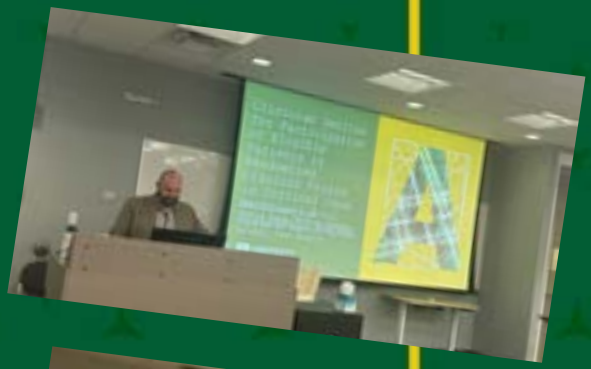
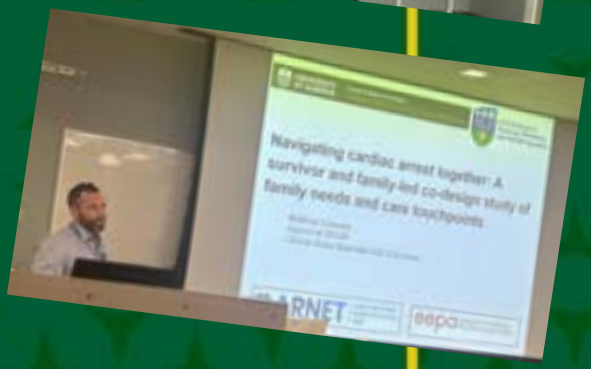
College of Health Sciences
Faculty of Medicine & Dentistry
Critical Care Medicine

UNIVERSITY OF ALBERTA

Department of Critical Care Medicine





RESEARCH DAY

Wednesday May 13, 2026
Room at the Top
(7th Floor SUB)

Contents

Poster Presentations	**Presenter**
Summarizing current morbidity and mortality review practices in intensive care: a narrative review	Marina Giovannoni
Association between Sepsis and Outcome according to Accelerated or Standard Timing of Renal Replacement Therapy Initiation: A Secondary Analysis of STARRT-AKI Trial	Prit Kusirisin
Paracentesis and Thoracentesis for Rural Family Physicians – Improving Healthcare Delivery Through Ultrasound Education	Liam Laidlaw
Survey of families' PICU experience: Improvement opportunities	Abinash Saravanan
How do ICU healthcare professionals conceptualize a meaningful and sustainable work environment? A qualitative analysis of a pan-Canadian survey	Satkirat Randhawa

Schedule

Time	Presentation	Presenter
11:30 - 12:30	**Lunch - Posters**	
12:30 - 12:45	Welcome and Introductions	
12:45 - 1:05	Keynote: Success and Failures in Research	Ken Parhar
1:05 - 1:35	Panel Discussion “Research Perspectives”	
1:35 - 1:45	**Break**	
1:45 - 2:00	KETOROLAC-ICU: A Pilot Feasibility Study	Sunny Fong
2:00 - 2:15	Comparing Transport Ventilation to Early Optimized ICU Ventilation: A Before and After Quality Improvement Study	Shannon Tang
2:15 - 2:30	Motivators, Facilitators and Barriers to the Practice of Critical Care Ultrasound in Community and Academic ICUs in Canada	Jack Yuan
2:30 - 2:45	Hospital, Health System, and Resource Variables Associated with Survival in Patients with Cardiogenic Shock –A Multi-Province Canadian Analysis	Tiffany Yuen
2:45 - 3:00	**Q&A Period**	
3:00 - 3:15	**Break**	
3:15 - 3:30	Exploring factors associated with intra-dialytic hypotension in critically ill patients receiving intermittent kidney replacement therapy in ICU	Prit Kusirisin
3:30 - 3:45	Renal Failure in Patients Undergoing Minimally Invasive Mitral Valve Surgery: A Systematic Review and Meta-analysis	Ryaan El-Andari
3:45 - 4:00	Real-Time Assessment of Cardiac Oxygenation Using Photoacoustic Imaging	Jenni Vu
4:00 - 4:15	The epidemiology of acute on chronic liver failure (ACLF) patients admitted to ICU at a quaternary liver transplant center	Maggi Wang
4:15 - 4:30	**Q&A Period**	
4:30 - 4:45	**Judging Awards and Photos**	
4:45 - 5:30	**Mix & Mingle**	

Greetings from the Dean

Brenda Hemmelgarn, MD, PhD
Dean
Faculty of Medicine & Dentistry

Every spring, researchers from across the Faculty of Medicine & Dentistry come together to celebrate one of our key foundational principles: that research — and the unwavering curiosity and commitment to impact through excellence required to pursue new knowledge — is fundamental to our ability to meet the health needs of all we serve.

Today, the Department of Critical Care Medicine Research Day honours that principle, bringing together a broad range of expertise and interests to showcase the work of their members. And I believe it's no coincidence that they've chosen to host this showcase in what may feel like a surprising environment — Room at the Top.

Gathering here is a powerful symbol of the department's focus on how research matters for ALL — not just a select few. This work is not an elitist pursuit; it is for everyone. Just as department members collaborate across many areas, including cardiology, nephrology, respiratory science and infectious disease just to name a few, they welcome the input of many community members — patients, family members, non-academic contributors and clinicians.

Wherever you have joined us from, I welcome you today. I hope you enjoy the presentations and that, much like our researchers, you take away new perspectives that spark your own growth and understanding.

Territorial Greeting

Benjamin Johnson
Samson Cree Nation

Benjamin Johnson is a Cree Ceramic artist and fine arts student from Samson Cree Nation, Maskwacis, Alberta, Treaty 6 Territory.

Benjamin currently resides in Mohkinstsis (Calgary) with his partner where he practices Ceramics, Sculpture, and Multi-media art while integrating traditional Cree iconography and culture, into contemporary art forms.

Benjamin is a proud Indigenous artist who values Education, Research and Learning.

University of Alberta Territorial Acknowledgment

The University of Alberta, its buildings, labs and research stations are primarily located on the territory of Néhiyaw (Cree), Niitsitapi (Blackfoot), Métis, Nakoda (Stoney), Dene, Haudenosaunee (Iroquois) and Anishinaabe (Ojibway/Saulteaux), lands that are now known as part of Treaties 6, 7 and 8 and homeland of the Métis. The University of Alberta respects the sovereignty, lands, histories, languages, knowledge systems and cultures of all First Nations, Métis, and Inuit.

Greetings from the UHF

Gail Stepanik-Keber
Chief Catalyst, Strategic Marketing and Alliances
University Hospital Foundation

At the University Hospital Foundation, we have a long history of supporting critical care at the University of Alberta Hospital.

From Canada's first stroke ambulance to advanced imaging and more, the generosity of our donors has played a significant role in the invaluable, and lifesaving, service your teams provide.

For more than six decades, our donors have also helped bring new ideas to life through research that improves outcomes for patients across Alberta.

That commitment remains as strong as ever.

At the same time, our work is evolving. We are expanding how we support research and innovation, including efforts that focus on preventing disease and improving the health of Albertans.

It is a natural extension of what research makes possible.

A strong health system continues to respond when care is needed, while also finding new ways to anticipate challenges and improve health before people ever need to come through hospital doors.

Gatherings like this reflect that same spirit.

They bring together diverse perspectives and expertise, grounded in a shared commitment to curiosity, collaboration, and impact. They reinforce that research is not for a select few. It is for all of us.

On behalf of the University Hospital Foundation, thank you for the work you do and the knowledge you continue to advance.

University Hospital Foundation Acknowledgment

The University Hospital Foundation has been a key supporter for several of our investigators across multiple streams of research over the years. Below is a summary of some of the investigators and projects that the UHF has supported.

