









EMERGENCY MEDICINE FOUNDATION

ANNUAL REPORT 2023



Annual Report 2022 - 2023

Around 24,000 people visit hospital emergency departments across Australia every day. EMF supports emergency medicine research so that patients can receive timely and effective emergency healthcare, and in many cases closer to home.

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Welcome from Chair and General Manager

This year, the Emergency Medicine Foundation (EMF) was pleased to see a resurgence in research activity and grant applications, driven by a renewed energy and capacity for continuous improvement and finding ways to streamline treatment, enhance patient outcomes and alleviate pressure on clinicians and the health system.

This has been particularly evident in the response we received for our Improving Patient Flow in Queensland Public Hospitals research program, funded by EMF in partnership with Queensland Health's Healthcare Improvement Unit at Clinical Excellence Queensland. The four successful research projects and the whole-of-system study to analyse patient flow represent the complexity and magnitude of the issue of patient flow, but more importantly, also reflects the ingenuity and pragmatism of emergency clinicians. In particular, we applaud the multidisciplinary and collaborative approach many of these projects have taken, reflecting that resolving patient flow issues does not begin and end within the Emergency Department (ED).

EMF is thankful to the Queensland Government's support through Queensland Health, which enables us to deliver our flagship Queensland Research Program. In 2022-23, the increased appetite for fostering research cultures saw us reinstate our Research Capacity Building grants scheme. Our partnership with the Motor Accident Insurance Commission (MAIC) also saw the continuation of our Special Research Grants Program 'Trauma Care in Regional, Rural and Remote Queensland', encouraging clinicians outside of major centres to

engage in life-saving research activities. Across our research programs, we continued to see more clinicians from nursing, allied health, paramedicine and retrieval backgrounds applying for EMF research grants. The passion and commitment from emergency clinicians in continually innovating and improving emergency medicine is tireless and commendable.

EMF is proud to be part of a vast community of emergency clinicians, researchers, policymakers and stakeholders who hold research and evidence-based practice at the very centre of our healthcare system. Our community is broad but close-knit, and whilst we are honoured to support our clinician-researchers and foster centres of research excellence in EDs and beyond, we are equally grateful for the support we receive from the community.

EMF continues to advocate for increased clinicianled research across all facets of emergency medicine, for the benefit of our healthcare services, our dedicated clinicians, and for improved lifesaving care of patients.



Prof Hugh Grantham ASM EMF Board Chair



Dr Angie Nguyen Vu EMF General Manager

Vision and Values



OUR PURPOSE

Invest in emergency healthcare research that generates evidence-based knowledge to enhance patient experience and outcomes, and promote system sustainability.



OUR PRIORITIES

Develop new emergency
healthcare interventions.

Generate proven knowledge to
create sustainable change.
Support responsive, agile
emergency healthcare.

Who is EMF

Research in emergency medicine is essential to ensure that interventions to improve patient care and increase system efficiencies are evidence-based, outcome-focussed and can be quickly translated into practice.

EMF is the only organisation in Australia dedicated to funding research into emergency, prehospital and retrieval medicine. As a specialised yet multi-disciplinary area, without EMF's support, emergency medicine research projects would fall outside the scope of other areas of medicine and struggle to attract funding.

We support frontline emergency health professionals to design, conduct and translate world-leading research into improved patient outcomes and a resilient, sustainable, and cost-effective healthcare system.

Since our founding in 2007, EMF has awarded more than \$21m to 250 research projects, all of which have been led by clinician-researchers who witness first-hand the impact of evidence-based innovations in patient care. Thanks to the ongoing support of the Queensland Government through Queensland Health, and the Motor Accident Insurance Commission, each year EMF provides funding across a range of research grant programs which address different research career stages, funding needs and topics.

EMF-funded research has led to significant, evidence-based improvements in clinical care in Queensland's EDs, prehospital and retrieval services. EMF is similarly delivering economic benefits and a significant return on investment for Queensland Health, with our grants directly linked to clinical changes delivering more than \$44 million in annual savings for participating hospitals.

