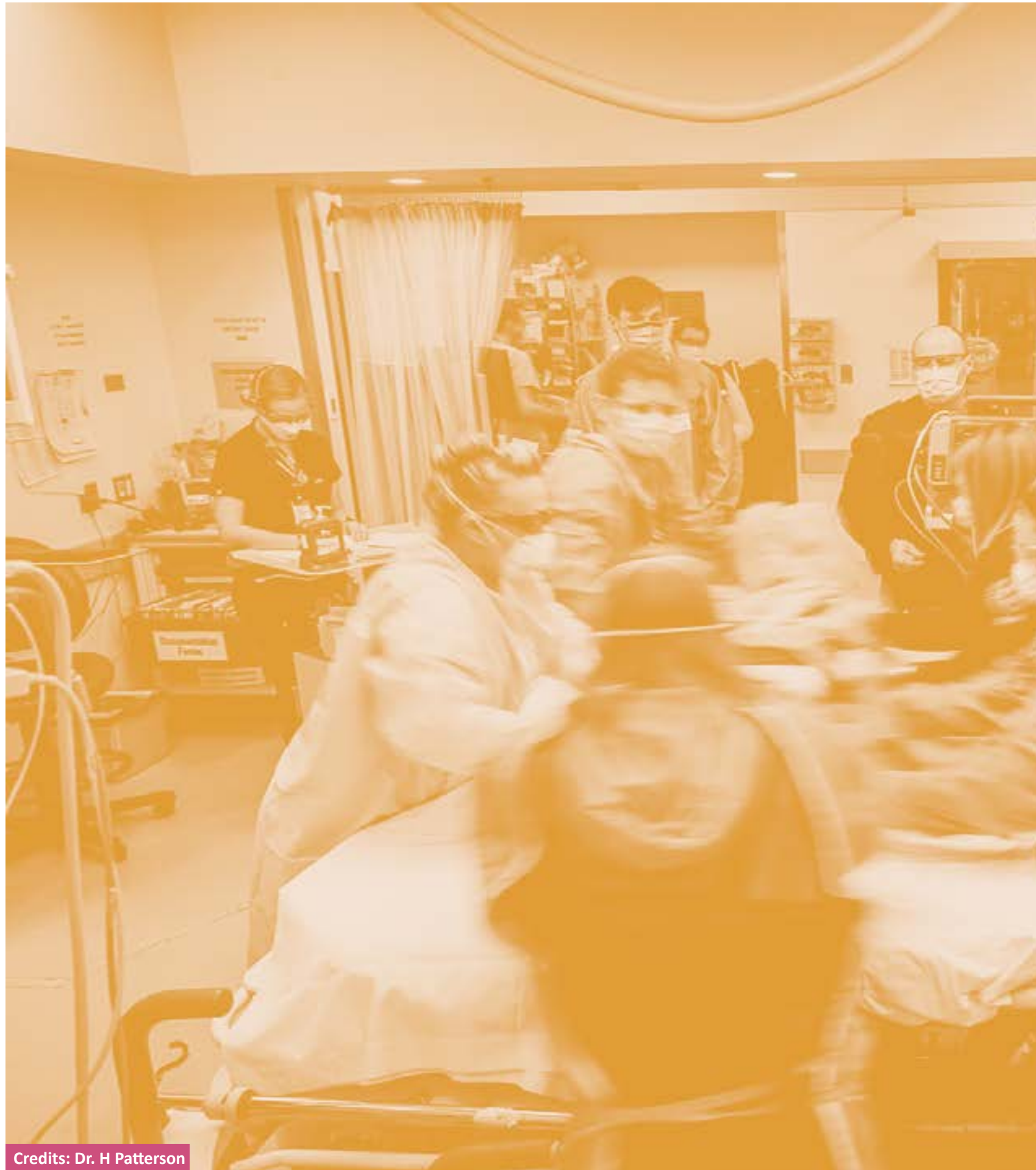


Emergency Leadership Group

Dr. Sarah McPherson, MD Wellness Lead

Sarah is a born and raised Calgarian. She completed medical school at the University of Calgary in 1999 and graduated from the FRCP EM program in Calgary in 2004. From 2007-2019 she was the Assistant PD and then PD of the FRCP EM residency program. Currently, Sarah works clinically at both FMC and ACH and she is the Wellness Director for the Department of Emergency Medicine. She is also a collaborator with WellDoc Alberta where she partners with like-minded colleagues to advance a co-operative, pan-provincial approach to physician wellness. Currently she is also a student at Royal Roads University studying to obtain her Certification in Executive Coaching. She is passionate about partnering with others to create opportunity, spaces, and educational initiatives to help others realize and achieve their full potential and experience both professional and personal fulfilment. Core values of challenge, contribution, creativity, learning, and fairness are her north star. Outside of medicine you can find her cross-country skiing, hiking, backpacking, reading, mixing cocktails, travelling (hopefully) and learning new things.





Credits: Dr. H Patterson

Site Updates

Calgary Zone Department of Emergency Medicine



Foothills Medical Centre Unit Update

Leadership

In the face of repeated administrative challenges related to the ongoing COVID-19 pandemic, we have been very fortunate to have a stable and experienced leadership team. Sharleen Luzny (PCM), Erin Bugbee and Julie Meyer (Unit Managers), Jennifer Jordan (QI consultant), and Jennifer Evangelista, Leanne Norrena, and Trent Moser (CNEs) lead the operational side, while Ian Walker and David Lendrum continue to work as part of this team as site chief and deputy site chief respectively.

COVID-19

Operationally, 2021 was dominated by the care needs created by the COVID-19 pandemic and its ongoing impacts on health care. Most of the modifications previously adopted to manage the isolation requirements of COVID patients have continued throughout the year. The FMC site has continued to provide for our use the clinical area identified as D-Pod which was previously a small inpatient unit. This extra space has allowed us to expand our footprint and maintain our number of care spaces while still maintaining required isolation for the large number of patients requiring it from the time of presentation. Although we experienced a temporary drop in patient volumes in 2019 and into early 2020, 2021 has been notable for a return to very close to baseline volumes in terms of patients seen per day, with higher than historically normal admission rates. Many ED physicians contributed to the Zone’s wider COVID response, providing surge coverage in ICU’s across Calgary as well as coverage on the dedicated COVID inpatient teams.

Manpower

Physician staffing remains unchanged, with approximately 125 physicians working in the FMC ED, all of whom also work at another Emergency Department in the Calgary Zone.

Early in 2020, we introduced a voluntary extra shift each day. This has been well received, and although not consistently filled, has proven to be an excellent resource when dealing with staffing shortfalls and is likely to remain a permanent feature of the staffing model at FMC. In response to the fluctuating staffing needs and availability during the COVID-19 pandemic, a back MD roster was established. This has proven very useful to the function of the department and will likely continue into the future.

Intake Model Re-Instated with Modifications

Due to concerns about infectious risk, our longstanding “intake” model for patient care within the department had to be paused. Although this resulted in decreased risk of COVID-19 transmission between patients, it also had deleterious impacts on patient flow and efficiency in the ED, particularly during times of high “ED Inpatient / EIP” load. Towards the end of 2021, limited attempts were made to re-introduce an appropriately spaced intake model using the C pod area. This remains a work in progress as we move into 2022.

Offering of Dedicated Geriatric Services within the ED

This past year saw the addition of a Geriatric Nurse Specialist (Suzanne Nicol) and a full time occupational therapist (Lindsay Burden) as permanent members of the ED care team. Both have been hard at work assisting with the assessment of our geriatric patients, and assisting with discharge planning and safety assessments. We are very excited to have them join us.

ED/ Mental Health Working Group

Extensive work continues to take place in conjunction with our colleagues in the psychiatry and mental health areas directed at improved care for these patients. While inpatient pressures continue to result in prolonged ED stays for mental health patients on a routine basis, our “ED MH Working Group”, co-led by emergency physician Dr. Jen Nicol and psychiatrist Dr. Jessica Sparling have undertaken several important projects this past year. Most notable have been their work on the use of clinical rather than biochemical sobriety when assessing patients for mental health referrals in the ED, and work on medical clearance of mental health patients. We remain deeply grateful to both the Department of Psychiatry and the Calgary Health Trust for funding Dr. Nicol’s position this past year.

Triage Area Change

Early in 2021, significant changes to our work processes at triage were implemented. These have resulted in decreased activity within the triage area, and the centralization of unit clerk responsibilities at a single unit clerk station, often staffed by three unit clerks. These changes appear to have been well received.

STAT Airway Process

We are very grateful to a dedicated multidisciplinary group who worked closely with our anaesthesia colleagues to develop an FMC specific process for STAT, urgent and routine airway assistance in the ED. This work was led by Jen Jordan and Erin Bugbee from the administrative team and Colleen Carey and Bryan Weber on the physician side, in collaboration with leadership from the department of Anaesthesia.

Dr. Ian Walker on behalf, Of the FMC Emergency Site Leadership Team

Peter Lougheed Centre Unite Update

COVID-19

The COVID crisis continued in 2021 and occupied most of our time and effort until very recently. With vaccination, we are finally seeing a tapering down in cases and the return of family members to the bedside. Unfortunately the possibility of more COVID waves still loom although we certainly appear better equipped to deal with these as time goes on. We are deeply grateful to Sprung Structures for the donation of the Pandemic Response Unit (PRU) at such a time of crisis.

New Department Design

In the background of the pandemic, we have broken ground on our new emergency department build as of April, 2021. The continued operation of the Pandemic Response Unit (PRU) has had a significant role in allowing us to begin phase one of our new department, while simultaneously managing an ongoing pandemic. The first phase is to be completed by Summer 2022 with a move-in date of September/October 2022. It will have 35 new care spaces. We hope to have the new department fully operational by 2024. A big thank you to James Andruchow, Stan Bernbaum, Mike Kenney and Haley Cochrane and all of the nursing managers for their help with this.

New Additions and Retirements from our ED Team

There have been many great additions to our team over the past year, including Kelsey Ragan, Katie Anker, Jamie Keess, and Carly Hagel, Conor McKaigney, Colin Bell and Claire Acton. We have also seen the retirement of Bruce McLeod and Carrie Hiscock from ED practice. Both contributed enormously to the department with over 25 years of service in the Calgary zone EDs. We appreciate all of their work and wish them the best going forward.

Connect Care

The Connect Care rollout has been postponed several times due to COVID. The planned launch date for the PLC is now May 2022. We are currently training super users, and many of our PLC docs have stepped up for this training.

Care Plans

Thanks to Dr. Christine East at the Rockyview, care plans have become an integral and extremely helpful part of our daily practice. Jackie Miller is the RN coordinator of care plans done at the PLC and a big thank you to all of the docs who have participated in the development of these plans over the past year.

Looking Forward

2021 has been a difficult year, although things are slowly getting back to normal. We have much to look forward to with a new emergency department on the horizon and an excellent group of staff that we have the privilege of working alongside each day. Alyssa Morris and I will be stepping down as site chiefs as of March 2022, and greatly appreciated our opportunity to help steer the ship during the past few years.

Peter Lougheed Operational Update

Staff Retention & Development

Mentorship

Over the past year the PLC has revised, updated and improved the mentorship program. The purpose of developing a mentorship program is based on the premise that each participant will learn and grow, from the experience, by helping each other obtain career or personal goals. At the Peter Lougheed Emergency department we pride ourselves on working as a team within our primary care assignments, the mentor program will assist in developing that cohesive environment that provides excellent and efficient care for our patients.

Objective:

- To support new staff in their transition to the department.
- Improve retention of new staff as well as increase the satisfaction
- To provide new staff with ongoing support past their orientation for the first 3 months of their start date.
- To engage mentors in the development of the new staff to foster teamwork for quality patient care.
- To provide growth and development for senior staff

Staff Wellness

Recognizing the past and ongoing COVID response PLC ED has developed “Weeks of Wellness” for all staff in an effort to provide opportunities to debrief with coworkers, resources to help combat stress, and offer support in other aspects of life. A physical board with posted resources, monthly newsletter, links, as well as TEAMCare group debrief session are available to all.

Resuscitation Team Process

The objective of the Resus Team Notification process was to decrease volume of overhead calls, minimize confusion related to overhead pages, streamline processes to ensure only the appropriate health care providers arrive to calls. In review of the notification of the Resus team it was identified that multiple care providers were requesting and notifying different Resus team members leading to not all the Resus Team responding critical ill patients. To ensure all Resus team members are notified in an efficient manner the triage and bedside nurses utilize the unit clerk for notification, through Vocera, a direct line and overhead page.

New Department Expansion/ Renovation

The expansion/renovation for the new department is well underway. The shelled space expansion has an anticipated completion date of Summer 2022. With final inspection and commissioning it is anticipated

Peter Lougheed Operational Update *(continued)*

the actual move into the space for Sept 2022. At that time the department will be operating in the new area as well as utilizing the PRU in its current model with additional care spaces. The new expansion area will yield 35 care spaces which includes: triage, EMS park, 3 Resus rooms, 25 monitored spaces, 7 mental health spaces.

In Fall 2022 with the expansion portion completed, the renovation plan for the current ED space is.....

Oct 2022 the current ED space will be renovated to support 38 additional monitored spaces, minor treatment and staff areas ready for the Spring of 2024.

With the total department completed it will provide approximately 86 care spaces, using a variety of standard care models, as well as Intake models with chairs and result waiting areas.

This is a lofty and aggressive construction schedule, but much needed capacity to both the Calgary zone emergency departments, as well as to the north east quadrant of the city.

A huge thank you to Terri Roth (ED Unit Manager) for her dedication, clinical expertise and commitment to this project as it moves ahead.

Resuscitation Team Process

In Sept of 2022 the decision to delay Wave 4 of connect care was made – this impacted the PLC as we were scheduled to “Go Live” in the Fall of 2021.

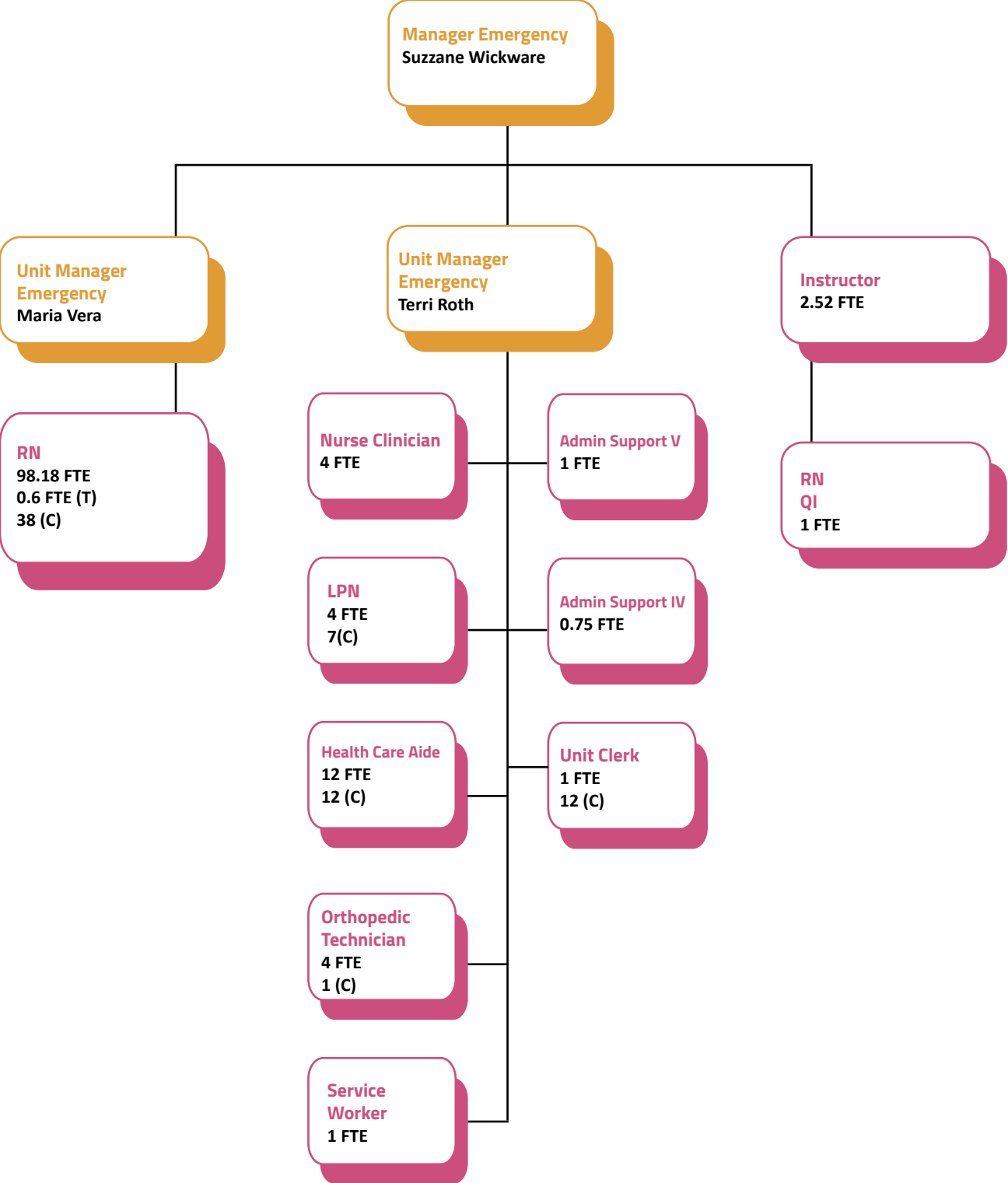
Recently a new launch date of May 14, 2022 has been set, this will include the PLC as the first adult ED in the Calgary Zone to “Go Live”.

In the New Year there will be in house training, sign up and drop in sessions within the department available to all staff and physicians to gain experience in the Connect Care Playground to increase comfort and knowledge of the system prior to launch.

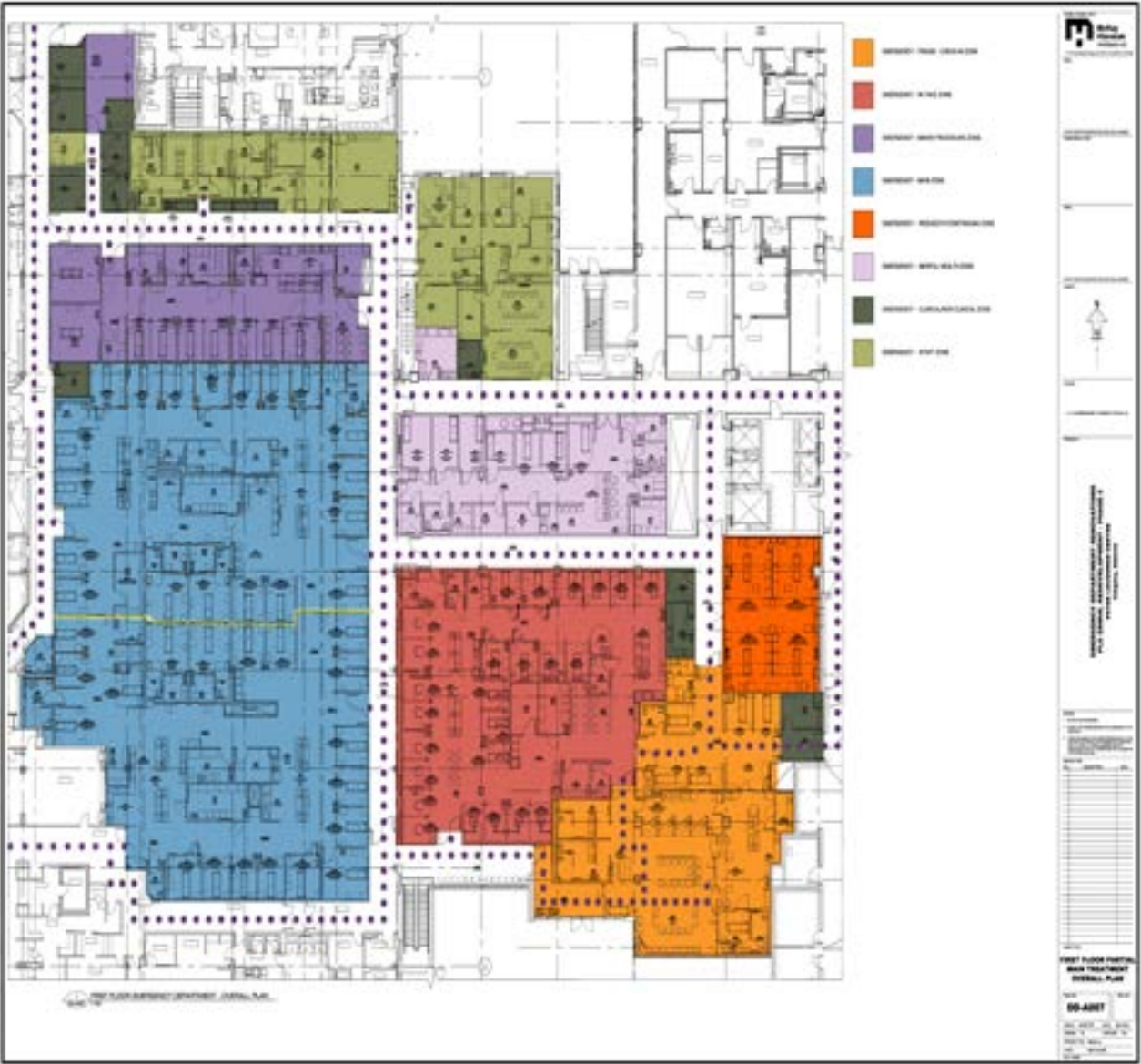
We thank all of our Zone managers for their support with offering superusers to attend the PLC “Go Live” and look forward to being able to support the “Go Lives” for each ED in the future!

Suzanne Wickware RN, MN Patient Care Manager, PLC

Peter Lougheed Centre
Organizational Chart



Peter Lougheed Centre
Overall Plan



Rockyview General Hospital Unit Update

Rockyview Emergency Department (RGH ED) volumes continued to fluctuate throughout this year amidst COVID-19. Overall, volume has increased from 72,662 in 2020 to 76,700 in 2021. This volume is closer to “typical” or non-COVID previous years. RGH ED saw an average daily volume of 210 patients, including an average of 59 EMS arrivals per day. Distribution throughout the department has shifted due to COVID-19 and the subsequent creation of C Corner, which operates using an Intake care model for patients with Core COVID-19 symptoms. 34% of patients were treated in Intake, 23% of patients in Minor Treatment, 30% treated in Main and 13% were treated in C Corner. In 2021, RGH ED experienced higher acuity compared to previous years – 38% of all ED visits were CTAS 2, compared to 35% in previous years. The ED Nursing and Physician Leadership Team continues to monitor acuity, capacity and flow within the department and adjust processes accordingly.