Dr. Oleksa Rewa

I am currently leading the LIBERATE program of work, aiming to evaluate the role of midodrine for patients in the ICU recovering from their critical illness. This program started with a single center feasibility study at the University of Alberta Hospital that was funded by the UHF Medical Research Competition. Following this, the UHF Kaye Competition funded the LIBERATE Vanguard Study, a multi-center pilot study building upon the experiences learnt in the feasibility study. These two programs of work have been instrumental in building the base for the ongoing LIBERATE RCT which will be the largest trial evaluating the role of midodrine in critically ill patients.

Dr. M. Elizabeth Wilcox

The UHF has provided essential support for my research program, enabling both early development and continuity during funding gaps. UHF funding supported foundational work for the DELirium and DEXmedetomidine in the ICU (DELDEX) study, including pilot data generation and infrastructure development, positioning the work for peer-reviewed funding. Following the Fall 2025 CIHR competition results, UHF also recently provided bridge funding for Re-Aligning Circadian Rhythm and Promoting Sleep in the Intensive Care Unit (ALIGN-ICU). This support will help maintain research momentum, preserved trial readiness, and enabled continued refinement of the intervention, facilitating progression toward a definitive multi-centre trial focused on improving delirium and long-term cognitive outcomes.

Dr. Fernando Zampieri

Fernando G Zampieri received a UHF Kaye Competition grant for development of the KETO-AHF trial, a pilot study assessing the effects of exogenous ketone supplementation as a therapy for acute heart failure. This trial is currently ready to launch and is expected to start patient recruitment in 2026.

University Hospital Foundation

Transforming and redefining health

Panel Presenters

Research Perspectives

Sarah Andersen MD, FRCPC

Assistant Professor
Department of Critical Care Medicine
University of Alberta

Sarah Kristin Andersen, MD, MS, FRCPC is an Assistant Professor (Special Continuing) in the Department of Critical Care Medicine at the University of Alberta and Adult Intensivist in the General Systems Intensive Care Unit at the University of Alberta Hospital. She also holds appointments as a Core Faculty Member at the John Dossetor Health Ethics Center and Adjunct Assistant Professor at the University of Pittsburgh.

She completed an NIH-funded postdoctoral research fellowship and a Masters of Science in health services research at the University of Pittsburgh and a Bioethics Fellowship at the Harvard Medical School Center for Bioethics in 2023 before returning to the University of Alberta as a faculty member. Her research focuses on improving ethical decision-making and communication in critical illness with the aim of enhancing patient and family-centered care along the critical care continuum. She also serves as chair of the Ethical Affairs Committee for the Canadian Critical Care Society

Sean Bagshaw MD, FRCPC

Professor and Chair
Department of Critical Care Medicine
University of Alberta

Dr. Bagshaw is a Professor and Chair, of the Department of Critical Care Medicine, Faculty of Medicine and Dentistry, University of Alberta and Zone Clinical Department Head for Critical Care Medicine, Edmonton Zone, Alberta Health Services, in Edmonton, Canada. He trained at the University of Calgary (Internal Medicine, Critical Care Medicine, Master of Science Epidemiology) and the Austin Hospital (Critical Care Nephrology) in Melbourne, Australia.

Dr. Bagshaw works as a staff intensivist in both the General Systems ICU at the University of Alberta Hospital and the Cardiovascular Surgical ICU at the Mazankowski Alberta Heart Institute in Edmonton, Canada. Dr. Bagshaw is supported by a Canada Research Chair in Critical Care Outcomes and Systems Evaluation.

He has research expertise in clinical epidemiology, clinical trials, and health services research. His research focuses on acute kidney injury, vulnerable populations (e.g., elderly, frail), ICU organization and capacity. He is co-Chair of the multi-national STARRT-AKI trial.

He has contributed to over 600 published peer-reviewed papers.

Dr. Bagshaw is a member of several organizations including the Canadian Critical Care Society, Canadian Critical Care Trials Group, and the Acute Disease Quality Initiative.

Panel Presenters

Research Perspectives

Jim Kutsogiannis MD, FRCPC

Professor
Department of Critical Care Medicine
University of Alberta

Dr. Jim Kutsogiannis is a Professor in the Faculty of Medicine & Dentistry at the University of Alberta and a practicing intensivist and neurointensivist. He currently serves as Director of Research for the RAH General Systems ICU and previously the UAH Neurosciences ICU for over 25 years.

His research portfolio includes high-impact studies in neurocritical care (cardiac arrest, TBI and SCI, subarachnoid hemorrhage, and organ donation) as well as in mechanical ventilation and septic shock. He has served as principal investigator and co-investigator on numerous investigator-initiated, CIHR-funded, international, and industry-sponsored studies, contributed to multiple Canadian and American guideline committees, and is a former President of the Canadian Neurocritical Care Society.

His recent work on substance use disorder (SUD) in the ICU, presented at the 44th International Symposium on Intensive Care and Emergency Medicine (Brussels), demonstrated that SUD accounts for 1/3 of critical care admissions at the RAH and underscores the urgent need for better understanding and targeted interventions. The true prevalence and impact of SUD in the ICU remains poorly understood, limiting the ability to target interventions, optimize patient care, and capture the attention of civic, provincial, and federal decision-makers.

Janek Senaratne MD, FRCPC

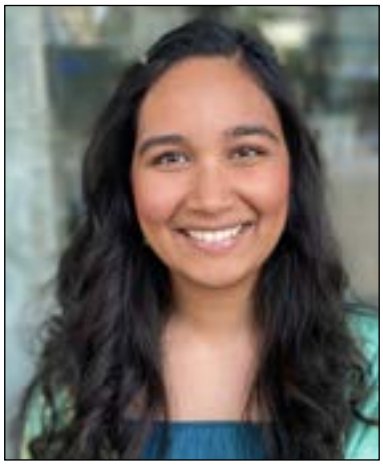
Associate Clinical Professor
Director, Simulation
Department of Critical Care Medicine
University of Alberta

Dr. Janek Senaratne is an Associate Clinical Professor of Medicine (Cardiology) and Critical Care Medicine at the University of Alberta who works as a Cardiologist and Intensivist at the University of Alberta Hospital and Grey Nuns Hospital in Edmonton, Alberta.

He is the Program Director for the Adult Cardiology Residency Program, is the Director of Simulation for the Department of Critical Care Medicine, and is the Director of the ICU/CCU Clinical Research Unit at the Grey Nuns Hospital which has randomized over 600 patients into clinical trials in a 4 year period.

Guest Adjudicators

Nikita-Kiran Singh



Dr. Nikita-Kiran Singh is an intensivist and clinical scholar at the University of Alberta. She received a BSc in biological sciences and philosophy and MD at the University of Alberta before completing internal medicine and critical care training at the University of Toronto, including chief medical residency at Toronto Western Hospital.

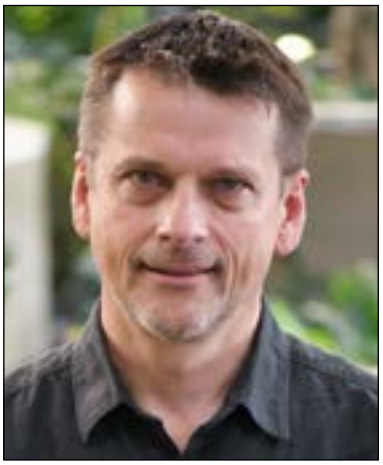
Her scholarly work lies at the intersection between health equity, bioethics, and medical education. She is completing a Master of Sciences in Bioethics at Harvard, exploring how sociocultural contexts shape patients' and families' experiences of critical illness. Outside of medicine, she loves traveling, reading, and puzzles of any kind.