EMF is proud to have driven a surge in research culture in EDs, prehospital and retrieval medicine, driving continuous improvement in patient care and experiences, towards a more efficient and sustainable health system.

Our Impact

Since launching in 2007, EMF has fostered significant growth in research and innovation in emergency, prehospital and retrieval medicine across Queensland. Our focus on supporting clinician-led translatable research projects has not only resulted in improvements in life-saving care for Queenslanders, but has created a strong research culture and community like no other in Australia.

2007-2023

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\$21,074,298

awarded to 250 research grants

350 ORGANISATIONS

collaborating with EMF grant recipients

460 PRESENTATIONS

on EMF-funded projects

650 PEER REVIEWED

articles by EMF-funded researchers

\$68 MILLION

in associated grant funding awarded to EMF grant recipients

2022-2023 70 ACTIVE

research projects

\$4.7 MILLION

requested in grant applications

\$2.4M AWARDED

awarded to 30 successful grants

60 VOLUNTEERS

on Board, Committees and review panels

KEY RESEARCH
AREAS IN
EMERGENCY
HEALTH CARE
SUPPORTED BY EMF

Cannulation
Cardiovascular

Diagnostic Testing

Domestic and family violence Education and Training

Geriatrics

Health services improvement

Indigenous Health

Infectious diseases

Mental Health

Paediatrics

Pain management

Point-of-Care Ultrasound

Pre-hospital care

Respiratory illnesses

Retrievals

Rural and remote health

Sepsis

Toxicology

Toxinology

Trauma

Workforce wellbeing

Funding Programs

EMF awards a range of grants for innovative research projects led by clinicians working in Queensland public hospital EDs, ambulance and retrieval services. Through the flagship Queensland Research Program funded by Queensland Health and Special Funding Rounds, EMF supports projects that have the potential to improve clinical practices, optimise patient outcomes and deliver system-wide benefits. 2022-23 saw the return of the Research Capacity Building grant scheme to encourage a resurgence in research activities.

QUEENSLAND RESEARCH PROGRAM

EMERGE GRANTS: Up to \$10,000

- · Short-term projects (6 to 12 months).
- Support novice researchers seeking to undertake a small research project.
- Applicants must nominate a mentor to provide research training and guidance.

JUMPSTART GRANTS: Up to \$40,000

- Short-term projects (6 to 12 months).
- Seed funding for innovative research involving new collaborations and research teams.
- Project outcomes must have potential to seek further funding from granting bodies.

LEADING EDGE GRANTS: Up to \$100,000

- · Medium-term projects (up to two years).
- Seed funding for innovative research that may have potential for future funding from grant bodies.
- · Original research demonstrating importance to emergency care.

PROJECT GRANTS: Up to \$300,000 (MAX \$100,000pa)

- Longer term projects (up to three years).
- Whole or partial funding to run larger projects with the aim of generating data to seek further funding from alternative sources.

RESEARCH CAPACITY BUILDING GRANTS: Up to \$100,000

 Boost research activities, establish and build a research culture, and promote and prioritise research as core business within an emergency department, the Queensland Ambulance Service or Retrieval Services Queensland.

SPECIAL FUNDING ROUNDS

TRAUMA CARE IN REGIONAL, RURAL AND REMOTE QUEENSLAND

This Special Research Grants Program is funded by the Motor Accident Insurance Commission.

- Support frontline clinicians in regional, rural and remote
 Queensland to create an evidence base for the best emergency
 care of trauma patients.
- Build research capacity for trauma and emergency healthcare clinicians in regional, rural and remote Queensland.

IMPROVING PATIENT FLOW IN QUEENSLAND PUBLIC HOSPITALS

In this research program, EMF collaborates with Queensland Health to find effective and evidence-based solutions to improve patient flow in Queensland's public hospitals. The program includes two parallel approaches.

- Study to analyse patient flow in Queensland public hospitals: this broad, whole-of-system study aims to systematically establish the magnitude of factors leading to challenges with emergency access in Queensland public hospitals.
- Special Funding Round: grant support for clinician-led projects that aim to improve patient flow and reduce crowding across Queensland hospitals.