Staffing

Physician Staffing

In 2021, RGH ED saw variable triage to MD times, particularly in the summer months when volume escalated to some of the highest volumes on RGH ED record. In response to this a voluntary physician pick up shift was added, which had excellent physician buy in and assisted in decreasing triage to MD times. The dedicated minor treatment shifts continue. With the exception of the minor treatment area, physicians continue to see patients throughout the department in CTAS order priority, including the EMS hallway.

Nursing, Unit Clerk & Health Care Aide Staffing and Education

It has been an extremely busy year for our Clinical Nurse Educator (CNE) team. They continue to employ

innovative strategies to provide education and offer certification courses to staff within the constraints of COVID-19 restrictions and PPE requirements. In addition to providing much needed hands on clinical support to ED staff, our CNE group has continued to provide orientation for new ED staff, as well as offer advanced orientations for resuscitation, triage, charge nurse role, and practice expansion for the ROT group. We welcomed 62 new staff in 2021, including 49 RNs, 1 ROT, 2 Unit Clerks and 10 Health Care Aides.

In September 2021, RGH ED received redeployed and reassigned staff in response to COVID-19 Wave 4. These redeployed and reassigned staff had various levels of experience; some had prior experience in the RGH ED and other nurses came from the OR and Day Surgery. These nurses were provided with targeted orientation sessions focusing on key clinical skills and provided additional clinical support in the ED from October till December 2021. Addressing staffing challenges will continue to be a consistent priority in 2022. .

COVID-19

CDERP

The RGH ED Communicable Disease Emergency Response Plan (CDERP), continues to provide clinical and operational guidance, and continues to be revised as needed to reflect current provincial guidance.

Infection Prevention and Control

RGH ED staff continue to maintain strong infection prevention and control (IP&C) and hand hygiene practices throughout the ED. Based on monthly hand hygiene audits of ED staff and physicians, compliance was 98% and 87% respectively, or 96% overall for 2021. In addition to this achievement and RGH ED’s ongoing commitment

to IP&C precautions and communicable disease screening, there has been no staff transmission of COVID-19 since the start of the pandemic.

Intake Area Specialized for Patients Presenting with Core COVID-19 Symptoms

RGH ED continues to use the contact droplet specific waiting room, assessment alcove and treatment area within the helipad entrance and C Storage room, making good use of all available space. This space operates using an intake care model for ambulatory patients who screen positive for Core COVID-19 symptoms. C Corner sees 13% of RGH ED’s overall daily volume, an average of 27 patients per day. Data breakdown for this area is strikingly similar to our primary intake area, in terms of acuity and admission percentage. Patients in this area have on average a slightly longer length of stay compared to Intake. Due to the increased workload related to PPE requirements, this area can be challenging to work in.

Safety

Staff and patient safety continues to be a fundamental focus in the department. Over the past two years there have been increases in MySafetyNet reporting. In 2021, 76 incidents of workplace violence were reported and another 68 safety incidents, including workplace injuries, environmental concerns or exposures, were logged. In addition to rising reported episodes of violence in the workplace, this increase is thought to also be attributed to an enhanced awareness and focus on safety. The multidisciplinary RGH ED Safety Committee continues to meet bimonthly to identify and address safety concerns within the department. Core membership of this committee includes ED leadership, staff, protective services, physicians and mental health, with ad hoc attendance from our CPS liaison. In addition, RGH ED nursing and medical leadership continue to meet quarterly with mental health and protective services to specifically address process and safety concerns with the mental health population.

In collaboration with Workplace Health and Safety, Protective Services and the Emergency Strategic Clinical Network, the Violence Prevention Working Group has just been established to focus on workplace aggression and violence and the creation and implementation of a department-specific behavioral safety

alert program. Next steps for this working group will be a staff survey to evaluate current processes and identify gaps. In accordance with COVID-19 restrictions, RGH ED CNEs have resumed offering in person enhanced Non Violent Crisis Intervention (NVCI) courses and will continue to offer these courses on a monthly basis for all ED staff and physicians. In addition, after the successful implementation of Code White simulation sessions in 2020, there is hope to begin working on these again in the near future.

ED Treatment Plan

The ED Treatment Plan Team continues to develop consistent and supportive care plans for vulnerable patients who have a high volume of ED visits. This multidisciplinary zone wide committee is chaired jointly by Dr. Christine East and RGH ED Nurse Clinician, Ken Mont. The team continues to develop linkages with resources and services in the community, including the Chronic Pain Centre, Opioid Dependency Program, CUPS/C2C, and many others. An exciting new development is a collaboration with zone-wide Psychiatric Combined Urgent Services to author plans specifically for psychiatric patients who present often to ED, in the hopes of optimizing our use of Psych Emergency Services (PES) resources and reducing psychiatric EIPs. There are currently 76 active ED Treatment Plans, with another 11 under development. Results of this important work was presented at CAEP 2021 and show a reduction in average monthly ED visits and inpatient admissions after treatment plan implementation. The ED Treatment Plan Team continues to evaluate results and expects to see significant reductions on ED length of stay, advanced imaging and administration of high risk medications (such as opioids and benzodiazepines) for this population.

Staff Wellness

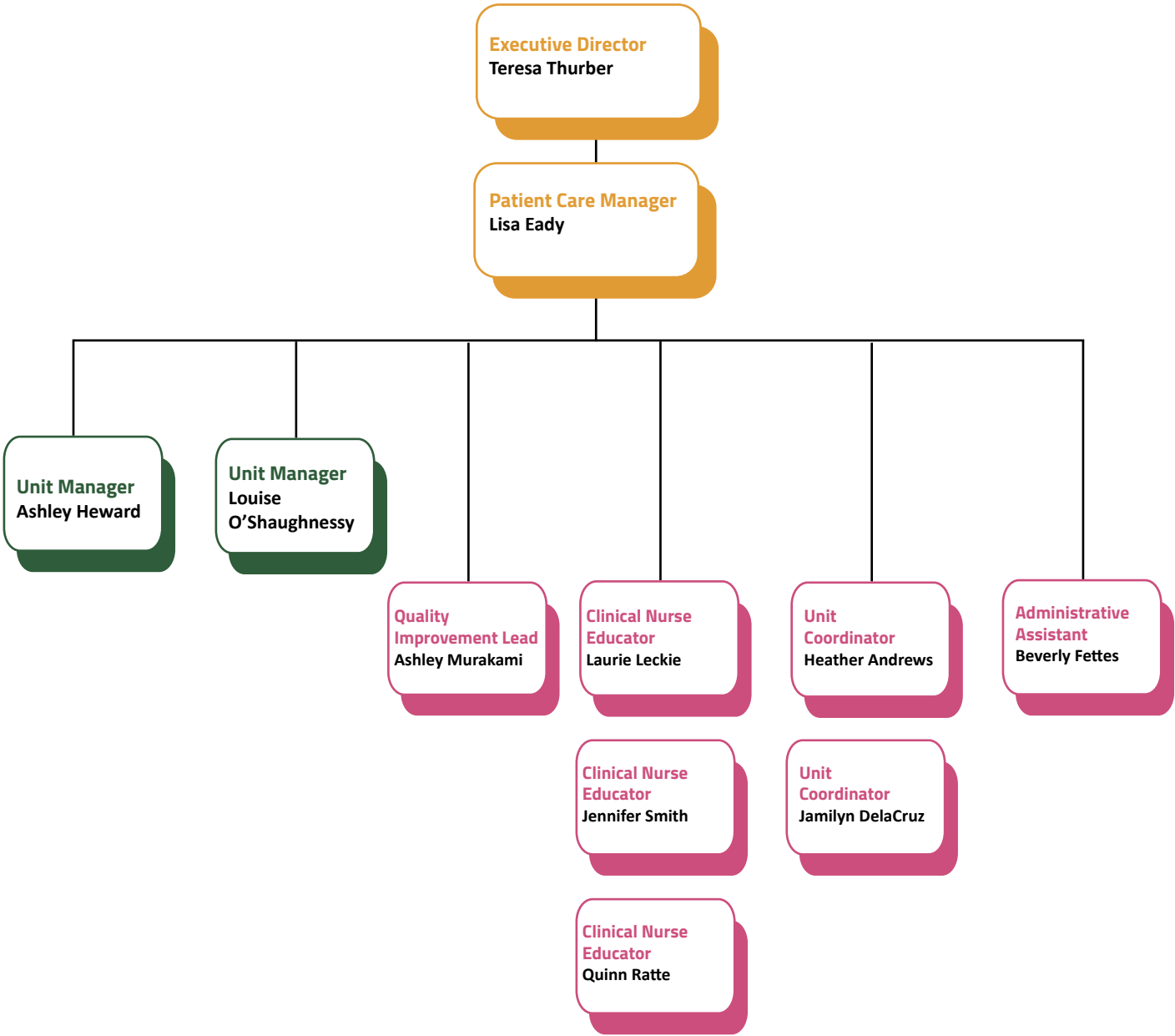
As we worked through the second year of the COVID-19 pandemic, staff wellness has been identified as an ongoing issue. One of the strategies that we initiated was the return of the pet therapy program. Each week several pets and their owners volunteer their time providing smiles, “four legged comfort” and a moment of stress relief to emergency department staff and patients. Staff look forward to these visits each week. Another initiative implemented to promote staff wellness was the installation of “zen” monitors. This was developed based on suggestions from staff as a way to promote wellness while at work. These monitors are located in several areas throughout the department and continuously display relaxing imagery.

Rockyview General Hospital Update (continued)

Staff feedback has been extremely positive, with comments that these calming images bring a little bit of tranquility during a busy, stressful shift. In addition, staff continue to connect and participate in COVID restriction compliant activities organized by the ED Social Committee, such as the secret Santa gift exchange, and in the YYC wellness challenge. The relaxation of the AHS restriction on accepting commercially prepared food donations was a welcome boost to staff morale. Staff wellness will continue to be a priority as we head into 2022.

Quality Improvement Culture

Despite the challenges of the pandemic, RGH ED has maintained its commitment to quality improvement work. QI surveys were sent to staff to evaluate COVID processes and identify any educational or operational gaps. Staff were asked to identify improvements required to address COVID processes, patient and staff safety and department flow; staff were also asked to highlight successes that should be continued and if there was any additional data or information needed to provide quality patient care. Emerging themes were analyzed by the ED Unit Council, quick wins were promptly implemented and other process changes implemented as required. This led to the optimization of our COVID processes, most notably our C Corner for patients presenting with core COVID-19 symptoms. In addition, monthly data reports were sent to all staff sharing data regarding various department indicators such as hand hygiene, performance indicators and interesting stats such as, patient acuity trends, COVID admissions, COVID swabs completed, and isolation orders.



South Health Campus Unit Update

The SHC Emergency Department remains a tight-knit community of providers, with a culture of mutual support and encouragement despite the many difficulties the past couple years have brought. The challenges in 2021 posed by the two most intense waves of the pandemic were met with grit, personal and corporate sacrifice, and profound collaboration among physicians, nurses, respiratory therapists, PCTs, unit clerks, housekeeping staff, and the many supporting services delivering ED care. While hurdles persist in the areas of hospital overcrowding, staffing shortages and pandemic-related burnout, our department has accomplished and continues to work toward improvements in several areas.

Updates

Leadership

Dr Cameron McGillivray stepped down as the Site Chief after three years of impeccable leadership and service, most notably having navigated our department through the initial uncertainties and complexities of the Covid-19 pandemic. Drs. Daniel Joo and Carly Hagel took on the roles of Site Chief and Site Deputy chief, respectively, in the second half of the year.

Heather Battle, Veronika Henkel, and Steve Mape continued to work tirelessly behind the scenes to manage and operate the ED, with much input from Lucy Rugg, whose portfolio includes RN lead of Quality Improvement as well as ED Flow and Pandemic planning

Human Resources

The physician supply has remained generally consistent over the year with a few additions and some that switched sites. Despite initial concerns of major spikes in absences due to illness, nearly every shift was covered, and we are making use of of a mid-day flex shift

with sliding start times depending on need.

We are soon to join the rest of the city in using Metric-aid, a third party scheduling service, that will hopefully allow greater customizability in shift allotment and access to split lines, resulting in improved work-life balance and career satisfaction.

As has been observed throughout the province, we have struggled to retain and hire nursing staff this year. The shortage of nurses has resulted in heavy use of the casual pool of ED nurses, resulting in diminished uptake of available shifts. This has meant an inability to fully staff the department on many days, impacting flow and wait times. One of our experienced and beloved nurses, Season Foremsky, died suddenly in September, leading to an added layer of grief. Our team pulled together in mutual support, and continue to acknowledge her contribution to the care of Albertans. We remember her with fondness and respect.

Pandemic Highlights

The third and fourth waves of the pandemic tested our inpatient hospital system immensely. Truly heroic efforts by all levels of Site and Zone Administration resulted in redeployment of significant nursing resources to support the ED, ICU, and inpatient medical wards, at the expense of many/most outpatient and surgical services. This, coupled with boosted inpatient bed capacity and ICU space, enabled ED to work effectively and efficiently. Patients were seen in a timely fashion, and consultant services moved patients rapidly to their designated space in the hospital.

Many of the SHC ED physicians lent their time and expertise to support the overburdened Internal Medicine and ICU services, leading to increased collaboration and strengthened relationships between our departments.

The Ambulance Bay, repurposed last year to provide a second waiting room for patients in isolation, was minimally used this year but remains a valuable resource in case of possible future waves.

In November of 2021, due to staffing constraints, the dual-triage and dual-intake system we had grown accustomed to had to be revamped. The hope is that the new model will diffuse some of the nursing burden from particularly squeezed areas of the ED, leading to improved job satisfaction and retention, while maintaining flow and keeping wait times at bay.

We are grateful to Site Leadership for funding 8-14 inpatient care spaces in the Bone and Joint clinic, which has provided and continues to provide a huge benefit in decanting admitted patients from the ED.

Finally, after several months of low pediatric patient volumes, the fall of 2021 brought the resurgence of children’s visits to our ED, who now comprise ~25% of our daily visits. The majority of these kids are seen in C-pod by our ACH Emergency Physician colleagues (providing 12 hours of daily coverage) and dedicated SHC pediatrics-trained nursing staff.

Project & Developments

1. Geriatric Emergency Medicine. Dr Marge McGillivray and Nurse Practitioner Paige Carlyle continue to develop our Senior Friendly ED, and lead the zone in many initiatives including iterative “See the Person” workshops for physicians and nurses, spearheading a priority bed allocation protocol for EIPs at risk for (or in) delirium, organizing the SUPER volunteer program, and comprehensive discharge planning leading to reduced acute care admissions.
2. Resuscitation Bundles. Drs Ewa Courvoisier, Mel Sohn, and Nikki Schiebel have redesigned an array of resuscitation cart equipment into organized kits, simplifying the acquisition and use of these relatively infrequently accessed tools.
3. QI Project successes. We have had success in decreasing the number of asymptomatic urine cultures sent by 20%, and sustained this change throughout the year (asymptomatic bacteriuria and antibiotic stewardship). We overhauled our resus room out of necessity to ensure proper contact/droplet precautions can be maintained during resuscitations, especially if both rooms are in use. We have received positive feedback in the new layout and have made a number of changes to processes such as removing infrequently used equipment and creating more space at the head of bed for airway management and taping the floors to visually cue clean/dirty zones.
4. Ongoing and 2022 QI projects include efforts to reduce DIDO times for stroke and STEMI, and reducing the incidence of contaminated blood cultures. Our department and patients benefit from the huge efforts of Dr. Kathryn Crowder in leading QI initiatives at SHC.
5. Drs. Mel Sohn and Mike Wolf are thanked and acknowledged for organizing and facilitating monthly SHC ED Case Rounds. Educational, collaborative, and practical, these rounds are very well-received by our MD group. They now pass the torch to Drs. Nikki Schiebel and Ewa Courvoisier-Grzywacz who will be resuming our Case Rounds in the New Year.

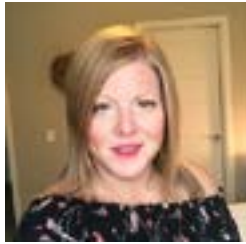
SHC Nursing Leadership Update

It has been a busy year at the SHC ED for the nursing leadership team. Steve Mape joined the team as an additional Patient Care Manager early this year, and we welcomed Dan Joo and Carly Hagel as site chief and assistant site chief. In addition to navigating the unprecedented change created by the pandemic, SHC ED has continued to live its pillars of Patient and Family Centered Care an Innovation. The challenges, successes, losses, grief and celebrations that we experienced in 2021 have tested our resilience, but ultimately we are wiser and stronger as a team because we weathered it together.

Some of our accomplishments from the past year include:

- Establishing a formal nursing mentorship program to support new nursing staff, and with a goal of improving staff retention and satisfaction.
- Reconfiguring our Intake area, to optimize patient flow
- Implementing a Care Hub staffing model in D pod, maximizing human resources, and enabling staff to practice to full scope
- Collaboration with the inpatient areas to open up an Emergency Transition Unit (ETU), to hold admitted patients and ease the strain of EIP's in the ED.
- Implementation of the Code Rooms Improvement Project, enabling 2 code rooms that are fully functional with the new isolation needs required during the pandemic
- Conversion of 3 ambulance Bays to allow for the addition of temporary patient care spaces, to support volume surges during the pandemic.
- Development of an expert pediatric core nursing team and consistent pediatric staffing model, in order to provide pediatric education and skills building for all staff.

- Several Quality Improvement initiatives, including
 - Asymptomatic Bacteriuria (ASB) project to decrease the misuse of antibiotics
 - Blood Culture contamination improvement project Implementation of IDRAW as our standard hand-over tool
 - Code Room Project: streamlining and bundling of storage containers and supplies for easy access in resuscitation and med rooms
- Ongoing development of Geriatric Friendly patient care, including:
 - Expansion of the SUPER volunteer program
 - 'I See the Person' training for all staff
 - Development of a prioritization tool for admitting frail, elderly patients to the inpatient areas including using the B-CAM tool to assess for delirium
- Staff education:
 - Orientation of 50 new staff to the ED, plus 18 redeployed staff.
 - 13 RNs trained to code room and pediatrics area
 - 17 RNs trained to triage
 - Monthly interdisciplinary eSIM sessions
 - ACLS Provider Course – 12 RNs
 - PALS Provider Course– 12 RNs



**Heather Battle, RN.
Manager**

I have been a nurse with AHS for over 30 years. I graduated from the Foot-hills Hospital School of Nursing in 1990, and will be starting my MBA in Health Leadership in early 2022. I joined the SHC ED team in January 2020.



**Veronica Henkel, RN.
Unit Manager**

I have been a Registered Nurse with AHS for over 20 years in varying capacities but have been in a formal leadership role for over 9 years. I had the extremely fortunate opportunity to join our SHC ED team in February 2020 and haven't looked back! I have a passion for Senior's Health as well as Quality Improvement.



**Steve Mape, BN.
Unit Manager**

I have been one of the Unit Managers in the ED at SHC for 1 year. Prior to joining the ED team, I was the Site Manager here at The Campus. Before making the move to SHC I worked in the ED at Rockyview as well as in Claresholm. I am currently pursuing a Master's Degree in Health Studies with a focus in organizational leadership, and am scheduled to complete the program next year.



**Danielle Binda, BN.
Clinical Nurse Educator**

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



**Vanessa Culp, BN.
Clinical Nurse Educator**

I have worked with AHS since 2004 at various sites including FMC, PLC and SHC. I began working @PLC ED in 2009 and transitioned to the SHC ED team in 2014. I moved through the ranks of bedside RN to clinician and then CNE. I'm a born and bred Calgarian and have 3 crazy pets at home. When I am not running at work, I am busy running after my dog, Nola.



**Lucy Rugg, BN.
QI Lead**

I graduated with a Bachelor of Nursing from the University of Calgary in 2005. I moved to the Emergency Department in 2008 and haven't looked back! I have a mix of urban and rural experience. I am currently the RN Lead for Quality Improvement and Flow Initiatives within the South Health Campus Emergency Department.



**Paige Guinn, BSN, MN/NP.
Geriatric Emergency Management Nurse Practitioner.**

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

Department of Emergency Medicine

2021-2022 End of Year Locums



Dr. Collin Bell (SHC)

Colin Bell came to Calgary via Queen’s University and Denver CO. His academic interests focus at the intersection of medical education and POCUS. When he not taking pictures with sound waves, Colin can be found outside biking, playing ultimate or shredding the gnar.



Dr. Riley Hartmann (FMC/PLC)

Born and raised in Winnipeg (and quite proud of it), Riley comes to us from completing his residency in Saskatchewan. Starting university with a goal of following the family tradition of being a Civil Engineer, Riley made the move to Calgary to ski, hike, and pursue medicine on the side as a member of the class of 2016 (Go Narwhals!). Riley has an interest in playing keeper in soccer, and other outdoor activities like backcountry cycling and camping with his GoldendoodleAngus. He has special interests in Quality Improvement, Toxicology, and Pharmacology. He will be completing his Clinical Pharmacology and Toxicology fellowship at PADIS in 2021-2022.

Dr. Katie Anker (FMC/PLC)

Born and raised in Calgary and Edmonton, Katie is no stranger to the QE2 highway. She is super excited to be joining the Calgary Emergency Department, and is so thankful to all of the incredible mentors she has had thus far in the department. Her academic interests include pediatric care (she is completing her PEM fellowship this year) and vulnerable populations. In her free time she loves to run, bike, climb and play board games with unnecessary intensity and borderline poor-sportsmanship. Katie has recently taken up cocktail making under the leadership of Dr. Sarah McPherson, and has a fleeting dream to become fluent in Spanish.