Liz Wilcox

Dr. Elizabeth Wilcox is a physician leader in critical care and neuroscience. She serves as Medical Director of the Neurosciences ICU (UAH/AHS), Scientific Director of the Neuroscience and Mental Health Institute (UAlberta), and Chair of Alberta Neuroscience, where she works to advance neurological care, research, and collaboration across Alberta. She is also an Associate Professor at the University of Toronto and an attending physician in the Medical-NeuroSurgical ICU at Toronto Western Hospital.

Dr. Wilcox completed medical school at the University of Calgary, followed by internal medicine and adult critical care residencies at the University of Toronto. She also holds a Master's degree in Health Services Research from the London School of Hygiene and Tropical Medicine and a PhD in Medical Sciences from the University of Toronto.

Daniel Garros

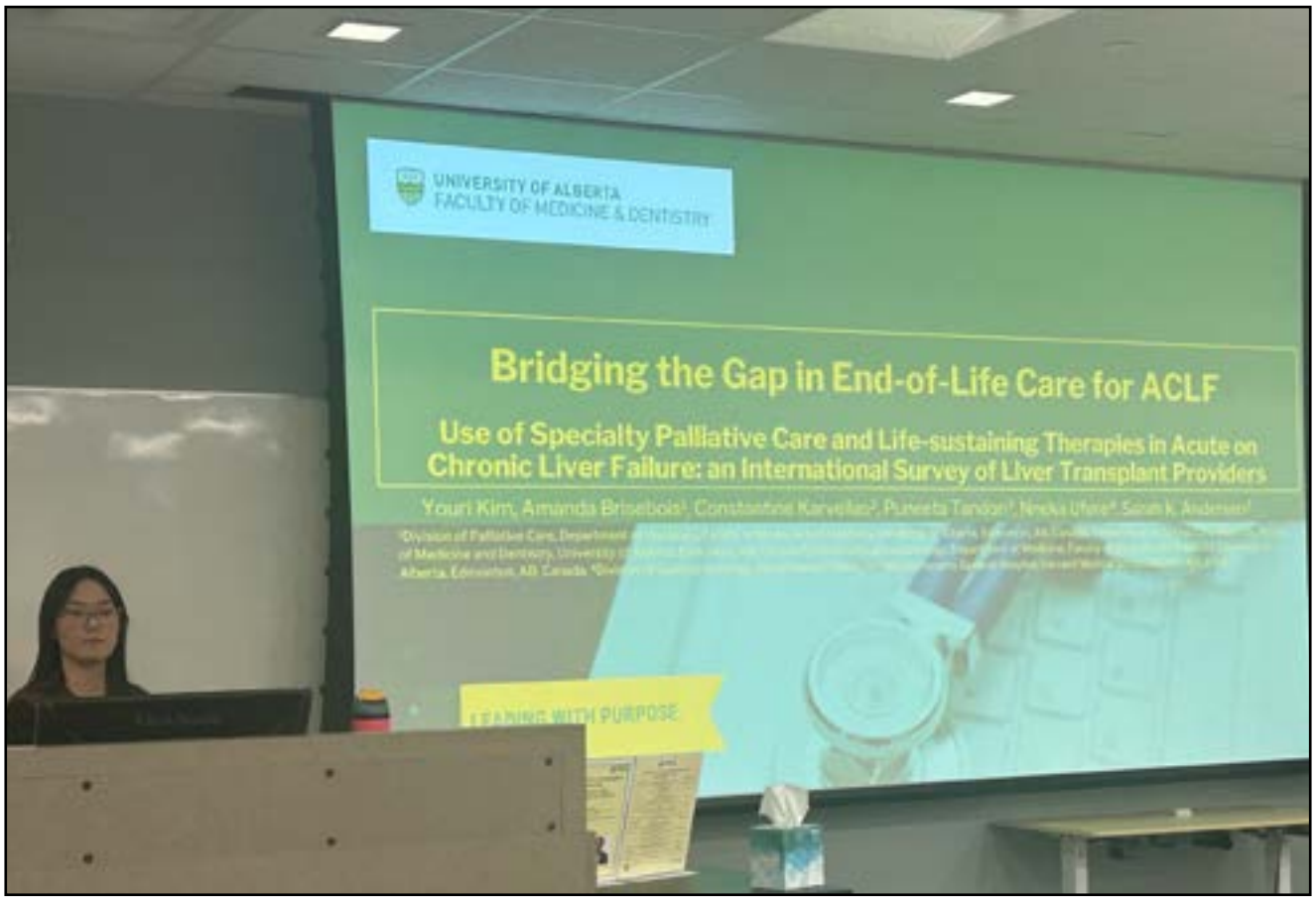


Dr Garros is a Braz-Canadian Peds Intensivist; he is a Professor of Pediatrics, Division of Critical Care, Dept of Peds, U of A working at the Stollery as a PICU attending for 30 years.
Daniel leads the "Quality Educational Reviews", the PICU database and Connect Care. He is an associate professor at the "John Dossetor Health Ethics Centre".

Dr Garros research involves Relational Ethics, including end-of-life decision making and "moral distress" among ICU professionals. His research has led to the creation of "Just keep breathing", a movie that been used worldwide to foster dialogue and educate clinicians about Moral Distress. Daniel volunteers with cardiac surgery ONGs to underserved communities in the Caribbean and S America, lately at the Dominican Republic. Daniel enjoys soccer and biking as hobbies.

Abstracts

Oral Presentations



Symposium Learning Objectives:
Research Day provides the opportunity for our grad students, residents, and fellows to demonstrate and measure their progress. At the conclusion of this program, participants will be equipped to explain and apply knowledge using current critical care related research and scholarly activities that have taken place in Edmonton over the past year.

Renal Failure in Patients Undergoing Minimally Invasive Mitral Valve Surgery: A Systematic Review and Meta-analysis

Presenter: Ryaan EL-Andari[1]
Additional author(s) Maira Machhiwala[2], Ashlyn Kruggel[1], Dr. Ace Robert Alfabeto[1], Mickey Singh[3], Dr. Ali Fatehi Hassanabad[4], Dr. Jimmy JH Kang[1], Dr. Yongzhe Hong[1], Dr. Denis Bouchard[5], Dr. Michael W. A. Chu[6], Dr. Michael C. Moon[1], Dr.Jeevan Nagendran[1].
[1]Division of Cardiac Surgery, Department of Surgery, University of Alberta, Edmonton, Alberta.
[2]Faculty of Medicine & Dentistry, University of Alberta, Edmonton, Alberta.
[3]University of Alberta, Edmonton, Alberta.
[4]Division of Cardiac Surgery, Libin Cardiovascular Institute, University of Calgary
[5]Department of Cardiac Surgery, Montreal Heart Institute, University of Montreal
[6]Division of Cardiac Surgery, Department of Surgery, Western University

Introduction:
Minimally invasive approaches to mitral valve (MV) surgery (MIMVS) have become increasingly common and with low rates of mortality with isolated MV surgery regardless of surgical approach, there has been a shift in focus toward secondary outcomes. Herein, we perform a systematic review and meta-analysis investigating the incidence of renal injury following MIMVS.

Design and Methods:
Pubmed, Embase, and Scopus were screened for articles reporting rates of renal injury following MIMVS. A total of 2,170 studies were screened, 52 full texts were reviewed, and 12 studies were included in the review.

Intervention(s) and Outcome Measures:
The intervention of interest was MIMVS. The primary outcome of this study was postoperative acute kidney injury (AKI) or renal failure. Secondary outcomes included rates of mortality, myocardial infarction, stroke, major bleeding, arrhythmia, residual mitral regurgitation, and reoperation of the MV.

Results:
A total of 15,349 underwent MIMVS and 36,744 underwent full sternotomy. AKI occurred in 0.0-7.0% of patients following mini-thoracotomy and 0.7%-2.98% following full sternotomy. Pooled analyses of rates of AKI comparing sternotomy to MIMVS found higher rates of AKI following MIMVS with an odds ratio of 1.39, 95% confidence interval 1.20-1.62, $p<0.001$.