(Left to right) Nurse Practitioner Andrea Hetherington, Dr Faye Jordan, Nurse Educator Leisa Bauer

"For me, the biggest lesson I have learned in my research career is that you need passionate researchers who are not easily put off by unexpected barriers to progress but remain committed to the cause at hand and can remain focused on the goal – to improve outcomes for our patients.

Emergency department research needs to be relevant and timely, and embedded in our day to day practice – this can only be achieved when emergency clinicians embrace a research culture and get involved. So my advice – get involved in research! Be driven by curiosity and a desire to provide better care.

EMF funding has enabled reignition of a passion for research in an era when Emergency clinicians have so many competing priorities on the "shop floor" – without the EMF capacity building grant, research could not be supported with adequate infrastructure that allows busy clinicians to pursue with curiosity their research interests."

DR FAYE JORDAN

Research Director
The Prince Charles Hospital
EMF grant recipient

Research Outcomes and Achievements



PROF LOUISE CULLEN

Eminent Staff Specialist
Emergency and Trauma Centre
Royal Brisbane and Women's Hospital
EMF grant recipient

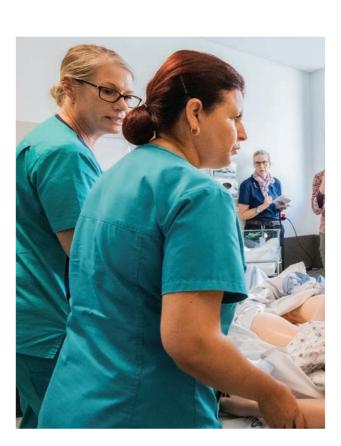
Prof Louise Cullen, has received more than \$1.48m from the Medical Research Future Fund for her study 'Powerful Pictures'. The study is co-designed with Indigenous communities, people with lived experience of heart disease, and local health workers to investigate a new model of care for early detection and management of heart disease in Aboriginal and Torres Strait Islander people at risk of heart attack. Prof Cullen has received several EMF grants over the years in the lead-up to this latest project, which also received an additional \$250,000 through a Queensland Health Clinical Research Fellowship.

Research Impact

Research projects funded by EMF have extensive and multi-faceted impacts.

Direct benefits are often realised through projects that focus on:

- Introduction of new clinical protocols, models of care, or more accurate diagnostic techniques that have the potential to improve patient care or streamline processes,
- Comparison of treatments or models of care to establish best practice,
- Investigation of current protocols and processes to optimise patient care or to de-implement sub-optimal care and treatments that lack a clinical evidence base for effectiveness.



BENEFITS FOR PATIENTS

- Improved patient health outcomes and experiences, and decreased ED length of stay through evidence-based innovations to protocols, devices or models of care
- Equity of care for patients in rural and remote communities through improved safe and effective emergency care in their local community, reducing transfer to metropolitan centres.

BENEFITS FOR THE HEALTH SYSTEM

- Reduced costs and alleviating access block through avoiding ineffective treatments and treatments without an evidence-base, reducing unnecessary tests and use of consumables and other resources, and releasing clinical capacity
- Attraction and retention of the most talented and motivated emergency clinicians by offering funded research opportunities only available in Queensland.

BENEFITS FOR EMERGENCY CLINICIANS

- Improved clinician well-being and resilience through improved systems and conditions informed by research, and projects focused on clinician wellbeing
- Enhanced clinical and research career opportunities through EMF research funding, and seed funding for larger projects.



A/PROF SHANE GEORGE

Paediatric emergency and critical care physician Gold Coast University Hospital Former EMF Board Director

A/Prof Shane George was named Researcher of the Year by Gold Coast Health in November 2022.

He is also part of the PREDICT (Paediatric Research in Emergency Departments International Collaborative) network, which was awarded the Elizabeth Molyneux Prize by the Royal College of Emergency Medicine in October 2022 for research project "Prednisolone for Bell's Palsy in children: A randomised, double-blind, placebo-controlled, multicentre trial (BellPIC)". A/Prof George leads the BellPIC site trial at Gold Coast University Hospital (GCUH), which is funded by EMF.