Dr. Kelsey Ragan (FMC/PLC)

I just finished my Emergency Medicine training here in Calgary and am thrilled to be staying on as part of Calgary’s EM team! I grew up in Kamloops, BC and prior to residency completed both medical school and an MPH at the University of Toronto. My interests are in pre-hospital medicine, health advocacy and medical education. When not at work you can find me backcountry skiing, biking and excessively refreshing the Parks Canada website in never-ending attempts to make camping reservations. My current favorite activity is adventuring with my partner in our new VW campervan with our pandemic pup Hayden. I do believe in friends on a powder day so please come say hi!



Department of Emergency Medicine

2021-Summer Locums



Dr. Ryan Wilkie (RGH)

Born and raised in Calgary, Ryan graduated with a Bachelor's of Science and completed two years towards his Bachelor of Nursing at the University of Calgary. He was introduced to Emergency Medicine through working as a nursing aide in the Foothills ED. He completed medical school and his FRCPC residency in Calgary and is very excited to be working here this summer. Outside of medicine, he loves crushing TV series, puzzles and all the activities.



Dr. Peter Maric (SHC)

I am very excited to join the SHC ED team, and be back in my hometown of Calgary this summer. After high school, I moved to Australia, where I completed my undergrad and medical degree at the University of New South Wales in Sydney. I began my emergency medicine career with the Australasian College of Emergency Medicine, but completed my training in Canada. First in rural family medicine, before I joined the CCFP-EM program in Toronto. Since then, I have been working as an attending emergency physician in two large community academic hospitals, teaching at McMaster, and providing ED locum coverage in rural Ontario hospitals. On my days off, you will find me outdoors, at a lake, or in the mountains, chasing my kids, and hopefully spending time with the rest of family thanks to the magic of mRNA! I look forward to seeing you on the floor!

Dr. Kyle Ricord (RGH)

Born Albertan, raised in Calgary. Attended U of C medical school and Family Medicine residency in Black Diamond, AB. Have a wonderful little family comprised of my wife, Elizabeth, our very active toddler named Beau and our dog Shy. I have a soft spot for rescue dogs and claim to fame was delivering a baby on the side of the road with shoulder dystocia (ask me about it... wild story)!



Dr. Ana Maria Gomez (RGH)

I just finished my Emergency Medicine training here in Calgary and am thrilled to be staying on as part of Calgary's EM team! I grew up in Kamloops, BC and prior to residency completed both medical school and an MPH at the University of Toronto. My interests are in pre-hospital medicine, health advocacy and medical education. When not at work you can find me backcountry skiing, biking and excessively refreshing the Parks Canada website in never-ending attempts to make camping reservations. My current favorite activity is adventuring with my partner in our new VW campervan with our pandemic pup Hayden. I do believe in friends on a powder day so please come say hi!



Department of Emergency Medicine

2021-Summer Locums



Dr. Emily Quick (PLC)

Born and raised in Calgary, Ryan graduated with a Bachelor’s of Science and completed two years towards his Bachelor of Nursing at the University of Calgary. He was introduced to Emergency Medicine through working as a nursing aide in the Foothills ED. He completed medical school and his FRCPC residency in Calgary and is very excited to be working here this summer. Outside of medicine, he loves crushing TV series, puzzles and all the activities.



Dr. Jenny Strong (SHC)

Jenny grew up in North Vancouver and spent her youth competing in big mountain skiing and XC and DH mountain biking. She ran XC and steeple chase for the UBC Thunderbirds while completing her BSc in Animal Biology and Human Kinetics before chasing her now husband to Calgary. She completed her medical school at the University of Calgary, followed by Rural Family Medicine in Red Deer. After locuming for a year in Central Alberta, she returned the Calgary for the CCFP-EM program and is very excited to be joining the Calgary Emergency Medicine group this summer at SHC. When she isn’t working you will find her backcountry skiing, rock climbing or trying to capture the QOM on the local bike trails.



Dr. Jacqueline Luhoway (SHC)

Jacqueline was born and raised in Edmonton, AB before heading east for most of her undergraduate and medical training. She completed her undergraduate degree at McGill University and medical education at Western University before heading back home to Alberta for both her FM and CCFP-EM residency in Calgary. When she isn’t in the hospital, Jacqueline can be found enjoying the outdoors with her dog Miracle or relaxing with a good book and yoga. She also enjoys exploring new restaurants and travelling; hopefully to begin again in the upcoming year (fingers crossed). Jacqueline is looking forward to locuming at South Health Campus this summer and getting to know the fantastic group down south.



Dr. Jamie Keess (PLC)

Having just completed the CCFP-EM residency year at the University of Calgary, Jamie Keess is thrilled to be joining the Emergency Medicine team in Calgary for a locum. She holds a BSc in Health Science from Mount Royal University, an MD from the University of Calgary, and a CCFP certification from the University of Saskatchewan rural family medicine residency program in Prince Albert, Saskatchewan. Her professional interests include medical care in rural and remote environments, wilderness medicine, and nearly anything that requires creative problem solving.



Clinical Programs

Calgary Zone Department of Emergency Medicine



Credits: Dr. H Patterson

Clinical Programs

Clinical Informatics

Continuing in their roles this year with the Calgary clinical informatics team were Dr. Tom Rich as ACMIO for the Calgary Zone, Dr. Ashlea Wilmott as Peds ED Informatics Lead / Provincial ED Connect Care Physician Training Lead, and Dr. Shawn Dowling as ED Order Set Lead. Meanwhile, Dr. Matt Grabove stepped down after four productive years in the Medical Informatics Lead role and was succeeded by Dr. Chris Hall.

Notable events from 2021

Connect Care

In spite of the challenges posed by multiple waves of COVID in 2021, the third wave of Connect Care implementation was successfully rolled out at multiple sites across the North Zone. The transition occurred quite smoothly and this bodes well for future waves which will involve the Calgary Zone. Unfortunately, the wave 4 Connect Care rollout, which was scheduled for November and was to include the PLC and ACH, was delayed by a significant increase in COVID cases this fall. As allied health care personnel were redeployed to address the pressing need to care for a massive surge in critically ill patients, staff availability for training was severely curtailed. Thus, training and rollout activities were postponed until 2022. Fortunately, many of our ED staff were able to complete training prior to the rollout being cancelled, which should give us a significant head start when rollout activities regain their momentum next year. Meanwhile, provincial working groups continue to work at streamlining clinical workflows to improve efficiency prior to rollout in Calgary Zone EDs.

Local Initiatives

The myED online resource grew significantly in both scope and content in 2021 and now serves as the defacto hub for accessing local clinical pathways, guidelines, and protocols.

Available as both a desktop and mobile resource, it figures to play a significant clinical decision support role for frontline physicians into the foreseeable future, including into the Connect Care era. In the meantime, given the limited availability of informatics personnel and resources, SEC-related content management remained focussed on addressing any pressing safety concerns that might be identified in our local order sets.

Looking forward to 2022:

The Connect Care rollout will restart with wave 4 (including PLC, ACH, and Calgary zone urgent cares, arriving on May 14, 2022 and wave 5 (FMC) on November 6. Staff training and clinical scenario simulation opportunities will be restarting early in the new year which will give us ample time to prepare for the arrival of our new CIS.

Anti-Racism, Equity, Diversity, and Inclusion Working Group.

Anti-racism, equity, diversity, and inclusion has been identified as a priority for our department. The working group continues to make a commitment to meaningful change to our culture.

The current members include Kelsey MacLeod, Patricia Lee, Tayo Dawodu, Chris Bond, Sarah McPherson, Tash Wright, Mandeep Sran, Huma Ali, Fareen Zaver, Claire Acton, Kelsey Ragan, Ian Wishart, and Jennifer Puddy.

Our accomplishments in 2021 include developing a Department Statement and presenting this to the physician executive. In 2021, we offered implicit bias training courses to the FRCP Carms interview committee and the entire residency group.

Our group was instrumental in organizing and presenting the Equity Grand Rounds September 9, 2021 “Equity, Diversity and Inclusion in the Emergency Department: Setting the Stage for Diverse Human Flourishing” with Dr. Saleem Razack and on October 14, 2021, “Black Lives in Emergency Medicine: “Practical Antiracism and Allyship” with Dr. Jennifer Bryan and Dr. Nicole Johnson. Members of our committee participated in the Hodsman Legacy Lecture by joining a question and answer session.

The working group has liaised with the residency training programs and will help with the resident equity, diversity, and inclusion group. Members of our working group are involved in anti-racism curriculum development.

We have reached out to the Calgary Black Chambers regarding mentorship.

Kelsey Macleod has developed and led courses on Bystander Intervention in collaboration with the Office of Professionalism, Equity and Diversity at the Cumming School of Medicine at the University of Calgary.

We look forward to 2022.

Clinical Pharmacology & Toxicology

The year 2021 was a very successful year for the Section of Clinical Pharmacology and Toxicology.

Despite the COVID-19 pandemic, PADIS continued to host residents from Emergency Medicine (Adult and Pediatric), Internal Medicine, Anesthesia, Family Medicine, Psychiatry, and Critical Care Medicine for our popular Medical Toxicology rotation. This rotation involves a combination of bedside medical toxicology consultations in Calgary hospitals and small-group teaching sessions on management of common poisonings. We also continued to have Saskatchewan RCPSC and CCFP-EM residents take call from Regina and Saskatoon, and held our annual “Toxicology Skills Day” with the University of Saskatchewan Emergency Medicine residents virtually via Zoom. We also hosted a similar skills day for the University of Alberta Emergency Medicine residents.

In July, we welcomed back Dr. Riley Hartmann for his second year of the CPT fellowship. Riley also passed his FRCPC Emergency Medicine examination and is working clinically in the Calgary ED’s during his second year.

Dr. Steven Liu completed his CPT fellowship and also successfully passed the Royal College examination. Steve also joined our medical toxicology call group and is now taking call for PADIS.

We are also very pleased to announce that our CPT program matched two stellar candidates for a start date of July 2022. Dr. Jacqueline Hiob is an emergency medicine resident from Halifax, and Dr. Alexandra Hamelin is an emergency medicine resident from Ottawa. We are excited to have these two physicians join us next year.

We continue to work on implementing our goals as part of our 2021-2025 Strategic Plan. The strategic plan and its key elements can be found on our CPT website.

Number of Clinical Pharmacology consults: 133
Number of Medical Toxicology bedside consults: 34
Number of PADIS Medical Toxicologists: 7

Number of Physicians on Clinical Pharmacology consult service: 3
Number of Toxicology Clinic patients seen: 22
Number of research projects published by Section members: 26
Number of Section of CPT members: 9
Section members who are also members of University of Calgary research institutes: 3
Number of residents and/or students mentored by Section members: 24
Number of publications by CPT fellows: 3
Number of CPT lectures given by Section members to Undergraduate Medical Education students: 9
Number of CPT lectures given by Section members at Postgraduate Medical Education academic half days: 65
Number of CPT lectures given by Section members at CME events: 4

Number of applicants to Calgary CPT program: 4
Number of residents rotating at PADIS: 61
Number of residents rotating on CP consult service: 2



Dr. Mark Yarema
Section Chief
Clinical Pharmacology and Toxicology
Department of Emergency Medicine

Distributed Learning & Rural Initiatives (DLRI) Update

The Office of Distributed Learning and Rural Initiatives (DLRI) at the Cumming School of Medicine believes in providing quality healthcare to the people of rural Alberta. We strive to accomplish this goal through fostering meaningful relationships between medical educators, health-care professionals in training and individuals and families in rural Alberta. Our vision is to engage communities, inspire social accountability and create opportunities. We believe that our commitment to education and research in rural Alberta is a key part of developing skilled and dedicated rural physicians. DLRI manages two large Government of Alberta grants that support rural education for medical students, clinical clerks, and residents. Our office coordinates rural placements for learners at all levels from pre-clinical medical students to residents. We support medical student placements that can be as short as a single day of shadowing and as long the entire clerkship for our University of Calgary Longitudinal Integrated Clerkship. We support residency programs in both Family Medicine and wide variety of specialties to place resident physicians in rural training environments. DLRI also supports our rural preceptors and educators through a range of conferences and Faculty Development opportunities.

This past year DLRI has successfully renewed it's grants with Alberta Health and the Government of Alberta. We look forward to continuing to expand and strengthen rural programming through this next 3 year cycle.

The DLRI office continues to mainly work remotely through the COVID pandemic. We have successfully moved our conferences online, hosting Rural Connect 2021 in the spring and the Southern Alberta Preceptor Summit in the Fall of 2021. Although our online conferences have been successful we look forward to returning to an in person event in 2022.

DLRI research activities continue and this past year have focused on the connection between rural preceptors and University Medical Schools through second phase of the 'Currencies of Recognition' project as well as work focusing on rural resident wellness and generalism.

Throughout the pandemic physician teachers at rural and regional sites have increased participation in many elements of non-clinical teaching and educational administration, facilitated by the transition to remote learning and meeting technologies. Over the coming year we hope to maintain this important involvement in education.

At DLRI we make the links between learners and interesting rural opportunities, and support rural physicians as cutting edge medical educators. We believe that exposing learners to rural practice, and supporting rural physicians in a clinical faculty is an important part of the future of rural healthcare in our province.



Dr. Aaron Johnston
Director of Distributed Learning & Rural Initiatives

Emergency Department Global Health Hub

The Global EM (GEM) 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 GEM by harnessing our collective experiences and offering a variety of ways to expand them. Thus far, more than 50 emergency physicians in Calgary have joined the GEM hub.

After the success of our GEM grand rounds in 2019 with Dr. Megan Landes, we are grateful to have received an ongoing grant from the Physician Support Fund towards our GEM speaker series. We were thrilled to welcome emergency physician and acclaimed author Dr. James Maskalyk via Zoom to Calgary on December 3, 2020. Using his decades of experience as a humanitarian physician, Dr. Maskalyk drew parallels between the Covid-19 pandemic, the ongoing health crises that preceded it, and the necessity of “healing on the fly” when confronting them. He also discussed his recent experiences with personal illness and related that to his time spent treating patients in Darfur and Ethiopia.

Much of the international work that the hub had underway has been delayed due to Covid-19. We received grant funding through the U of C Indigenous, Local, and Global Health Office and the McLaughlin Traveling Medical Education Fund to start a project with the Mbarara University of Science and Technology (MUST) in Mbarara, Uganda. The goal of the Calgary-Mbarara Emergency Medicine Collaboration (CMEM) is to support the development of EM through faculty development, trainee support, and clinical exchange experiences. Specifically, this collaboration is designed to be bilateral with opportunities for our faculty to go there and senior Ugandan EM residents to come to Calgary. U of C faculty would be integrated into an educational role in the MUST Dept of EM for their visit. Visiting Ugandan residents would be integrated into the academic activities of the residency program, undertake

observerships in the hospital, give rounds, and complete a short course in medical education and teaching techniques.

There is a precedent for this type of project at U of C with cardiology, IM, and pediatrics having brought foreign residents to Calgary for specialized educational programs. The funding we have will predominantly be used to fund the cost of two Ugandan residents visiting us annually, but we will also be able to fund travel and some ancillary costs for U of C faculty visiting Mbarara as well.

We are working on re-scheduling faculty exchanges in the spring of 2022 now that border restrictions are easing both in Canada and Uganda.

I am not sure yet when we will be able to invite a Ugandan resident to Calgary but we will need assistance coordinating the delivery of their “course” here with help from faculty. We will need preceptors for clinical observerships and mentors for rounds etc. Also, to save money we plan to homestay the residents with medical families in Calgary. One of the benefits of this project is that faculty and residents in Calgary can be involved in global EM without needing to leave home, but the option is there for those able and willing.

A package of donated airway supplies was put together by myself, Dr. Wishart, and Suzanne Boyd (PLC RT) and shipped to MUST last winter. It included BVMS, oral/nasal airways, ETTs and other vital equipment. We have been collecting additional equipment that we plan to send in 2022.

We are excited for the future of the GEM hub!

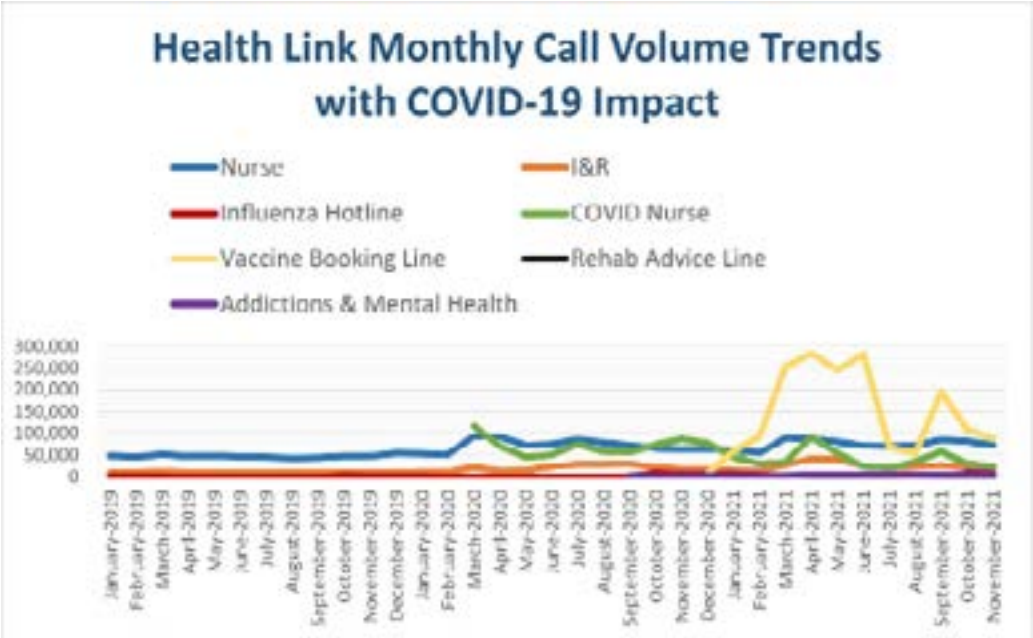
Dr. Andrew Battison

Health Link Annual Report 2021

The Office of Distributed Learning and Rural Initiatives (DLRI) at the Cumming School of Medicine believes in providing quality healthcare to the people of rural Alberta. We strive to accomplish this goal through fostering meaningful relationships between medical educators, health-care professionals in training and individuals and families in rural Alberta. Our vision is to engage communities, inspire social accountability and create opportunities. We believe that our commitment to education and research in rural Alberta is a key part of developing skilled and dedicated rural physicians. DLRI manages two large Government of Alberta grants that support rural education for medical students, clinical clerks, and residents. Our office coordinates rural placements for learners at all levels from pre-clinical medical students to residents. We support medical student placements that can be as short as a single day of shadowing and as long the entire clerkship for our University of Calgary Longitudinal Integrated Clerkship. We support residency programs in both Family Medicine and wide variety of specialties to place resident physicians in rural training environments. DLRI also supports our rural preceptors and educators through a range of conferences and Faculty Development opportunities.

This past year DLRI has successfully renewed it’s grants with Alberta Health and the Government of Alberta. We look forward to continuing to expand and strengthen rural programming through this next 3 year cycle.

The DLRI office continues to mainly work remotely through the COVID pandemic. We have successfully moved our conferences online, hosting Rural Connect 2021 in the spring and the Southern Alberta Preceptor Summit in the Fall of 2021. Although our online conferences have been successful we look forward to returning to an in person event in 2022.



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

Hodsman Legacy Lecture 2021

The Hodsman Legacy Lecture celebrates the life of our late colleague, Dr. Mike Hodsman and his great love of learning. The seventh annual lecture took place March 11, 2021 in virtual format by zoom due to the COVID-19 pandemic. This year we started a new tradition of honoring the career contributions of another valued colleague. Dr Rob Abernethy was highlighted for his 40 year clinical career complemented by many administrative and leadership accomplishments. The event was well attended by over 125 physicians, nurses and medical trainees. Our keynote speaker was Dr. Esther Choo from the Oregon Health Sciences University. She spoke in Health Equity in the ED. Complementary speakers included Dr. Caley Shukalek who spoke on LGBTQS+ health, Dr Harry Dhaliwal who spoke about his lived experience with a disability in the healthcare system, Dr Patrick McLane and Bonny Healy who spoke about Indigenous Health, and Drs. Jenn Puddy and Kelsey MacLeod from the EDI Working group shared their recent initiatives within our department. This event was funded through the Physician Support Fund, The Foothills Hospital Medical Staff Association, and the resident and clerk electives account.

There was widespread positive feedback from the event.

Opioid Crisis/ Harm Reduction in Alberta

Opioid use disorder is a chronic, relapsing illness/condition that continues to be a major public health crisis affecting many Albertans. In 2020 and 2021, stress and pressures from the COVID-19 pandemic appear to have further intensified the impact of the opioid crisis on individuals, families, and communities. The pandemic has been marked by a drastic increase in opioid related deaths. 2020 was the deadliest year since statistics began to be reported and 2021 is also on track for a very high annual death toll compared to previous years (Alberta Health, Substance Use Surveillance). Two of the main causes are the rise of potent illicit opioids (such as fentanyl), and the overuse and misuse of prescription opioids for the last few decades.

Initiation of Buprenorphine/Naloxone in Emergency Departments and Urgent Care Centres (UCCs) in Alberta Program.

For many individuals who live with opioid use disorder, there are prescription medications available that can help, such as buprenorphine/naloxone (brand name: Suboxone®, generics also available). When taken as prescribed, this medication reduces cravings for opioids and withdrawal symptoms. It helps people feel normal and use opioids less often and in smaller amounts. Once on a stable dose, some people can stop taking opioids altogether. This crisis is complex and will continue to require more efforts from all areas of healthcare and society. Many individuals who live with opioid use disorder visit ED/ UCCs because of an overdose, withdrawal symptoms, or for other reasons.

By October 2019, all adult ED/UCCs in the Calgary Zone had worked with the Emergency Strategic Clinical

Clinical Network™ to implement the initiation of buprenorphine/naloxone program. Additionally, in August 2020, the Alberta Children’s Hospital ED also went live. The program is a patient-centered, evidence-based care approach to screen and initiate buprenorphine/naloxone for eligible patients followed by rapid transfers to specialized community clinics or primary care. Across the province, from 2018 up to the first half of March 2021 (when evaluation ended as planned), there were 3,247 ED visits tracked in which buprenorphine/naloxone was given. A key milestone to support sustainability of the program through ongoing staff and physician training was the launch of the EPA-Simulation OAT – Buprenorphine Naloxone Initiation in the Emergency Department available on www.ahs.ca/paces.