Conclusions:
AKI is of considerable interest given its influence on postoperative clinical course. In MIMVS, the utilization of cardiopulmonary bypass and prolonged operative time are thought to contribute to the risk of AKI. While low rates of AKI were identified in the majority of studies, the risk of renal failure should be balanced with the benefits of MIMVS with consideration for a conventional sternotomy approach in patients with preoperative renal disease.

Learning Objectives:
At the end of this session participants will:
1. Understand the risk factors for AKI following MIMVS as well as the approaches to minimization of AKI risk.
2. Be able to identify the impact that surgical approach has on outcomes following MV surgery

KETOROLAC-ICU: A Pilot Feasibility Study

Presenter: Dr. Sunny Fong[1]
Additional author: Dr. Vincent Lau[1]
[1]Department of Critical Care Medicine, Faculty of Medicine & Dentistry, University of Alberta

Introduction:
Opioids remain the cornerstone of analgesia for critically ill patients to facilitate supportive care in the intensive care unit (ICU). However, increasing in-hospital opioid exposure has been associated with chronic opioid use, contributing to the ongoing opioid epidemic. As such, there is growing interest in multimodal analgesia strategies in critical care. Non-steroidal anti-inflammatory drugs (NSAIDs) are widely used as opioid-sparing agents in surgical populations but are traditionally avoided in ICU patients due to concerns regarding renal injury and gastrointestinal bleeding. The KETOROLAC-ICU study aims to evaluate the feasibility and safety of NSAID use in critically ill adults.

Design and Methods:
KETOROLAC-ICU is a prospective, multicenter, blinded, parallel-group pilot randomized controlled trial. Adult ICU patients experiencing pain, identified using validated pain assessment tools, are eligible for inclusion. Participants are randomized in a 1:1 ratio using concealed variable block randomization to receive either ketorolac or placebo. Key exclusion criteria include significant renal dysfunction, recent gastrointestinal bleeding, NSAID allergy, or an anticipated ICU stay of less than 48 hours.

Intervention(s) and Outcome Measures:
Participants in the intervention group receive ketorolac up to three days, while control participants receive a matching placebo. The primary outcomes focus on feasibility metrics, including recruitment rate, consent rate, retention, and protocol adherence. Secondary outcomes assess safety, including acute kidney injury, gastrointestinal bleeding, and mortality. Exploratory outcomes include pain scores, opioid and adjunct analgesic use, and health service utilization.

Results:
Recruitment remains ongoing, and full results are pending. Analyses will primarily focus on feasibility outcomes using descriptive statistics and confidence intervals. Secondary safety and exploratory efficacy outcomes will be reported descriptively to estimate event rates and inform the design and sample size of a future definitive trial.

Conclusions:
The KETOROLAC-ICU pilot trial will assess the feasibility of conducting a larger randomized trial. Findings will provide essential preliminary data on recruitment, safety, and the opioid-sparing potential of ketorolac, informing the design of a pragmatic multicenter trial.

Learning Objectives:
At the end of this session participants will be able to:
1. Describe current analgesic strategies used in critical care.
2. Identify limitations and adverse effects of existing analgesic regimens.
3. Explain the feasibility protocol for ketorolac use in ICU patients

Exploring factors associated with intra-dialytic hypotension in critically ill patients receiving intermittent kidney replacement therapy in ICU

Presenter: Dr. Prit Kusirisin[1]
Additional author(s): Dr. Oleksa Rewa[1], Dr. Fawaz Alshammari[1]
[1]Department of Critical Care Medicine, Faculty of Medicine & Dentistry, University of Alberta

Introduction:
Acute kidney injury (AKI) requiring renal replacement therapy is common among critically ill patients and is associated with substantial morbidity and mortality. Intermittent renal replacement therapy (IRRT) remains widely used in the intensive care unit (ICU); however, intradialytic hypotension (IDH) is a frequent complication during treatment and can significantly impact patient outcomes. IDH may worsen hemodynamic instability, reduce organ perfusion, and delay renal recovery, contributing to increased mortality and adverse long-term outcomes1,2. Despite its clinical importance, the epidemiology and predictors of IDH in critically ill patients remain incompletely understood. Prior literature suggests that factors such as vasopressor use, cardiovascular comorbidities, and treatment-related variables may contribute to the development of IDH 2,3.
The objectives of this study are to define the incidence and clinical burden of IDH in ICU patients receiving IRRT, identify independent clinical, laboratory, and treatment-related predictors associated with IDH, and evaluate the relationship between IDH and clinical outcomes including mortality and renal recovery.

Design and Methods:
We conducted a retrospective multicenter cohort study of critically ill adults with AKI receiving intermittent kidney replacement therapy in ICUs across Alberta. Patient data were extracted from the Connect Care and ICUTracer databases. IDH was defined as the initiation or escalation of vasopressor support during an IRRT session. Patients were stratified into IDH and non-IDH groups. Baseline demographic characteristics, comorbidities, laboratory parameters, and treatment-related variables were collected. Multivariable logistic regression models used to identify independent predictors associated with the development of IDH. Secondary analyses will evaluate the relationship between IDH and clinically relevant outcomes including in-hospital mortality and renal recovery1,4.

Conclusions:
We conducted a retrospective multicenter cohort study of critically ill adults with AKI receiving intermittent kidney replacement therapy in ICUs across Alberta. Patient data were extracted from the Connect Care and ICUTracer databases. IDH was defined as the initiation or escalation of vasopressor support during an IRRT session. Patients were stratified into IDH and non-IDH groups. Baseline demographic characteristics, comorbidities, laboratory parameters, and treatment-related variables were collected. Multivariable logistic regression models used to identify independent predictors associated with the development of IDH. Secondary analyses will evaluate the relationship between IDH and clinically relevant outcomes including in-hospital mortality and renal recovery1,4.

Learning Objectives:
At the end of this session participants will be able to:
1. Define the Incidence and Clinical Burden of IDH in ICU Patients Receiving IRRT.
2. To identify independent clinical, laboratory, and treatment-related predictors associated with intradialytic hypotension in critically ill patients receiving intermittent RRT.
3. Evaluate the association Between IDH and Clinical Outcomes.

Comparing Transport Ventilation to Early Optimized ICU Ventilation: A Before and After Quality Improvement Study

Presenter: Dr. Shannon Tang[1]
Additional author(s):): Domhnall O'Dochartaigh[2,3], JP Berard[3], Ryan Reinders[2], Dr. Jeffrey Odenbach[1,2,3]
[1]Department of Critical Care Medicine, Faculty of Medicine & Dentistry, University of Alberta
[2]Department of Emergency Medicine, Faculty of Medicine & Dentistry, University of Alberta
[3]Shock Trauma Air Rescue Service

Introduction:
The Shock Trauma Air Rescue Service (STARS) provides interhospital transfer of critically ill patients using provincially regulated Critical Care Medical Control Protocols (CCMCPs). Optimizing mechanical ventilation during transport is challenging due to the heterogeneity of respiratory failure.

Review of STARS transport data identified that positive end-expiratory pressure (PEEP) was often lower during transport than in the ICU. Using PEEP as a surrogate marker of ventilator optimization, we compared practice patterns before and after implementation of an Acute Lung Injury CCMCP.

Design and Methods:
We conducted a multicentre retrospective observational study using STARS and ConnectCare databases. We included intubated adult patients requiring FiO2 > 0.5 who were transported by STARS to Alberta ICUs with ConnectCare. Patients transported from May 2020 to October 2024 were managed under the prior universal respiratory failure CCMCP, while patients from November 2024 to November 2025 were managed under the revised Acute Lung Injury CCMCP.

Intervention(s) and Outcome Measures:
The primary intervention was implementation of the Acute Lung Injury CCMCP. Primary outcome was the difference between transport PEEP at STARS-ICU handover and PEEP at 3 hours post-ICU admission. We also examined whether hemodynamic instability (e.g., vasopressor use) was associated with lower transport PEEP.

Results:
A total of 261 patients met inclusion criteria before the CCMCP update and 129 after.
Data collected included patient demographics, ideal body weight, comorbidities, primary diagnosis, STARS ventilator settings, ICU ventilator settings at handover and at 3 hours after ICU admission, and vasopressor use with STARS and in the ICU.

Conclusions:
Mechanical ventilation of patients with acute lung injury should aim to minimize secondary ventilator-induced injury. This is crucial at all stages of care, including during prehospital transport. This study evaluates whether the updated protocol helped align STARS transport ventilator settings with early ICU ventilator settings.

Learning Objectives:
At the end of this session participants will be able to:
1. Describe challenges in ventilating patients with acute lung injury during interhospital transport;
2. Evaluate PEEP management during transport versus early ICU care; and
3. Discuss how protocolized ventilation strategies during transport may impact ventilator-induced lung injury.

Real-Time Assessment of Cardiac Oxygenation Using Photoacoustic Imaging

Presenter: Dr. Jennie Vu[1]
Additional author(s) Ibrahim Khodabocus[2], Dr. Simone Derzi[4], Dr. Matthew Henry[3], Dr. Stephane Bourque[1,2,4], Dr. Ronan Noble[5]
[1]Department of Physiology, Faculty of Medicine & Dentistry, University of Alberta
[2]Department of Pediatrics, Faculty of Medicine & Dentistry, University of Alberta
[3]Division of Pediatric Cardiology, Stollery Children's Hospital, University of Alberta,
[4]Department of Anesthesiology & Pain Medicine, Faculty of Medicine & Dentistry, University of Alberta
[5]Department of Anesthesiology, Perioperative & Pain Medicine, Cumming School of Medicine, University of Calgary

Introduction:
Perioperative incidents such as hypoxic cardiac injury often have subtle or nonspecific clinical manifestations. However, reductions in myocardial oxygenation precede biochemical, electrical, and functional changes measured by assays, electrocardiogram, and ultrasound. Photoacoustic imaging (PAI) is a modality that uses laser irradiation of tissue to generate ultrasonic waves (detected by ultrasound), enabling spatially resolved quantitative mapping of oxygenated and deoxygenated hemoglobin.

Design and Methods:
Male CD-1 Elite mice were anesthetized, and photoacoustic with simultaneous B-mode images were acquired of the myocardium and right ventricular outflow tract (RVOT), as well as the pulmonary artery and aorta. PAI images were taken at fractional inspired oxygens of 100%, 21% and 10%. Then, to model demand ischemia (and induce cardiac desaturation), mice were administered increasing doses of intravenous phenylephrine and isoproterenol at a 2:1 ratio.

Intervention(s) and Outcome Measures:
Continuous PAI monitoring of myocardial oxygenation was performed. Outcomes included the time to detection of myocardial desaturation by direct PAI measurement compared with conventional monitoring modalities, assessed by the onset of ECG abnormalities and

Results:
PAI reliably distinguished changes in oxygenation in the RVOT chamber, pulmonary artery, aorta, and anteroseptal myocardium. Additionally, PAI measured changes in oxygenation of these structures in response to graded hypoxia. Escalating doses of phenylephrine and isoproterenol caused a progressive myocardial deoxygenation. Importantly, decreased oxygenation was detected in cardiac structures subject to hypoxia and pharmacological demand ischemia before changes in systolic function or electrical abnormalities were identified.

Conclusions:
This work demonstrates the potential for PAI to be integrated into the existing monitoring armamentarium as it may offer an earlier warning of cardiac decline and injury compared to existing monitoring devices, informing timelier interventions strategies.

Learning Objectives:
At the end of this session participants will be able toextrapolate other potential applications of PAI and distinguish its ability to detect myocardial hypoxemia earlier than existing modalities.

The epidemiology of acute on chronic liver failure (ACLF) patients admitted to ICU at a quaternary liver transplant center.

Presenter: Dr. Maggie Wang[1]
Additional author(s): Filipe S. Cardoso[2], Dr. Constantine J Karvellas[1,3]
[1]Department of Critical Care Medicine, Faculty of Medicine & Dentistry, University of Alberta
[2]Transplant Unit, Curry Cabral Hospital, Nova Medical School, Lisbon, Portugal
[3]Division of Gastroenterology (Liver Unit), University of Alberta

Introduction:
Critically-ill patients with cirrhosis (i.e. acute on chronic liver failure ~ ACLF) have a high risk of death in the absence of liver transplant (LT). Given the significant use of healthcare resources in this population, our study aims to describe the epidemiology ACLF patients admitted to ICU at the University of Alberta.

Design and Methods:
Retrospective cohort study of data from 496 patients admitted to ICU at the University of Alberta Hospital between 2019 to 2024.

Intervention(s) and Outcome Measures:
Patients were stratified according to the primary outcome which was survival to ICU discharge.

Results:
Of 496 ACLF patients (median age 58 years, 57% male), 321 (65%) were alive at ICU discharge. Comparing ICU non-survivors (n=175) with survivors (n=321) on ICU admission, non-survivors had a significantly lower median Glasgow Coma scores (12 vs 14, p< 0.001), lower PO2/ FiO2 ratios (150 vs 206 mm Hg, p< 0.001) and higher maximum median norepinephrine requirements (0.30 vs 0.20 ug/kg/min, p< 0.001). Non-survivors were also more likely to require renal replacement therapy (24% vs 9%, p< 0.001). The increased burden of multi-organ failure was also reflected in higher median organ failure scores including APACHEII (30 vs 23, p< 0.001), CLIF_C ACLF (25 vs 22, p< 0.001), SOFA 2.0 (12 vs 9, p< 0.001) and ATANGO-ACLF (26 vs 23, p< 0.001).

Conclusions:
In the absence of liver transplant, 65% of ACLF patients admitted to the ICU at the University of Alberta survived to ICU discharge. Non-survivors demonstrated a higher burden of multiorgan failure reflected in multiple critical care and ACLF-specific prognostic scores.

Learning Objectives:
At the end of this session participants will be able to:
1. Understand the definition of acute on chronic liver failure (cirrhosis and multiorgan failure)
2. Review the prevalence of ACLF at the University of Alberta hospital
3. Understand the natural history, prognosis and impacts on resource utilization (ventilation, vasopressors, renal replacement therapy of ACLF patients)
4. Review different prognostic scores in ACLF

Motivators, Facilitators and Barriers to the Practice of Critical Care Ultrasound in Community and Academic ICUs in Canada

Presenter: Dr. Jack (Hao) Yuan[1]
Additional author(s): Dr. John Basmaji[2], Dr. Karen Burns[3], Dr. Robert Fowler[3], Dr. Ghislaine Doufle[3], Dr. Jennifer Tsang[4], Dr. Phillipe Rola[5], Dr. Brian Buchanan[1].
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Introduction:
Critical care ultrasound (CCUS) enables intensivists to expedite diagnosis of life-threatening conditions, guide therapy, and increase procedural safety. While many international societies support it as a core competency in the field, variability remains in education and integration of CCUS in practice. Much has been published on the development of curricula for trainees, and one thematic finding has been a limited availability of local expertise to support CCUS. To identify factors influencing the application of CCUS, we surveyed the Canadian population of practicing intensivists for their motivators, facilitators, and barriers to the use of this technique.

Design and Methods:
Survey domains were iteratively developed by an expert panel, based on existing CCUS needs assessments and barrier and facilitator frameworks. The survey was translated to French and piloted with 2 intensivists in either language. The survey was distributed October 2025 through national critical care organizations.