Ken Scott, Senior Consultant

Patient Safety & Quality Improvement

The ED Quality Assurance Committee routine meetings have been paused due to the pandemic. We do continue to address RLS issues that come up and requests for case reviews. We hope to have this committee back up and operational asap.

Quality Assurance and Educational Rounds continue to be presented quarterly by our residents and are unique educational experiences for our department. These provide a deep dive into an adverse patient safety event chosen due to identified system risks. We attempt to present mechanisms to address these risks. These rounds also present some of the more common cognitive biases that and importantly suggestions in how to mitigate these.

Please remember to submit RLS tickets when you have come across an adverse event or close call. This greatly assists us in identifying potential events for safety review or for another form of event management.

**Dr. Adam Oster, Patient Safety Lead
Co-Chair, Quality Assurance Committee,**

ED Pharmacy Report

2021 marked a challenging year for the Calgary zone pharmacy group as COVID continued to play a factor in day-to-day practice. At the peak of the COVID pandemic and as resources were stretched thin, pharmacists across the sites were involved in the assistance of timely notification of COVID+ patients, assessment and follow up, in addition to the regular abnormal labs follow up process. Pharmacists at FMC and ACH were also redeployed to help administer COVID vaccinations to patients and staff.

Pharmacists at the various Calgary zone hospitals played a key role in the management of safe medication practices, timely drug information, and pharmaceutical care. Further to this, the group has focused on the creation of several educational materials to help guide physicians and nurses. in the prescribing, preparation, and management of pharmaceutical practices. The RGH team has successfully implemented several clinical pathways to help guide clinicians in the treatment and referral of STI and C. difficile cases to the respective follow up clinics. The FMC and PLC teams have created similar materials for their respective teams in the form of ED newsletters and “FAQs of the Month”. Pharmacists at SHC were involved in the QI projects for the reduction of asymptomatic bacteriuria and are now involved in a project aimed at reducing our rate of “false positive” blood cultures.

A collaboration between FMC nurse clinician and pharmacist teams have successfully implemented quick reference charts of commonly mixed high-risk medications, which are now available on all crash carts in the FMC ED.

A total of 11 pharmacy student/residents/military residents completed their rotations with our teams this year. Several medicine and pharmacist students have also shadowed the ED pharmacy teams.

Key highlights from this year’s achievements included a residency project completed by pharmacy resident Jordan Kelly, looking at UTI prescribing practices at ACH ED, how they corresponded to urine culture sensitivities/UA, and how we could improve our prescribing practices with a stewardship lens. Titled, “Current UTI antibiotic prescribing practices in a pediatric emergency department: is it a problem worth Cefix-ing?” his project earned him the Canadian Society of Hospital Pharmacy – AB branch residency award. His work may serve to improve prescribing practices through stewardship practices. A pilot project also completed by Dr Dina Stewart, Dr Shawn Dowling and the ACH pharmacist team, investigated outcomes of patients with negative urine cultures who were prescribed antibiotics, and recommended to stop them. They found empiric antibiotics were unnecessary for 50.4% of children included in their study. We anxiously await the implementation of Phase 2 of this pilot project.

As we move into 2022, the ED pharmacy team will continue to proudly support patients and staff through new changes, challenges, and opportunities.

ACH Pediatric Emergency Research Team (PERT)

Summary

Over the past 12 months the emergency department (ED) at the Alberta Children’s Hospital (ACH) cared for over 47,438 ill and injured children. The volume and diversity of patients seen in the ED provides a unique opportunity for generating new knowledge and improving the quality of pediatric care. Our research team is one of the largest pediatric emergency research teams in Canada. Team members contributed to the science of COVID-19 epidemiology and pandemic response, resuscitation, precision medicine, quality improvement and simulation. In the past year we published 89 peer reviewed articles and received close to 5 million dollars in peer-reviewed funding from local, national and international sources.



Physicians

- Antonia Stang Section Chief, Pediatric Emergency Medicine
- Graham Thompson Research Lead, PERT
- David Johnson Senior Medical Director, Alberta Health Services Maternal Newborn Child & Youth Strategic Clinical Network (MNCY SCN)
- Stephen Freedman Alberta Children’s Hospital Foundation Professor in Child Health and Wellness
- Jennifer Thull-Freedman Physician Lead for Quality, ACH Emergency Department
- Adam Cheng Simulation Research Lead
- Kelly Millar Education Lead

Administration

- Gertrud VanDeMey
- Heather Numrich
- Shayla Baier
- Tracey Boyle

Coordinators/ Research Team

- Alicia Kanngiesser
- Alissa Kazakoff
- Amanda Bishop
- Ashley Jones
- Beata Mickiewicz
- Conné Lategan
- Ellena Kim
- Jacinda Larson
- Jianling Xie
- Joy Gobran
- Kassi Prisnie
- Kathleen Winston
- Kelly Kim
- Mahzabin Ferdous
- Myka Estes
- Nidhi Lodha
- Rebecca Emerton
- Sarah Williamson-Urquhart
- Sunil Bhadani
- 50+ Volunteer Research Assistant (Pediatric Emergency Medicine Research Assistant Program PEMRAP)

Pediatric Emergency Medicine Fellows

- Anne-Josée Cote
- Gloria Yoo
- Grazyna Burek
- Katherine Anker
- Nick Monfries
- Omar Damji

Research Trainees

- Anna Funk, Post-Doctoral Fellow
- Conné Lategan, Sarah Williamson-Urquhart & Matthew Lau, Graduate Students
- Kaden Lam & Milan Heck, Summer Students
- Madison Riddell, Pediatric Resident
- Sarah Tougas, Medical Student

Physician Support Fund (PSF)

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

Mandate

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

Some of the projects that have been fully or partially funded by the PSF in 2020 are as follows:

- Residency program Funding
- Top-Up funding for Program Directors
- EM Staff Interdisciplinary Simulation Session
- 2021 Research Day
- PLC Emergency Physician Quaterly Meetings
- Grand Rounds Support
- SHC Case Rounds
- Staff ultrasound
- 2021 The Legacy lecture (Hodsman)
- ED Treatment plan
- ED app
- Grand Rounds coordinator

New Projects

- RGH case rounds
- Covid Airway Teaching
- Emergency department Hubs meeting
- Journal Club
- ED Vice Chair (50% funding)

2021 Calgary EM Social Media Update

Summary

The residency program continues to take the social media world by storm with the groups multiple accounts (twitter: @CalgaryEMres, instagram: @calgaryemresidents), as well as the recently-redesigned program website (www.calgaryem.com). If you haven't already seen it, last year's recruitment video is definitely worth the 8 minutes.

As the CaRMS process remains virtual this year, and with limited visiting electives, the online presence of residency programs across the country is becoming more commonplace and an important way for both candidates and programs to get to know each other. Over the last year our social media platforms have been used as a way to showcase the aspects of Calgary we all know and love, as well as to highlight program features (both academic and recreational) that are appealing to the excellent medical student candidates across the country.

This task is made easy by our phenomenal group of physicians, administrators, nurses, allied health, and beyond. Getting to celebrate everything from multidisciplinary sim and all-female ED teams to mountain bike rides and virtual-ride challenges with the Orthopedics group—it truly is a group worth highlighting.

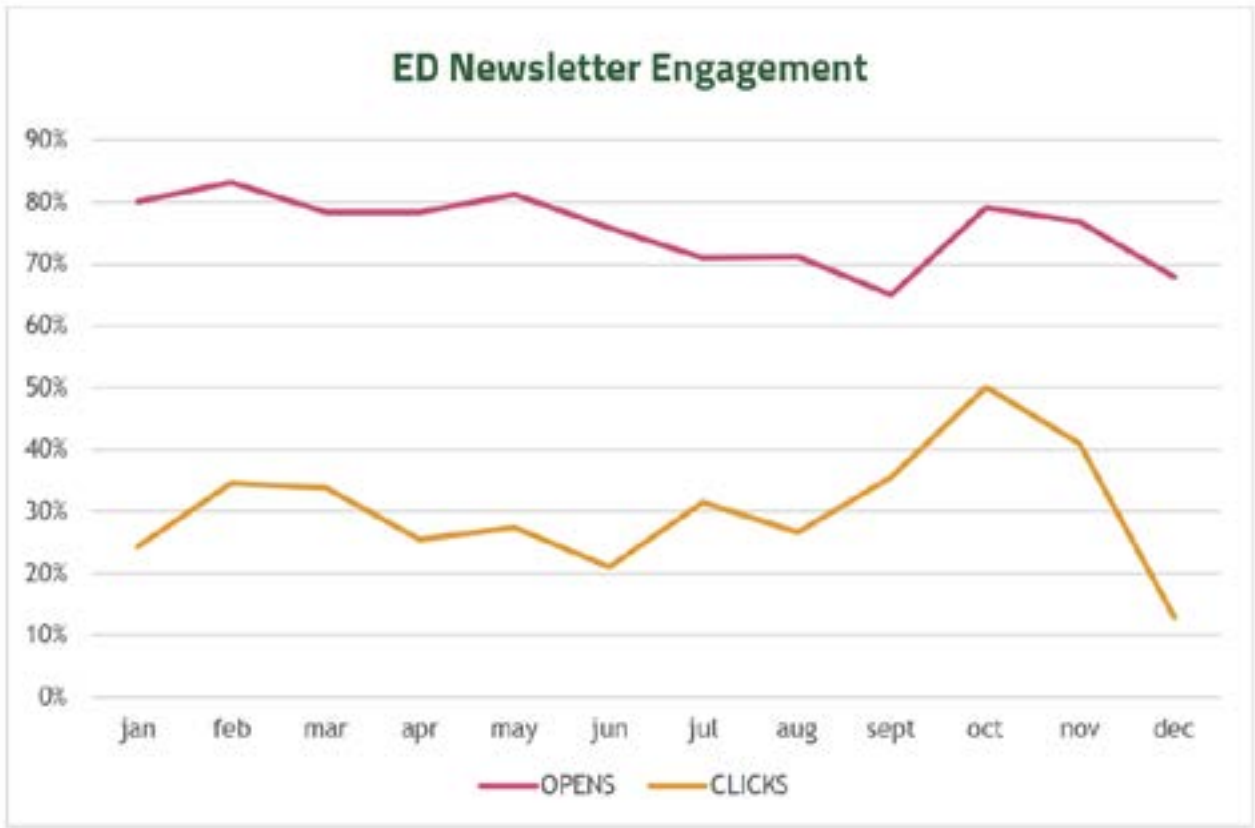
Tuesday Newsletter Statistics

The Emergency Department weekly newsletter played a significant role in keeping physicians and administration up-to-date on the latest COVID-19 information this year again as the pandemic continues to develop. The newsletter remains well-received with an average of 76% of recipients opening and reading the email every week. A wellness section as well as Kudos Corner were added to the newsletter this year.

The content of the newsletters varies week by week, but generally contains topics such as:

- Operational Updates
- SCM Updates
- Upcoming Promotions/Awards/Grants
- Academic Appointment Updates
- Publications of Note
- Grand Rounds meeting info and recordings
- Research News

- Upcoming events
- Teaching Sessions
- Kudos corner
- Wellness updates



Wellness Hub

The wellness hub has been actively involved promoting the well-being of members and advocating for wellness principles to be integrated into department process and policy over the past year. We are particularly grateful for secure funding to support a Director of Wellness position for the department as of April 2021.

Over the year the work of the Hub has primarily focused on supporting the wellbeing of members through the following:

1. Adding ongoing wellness resources and opportunities to the weekly department newsletter
2. The YYCEMHappinesschallenge2021 – a year long, monthly curriculum for building resiliency tools and challenges for incorporating them into workspaces
3. Providing education on the science of wellbeing, conflict management, feedback skills and moral distress to the residents
4. Providing resources on moral distress during the 4th wave of the pandemic
5. Developing a plan for incorporating more community building opportunities for the department for 2022
6. Advocating for wellbeing principles to be considered in all department policy and process development

Ultrasound Update

Point of Care Ultrasound (POCUS) remains a critical aspect of our jobs. We’re striving to provide adequate numbers and functional machines at each site. Funding for new or replacement machines continues to be a challenge. That being said, there are two new machines on order for PLC that are much needed and should arrive soon.

The Physician Support Fund has continued its support of the ED staff POCUS sessions. We’ve been holding off these sessions given the pandemic, but it’s time to get them going again. These sessions are for staff ED physicians to learn and practice POCUS with local experts in a comfortable environment with standardized patients. Each session will have a specific topic or theme, but participants are free to practice any scan or ask any questions they want. Stay tuned for details and dates.

Thanks again to Dr. Kasia Lenz who has been doing an excellent job in her role as the residency POCUS education lead. Our residents are obtaining excellent training and start their practice as very competent POCUS users.

Just a reminder that we have two endocavitary probes at FMC for those interested and trained in using it. We will provide refresher training in the use of this probe during the upcoming PSF funded staff ED sessions in the new year for those interested in using this tool.

Please remember to keep the machines docked and cleaned after each use!

Thanks everyone.

Calgary Zone Geriatric EM Working Group; Year in Review 2021:

The Calgary Geriatric EM working group/Physician Hub was formed in the fall of 2020 and has been working collaboratively throughout 2021. The working group is comprised of ED nursing managers, ED CNEs, ED and Geriatric physicians, pharmacist, OTs, NPs and Senior’s Health clinical nurse specialists. The ED physicians involved include Tash Wright, Bretton Hari, Margriet Greidanus, Katie Lin, Lester Mercuur, Amanda Schreiner, and our GEM NP Paige Guinn. The Geriatric EM working group co-lead is Zahra Goodarzi from the Department of Internal Medicine. This multidisciplinary group has been working hard this year to be innovative and flexible as we continue to respond to the many waves of Covid-19. Despite these external pressures our team has remained focused on improving the care delivered to our older ED patients, by creating educational opportunities for nurses and physicians, developing accessible resources, and looking at improvements at a systems level.

1. ABCDs of Agitation/ ED See the Person combined intervention:

Goals: Reduction in mechanical and chemical restraint use for our older ED patients
The ABCDs of Agitation in Older ED patients: Was collaboratively designed to be used as a multidisciplinary bedside assessment tool. It can be utilized as a delirium prevention tool and as a quick checklist when you are faced with an agitated older adult. The implementation process we are currently employing includes CNEs and Clinical Nurse specialists socializing the tool and educating staff at each site. The first phase of the multicomponent intervention will be reinforced during the ED STP whenever staffing levels and/or recertification space allows that workshop to be delivered.
The ED See the Person Workshop: Has been adapted from the full day AHS Cares workshop into a 2-hour hands on interactive ED focused workshop that presents a realistic approach to the older patient living with Dementia and includes a focus on avoidance of triggering and verbal de-escalation skills. There have been three separate workshops specifically designed to meet nurses, physicians and residents individual learning needs. These workshops have been developed and delivered by Senior’s Health educators. The ABCD tool is introduced and integrated into the STP workshop.

- Approximately half the SHC ED MD’s have attended the physician version and have provided very positive feedback.
- All full time and part-time RNs, LPNs and HCAs at SHC ED have attended this workshop delivering extremely positive feedback, this workshop has been supported by ED leadership and is currently incorporated into recertifications and orientations at SHC to maintain sustainability.
- Calgary ER residents have attended the resident version

2. ABCDs of Agitation/ ED See the Person combined intervention:

- The appropriate use of antipsychotics in the ED algorithm is in the final stages of development. This document will guide physicians through an approach to managing the older agitated ED patient and emphasizes non-pharmacologic strategies.

3. SUPER volunteers: SUPporting Seniors in the ER

- SHC ED: since April 2019, experienced and specialized volunteers have provided re-orientation and assisted with meeting the care needs of older patients as delirium prevention for older isolated older ED patients. These volunteers have received extra training in communication skills and behaviour management in patients with cognitive impairment.

Calgary Zone Geriatric EM Working Group; Year in Review 2021:

Continued

- RGH ED plans to implement this program with their initial training session planned for Feb 6 2022.
 - Training program, process map, staff educational posters, volunteer cart content, and keys to success and barriers to implementation, potential pitfalls have been troubleshooted at SHC.
- 4. Connect Care Order Sets: Geriatric EM order set:**
- Application accepted and content almost complete, connect care build team is transitioning our format into the connect care format then we need to make final edits and take to key stakeholders.
- 5. Exercises for Older ED Patients:**
- Document created; Graphic designer is finalizing the document.
- 6. SHC GEM NP, Geriatric Emergency Management NP**
- Paige has been working in the role of SHC ED GEM NP since Jan 2021: she will be presenting at the upcoming 2022 ESCN QI/Innovation forum.
 - We have had many meetings with homecare, transition services and Senior's Health and are working to improve access to downstream resources to assist in avoiding preventable admissions. New 0.5 FTE OT for homecare recently hired.
- 7. Education:**
- Reviewing existing podcasts to determine where there might be holes in the existing content or where we can develop content that is more applicable to our local environment. Our working group is improving functionality of the Geriatric Resources on the myED app to allow a more user-friendly search function.
- 8. NPO Infographic:**
- Created and designed by Dr. Tash Wright this document is being piloted at RGH ED. The infographic emphasizes the importance of providing older ED patients with nutrition and hydration during their ED stay and to avoid NPO status if possible.
- 9. ED Priority Bed Allocation for at risk older adults:**
- Currently developing a policy that will help guide each adult ED and hospital administration to provide timely inpatient bed allocation for older adults that are at risk for developing delirium or have an existing delirium.
 - Process and concept independently generated by SHC site leadership with collaboration with our group given we were working on a zone wide policy.
 - Currently being piloted at SHC with a goal for admitted EDLOS < 8hours. Prioritizing bed allocation for older adults at risk for developing a delirium or those currently delirious which in turn will reduce total hospital LOS and reduce capacity pressures.
 - SHC is utilizing an adapted validated Delirium Prediction Tool which is supported by Geriatrics and implemented by the admitting hospitalist service.
 - Currently in the planning stages for implementing the DTS/bCAM within the SHC ED to identify actively delirious patients.
 - Results of SHC pilot will inform next steps for broader implementation.

Medical Education

Calgary Zone Department of Emergency Medicine

Credits: Dr. H Patterson

CCFP-EM Program

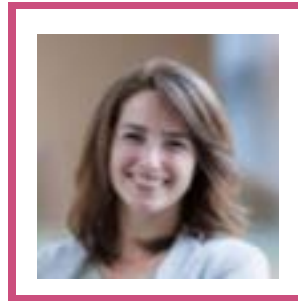
As program director, I am obviously biased, but I think Calgary offers one of the best EM training programs in the country. I feel so lucky to work with such a great team and would like to take the opportunity to thank some of those involved in making the program a success. I am amazed at the value the Calgary Emergency Department places on resident education. The leadership team considers residents and their unique needs in every decision. Our administration team goes above and beyond every single day. The FR and EM programs enjoy close collaboration and have created an outstanding academic program. Most importantly our clinical team is incredibly invested in education. Every shift, I see staff going out of their way to discuss cases with residents, include them in patient care and procedures, and look out for their wellness. To run the program takes hundreds of volunteer hours (to review CaRMS files, take part in committees, and put on academic sessions). And our clinicians selflessly give their time, expertise and experience to make this program great. This culture of excellence in education has become so ingrained in Calgary it can be easy to forget that this does not exist everywhere. By having the best clinical educators in the country, we can recruit, train and retain the best future emergency physicians.



Dr. Hannah Duyvewaard



Dr. Kira Gangbar



Dr. Colleen Jackson



Dr. Brendan Kelliher



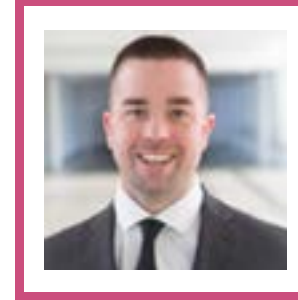
Dr. Danny Liang



Dr. Travis Novak



Dr. James Soetaert



Dr. Peter Warrington



Dr. John Wink

Please welcome our 2020/2021 resident team, if you see one of these hard working residents on shift, please feel free to include them in any and all cases.

Residency and COVID-19

COVID-19 has exposed many of the weaknesses in our society. Healthcare systems, already operating above capacity, are being overwhelmed. Vulnerable populations are at higher risk of infections, complications, and death from the virus. Lockdowns have disproportionality affected the poor and marginalized.

CCFP-EM Program (continued)

And healthcare workers (including residents), caring for those infected with COVID-19, have shown the highest levels of burnout. This pandemic has disrupted exams, clinical rotations and the academic schedule. Despite the interference and the personal risk residents continue to rise to every challenge. I am amazed at the strength and resiliency of our emergency residents. They are an amazing group, well on their way to being excellent emergency physicians.

The CCFP-EM program

Administration

Madhavi Talasila, Tris Malasani

These amazing administrators are the key to the success of the program.

Simulation

Margriet Greidanus

The simulation program continues to be a resident favorite involving countless hours of preparation and the contribution of many allied staff.

Ultrasound, Airway Skills, Central Line Course, Advanced Procedural Skills, ECG Rounds, Ventilator Workshop

Mike Wolf, Bryan Weber, Gavin Greenfield, Stefan DaSilva, Rob Hall, Colleen Carey, Paul Tourigny , Kasia Lenz

The CCFP-EM program is lucky to have a dedicated and talented group of educators that contribute to the curriculum and pass on the skills needed to become successful Emergency Physicians.

Research

Kathryn Crowder

The residents are involved in a variety of research projects facilitated by a great group of clinician-researchers.

Exam Preparation

Geordon Avery-Cooper

To prepare for the final exams a large group of staff volunteer to administer practice oral and written exams throughout the year.

Longitudinal Preceptors

Margriet Greidanus, Anoop Manocha, Todd Peterson, Marge McGillivray, Rob Lafreniere, Chris Hall, Kathryn Crowder, Rick Morris, Jamie McLellan

These dedicated physicians are paired with individual residents and act as mentors, teachers, colleagues and friends as the resident’s progress through the year.

CaRMS

Colleen Jackson, Peter Warrington, Charles Wong, Scott Seadon, Gavin Greenfield, Eileen Kabaroff, Jen Puddy, Mike Su, Geordon Avery-Cooper

The program continues to attract talented residents from across the country and received 120 applications for 8 spots this year. This tireless group volunteered to review files and interview our future EM residents.