Results:
75 intensivists completed the survey. 35% and 37% of respondents reported having practiced under 5 years, and over 15 years, respectively. 39% reported working in a community ICU. Most respondents do not report a credential. The greatest motivators for using CCUS were improving procedural safety (8.5/10), diagnostic decisions (7.8/10), and patient outcomes (7.4/10). There was low motivation to be compensated for CCUS (2.5/10). Access to an effective ultrasound machine was the highest facilitating factor (9.1/10). The greatest barriers to CCUS use included poor function of ultrasound machine (5.3/10), prohibitive clinical workload (4.5/10) and lack of opportunities to learn ultrasound (4.4/10). Fear of litigation (2.1/10) and negative experiences with ultrasound (1.8/10) were not highly rated as barriers.

Conclusions:
In our preliminary analysis, Canadian intensivists are motivated to use CCUS to improve patient safety but are limited by lack of access to a capable ultrasound machine and availability of expert review. Barriers to CCUS are likely modifiable. Fear of litigation, negative experiences or remuneration were not significant factors involved in use of CCUS.

Learning Objectives:
At the end of this session participants will be able to:
1. Recognize key motivators to the use of ultrasound in Canadian intensivists.
2. Identify structural barriers to ultrasound use in Canadian ICU's.

Hospital, Health System, and Resource Variables Associated with Survival in Patients with Cardiogenic Shock – A Multi-Province Canadian Analysis

Presenter: Dr. Tiffany Yuen[1]
Additional author(s): Dr. Derek So[2], Nastaran Bastani[24], Dr. Adriana Luk[5], Hena Qureshi[34], Dr. Shaun Goodman[3456], Padma Kaul[34], Dr. Sean van Diepen[14], for the Canadian Cardiovascular Research Collaboratory (C3)
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[2]Division of Cardiology, Department of Medicine, University of Ottawa Heart Institute,
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[4]Canadian VIGOUR Center, University of Alberta
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[6]St. Michael's Hospital, Unity Health Toronto

Introduction:
Cardiogenic shock (CS) is a high-acuity and time-sensitive condition associated with high in-hospital mortality. Observational studies have reported associations between CS hospital volume, CS teams, on-site clinical resources, and hospital tier with improved survival; however, a comprehensive evaluation of the contribution of individual hospital and regional system differences to CS outcomes is lacking.

Design and Methods:
Canadian Institute for Healthcare Information data were used to identify patients ≥18 years admitted to intensive care units (ICU) with CS between April 1, 2016 - March 31, 2025. Unique hospital identifiers linked all CS admissions to a survey from the Canadian Cardiovascular Research Collaboratory (C3) evaluating annual hospital CS volumes, presence of CS teams, and availability of on-site clinical resources at all percutaneous coronary intervention-capable hospitals across the country. A hierarchical multilevel model was used to evaluate the association of clinical and hospital characteristics with the primary outcome of survival to hospital discharge.

Results:
There were 509,435 CS admissions to Canadian ICUs, among whom 218,701 were linked to the C3 survey. All-cause in-hospital mortality was 29.6%. Age was independently associated with decreased survival to hospital discharge (OR 0.96, 95% CI 0.96-0.96), while male sex was associated with increased survival (OR 1.06, 95% CI 1.04-1.09). CS due to acute myocardial infarction (OR 0.80, 95% CI 0.75-0.84), heart failure (OR 0.83, 95% CI 0.79-0.87), and post-cardiac arrest (OR 0.84, 95% CI [0.75-0.96]) were associated with lower survival. Comorbidities and in-hospital therapies independently associated with survival to hospital discharge are also presented (Figure 1). Systems-of-care and hospital variables independently associated with increased mortality included direct admission from a hospital emergency department (OR 0.58, 95% CI 0.56-0.61) or by ambulance to ER (OR 0.51, 95% CI 0.50-0.53), while inter-hospital transfers (OR 10.14, 95% CI 9.79-10.52) were associated with survival to discharge. Admission to hospitals with higher annual CS volumes was associated with survival (OR 1.08, 95% CI 1.05-1.12), but no significant association was observed with hospital type, on-site medical services, or presence of CS teams.

Conclusions:
In a 10-year Canadian national analysis of CS, approximately 3 of 10 admitted patients did not survive to hospital discharge. Further, after adjusting for clinical demographics, medical history, CS etiology, and therapeutic interventions, higher annual CS volume was the only hospital-level variable associated with improved patient outcomes. Collectively, these data raise the hypothesis that centralizing the care of patients with CS in high volume centers may improve patient outcomes.

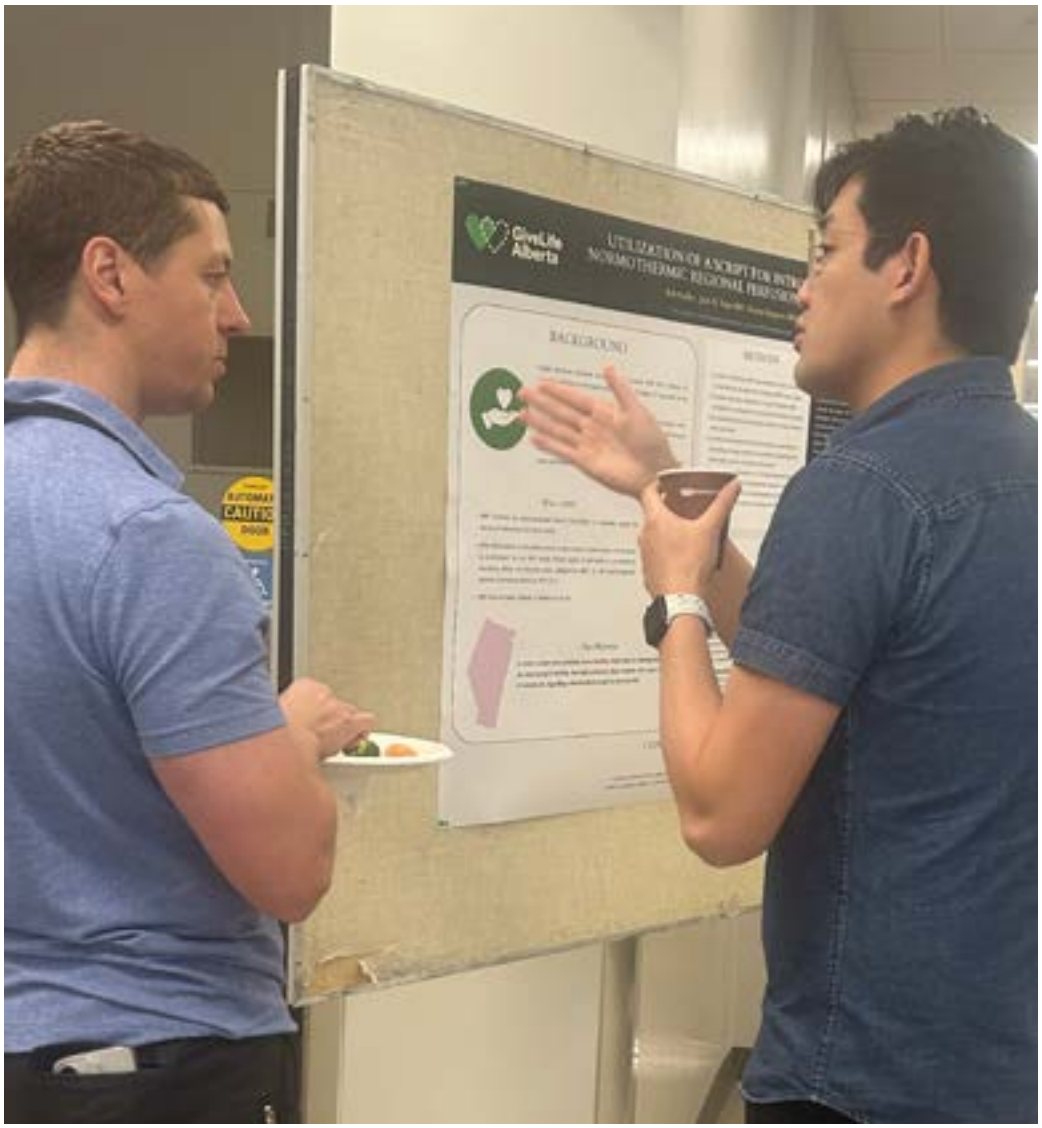
Learning Objectives:

At the end of this session participants will be able to:

1. Review the epidemiology of cardiogenic shock
2. Describe the associations of individual, hospital, and health system factors with outcomes of patients admitted to Canadian intensive care units with cardiogenic shock

Abstracts

Poster Presentations



Summarizing current morbidity and mortality review practices in intensive care: a narrative review

Presenter: Dr. Marina Giovannoni[1]
Additional author(s): Dr. Jocelyn Slemko[2]
[1]Department of Internal Medicine, Faculty of Medicine & Dentistry, University of Alberta
[2]Department of Critical Care Medicine, Faculty of Medicine & Dentistry, University of Alberta

Introduction:
The morbidity and mortality conference (MMC) or clinical case rounds (CCR) are a widespread tool for physicians to discuss medical errors with the goal of improving patient care. Despite MMC being commonplace among inpatient services, their structure, processes, and aim are often ill-defined, causing their goal of improving patient care to suffer. In critical care, patients are particularly vulnerable to adverse events and medical errors. This narrative review seeks to summarize the current MMC/CCR practices used in critical care departments globally.

Design and Methods:
The morbidity and mortality conference (MMC) or clinical case rounds (CCR) are a widespread tool for physicians to discuss medical errors with the goal of improving patient care. Despite MMC being commonplace among inpatient services, their structure, processes, and aim are often ill-defined, causing their goal of improving patient care to suffer. In critical care, patients are particularly vulnerable to adverse events and medical errors. This narrative review seeks to summarize the current MMC/CCR practices used in critical care departments globally.

Results:
The morbidity and mortality conference (MMC) or clinical case rounds (CCR) are a widespread tool for physicians to discuss medical errors with the goal of improving patient care. Despite MMC being commonplace among inpatient services, their structure, processes, and aim are often ill-defined, causing their goal of improving patient care to suffer. In critical care, patients are particularly vulnerable to adverse events and medical errors. This narrative review seeks to summarize the current MMC/CCR practices used in critical care departments globally.

Conclusions:
The MMC/CCR in critical care is non-standardized and given the complexity of patients and propensity for errors, would benefit from standard protocols to facilitate effective meetings that result in practice change or improved patient outcomes.

At the conclusion of this session, participants will be able to:
1. Gain an appreciation for the origins of the MMC.
2. Understand the non-uniformity of MMC review practices in NICU, PICU, and adult critical care medicine.
3. Appreciate which styles of MMC can yield effective discussion, changes to policy and practices, and quality improvement initiatives.
4. Apply the current MMC review practices to their clinical environment.

Association between Sepsis and Outcome according to Accelerated or Standard Timing of Renal Replacement Therapy Initiation: A Secondary Analysis of STARRT-AKI Trial

Presenter: Dr. Prit Kusirisin[1]
Additional author(s): Dr. Fernando Zampieri[1], Dr. Ron Wald [2], Javier A Neyra[3], Dr. Sean Bagshaw[1] for the STARRT-AKI Investigators.
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[4]STARRT-AKI Investigators

Introduction:
Sepsis is a common cause of acute kidney injury (AKI) in the intensive care unit (ICU). Whether sepsis modifies the effect of renal replacement therapy (RRT) initiation strategies on clinical outcomes remains uncertain.

Methods:
We conducted a secondary analysis of the multinational STandard vs. Accelerated initiation of Renal Replacement Therapy in Acute Kidney Injury (STARRT-AKI) trial to evaluate outcomes among patients with sepsis, defined by the presence of infection and systemic inflammatory response syndrome. Patients were stratified by allocation to an accelerated RRT strategy (initiation within 12 h after enrollment) or a standard strategy (RRT discouraged unless conventional indications developed or AKI persisted >72 h). The primary outcome was 90-day all-cause mortality. Secondary outcomes included RRT dependence at 90 days, major adverse kidney events (MAKE) at 90-days, RRT-free days at 90 days, and ventilator-, vasoactive- and ICU-free days at day 28.

Results:
Of 2,927 patients in the modified intention-to-treat cohort, 1,689 (57.7%) had sepsis and 1,310 (44.8%) had septic shock. After adjustment for age, sex, SOFA score, and region, accelerated RRT did not reduce mortality in sepsis (adjusted odds ratio [adj-OR], 0.91; 95% confidence interval [CI], 0.75-1.12; p=0.383) or septic shock (adj-OR, 0.90; 95% CI, 0.72-1.14; p=0.379). Sepsis did not modify the effect of accelerated vs. standard RRT initiation on 90-day mortality (p-interaction = 0.10 for sepsis; 0.12 for septic shock). Among 90-day survivors with sepsis, accelerated RRT was associated with higher RRT dependence (adj-OR, 1.91; 95% CI, 1.10-3.31; p=0.021). MAKE-90 (adj-OR, 0.85; 95% CI, 0.65-1.12; p=0.25) and RRT-free days at 90 days (adjusted mean difference [adj-MD, -1.3; 95% CI, -5.1 to 2.5; p=0.50]) did not differ between strategies among patients with sepsis. At day 28, among patients with sepsis, accelerated RRT was associated with modestly greater ventilator-free days (adj-MD, 1.1; 95% CI, 0.1-2.2; p=0.03) and ICU-free days (adj-MD, 1.2; 95% CI, 0.3-2.1; p=0.01), while vasoactive-free days did not differ between groups (adj-MD, 0.7; 95% CI, -0.4 to 1.8; p=0.21).

Conclusions:
Among critically ill adults with AKI, sepsis did not modify the effect of RRT initiation strategy on 90-day mortality, consistent with the primary STARRT-AKI findings. Among patients with sepsis, accelerated RRT conferred greater RRT dependence at 90 days. In addition, accelerated RRT may have led to more days free from mechanical ventilation and ICU care.

Learning Objectives:
At the end of this session participants will be able to apply appropriate timing for initiation of RRT in critically ill patients with sepsis, considering the risks and benefits of an accelerated strategy.

Paracentesis and Thoracentesis for Rural Family Physicians – Improving Healthcare Delivery Through Ultrasound Education

Presenter: Liam Laidlaw[2]
Additional author(s): Dr. Jack Yuan[1], Dr. Laz Milovanovic[1], Dr. Brian Buchanan[1].
[1]Department of Critical Care Medicine, Faculty of Medicine & Dentistry, University of Alberta
[2]Undergraduate Medical Education, Faculty of Medicine & Dentistry, University of Alberta

Introduction:
Thoracocentesis and paracentesis are bedside procedures that are commonly referred into acute care centres, however, can be performed safely with ultrasound guidance in community settings. A targeted educational intervention, accompanied by longitudinal virtual support, aims to not only increase competency in the procedure, but ultimately change practicing behaviours to limit referrals that cause delays in treatment and increase health resource utilization.

Design and Methods:
This prospective study assessed a hybrid training model for thoracentesis and paracentesis on practicing community family physicians. High referral areas to the University of Alberta Hospital were identified and utilized to recruit 13 rural family physicians for training.

The hybrid curriculum included online pre-readings, virtual-reality training videos, and in-person simulation procedures. Once training was completed, participants performed supervised procedures on patients requiring thoracentesis or paracentesis in hospital.
Evidence of learning was assessed by conducting pre-training, post-training and 6-month questionnaires, as well as psychomotor and global independence assessments during the procedure. Following the training program, participants were then randomized to receive either longitudinal virtual support for 6 months, or to not receive any further support. Future referrals will be tracked for any decrease in thoracocentesis and paracentesis referrals to acute care sites.