The FRCPC Program

Catherine Patocka, Anjali Pandya

The CCFP-EM program benefits immensely from a close relationship with the Royal College Program. From team building days to weekly academic sessions, the FRCPC staff and residents work tirelessly to produce one of the most intense and well received educational programs in the country.

Dr. Jason Fedwick,
CCFP-EM Program Director

FRCPC Program Summary

This year, the program faced ongoing challenges related to the COVID-19 pandemic: cancelled team building sessions, re-deployed residents, and the cancellation of our annual Winter retreat. We are incredibly grateful to all the education leads, faculty members, and interdisciplinary staff who were maximally flexible in adjusting sessions, moving to virtual learning, and working with our team to limit the disruptions to residency education. As always, the education administrative support team Madhavi Talasila and Tris Malasani have continued to do an exceptional job in the face of all these challenges. We would like to offer our profound gratitude to Dr. Jason Fedwick for his many years of service in the role of CCFP-EM program director – our programs work very closely to provide emergency medicine postgraduate education programming. The close relationship between our two programs is highly valued by residents and makes both of our programs stronger. We look forward to working with the new CCFP-EM program director to keep this relationship strong and fruitful.

In the 2021 novel virtual CaRMS match, we recruited four excellent candidates: Dirk Chisholm, Mary Freymond, Julia Madill, and Jonathan Wong. The program is already busy preparing for the 2022 CaRMS season as Emergency Medicine in Calgary continues to be a highly desired postgraduate training program among medical students from across the country. We continue to be committed to principles of equity and diversity in our selection processes.

As vaccination rates improve and we emerge from the fourth wave of the pandemic, we are progressively moving teaching activities back to in-person, being sure to closely follow U of C and AHS procedures. We are grateful to the Emergency Department Operations and Leadership team for their ongoing commitment to our resident’s education prior to and throughout the pandemic. We thank the department for transitioning to a hybrid model of grand rounds which ensures a broad reach of the high quality presentations given by our colleagues and residents, but also allows for much needed in-person interactions.

Having launched our first cohort of Competence by Design (CBD) residents in 2018, we continue to make curricular adjustments to ensure that we are graduating competent and capable physicians who go on to contribute to our specialty. We are tremendously fortunate to have an incredible group of educators who have been engaged and interested in making this complete curricular overhaul successful. As of the 2022-2023 academic year our program will have completed the implementation of CBD and we will embark on a process of quality improvement to ensure continuous improvement and maintenance of our programs. CBD aims to ensure that all trainees can develop and demonstrate competence in the skills necessary to function as specialist in emergency medicine. Because it can be difficult to ensure consistent access to low-frequency, high-stakes events such as resuscitations and Level 1 traumas our program has had to dramatically increase our use of simulation for formative and summative assessment. We have highly skilled team of simulation educators who high quality simulation and debriefing experiences. We express continued thanks to the nursing operations and educator leads at the FMC for their enthusiasm and commitment to helping organize interprofessional, in-situ simulation for our residents at the FMC. These are incredibly valuable experiences for our residents and contribute substantially to their learning.

Finally, all postgraduate programs in Calgary will be undergoing external review in September 2022 and we look forward to the opportunity to highlight areas that we are excelling in and identify areas of the program that we can improve. We would like to acknowledge all the physicians who contribute to the physician support fund (PSF), the additional funding for PDs and residents is essential to our operations and we are incredibly thankful for your ongoing support.

FRCPC Program Summary

The Residency Training Committee- Meets monthly to review the program and to develop improvements and policy
Members: Catherine Patocka (chair) Meira Louis, Lisa Campfens, Conor McKaigney, Andrew Robinson, Bela Sztukowski, Dana Stewart, Brendan Kelliher, Danny Liang, Sarah McPherson, Scott Wakeham, Jen Puddy, Anoop Manocha, Geordon Avery-Coo-per, Anjali Pandya, Jason Fedwick, Stephanie VandenBerg, Naminder Sandhu, Cathy Dorrington, and James Huffman.

The CBD Committee-meets biannually to design and implement changes required for CBD. Members: Fareen Zaver (chair), Anjali Pandya, Catherine Patocka, Carly Hagel, Marc Francis, Kira Genise, Kelsey Ragan, Katie Anker, Sean Fair, Sean Crooks, Natasha Goumeniouk

The Clinical Competency Committee- Meets quarterly to provide a transparent review of resident performance and to make promotions decisions. Members: Lester Mercuur (chair), Geoff Lampard, Ian Rigby, Julie Kromm, Heather Patterson, Fareen Zaver, Ping-Wei Chen and Patricia Lee-Nobbee (Resident advocate)

Simulation Committee- Multidisciplinary simulation provided bimonthly for junior residents, monthly for senior residents and in modules for specific CBD teaching and assessment

Junior Simulation- Patricia Lee-Nobbee
Senior Simulation- Senior simulation – Jen Puddy
CBD Stage Specific Simulation-CBD stage specific simulation – Anjali Pandya

Ultrasound & Procedural Skills-
Includes annual basic ultrasound training, certification of beginner and advanced ultrasound skills, 2 annual airway workshops, annual CVC workshop, casting and splinting workshops and an annual advanced procedures cadaver lab session
FRCPC US Lead: Kasia Lenz
Members: Danny Peterson, Kasia Lenz, Rob Hall, Bryan Weber, Gavin Greenfield, Stefan DaSilva

EMS & Disaster Medicine- Reredesign of the EMS rotation Mandeep Sran, Kelsey Ragan, Brad Granberg

Wellness Lead- Wellness lead Sarah McPherson

Longitudinal Preceptors- Teachers and mentors who are paired with individual residents throughout the year. Ping Wei-Chen, Jennifer Nicol, Andrea Boone, Karl Phillips, Kat Bateman, Stuart Rose, Mark Bromley, Sarah McPherson, Paul McKenna, Katie Lin, Marshall Ross, Marc Francis, James Huffman, Alyssa Morris, Haley Cochrane, Mandeep Sran, Michael Betzner, Aaron Johnson, Rhonda Ness, Claire Acton, Dave Lendrum, Chase Krook, Anita Lai, Earle Sears.

The FRCPC program is exceptionally grateful to have a fantastic group of hardworking residents and dedicated staff educators who continue to support and improve our training program.

Dr. Catherine Patocka, Division Chief Education

Grand Rounds

2021 has seen another successful year for Grand Rounds presentations. Emergency Medicine Department Grand Rounds switched to a virtual platform from March 2020 and continued for the fall. We have now moved to a hybrid model of both in person and the virtual platform. We have had extremely positive feedback on the increased accessibility to attend rounds since moving to the virtual platform. We have had world renown speakers attend our rounds and have coordinated with many other specialties in other departments.

45 Grand Rounds Presentations in 2021

Past Grand Round presentations can be found online at www.ucalgary/ermedicine
Past Grand Round recordings can be found as podcasts at www.albertaplp.ca/podcasts

Off-Service & Elective Medical Education

As we know that 2020 was a challenging year, it was wonderful to see some gains made in 2021. We have seen the return of all kinds of learners to the ER – from shadow students to elective clerks to residents. Opportunities that were curtailed in 2020 were able to come back this year.

Despite challenges, the Department of Emergency Medicine hosted over 160 mandatory off-service learners during the 2020-2021 academic year. The majority of these resident physicians were from the family medicine residency training program, while the remainder came from programs as diverse as plastic surgery, orthopedic surgery, general surgery, neurology, dermatology, pathology, internal medicine, cardiac surgery, vascular surgery, and psychiatry. Our Department continues to handle this demand while maintaining a 1:1 preceptor to learner ratio for most shifts.

In the 2020-2021 academic year, the Department of Emergency Medicine received elective requests from 65 residents (mostly family medicine) and 74% of these residents were offered electives. We hosted 36 elective residents with requests from the University of Calgary (29 residents), UBC (16 residents), U of A (2 residents), U of T (6 residents), Queens (5 residents), and McMaster (4 residents). This was despite the many restrictions that existed on travel and electives for the residents across Canada.

On the medical student side, there was a significant change from other years due to the ban on visiting electives secondary to the covid pandemic. The medical school deans agreed to suspend all visiting electives from March 2020 to the present time. We are hoping to have them resume in mid-2022, but until then we will continue to see very high numbers of local students. Despite limitations, the department was able to host 52 electives for medical students from Calgary, which is impressive considering the class size of about 160.

We were also able to host multiple students from the U of C for their “med 440” block, despite the ongoing challenges of the COVID-19 pandemic. Calgary emergency department has always been able to accommodate all interested 440 students due to the strong support our staff gives to these junior learners. The rotation continues to have strongly positive reviews from the students. This year we will start taking junior medical students for week-long career exploration experiences. The ER has proven popular enough that we are already fully booked for these weeks as far out as June.

Overall, both the mandatory and elective adult emergency medicine rotations are highly regarded by our learners, who appreciate the diversity of patients, high quality bedside teaching, and one-on-one direct staff supervision around the clock.

Simulation Update

The Emergency Medicine Simulation Program at the University of Calgary includes simulation education for medical students, Emergency Medicine residents from both the CCFP-EM program and the FRCPC program and the Staff Simulation programs. The Simulation Education Advisory Committee (SEAC) helps oversee the simulation activity for all of these groups.

SEAC Consists Of:

- Medical Director: Gord McNeil
- Medical Student Lead: Kevin Haley
- FRCPC Junior Residents Lead: Patty Lee
- CCFP-EM Resident Leads: Margriet Gredianus
- FRCPC Residents Lead: Jen Puddy
- Staff Simulation Lead: Gord McNeil
- Nurse Educators from 4 Adult Emergency Departments
- STARS representative: James Huffman

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

The Emergency Medicine Staff Interdisciplinary Simulation Program consists of weekly sessions gathering physicians, nurses, respiratory therapists and pharmacists to participate in sessions that focus on teamwork skills, practicing procedural skills and expanding knowledge bases. Over the past 11 years, the program has completed more than 380 sessions which include a team of 2 physicians, 4 nurses, 1 respiratory therapist and 1 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 for their daily practice in Emergency Medicine. The COVID-19 pandemic raised multiple challenges for the program because of redeployment of staff and overcrowding in the Emergency department, but our team has worked diligently to continue to regularly offer these sessions.

Dr. Gord McNeil
Medical Director of Simulation

Clerkship Update

142 students from The Class of 2021 completed their Emergency Medicine (EM) mandatory Clerkship rotation in Calgary. The remainder were scheduled outside the city through the Longitudinal Integrated Clerkship program. Scheduling issues caused by the COVID-19 pandemic resulted in shortening of the EM rotation from 2 weeks to 1 week. A total of 5 EM shifts were required for a successful rotation. This was down 2 shifts from the usual 7. 2 shifts were scheduled at the FMC and the remaining 3 at one of the RGH, PLC or SHC.

Teaching sessions including “Key Concepts” and “Bed-side Teaching” were front-loaded and completed during the initial stages of the pandemic (prior to the students beginning their shifts). Grand Rounds continued via Zoom and the clerks attended one of these during their rotation.

The overall rating for the EM mandatory clerkship was 4.01. This was down slightly from the prior year’s final rating of 4.1. For perspective, these are prior years’ final ratings: Class of 2020 4.1, 2019 4.5, 2018 4.0, 2017 4.1. A common feedback theme for the Class of 2021 was the compressed nature of the rotation. I suspect this contributed to the slightly lower final rating.

We continued to use “One45” for the daily in-training evaluation reports (ITER) and the Observed History and Physical (OHP). This allows more efficient completion of the final ITER and likely makes the final ITER more accurate. The preceptor completion rate for the daily ITERs and OHPs is close to 100%.

The Class of 2021 saw the continuation of the successful OHP teaching session. In most cases, the OHP preceptor was the student’s shift preceptor. The patient becomes the first patient seen on shift and the staff and student


continue to care for this patient through to the patient’s final disposition. These sessions take place at the RGH, PLC and SHC. The session involves a staff preceptor observing (and ultimately providing feedback) the performance of a history and physical examination by the clerk on an actual emergency department patient. The duration is usually about 45 minutes. This activity has been very well received by both staff and students alike.

The “Nursing Block” teaching session was introduced for the Class of 2020 and continued for the Class of 2021. This involves 3 hours where the student works directly with nurses. The purpose is to gain a better understanding of other roles in the Department. In addition, students gain experience inserting intravenous lines, taking vital signs, attaching patients to monitors, delivering oxygen therapy, as well as any other procedures the nurses may need to perform. This session has been well received by nursing and students alike and we will look for ways to further improve the session for the Class of 2022.

A major student identified strength of the rotation was the quality of on-shift teaching (the vast majority of shifts involve working directly with the staff physician with no other team members). A frequently cited weakness was that the rotation was too short and too compressed.

The Class of 2022 returns to a 2-week Emergency Medicine rotation. The Undergraduate Medical Education Hub, the Emergency Department Clerkship Committee, Dr. David Fu (evaluations coordinator) and I, look forward to incorporating much of the feedback from the Class of 2021 and further improving the rotation for the Class of 2022.

Dr. Gavin Greenfield
Clinical Associate Professor
Emergency Medicine Clerkship Director
Undergraduate Medical Education (UME)



Research

Calgary Zone Department of Emergency Medicine

Research Emergency Department

Research Director's Summary

As we ushered in the second year of COVID-19, our research group continued to demonstrate resilience and the capacity to adapt to the changing research environment. We welcomed Kamalpreet Kaur as our Research Administrator who is capably guiding our team during Jill VandenBrand's maternity leave. Kamal is a strong member of our research team, having previously managed a specialist internal medicine office in Saskatchewan. We also welcomed Christian Cherian to the role of Research Coordinator after Hina Walia was offered a much deserved residency position in Internal Medicine at the University of Alberta. Christina is no stranger to research at the U of C and previously worked with the Department of Neurology and their research staff. We are grateful to have the expertise of Stacey Lobos and Stacy Ruddell who lead data collection for the COVID Registry. The team, together with 10 research volunteers, moved back to C231 after the renovations for the Cancer Centre's walkway were completed earlier this year.

The Department of Emergency Medicine's 11th Annual Research Half Day on April 1, 2021 was an immense success, with 79 participants in virtual attendance, celebrating research excellence in Emergency Medicine across healthcare areas: staff and resident physicians, nurses, respiratory therapists, medical students, social workers, paramedics, plastic surgery residents, emergency strategic clinical network representatives and researchers. 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. (U of C). Research Day is intended to highlight the findings of research studies conducted in U of C-affiliated emergency department or by U of C emergency department staff.

We hosted 8 oral research presentations and 15 poster presentations via Zoom platform. Dr. Corrine Hohl, Department of Emergency Medicine, University of British Columbia and Lead Investigator for the Canadian COVID-19 ED Rapid Response Network (CCEDRRN) discussed the a national collaboration and registry of Emergency Department (ED) patients presenting to Canadian EDs with COVID related symptoms as the keynote presenter for the event.

Audience feedback was solicited via online survey, with 14 attendants submitting their feedback. Most attended for the breadth of topics discussed and feedback included comments such as "diverse topics", "well organized and on time", "a lot of the oral presentations were very interesting, more interesting than previous years". Areas of improvement were listed as "more time given to oral presenters", and "better highlight the actively recruiting studies in the ED across the city"

Our research team is also pleased to support and maintain the Research webpage hosted within the Department of Emergency Medicine's larger webpage. This resource lists our team members and ED researchers and also acts as a way for colleagues both in emergency medicine and other specialties to collaborate on research work with us.

The Emergency Medicine Research Advisory Committee (EMRAC) continues to meet 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.

Credits: Dr. H Patterson

Research Director’s Summary *(continued)*

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

While many of the studies that recruited out the FMC ED have been put on hold, we continue to contribute data to the large, multi-centre COVID Registry study. Please see a detailed description of the study below. We also continue to screen and collect data on the University of British Columbia’s Drug Impaired Driving (DID) study, with Dr. Ian Wishart being the principle investigator at our site.

We were happy to support and build the research capacity of our trainees and supported various emergency medicine researchers in applications to CIHR, PRIHS, ESCN, Alberta Health Innovates and other relevant funding opportunities. Our researchers continue to contribute to evidence and knowledge translation practices around Choosing Wisely, Audit & Feedback practices, and Quality Improvement, in addition to supporting the work of the Emergency Strategic Clinical Networks focus on opioid misuse and opioid replacement therapies (suboxone) and the Patient Experience of the ED using principles of Health Design. Ongoing partnerships within the University of Calgary with the Divisions of Cardiac anesthesia, Neuro-radiology, Neurology, Gastro-enterology, Hematology and Orthopedics and Spinal Surgery allows us to participate in timely, relevant, patient centred research that aims to improve the health of Albertans.

Current Studies

COVID Related Studies-

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

The **national ED COVID-19 registry** addresses critical knowledge gaps in emergency care and operations by prospectively and retrospectively gathering data on COVID-19 patients seen in EDs across Canada, and follows patients by telephone after discharge from hospital to ask standard quality of life questions and determine long-term outcomes. The vision of “Learning in a Time of Crisis” is to create a robust national ED dataset to answer multiple emerging research questions, and inform early acute care decisions that are currently being made without any or minimal evidence to inform them.

AIMS

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

Specific Aims are:

1. To enable standardized prospective and retrospective data collection on patient and treatment characteristics of suspected and confirmed COVID-19 patients presenting to EDs, and their associated resource utilization and outcomes. This includes vulnerable populations commonly served in EDs who often decline admission to hospital or are excluded from randomized trials.
2. To identify risk factors for poor patient outcomes including non-invasive ventilation strategies (i.e. CPAP and BIPAP), intubation, ICU admission, mechanical ventilation, need for prolonged mechanical ventilation, cardiac arrest and death.
3. To derive clinical decision rules to predict which ventilation strategy should be used, the need for intubation and critical care admission, cardiac arrest and death among patients presenting to acute care hospitals with suspected or confirmed COVID-19 to guide early decision-making in the ED.
4. To prospectively validate the derived clinical decision rules.
5. To determine the clinical decision rules’ long-term potential impact on clinical practice and resource utilization
6. To evaluate the health outcomes among patients with confirmed COVID-19 identified in the ED who were discharged or declined hospital admission.
7. To evaluate the association of outpatient ACE inhibitor and non-steroidal anti-inflammatory medication use with health outcomes among patients with confirmed COVID-19.
8. To evaluate COVID-19 patients’ long-term health outcomes, and quality of life regardless of admission status.

2. Study name: Impact of the COVID-19 Pandemic on the Incidence of Traumatic Injuries Presenting to Adult ED’s in an Urban Center

PI: Lang/Chisholm

Current Studies *(continued)*

3. Study name: Where did all the patients go? The effect of the COVID-19 pandemic on Calgary ED Volume

PI: Lang/Killam

4. Study name: COVID-19 Impacts on Emergency Mental Health Presentations

PI: Lang/Matsivic, Riveria, George

5. Study name: Intubation of COVID 10 Patients

PI: Fedwik/McRae/Chopra

6. Study name: COVID lung POCUS

PI: McRae/Petterson

7. Study name: Clinical Characteristics of Emergency Department Patients with Suspected CV19 infection and risk to emergency care providers

PI: McRae

NON-COVID Related Studies:

8. Drug Impaired Driving (DID)

PI: Wishart/ Herb Chan (UBC)

Demographic and Regional Variation of Drug Impaired Driving in Canada

Total Recruited: 895 Goal:300 patients

9. E-Scooter (City of Calgary Collaboration)

Background: The introduction of electronic scooters (e-scooters) in Calgary as of July 13, 2019 has prompted investigation into the health impact of this new mode of transportation. Preliminary ED data in Calgary reveals up to 700 scooter related injuries in the period of July 10-August 13, 2019 and May 2020-September 2020, as inferred from instances where the term scooter appeared on the ED triage note.

Aim: This study aims to quantify the incidence and characteristics of moderate to severe injuries associated with the use of e-scooters in Calgary between June 2019 – October 2019 and May 2020 – September 2020. Secondary aims include contributing emergency department data on transportation related injuries to the City of Calgary in order to assist with infrastructure planning and policy development

Methods: Retrospective review of paper medical records of all patients presenting to Foothills Medical Centre Emergency Departments who arrive via emergency medical services (EMS) to with the term “scooter” included in the triage note.

Sample Size: 1700

Studies On Hold

1. Age-Adjusted D-dimer cut-off levels to rule out deep vein thrombosis: A prospective outcome study (Adj-just-DVT)

Start Date: July 2017 End Date: July 2021

Number Enrolled: 40

Utilization of age-adjusted d-dimer (10 ug/L x age in years) to guide DVT care pathway. Patients with a Wells <2 will only have an ultrasound if d-dimer exceeds age-adjusted cutoff. Patients 50 and over with Wells ≥2 will receive an initial ultrasound at ED visit. If initial ultrasound is negative, patients will only receive a serial ultrasound if d-dimer exceeds age-adjusted cutoff.

2. Plastic cling wrap as an interim burn dressing

Start Date: August 2017 End Date: August 2021

Number Enrolled: 1

Standardized questionnaires will be used to measure both patient and ED staff/Outpatient Burn Unit staff impressions on plastic wrap, such as the ease of plastic wrap removal, pain scores, and healing time. Training for plastic wrap application and removal will be provided. Follow-up within 24h will be provided by the burn clinic.

3. LEAD study – Paul (gibsonp@ucalgary.ca)

LEAD. FMC Site. Validation of clinical prediction rule for investigation of suspected DVT in pregnant patients. Lead site is McMaster University. Calgary PI Dr. P Wilson (Internal Medicine). Eligible patients are referred to LEAD study coordinator/team. ED RAs can complete enrolments on weekends.

Ongoing Partnerships/Collaborations

1. Partnership for Research and Innovation in Health System (PRIHS)
3.1.1.

Evaluation of the Connect 2 Care (C2C) Team for Vulnerable Patients with Complex Needs

Researchers at the University of Calgary’s O’Brien Institute for Public Health have partnered with Calgary Urban Project Society (CUPS) and Alpha House to evaluate the Connect 2 Care (C2C) intervention for socially vulnerable patients with complex health needs. Socially vulnerable individuals, including those experiencing homelessness, have higher acute care utilization compared with the general population. Despite available primary care and social services, many have significant challenges accessing the services they need in the community. The C2C (formerly the Coordinated Care Team [CCT]) intervention aims to improve care coordination for socially vulnerable patients by bridging the gap between acute care and community services. This novel intervention combines elements of intensive case management with community outreach and navigation.

Initially launched November 1, 2015, C2C consists of 2 registered nurses, to be supplemented by first 2, then 4 navigators. Referrals are accepted from emergency departments, hospital units and community partners. The team will have expertise in chronic disease management, mental health and addictions, and extensive knowledge around social programs, community health, housing, and financial, transportation and legal resources. Population Referrals are accepted from emergency departments (ED), hospital units and community partners, for patients meeting the following criteria:

- 1. ≥18 years of age AND
- 2. Homeless or unstably housed AND
- 3. ≥ 3 ED/Urgent Care (UC) presentations, or ≥ 2 hospitalizations within the past year, AND
- 4. A history of one or more high-risk conditions (used by partner – Anansi Health): Substance use disorder; mental illness with functional impairment (depression, anxiety disorder, bipolar disorder, psychotic disorder); congestive heart failure; diabetes with HbA1c>9%; chronic obstructive pulmonary disease; asthma; cardiovascular disease; uncontrolled hypertension with end-organ damage; end-stage liver disease; end-stage kidney disease

Evaluation/Objectives

We will evaluate the C2C intervention using the Donabedian framework of structure, process, and outcome. To assess structure, we will document the program’s context, resources, and partner supports. Process indicators include: referrals to primary care, housing, addiction and mental health programs. Outcome measures include: ED visits, hospitalizations, costs, quality of life, self-reported health status, patient, staff, and partner experiences. The objectives of this evaluation are:

- 1. To document the structure and process of the C2C model of care throughout the phases of implementation.
- 2. To determine the effectiveness of the C2C program in reducing acute care utilization and improving patient-reported outcomes.
- 3. To assess patient, staff, and partner experience with the C2C.
- 4. To explore the links among structure and processes that lead to health and program outcomes, both positive and negative.

Ongoing Partnerships/Collaborations (continued)

2. Improving Acute Care for Long-Term Care Residents: A Better Way to Care for the Frail Elderly in Times of Medical Urgency

The aim of this PRIHS application to is improve the care provided to long-term care (LTC) residents who develop an acute health issue, focusing on a patient-centered approach that provides the appropriate treatment in the right location. Specifically, we will optimize, standardize and evaluate the current processes followed when considering transfer of residents from LTC to an emergency department (ED). Our proposed solution is evidence-informed and aims to better optimize and integrate the use of current healthcare resources.

Objectives

- 1. To implement and evaluate an evidence-informed standardized care process for the care of LTC residents experiencing an acute change in health status
- 2. To scale and spread the standardized care process for the care of LTC residents experiencing an acute change in health status

Methodology

This is an integrated knowledge translation (iKT) project that has been informed by the knowledge to action (KTA) cycle <37>. Specifically, we have identified an evidence-informed solution to address a care gap and have engaged with relevant stakeholders. We will implement this change initiative, considering both local LTC context and barriers to implementation. The implementation strategy can be modified to address these identified barriers. Although the INTERACT® tools used will remain consistent, the care and referral pathway can also be adapted to address contextual factors unique to each AHS zone. We will evaluate the initial implementation in the Calgary zone using a rigorous evaluation plan, and continue to monitor the sustainability and provincial spread using a provincial LTC-ED transfer dashboard developed as part of this initiative.

4.2 Emergency Medicine Strategic Clinical Network (ESCN) Collaborations

- 4.2.1 ED Buprenorphine/Naloxone (Suboxone) Initiation: a province wide strategy to improve access to opioid replacement therapy for patients with substance misuse disorder
- 4.2.2 Improving the patient intake experience: a patient centred partnership with AHS Human Factors and Wayfinding experts to improve the experience of patients in the emergency department intake areas.
- 4.2.3 ESCN Systematic Review Awards Competition - none
- 4.2.4 ESCN Summer Studentship Awards Competition

Student: Urouj Rashid
Supervisor: Dr. Stephanie VandenBerg
Project Title: Refractory ventricular fibrillation management in Calgary’s adult emergency departments

Student: Satchel Krawchuk
Supervisor: Dr. Eddy Lang
Project Title: Impact of Public Health Measures During the COVID-19 Pandemic on AECOPD Emergency

Student: Emily Ju
Supervisor: Dr. Brent Hagel
Project Title: University of Calgary, Child Bicyclists’ Perceptions of Injury Risk and their Built Environment

Mission: The Emergency Medicine Research Group exists to improve patient and family care and health system efficiency through actionable research, collaboration, and mentorship. Vision: In five years, we will become a nationally recognized leader in meaningful emergency research, and have a growing cohort of researchers and a stable research infrastructure enabling further growth and success.	Strategic Goals	Strategic Initiatives
	G1: "Becoming a nationally recognized leader in emergency research" G2: "Achieve sustainable growth of the research group" G3: "Meaningful engagement of patients and families in emergency research"	I1 "Leverage our senior researchers, health systems research, decision support and analytical experience to use the staged implementation of EPIC/ConnectCare as an unprecedented opportunity for research, knowledge translation, and clinical practice improvement across the province" I2 "Use access to and relationships with the 4 adult sites to increase staff engagement across the Calgary zone" I3 "Recruit, mentor, and support junior researchers" I5 "Use previous materials and plans to create a central research funding opportunity database" I6 "Leverage available infrastructure to promote emergency research within Calgary" I7 "Develop a comprehensive system for multi-center projects" I8 "Engage with the provincial government to identify shared priority projects." I9 "Identify key competencies needed and secure permanent funding for them" I10 "Integrate patient and family experience in EM research" I11 "Identify key scholarly areas for our group"

PRIHS Project

PRIHS IV: Improving Acute Care for Long Term Care Residents: A Better Way to Care for the Frail Elderly in Times of Medical Urgency.

This is a 3.5 year PRIHS (Partnership for Research and Innovation in the Health System) project funded by Alberta Innovates and Alberta Health Services that began in 2019. The original project started in the Calgary Zone as a CMO quality improvement seed grant in which the care and referral pathway was successfully implemented on a limited scale. Led by Dr. Jayna Holroyd-Leduc (Principal Investigator), in partnership with the Emergency Strategic Clinical Network (SCN), and in collaboration with the Seniors Health SCN, RAAPID (Referral, Access, Advice, Placement, Information, Destination) and MIH (Mobile Integrated Health, previously known as Community Paramedics), the main goal of this PRIHS project is to reduce the rate of resident/patient transfers from Long Term Care (LTC) facilities to emergency departments (ED).

The Problem

This initiative intends to optimize the care for LTC residents in times of medical urgency, and reduce avoidable risks associated with transfers to ED and hospital admissions. Transfers to ED and hospital admissions are associated with increased risk of hospital-acquired infections, falls, delirium, and functional decline. Additionally, evidence indicates that LTC residents and families would prefer to receive care for acute issues at the LTC site where possible.

The Proposed Solution

A centralized and standardized LTC-ED care and referral pathway is being implemented with support from RAAPID and MIH. As needed, RAAPID coordinates a conversation between the LTC site and the ED (and with Community Paramedics as required) to discuss the best plan of care, and to facilitate direct communication between relevant physicians if transfer to ED is appropriate. Additionally, if appropriate and able, MIH will support treatment of the medical concern at the LTC site, thus avoiding an ED transfer. Two tools from INTERACT® (Interventions to Reduce Acute Care Transfers) are supporting LTC staff (i.e. HCAs and nurses) to detect, communicate and address acute changes in residents' health sooner. Identifying changes in a resident's condition sooner better enables LTC staff and physicians to manage these health issues onsite.

Outcomes Expected

Overall, this project is focused on ensuring the right care at the right time in the right place for LTC residents. In addition to reducing transfers to the ED, there are a number of secondary outcomes expected from this intervention:

- Change the rate of admissions of LTC residents to hospital
- More LTC residents will be cared for at their LTC sites, with the support of MIH (community paramedicine) when needed
- To improve the quality of life of LTC residents in times of medical urgency by detecting changes in medical status sooner and managing them at the LTC site if possible, instead of transferring them to the ED
- To improve communication between the LTC site and the emergency department when a transfer to the emergency department is required

PRIHS Project *(continued)*

The Plan

Using a randomized step-wedge design, 4-5 Calgary-zone LTC sites are supported every 3 months to implement this LTC-ED pathway and the INTERACT® tools. Implementation of the interventions is anticipated to be complete by the end of January 2022.

The COVID-19 pandemic altered the evaluation plan and implementation routine. Restrictions of visitors in LTC sites has required the secondary outcome evaluations to be revised. Plans for focus groups and interviews (qualitative evaluation), however, are moving forward, scheduled to begin in early 2022. Implementation of the interventions was able to pivot to virtual formats as needed. As LTC sites were able, through outbreaks and directions from Public Health, implementation sessions have been completed.

Implementation of the resources have also expanded into AHS Central Zone. Implementation in Central Zone will help to establish the provincial scale up and spread strategy. The Central Zone ED physicians have been socialized to, and educated on, the process of connecting with LTC through RAAPID. Circumstances unique to rural sites have been identified, and we have been modifying the implementation strategy accordingly. Health economic and other quantitative analyses have also began. There are several data sources to identify, gain access to, and interpret. We will also need to consider the impact of COVID in our analysis of study outcomes. Results to date have been very promising. Downward trends in the number of transfers from LTC to emergency departments and in hospital admissions from emergency departments have been noted. A separate analysis is being conducted to examine the effect that the COVID-19 pandemic has had on transfers from LTC to ED provincially over the last two years. Use of RAAPID and MIH appears to have increased overall, following recommendations by the CMOH during COVID outbreaks and waves. Anecdotal evidence from emergency department physicians indicates that the pre-transfer conversation with the LTC site has been very beneficial in helping care for LTC residents when they arrive in the ED. LTC physicians also appreciate the opportunity to provide valuable background information to optimize care in the ED. Future focus groups with healthcare providers will help to further determine the impacts of the intervention on care delivery. However, anticipated barriers related to accessing RAAPID, the time required, and technology have been either mitigated or unfounded. A six-month no-cost extension has been granted to this PRIHS IV initiative. The additional time will be dedicated to analyses, dissemination activities, and development of the resources and strategies for spread provincially.

Canadian COVID-19 Emergency Department Rapid Response Network (CCEDRRN)

The Canadian COVID-19 Emergency Department Rapid Response Network (CCEDRRN, www.ccedrrn.com) is a 40-site network of Canadian emergency departments, including all four Calgary adult EDs, that is systematically collecting data on all patients tested for SARS-CoV-2 in the ED. The network has received over \$4Million dollars in operating funds from the Canadian Institutes of Health Research and the COVID-19 Immunity Task Force, among other funding agencies. It has been mandated to conduct vaccine effectiveness studies using data from ED patients, and to conduct epidemiological and health services research.

To date, CCEDRRN has developed a risk prediction score to estimate the probability that a symptomatic patient will test positive for SARS-CoV-2, a risk score to predict mortality or need for ICU care, and has identified ED presentations that are unlikely to be attributable to COVID (and therefore not requiring universal PCR testing prior to admission). Another important study, led by Calgary’s Dr. Katie Lin, will soon be completed looking at the role and utility of D-dimer testing to identify patients with suspected COVID-19 who require further investigations for pulmonary embolism.

Dr. Andrew McRae.

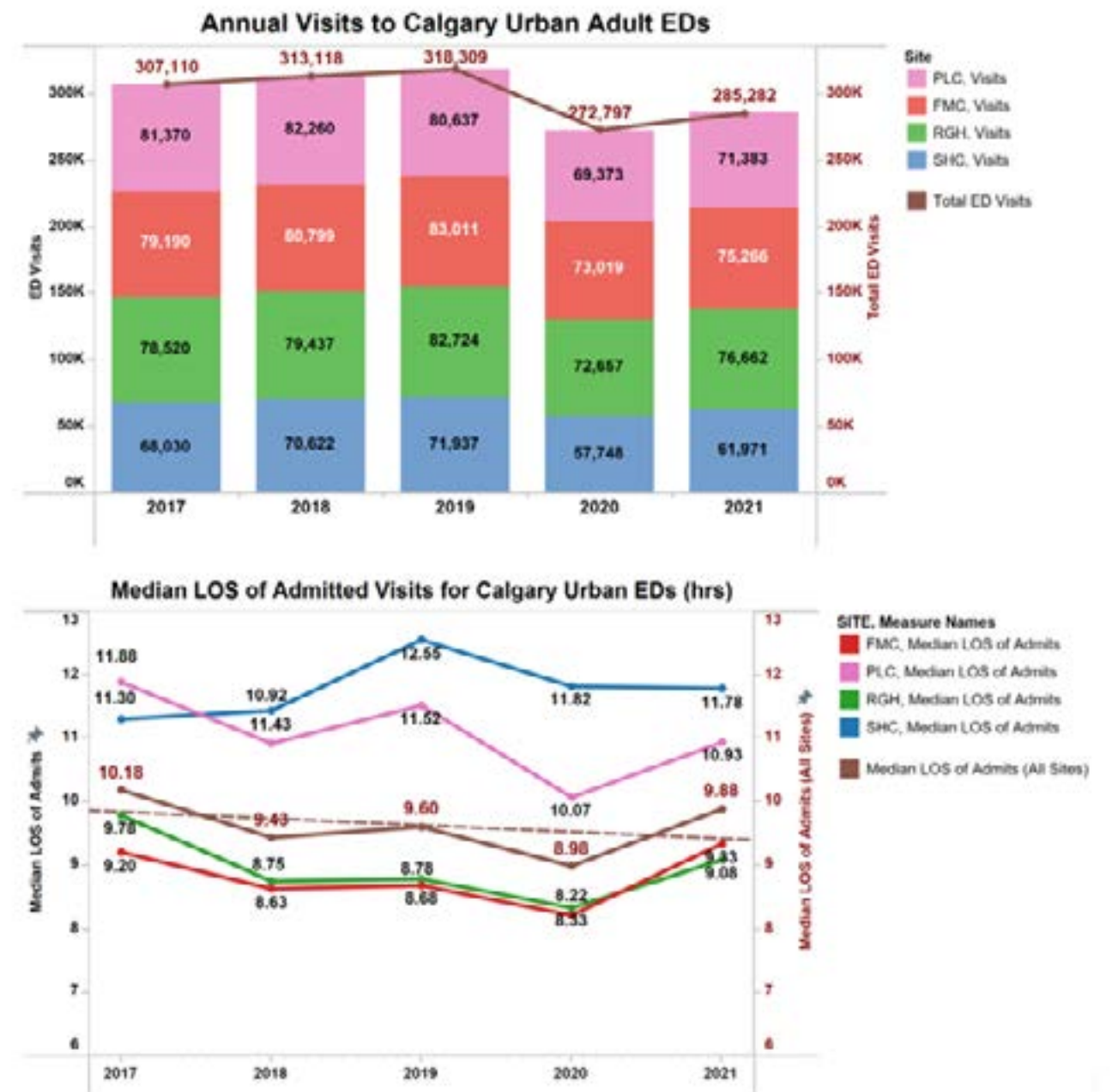
LOS Annual Operational Data

Calgary Zone Department of Emergency Medicine

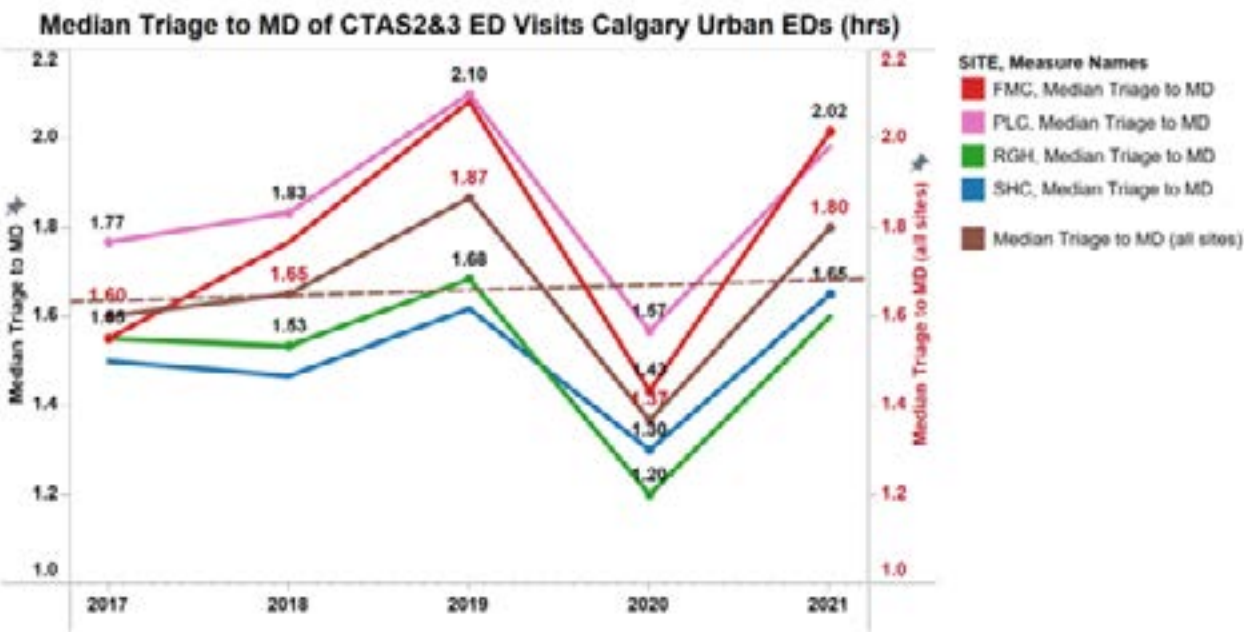
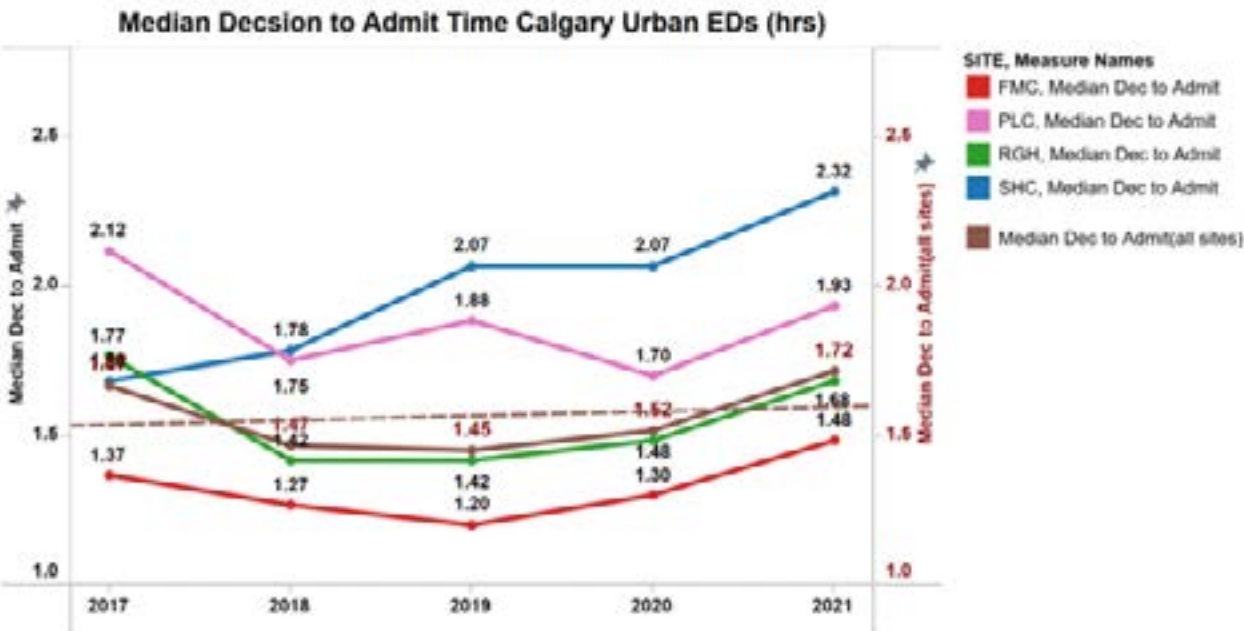
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LOS Annual Operational Data