Results:
Clinician comfort for both paracentesis (6.08/10 to 9.69/10, p=0.0001) and thoracentesis (6.31/10 to 9.92/10, p=0.0001) significantly rose after the workshop, as did questionnaire scores (58% pre-workshop to 72% post-workshop, p=0.0003). All physicians passed psychomotor assessment for the procedures. At least 15 procedures have been performed in the community with no complications.

Conclusions:
A hybrid model of ultrasound education appears effective at increasing knowledge and attainment of competency. Preliminary results suggest that this model may have resulted in behavioral change; however, continued longitudinal tracking as well as further study is required to understand the impact on healthcare utilization and performance of these procedures in practice.

Learning Objectives:
At the end of this session participants will be able to better understand the healthcare utilization involved in patient transfers for bedside procedures, as well as to assess the feasibility of implementing a hybrid learning program for family physicians.

Survey of families' PICU experience: Improvement opportunities

Presenter: Abinash Saravanan[1]
Additional author(s): Claire van Breemen[1], Dr. Daniel Garros[2]
[1]Department of Biological Sciences, Faculty of Science, University of Alberta
[2]Division of Critical Care, Department of Pediatrics, Faculty of Medicine & Dentistry, University of Alberta

Introduction:
Family experience in the pediatric intensive care unit (PICU) is a core quality indicator of patient- and family-centred care. We aim to review family experiences obtained from a ICU discharge survey and identify actionable improvement themes using quantitative tallies and exemplary quotes.

Design and Methods:
From the EMPATHIC-30 survey instrument (deposited on a "survey box" at discharge), we analyzed open questions' results from Oct 1/2015–Dec 31/2017. We performed qualitative thematic grouping of narrative comments. Selected verbatim quotes illustrate major themes and opportunities for improvement; counts represent issue frequence. Microsoft Co-Pilot® helped to summarize themes and compile best quotes.

Intervention(s) and Outcome Measures:
None

Results:
From 474 surveys (response rate 23-35%/admissions), families most frequently highlighted staff compassion, competence and strong communication. The top positive themes included experience with nurses/doctors (40), nurses answering questions with patience and compassion (37), concerns being addressed (35), and physicians answering questions and involving families in decisions (36). Quotes reflected these strengths: "Every nurse was confident, competent and compassionate…", and "Doctors answered all questions… included us in the decisions for our child." Key opportunities to improve clustered around the environment and communication consistency. Environmental and accommodation needs were prominent for out-of-town families (sleep/showers/seating; 8), along with noise (3) and cleanliness/garbage removal (3). Families described the impact directly: "The noise in the hallways of staff just chatting is outrageous…", and "Washrooms… dirty… rooms very untidy and lack garbage removal." Additional concerns included occasional poor bedside manner (2), food/basic needs (food not edible: 1; "Water. Always bring the parents water…"), language access ("…everything was in English… never I was ask for a translator."), and isolated transport/transfer concerns.

Conclusions:
Family surveys consistently affirm high-quality, compassionate clinical care in the PICU, with communication and inclusion as key strengths. Improvement efforts should prioritize a quieter and cleaner healing environment, practical supports for families and reliable communication across providers and transitions of care. Pairing frequency counts with family voice provides a pragmatic roadmap for targeted quality improvement

Learning Objectives:
At the conclusion of this session, participants will be able to:understand better patient and families' PICU experience, and acknowledge some of the difficulties and complains as opportunities for improvement.

How do ICU healthcare professionals conceptualize a meaningful and sustainable work environment? A qualitative analysis of a pan-Canadian survey.

Presenter: Satkirat Randhawa[1]
Additional author(s): Dr. Sarah Andersen[1] and Dr. Sadie Deschenes[1]
[1]Department of Critical Care Medicine, Faculty of Medicine & Dentistry, University of Alberta

Introduction:
Rates of ICU staff turnover in Canada have increased since the COVID-19 pandemic. Persistent workforce instability threatens the quality and safety of care while increasing organizational costs. There is a paucity of research exploring how ICU professionals conceptualize a meaningful and sustainable work environment. The aim of this study was to better understand what ICU staff across Canada find meaningful and rewarding about their work.

Design and Methods:
This qualitative study draws on data from a national survey examining factors influencing ICU workforce turnover during the COVID-19 pandemic. The survey included 42 items, seven of which were open-ended, and was distributed electronically to ICU staff across Canada through provincial and national professional organizations. We conducted a thematic analysis of open-ended free text responses from 490 ICU healthcare professionals using a qualitative descriptive approach. We coded data inductively using a strengths-based theoretical framework and developed themes that reflect participants' perspectives.

Results:
Most participants were registered nurses, followed by respiratory therapists, physicians, and social workers. The majority worked in adult ICUs, with an average of 10 years of ICU experience. ICU healthcare professionals described a meaningful and sustainable work environment as one grounded in patient recovery milestones, fostering relationships, ensuring comfort, and positive team dynamics. Participants noted that meaningful work was most strongly associated with saving lives, witnessing patient recovery, and everyday acts of connection, presence, and emotional support for patients. Relational connections with patients, families, and colleagues were central to sustaining ICU work. Ethical integrity, particularly during end-of-life care and decision-making around dignified death, was commonly discussed as a determinant of meaningful work. Participants also emphasized professional validation, advocacy, and opportunities for learning and mentorship as essential to job satisfaction.

Conclusions:
ICU healthcare professionals across Canada conceptualize a meaningful and sustainable work environment through witnessing patient recovery and meaningful clinical progress, maintaining humanity through compassionate relationships with patients and families, upholding dignity and ethical care at end-of-life, and collaborating within a team that values professional expertise and mutual respect. These findings underscore the crucial role of interpersonal relationships, professional respect, and supportive workplace cultures in sustaining ICU and workforce retention.

Competition Details

Awards

Oral Presentation
1st place - $200
2nd place -$100
3rd place - $50

Poster Presentation
1st place - $100
2nd place -$50

Judging Criteria

The Study

1. Study Proposal

A. Was there a question asked?
B. Was the question original or a new aspect on previously existing information?

2. Study Design

A. Was the study design reasonable/appropriate?
(e.g. literature / chart review, clinical/lab study)
B. Was the study design random/double-blinded?
C. Was the study ethical?

3. Results

A. Were the results measured properly?
B. Were the results meaningful?
C. Were the statistics valid?
D. Do the results answer the original question?

4.Conclusions

A. Was the discussion appropriate for the study?
B. Were the conclusions valid?

The Presentation

1. The Speaker

A. Was the speaker's speech clear?
B. Was the speaker's speech a proper speed?
C. Was the speaker's posture proper?
D. Did the speaker explain audio-visual aids clearly?
E. Were there distracting features about the speaker?
(e.g. fidgeting, pauses)

2. Audio-Visual Aids

A. Were the audio-visual aids legible?
B. Did the audio-visual aids have good clarity?
C. Did the audio-visual aids illustrate what was necessary?

3. Timing

A. Did the speaker use the allotted time effectively?
B. Did the speaker stay within the allotted time and not go overtime?

4. Questions and Answers

A. Did the speaker answer the question appropriately?
B. Did the speaker express the answer with good clarity?

DCCM Research Day
Scoring Criteria: Oral Presentation

Presenter		
Title of Presentation		
ABSTRACT		5
RESEARCH	Question & Literature	2
	Design	3
	Results & Analysis	3
	Conclusion	2
PRESENTATION	Slides Clarity & Time	3
	Defense/Questions	2
Score		/20
Rank		
Comments		

DCCM Research Day
Scoring Criteria: Poster Presentation

Presenter		
Title of Presentation		
ABSTRACT		5
RESEARCH	Question & Literature	2
	Design	3
	Results & Analysis	3
	Conclusion	2
PRESENTATION	Poster Clarity & Time	3
	Defense/Questions	2
Score		/20
Rank		
Comments		

NOTES