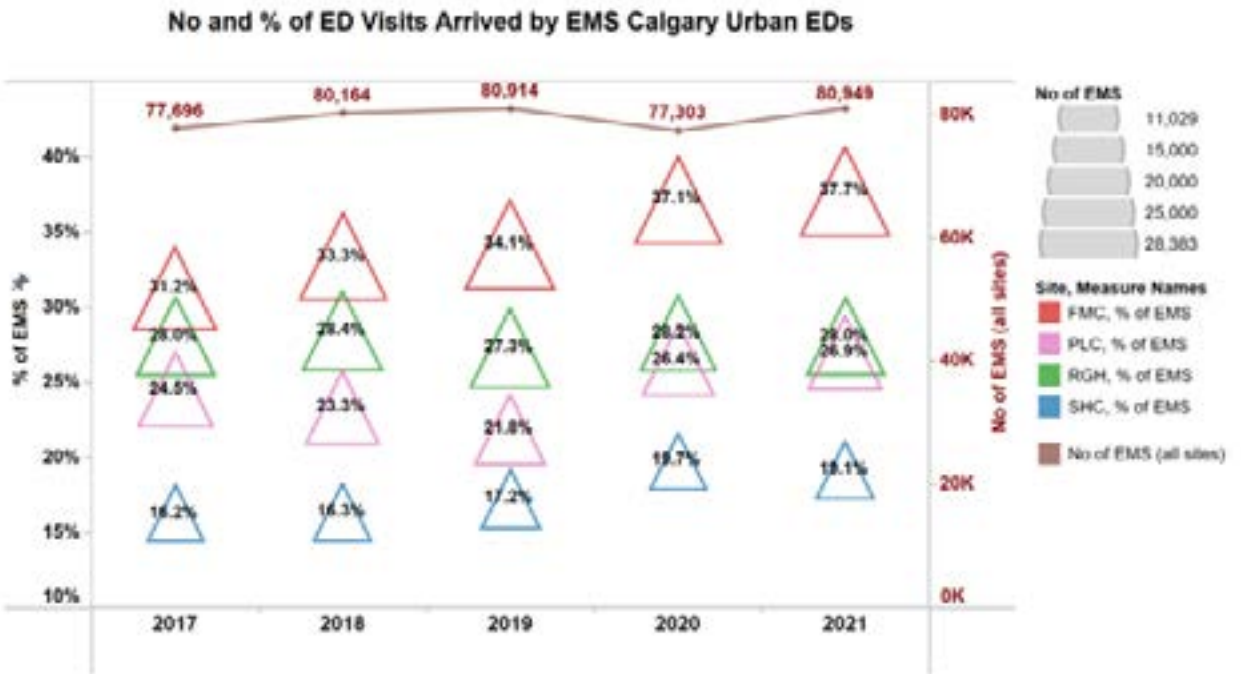
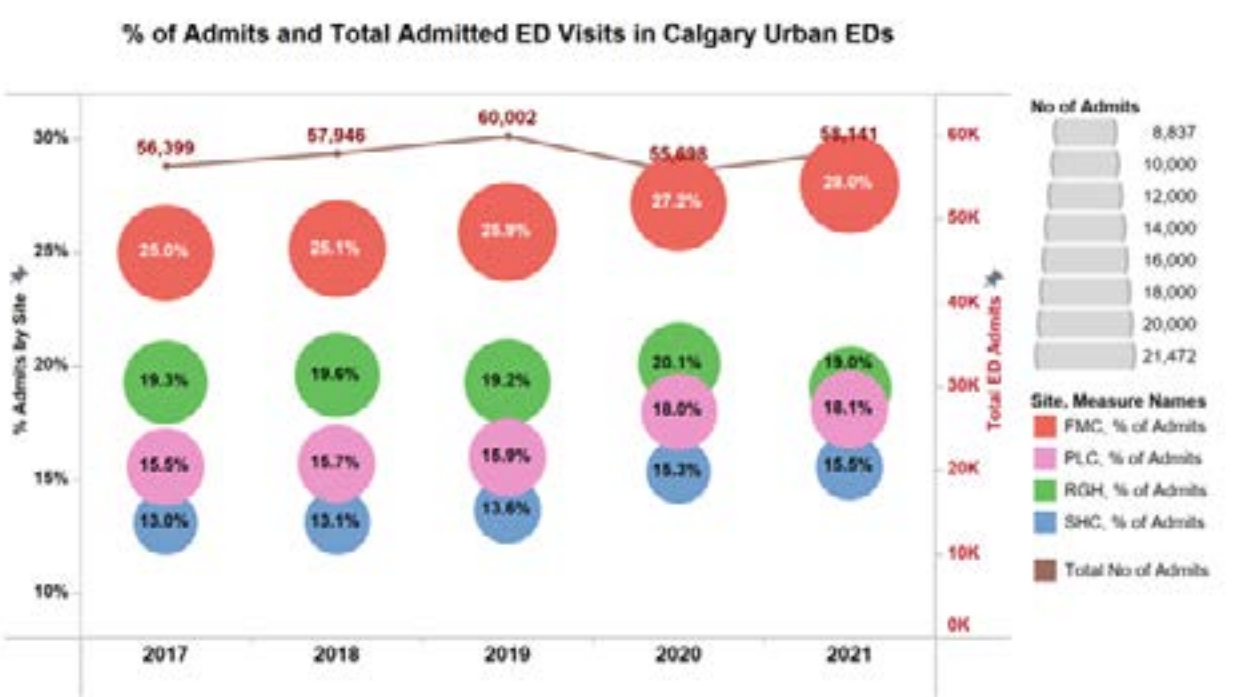
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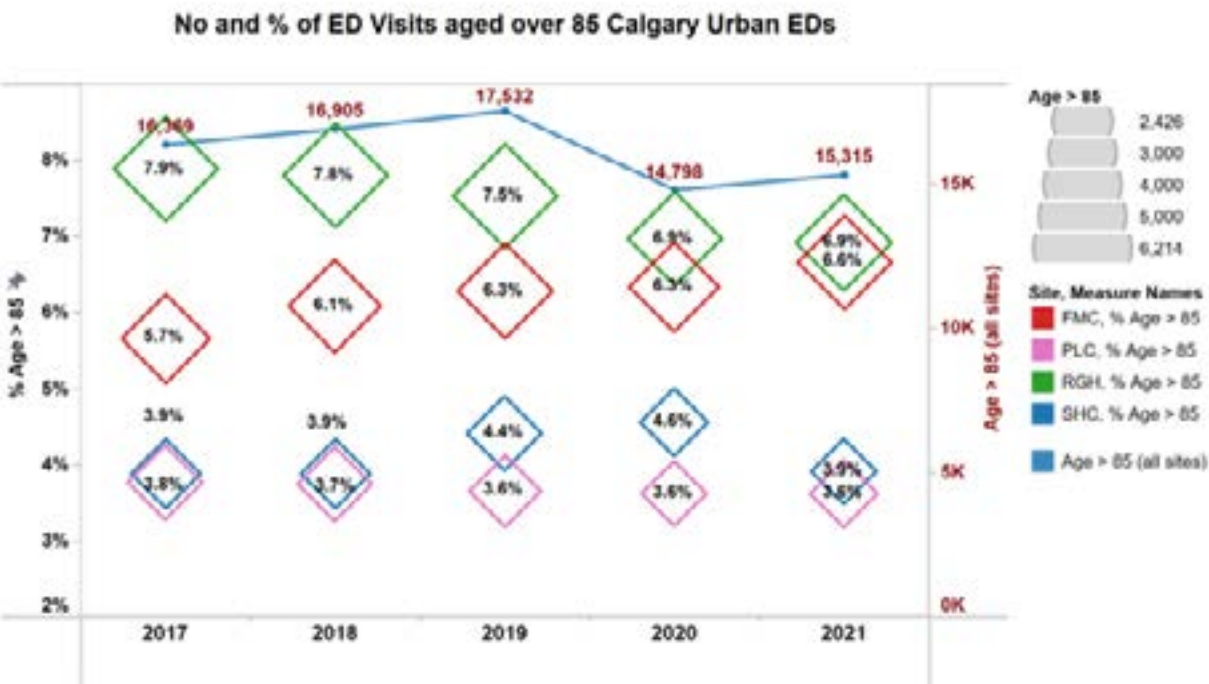
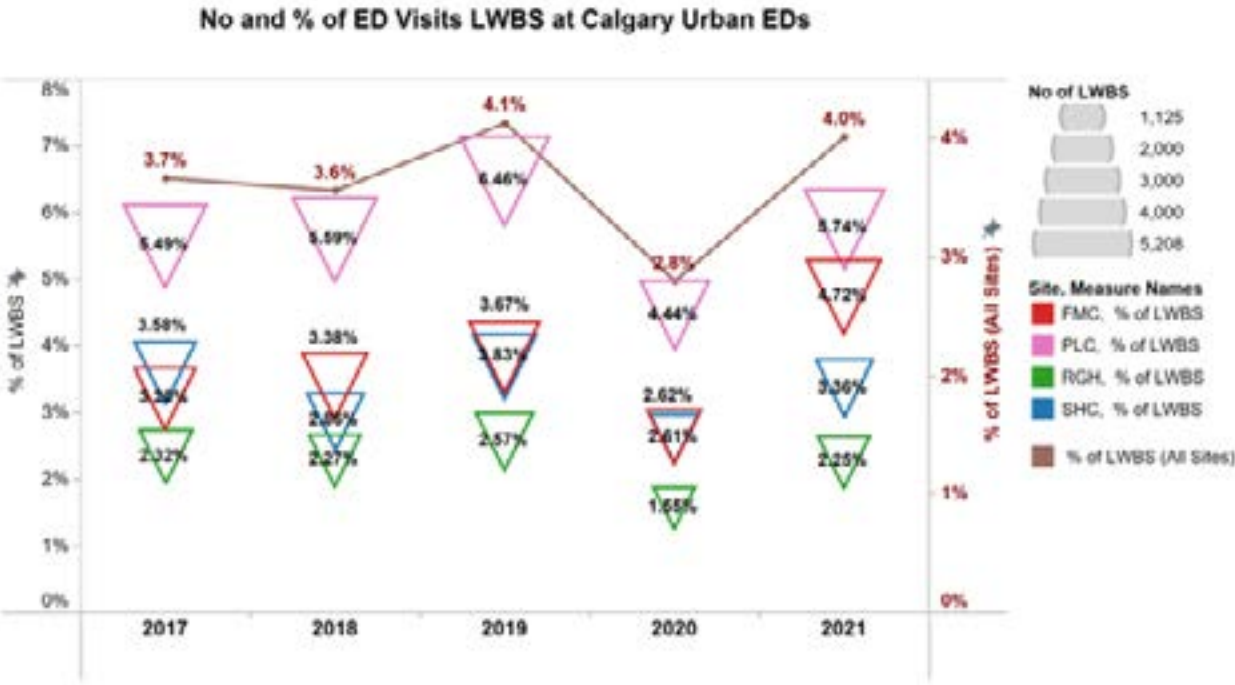
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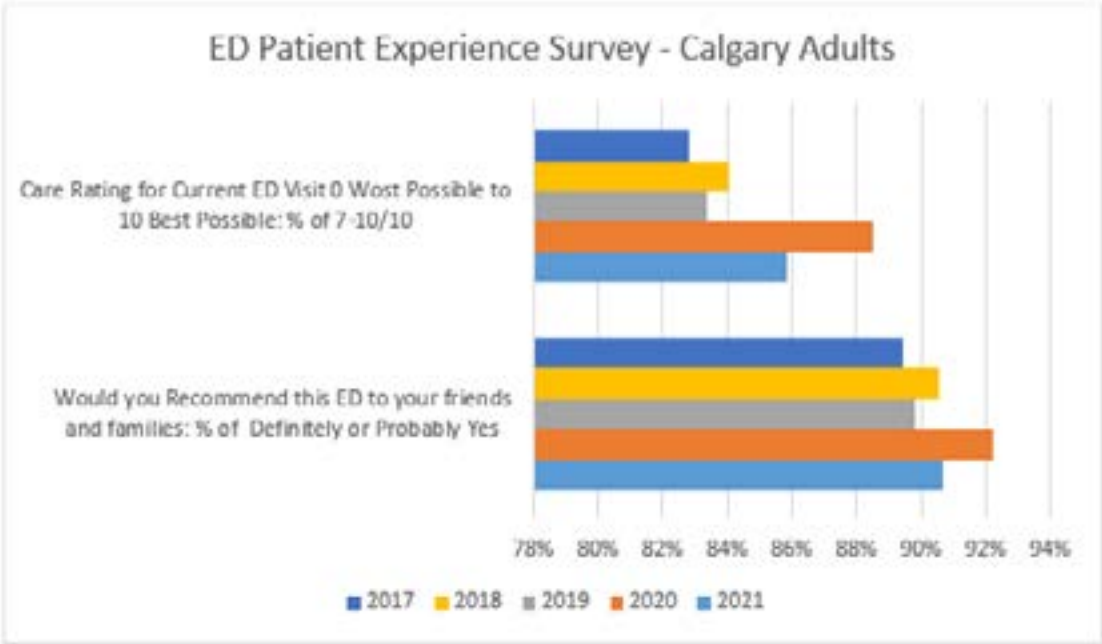
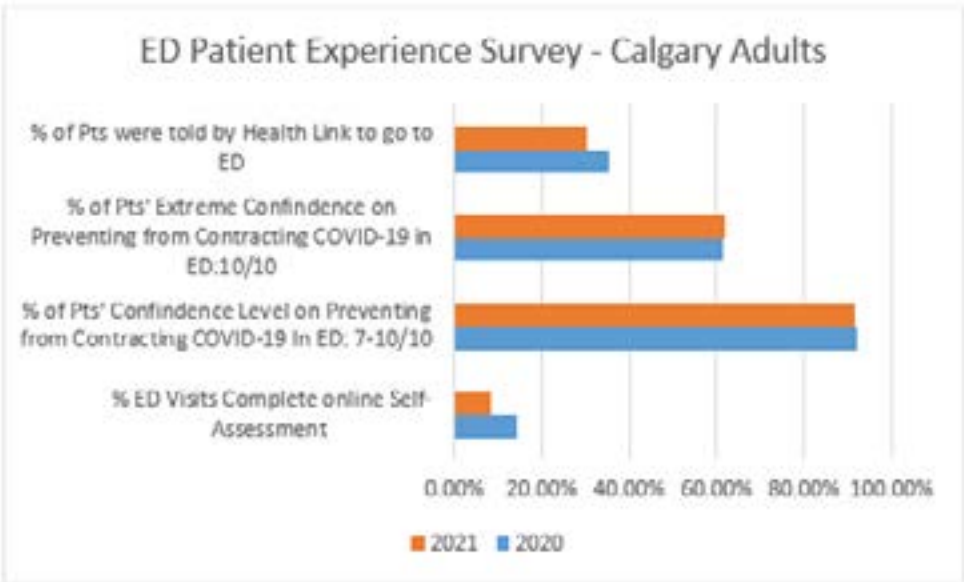
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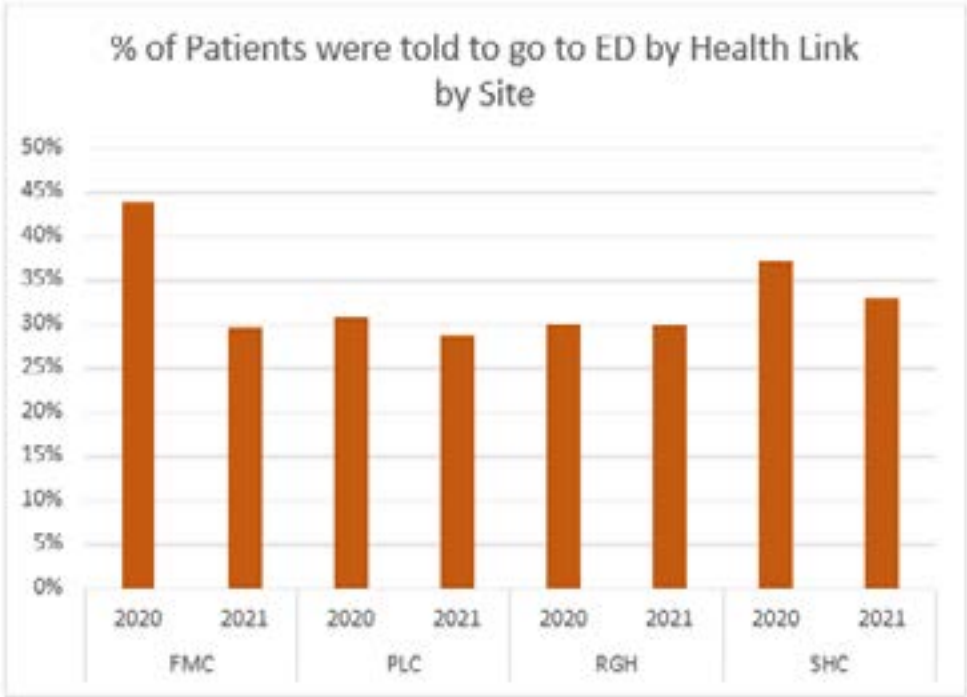
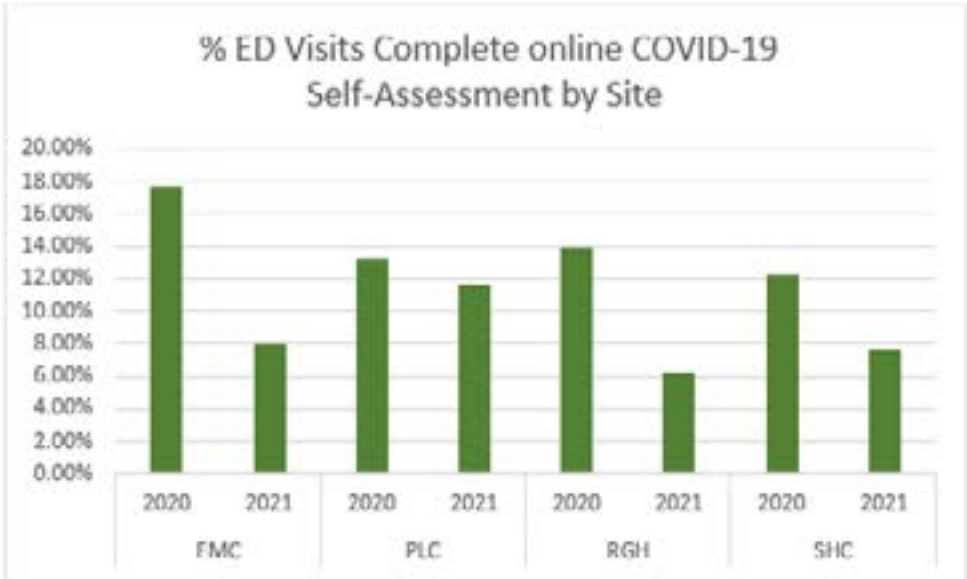
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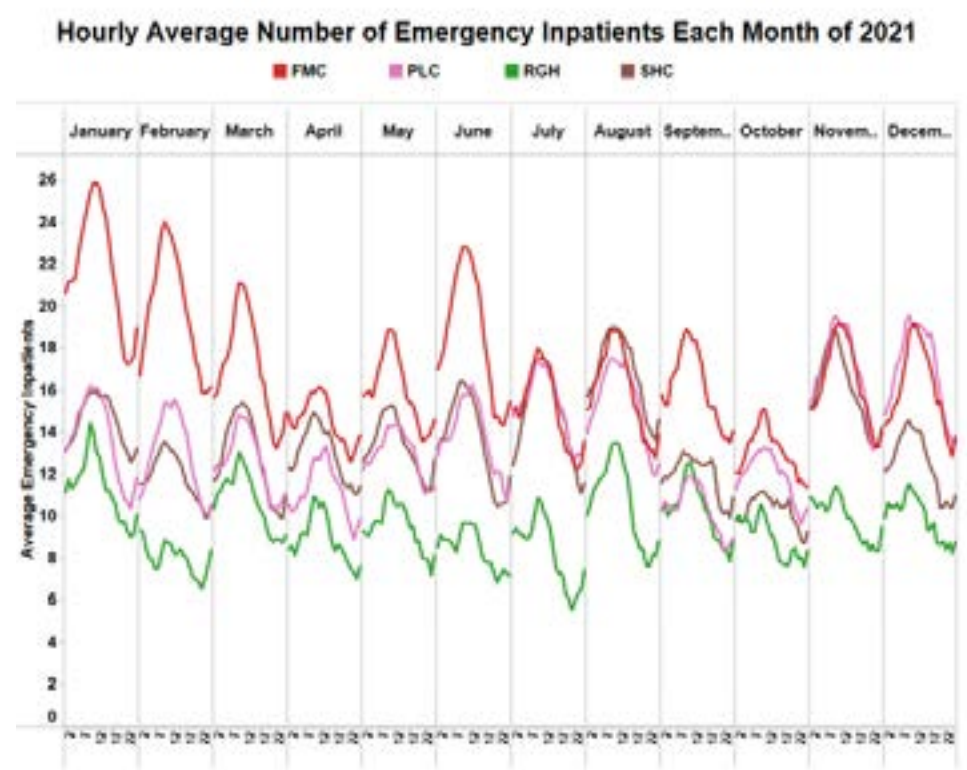
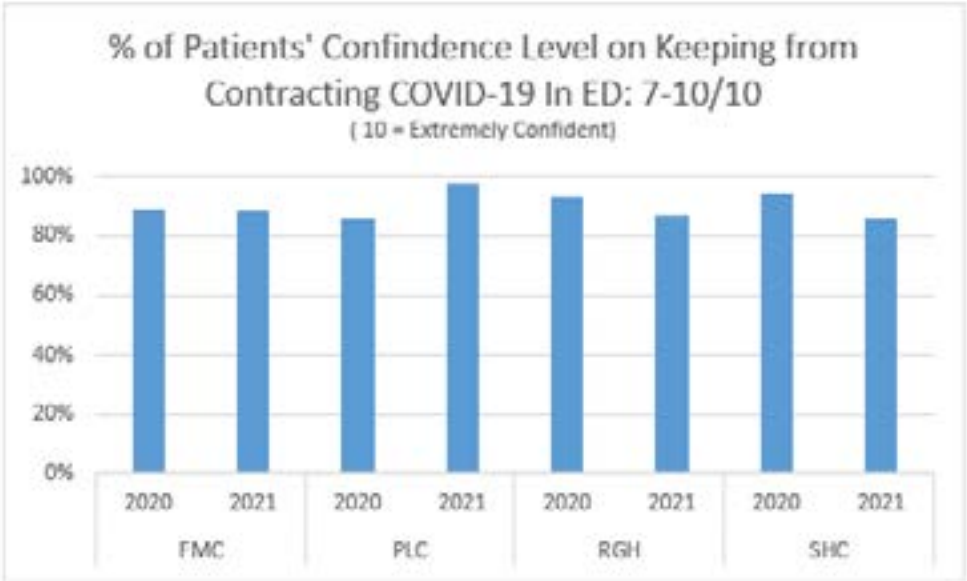
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LOS Annual Operational Data



LOS Annual Operational Data



Cumming School of Medicine Activity Profile

Calgary Zone Department of Emergency Medicine

Credits: Dr. H Patterson

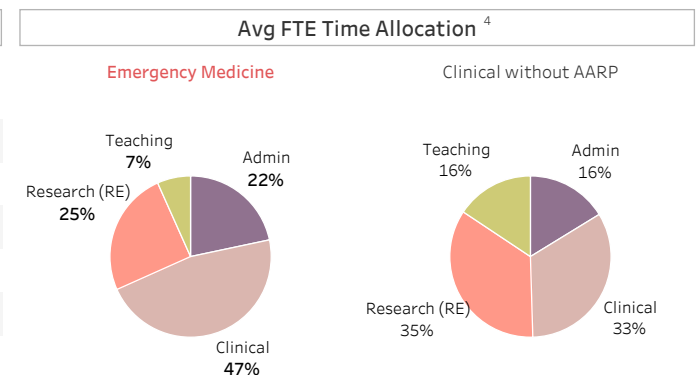
2020-2021 Annual Report Emergency Medicine

Annual # of Faculty ¹										
	2013	2014	2015	2016	2017	2018	2019	2020	2021	
^{1.1} Emergency Medicine	Non FTE	84	141	155	182	194	217	234	230	244
	FTE	3	3	3	3	3	3	4	4	
^{1.2} Basic Sciences	Non FTE	224	232	227	238	249	250	261	257	424
	FTE	130	127	125	125	133	140	141	142	142
^{1.3} Clinical with AARP	Non FTE	1,134	1,262	1,393	1,557	1,750	1,852	1,916	1,986	2,192
	FTE	236	227	223	221	224	215	217	219	220
^{1.4} Clinical without AARP	Non FTE	1,012	1,158	1,235	1,298	1,393	1,469	1,509	1,513	1,687
	FTE	149	154	152	156	156	160	164	163	163
^{1.5} CSM	Non FTE	2,254	2,523	2,716	2,938	3,224	3,402	3,517	3,598	4,030
	FTE	522	513	505	507	518	519	526	529	530

Research Revenue Emergency Medicine ³					
	2017	2018	2019	2020	2021
Alberta health services	\$8K		\$337K		
Alberta innovates - health solutions	\$336K	\$469K	\$220K		
Cihr				\$123K	\$6K
Government of alberta / alberta health services				\$81K	\$70K
Hoffmann-la roche limited	\$30K				
Mcmaster university	\$34K				
Msi foundation	\$49K				
Other	\$9K		\$57K	\$58K	-\$5K
Ottawa hospital research i..	\$31K	\$10K	\$69K	\$112K	\$80K
Royal college of physicians ..				\$30K	\$0K
Sunnybrook research insititute			\$78K		
Universite laval			\$59K		
University of british columbia					\$258K
Workers' compensation bo..			\$25K		
Workers' compensation board of alberta				\$25K	\$25K
Emergency Medicine Total	\$0.5M	\$0.5M	\$0.8M	\$0.4M	\$0.4M

CSM Research Revenue ⁶					
	2017	2018	2019	2020	2021
Basic Sciences	\$42M	\$52M	\$60M	\$62M	\$61M
Clinical with AARP	\$63M	\$70M	\$77M	\$66M	\$62M
Clinical without AARP	\$28M	\$30M	\$35M	\$36M	\$36M
Other	\$32M	\$46M	\$42M	\$49M	\$63M
CSM Total	\$164M	\$198M	\$213M	\$214M	\$222M

2021 Emergency Medicine Faculty by Rank ²		
Non FTE	Assist Professor	1
	Assoc Professor	2
	Clinical	236
	Professor	5
FTE	Assist Professor	1
	Assoc Professor	1
	Professor	2



Research Revenue per FTE ⁵					
	2017	2018	2019	2020	2021
Emergency Medicine	\$165K	\$160K	\$282K	\$107K	\$109K
Basic Sciences	\$313K	\$373K	\$424K	\$439K	\$427K
Clinical with AARP	\$281K	\$326K	\$354K	\$301K	\$283K
Clinical without AARP	\$177K	\$188K	\$211K	\$223K	\$223K
CSM Dept Total	\$258K	\$296K	\$328K	\$314K	\$303K

CIHR Annual Funding Paid \$ as a % of National ⁷					
	2017	2018	2019	2020	2021
Emergency Medicine				0.01%	0.28%
Basic Sciences	1.63%	1.74%	1.83%	1.88%	3.20%
Clinical with AARP	1.32%	1.42%	1.71%	1.64%	2.33%
Clinical without AARP	0.59%	0.68%	0.83%	1.08%	1.82%
CSM	3.45%	3.77%	4.28%	4.48%	4.48%

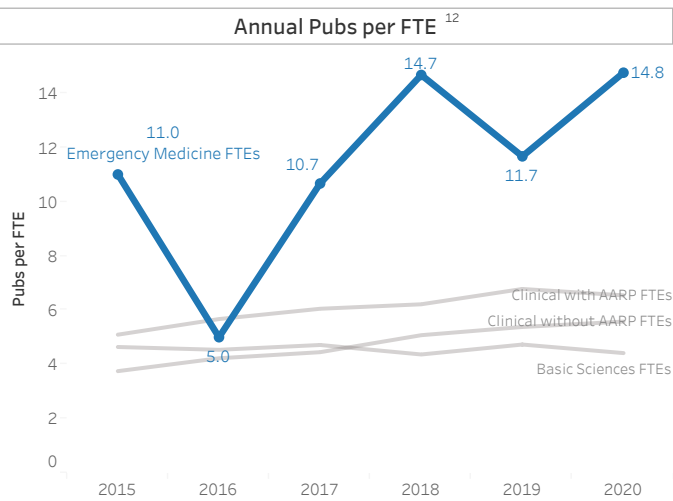
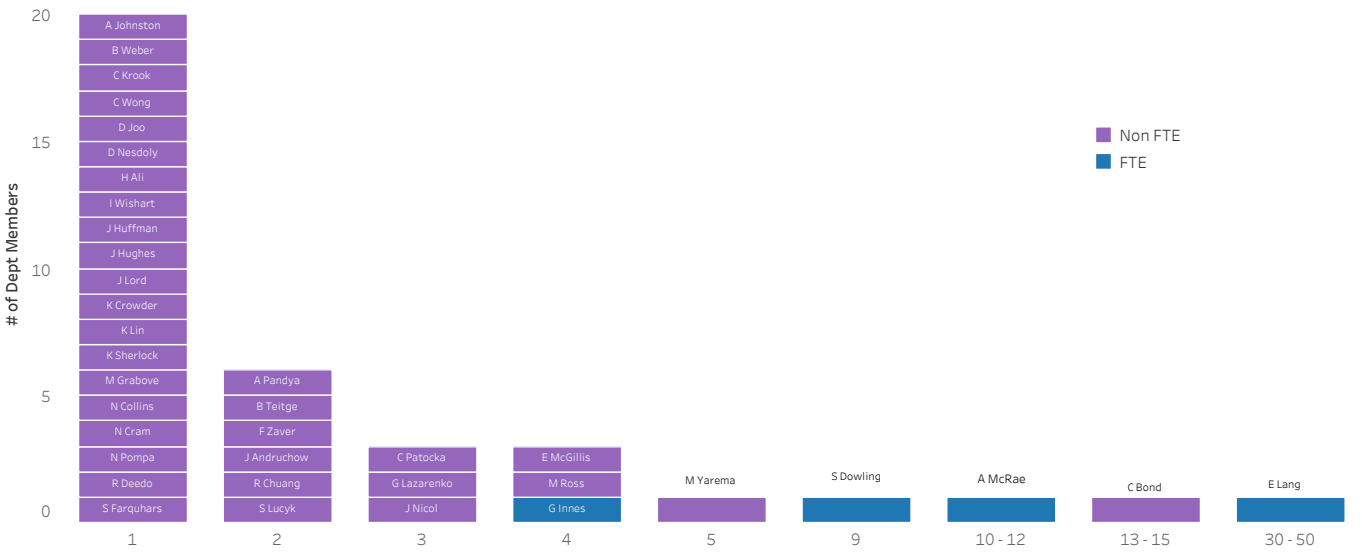
2015-20 Bibliometrics Emergency Medicine

		Annual Publications ¹¹					
		2015	2016	2017	2018	2019	2020
Emergency Medicine	Non FTE	12	25	33	37	33	58
	FTE	33	15	32	44	35	59
Dept Total		42	38	60	74	64	108
Basic Sciences	Non FTE	432	495	546	502	631	610
	FTE	580	567	627	611	667	627
Clinical with AARP	Non FTE	582	746	853	923	995	930
	FTE	1,136	1,253	1,355	1,336	1,471	1,433
Clinical without AARP	Non FTE	794	837	848	1,005	1,109	1,173
	FTE	570	659	694	812	882	909
CSM Total		2,950	3,173	3,430	3,670	3,984	3,980

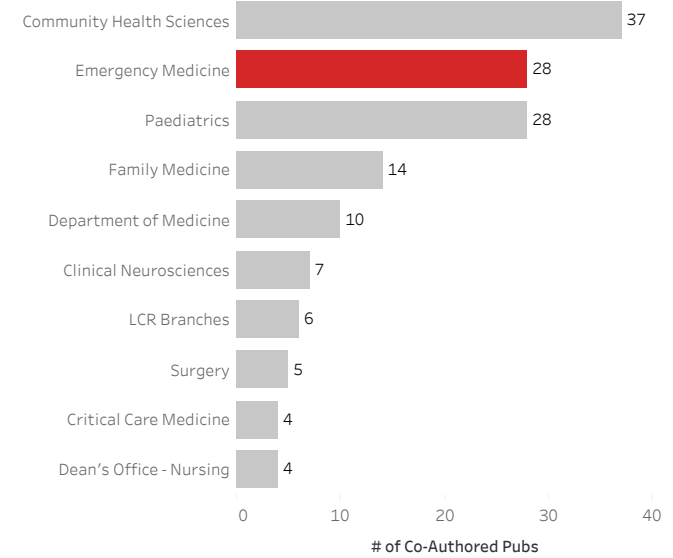
Annual First/Last Author Pubs ¹³							
		2015	2016	2017	2018	2019	2020
Emergency Medicine	Non FTE	6	13	21	19	15	27
	FTE	15	5	10	21	11	21
Dept Total		20	17	31	37	25	46
Basic Sciences	Non FTE	208	228	244	218	227	228
	FTE	302	310	315	274	338	314
Clinical with AARP	Non FTE	248	294	338	357	420	358
	FTE	591	589	627	605	606	596
Clinical without AARP	Non FTE	368	399	376	441	465	474
	FTE	279	296	299	364	375	404
CSM Total		1,749	1,844	1,910	1,992	2,139	2,090

Immediate Impact Papers ¹⁵					
	Basic Sciences	Clinical with AARP	Clinical without AA..	CSM Total	Emergency Medicine
Non FTE	98	159	131	309	2
FTE	124	342	143	548	7
Grand Total	201	442	256	739	9

of Publications by 2020/21 Faculty in 2020 ¹⁶



2020 Collaborative Departments ¹⁴



Notes and Definitions

Metric	Definition	Source
1 Annual # of Faculty	Headcounts of CSM Faculty based on their appointment on March 31 in a given year. FTE (GFT) = Full Time Continuing Academic Faculty	HR Systems & Reporting
1.2 Basic Sciences	a) Biochemistry & Molecular Biology b) Cell Biology & Anatomy c) Community Health Sciences d) Microbiology Immunology & Infectious Diseases e) Physiology & Pharmacology	
1.3 Clinical with AARP	a) Cardiac Sciences b) Clinical Neurosciences c) Family Medicine d) Medicine e) Paediatrics	
1.4 Clinical without AARP	a) Anaesthesia b) Critical Care Medicine c) Emergency Medicine d) Medical Genetics e) Obstetrics & Gynaecology f) Oncology g) Pathology & Laboratory Medicine h) Psychiatry i) Radiology j) Surgery	
2 2021 Emergency Medicine Faculty by Rank	Headcounts of UCalgary Faculty with Emergency Medicine academic appointment on March 31 2021, broken down by Rank and FTE (GFT) level	HR Systems & Reporting
3 Research Revenue Emergency Medicine	Annual sum of CSM Research Revenue for projects assigned to Emergency Medicine, broken down by top 10 Sponsors.	Cognos/Research Accounting
4 Avg Time Allocation	Avg Time Allocation (Position Summary) for FTE (GFT) faculty in most recent reporting year Note: updated data for this metric was not available, and previous years data was used See note (1) for Department Groups	Academic Reporting Online
5 Research Revenue per FTE	Annual sum of CSM Research Revenue for projects assigned to dept/dept group (note 3/6), divided by the number of FTE (GFT) Faculty (note 1)	Research Revenue (see note 3) FTEs (See note 1)
6 CSM Research Revenue	Annual sum of CSM Research Revenue for projects assigned to the department groups in note (1)	Cognost/Resarch Accounting
7 CIHR Funding Paid as a % of National	Annual sum of CIHR Funding Dollars paid to Investigators with an academic appointment in a CSM Dept/Dept group on March 31 of a given year, divided by total annual CIHR dollars awarded. Note, CIHR dollars are filtered for Resarch Support Fund (RSF) eligible programs	RSF - UCalgary RSF credit breakdown from Tri-Council Dept/Dept Groups (see note 1)
11 Annual Publications	Annual sum of unique publications by UCalgary Faculty with an academic appointment in a dept/dept group on March 31 of a given publication year	Web of Science Core Collection, filtered for Address = 'Calgary'
12 Annual Publications per FTE	Annual sum of unique FTE publications (note 11) by divided by the number of FTEs (note 1)	Publications (see note 11) FTEs (note 1)
13 First/Last Author Publications	Annual sum of unique publications (note 11) where the UCalgary Dept/Dept Group member is a first or last author listed on the manuscript	see note 11
14 Collaborative Departments	Sum of unique publications (note 11) in 2020 by Emergency Medicine members, broken down by the co-author's UCalgary department(s)	Publications (see note 11) Co-Author Department (see note 1)
15 Immediate Impact Papers	Sum of unique publications (note 11) that were published in the past 5 years (2015-20) and cited > 49 times	see note 11
16 # of Publications by 2021 Faculty in 2020	Histogram showing Emergency Medicine faculty in March 2021, and the number of papers published they published in 2020. - Horizontal axis is the bin # of publications..	see note 11

Publications

Calgary Zone Department of Emergency Medicine

Credits: Dr. H Patterson

Publications Emergency Medicine

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Grants Received in 2021

Dr. Grant Innes
Principle investigator, “Impact of emergency department opioid prescribing on long term outcomes and prolonged opioid use.” (CIHR funded).

Dr. Eddy Lang
Decisions to Seek Emergency Medical Care Among People with Kidney Failure: Implications for Optimal Care Delivery. PI : Elliott, Meghan ; King-Shier, Kathryn Margaret. Co-I : Aghajafari, Fariba ; Donald, Maoliosa ; Hemmelgarn, Brenda Rose ; Lang, Eddy Samuel ; Macrae, Jennifer Marie ; Manns, Braden John ; McRae, Andrew D. ; Ronksley, Paul Everett ; Thompson, Stephanie . Project Grant. CIHR. 2021-10-01 to: 2023-09-30. \$33,469. 2021

Canadian COVID-19 Emergency Department Rapid Response Network. PI : Berger Pelletier, Elyse ; Hohl, Corinne Michele ; Lang, Eddy Samuel ; Manns, Braden John ; Moore, Kieran Michael ; Perry, Jeffrey Joseph ; Rosychuk, Rhonda Jean . Co-I : Archambault, Patrick ; Brooks, Steven Charles ; Chabot, Christian ; Davis, Philip Joseph ; Fok, Patrick Terrence ; Jelic, Tomislav ; McRae, Andrew D. COVID-19 Rapid Research FO - Clinical Mgmt/Health System Interventions. 2020-06-01 to: 2021-05-31.Operating grant. CIHR. \$2,112,500. 2020-2021.

Innovative Clinical Trials Program - Interdisciplinary Chronic Disease Collaboration. PI : Campbell, David John Thomas ; Hemmelgarn, Brenda Rose ; James, Matthew Thomas ; Manns, Braden John ; Pannu, Neesh Inder ; Pearson, Winnie ; Tonelli, Marcello. Co-I : Bello, Aminu ; Butalia, Sonia ; Elliott, Meghan ; Faris, Peter Donald ; Graham, Michelle Monique ; Helmle, Karmon ; Hill, Michael Douglas ; Klarenbach, Scott ; Lang, Eddy Samuel ; Lee, Joon ; McBrien, Kerry ; Minty, Evan ; Norris, Colleen ; Parrilla Lopez, Maria Jose ; Quan, Hude ; Quinn, Robert Ross ; Ravani, Pietro ; Ronksley, Paul Everett ; Sajobi, Tolulope Timothy ; Sargious, Peter ; Scott-Douglas, Nairne ; Tsuyuki, Ross T. ; Wilton, Stephen B. SPOR Innovative Clinical Trial Multi-Year Grant. 2020-04-01 to: 2024-03-31. Operating grant. CIHR.. \$1,500,000. 2020-2021.

Opioid Use Disorder Care during COVID-19 Disruptions. PI : Healy, Bonnie Anne ; Henderson, Rita Isabel ; McLane, Patrick. CO-I : C-IvtaBarnabe, Cheryl Carmelle Marie ; Crowshoe, Lynden Lindsay ; Hayward, Jake ; Holroyd, Brian Ross ; Hyshka, Elaine ; Lang, Eddy Samuel ; Rittenbach, Kay ; Rosychuk, Rhonda Jean ; Sarin, Christopher ; Virani, Hakique Nizarali.. COVID-19 MH/Substance Use-Understanding Rapid System Transformation – IHR. CIHR. Operating grant. 2020-09-01 to: 2021-08-31. \$199,806. 2020-2021.

Equity in Emergency Department Utilization in Alberta for Priority Populations during the COVID-19 Pandemic: Exploring Impacts of Changes to Healthcare and Healthcare Utilization through Administrative Data Analysis and Nominal Group Techniques.COVID-19 Rapid Research FO - Social Policy and Public Health Responses. Patrick McLane, Rita Isabel Henderson, Grant Douglas Innes, Eddy Samuel Lang, Rhonda Jean Rosychuk, C. Barnabe Mrs. L. Bill, G. Cummings Mr. S. Fielding, J. Hayward Mrs. B. Healy, B. Holroyd. CIHR- Operating grant. May 2020- November 2020. \$93,837. 2020-2021

Grants Received in 2021 (continued)

Connect 2 Care: Evaluation of a novel community outreach program for socially vulnerable patients with complex needs. PI : Fabreau, Gabriel ; McBrien, Kerry ; 7.Nguyen, Van. Co-I : Barnabe, Cheryl Carmelle Marie ; Braun, Ted C ; Ghali, William Amin ; Lang, Eddy Samuel ; Manns, Braden John ; McLane, Patrick ; Milaney, Katrina ; Ronksley, Paul Everett ; Salvalaggio, Ginetta Lara ; Spackman, Eldon ; Tang, Karen Lik Ka ; Thain, Nicholas ; Williamson, Tyler. CIHR. Project grant. 2019-10-01 to: 2022-03-31. \$339,486. 2019-2022.

Understanding organizational culture to improve admission-discharge processes: A systems approach to healthcare performance, evaluation and education. Co-investigator. PI: Peter Nugus. social, cultural, environmental and population. Apr. 1, 2019- Mar. 31, 2022. Project grant. Ongoing / Renewed. Canadian Institutes of Health Research. \$ 175,910. 2019 - 2022

Development of novel risk prediction scores for emergency department patients with suspected coronary artery disease co-investigator. PI: Andrew McRae. Clinical.. Project grant. Ongoing /Renewed. Canadian Institutes of Health Research. Apr. 1, 2019- Mar. 31, 2021. \$ \$129,588. 2019- 2021

Quantity of Opioids for Acute Pain and Limit Unused Medication (OPUM study). Co-investigator. PI: Raoul Daoust. Co-I : Chauny, Jean-Marc ; Choinière, Manon ; Emond, Marcel ; Gosselin, Sophie ; Lang, Eddy Samuel ; Lavigne, Gilles J. ; Lee, Jacques Simon ; Rouleau, Dominique ; Williamson, David. Jan. 1, 2018- Sep. 30, 2022. Operating grant. Project grant. CIHR. \$745,939. 2018 – 2022.

Needles without tears: Inoculating children against pain and fear.Co-investigator . PI: Anna Taddio. Health services. Jul. 1, 2018-Jun. 30, 2025. Operating grant. Canadian Institutes of Health Research. \$300,601.00. 2018 – 2025.

Evaluating innovations in transition to adult care: Transition Navigator Trial. Co-investigator. PI: Dimitropoulos, Gina ; Mackie, Andrew ; Samuel, Susan Mathew. Co-I : Guilcher, Greg ; Klarenbach, Scott ; Lang, Eddy Samuel ; Nettel-Aguirre, Alberto ; Pacaud, Danièle ; Pinzon, Jorge ; Scott, Shannon Dawn ; Zwaigenbaum, Lonnie. Health services. Apr. 1, 2017- Sep. 30, 2022. Operating grant. Canadian Institutes of Health Research. \$794,242. 2017 – 2022.

Dr. Andrew McRae
Peer-reviewed Grants as Principal Investigator
Novel risk prediction tools for emergency department patients with suspected coronary artery disease. Canadian Institutes of Health Research Project Grant. \$123,212. 2019-21.
Peer-reviewed Grants as Co-Investigator
Canadian COVID-19 Emergency Department Rapid Response Network: ED-based COVID-19 vaccine efficacy studies. Public Health Agency of Canada/Canadian Immunity Task Force. PI: Dr. Corinne Hohl. \$2,500,000. 2021-2022.

Canadian COVID-19 Emergency Department Rapid Response Network – Ontario Sites. PI: Dr. Steven Brooks. Ontario Ministry of Colleges and Universities. \$1,216,180. 2020-2021.

Grants Received in 2021 *(continued)*

“Investigating the Post-Acute Sequelae of SARS-CoV-2 Infections: a Patient Oriented Canadian COVID-19 Emergency Department Rapid Response Network (CCEDRRN) Study. PI: Patrick Archambault. CIHR Operating Grant: Emerging COVID-19 Research Gaps & Priorities - Post COVID-19 condition. \$499,500. 2021-2022.

Selective neuroimaging for head-injured emergency patients who take anticoagulant medication. PI: Kerstin DeWit. CIHR Project Grants. \$1,200,000. 2021-2026.

Impact of Emergency Department Opioid Prescribing on Substance Misuse and Health Outcomes. PI: Grant Innes. CIHR Project Grants. \$110,000. 2021-2023.

Characterizing emergency department utilization and perceived avoidability among patients with end-stage kidney disease. PI: Meghan Elliott. MSI Foundation. \$100,000. 2020-2021.

Other Grant Funding

High-sensitivity cardiac troponin for the diagnosis of myocardial infarction in patients with kidney dysfunction. PI: Andrew McRae. Unrestricted Research funds, Roche Diagnostics Canada. \$117,000. 2022-2023.

Dr. Stephanie Vandenberg

ESCN Summer Studentship as the supervisor for Urouj Rashid - \$6000 for the project entitled “**Refractory ventricular fibrillation management in Calgary’s adult emergency departments**”

September 2021 Calgary Health Foundation “**Improving Calgary’s Methamphetamine Intoxication Management in Emergency Departments. A Systematic Review and Implementation Study**” Co-lead with Dr. Monty Ghosh \$150,000

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