Ultrasound paving the way for faster fracture diagnosis

An EMF-funded trial published in the prestigious journal New England Journal of Medicine (NEJM) is set to fast-track fracture diagnoses in EDs and shows huge potential for application in remote settings.

Emergency Physician at Gold Coast University Hospital (GCUH) Dr Peter Snelling was awarded an EMF Project grant in 2019 for his study "Using bedside ultrasound to diagnose forearm fractures in children (BUCKLED)".

The randomised trial compared the use of clinician-performed portable ultrasound versus x-ray to diagnose 270 children aged 5-15 years presenting to the ED with a suspected distal forearm fracture.

Point-of-care ultrasounds (POCUS) were performed at the bedside by either a nurse practitioner, physiotherapist or emergency physician, with GCUH, Queensland Children's Hospital, Robina Hospital and Sunshine Coast University Hospitals taking part in the trial.

Taking around three minutes to complete, the faster, more portable and less invasive technique not only yielded the same diagnostic results and recovery outcomes as patients who had x-rays, but also resulted in shorter ED stays and fewer x-rays.

Dr Snelling said the results of ultrasound diagnosis not only demonstrated the ability to fast-track this patient cohort through EDs but showed further promise for diagnostic use outside of hospitals.

"Ultrasound is getting more affordable and more portable; you can now plug an ultrasound probe into your smart phone and be ready to go. This technique could end up being used in rural settings or anywhere where there is no access to x-ray after hours, such as urgent care settings and sports medicine clinics.

"You can be in sub-Saharan Africa and not have x-ray available and still make the diagnosis," Dr Snelling said.

Dr Snelling said the success of the project demonstrated the depth and strength of research culture in emergency medicine at Gold Coast Health and across Queensland.

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"Research underpins everything we do, there is no point doing a certain treatment without having an evidence-base behind it. We're in a golden era of clinician-led research and what's really helpful is having the funding opportunities through groups like EMF who can enable us to do this important work."

DR PETER SNELLING

Emergency Physician and Paediatrician Gold Coast University Hospital EMF grant recipient



Dr Peter Snelling with Sam and Alison Clancy

"We're well-positioned at Gold Coast Health in that we have great collaborations, including Griffith and Bond Universities, and we've got a good base of clinicians who are performing high quality research. It's really starting to snowball and we're seeing more global attention and attraction to our research outputs.

"In the years ahead we'll likely see enormous impacts from the research that is being performed within Gold Coast Health and in collaboration with other centres in Queensland," said Dr Snelling.

The study was well received by trial participants, who reported a high level of satisfaction for ultrasound over x-ray for fracture assessment.

Alison Clancy, mother of trial participant Sam, said her family didn't hesitate to be involved in the trial when Sam suffered a fractured arm while playing sport.

"I was really happy we could take part in the study. It was great knowing we'd participated in something for the greater good for those who might benefit from ultrasound scans in the future. That includes people with sporting injuries because you can take it out onto the field, or just to have an ultrasound for a quick diagnosis in the ED.

"I think it's critical that hospitals can do further research and that the funding is there, because how else do we progress healthcare for the benefit of the community?" Ms Clancy said.

Currently undertaking a PhD, Dr Snelling said the study's publication in NEJM not only highlighted the potential global impacts in using POCUS for fracture diagnostics, but reflected the effort and care taken in crafting the research project overall.

"The fact that it was published in NEJM, one of the world's leading medical journals, is a testament to my PhD supervisors in that they held me to account to follow good research practice," said Dr Snelling.

"It goes to show that if you put in the time and effort for developing a well-designed project without cutting any corners, not only will you have a robust study, but you can attract grant funding to conduct it and then aim for publication in a top medical journal. We were grateful for the funding that EMF provided, which enabled this research trial to be conducted."

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Research leading to real change

An EMF-funded study has been the catalyst for ongoing state-wide improvements in opioid prescribing practices in Queensland public hospitals.

In 2016, Royal Brisbane and Women's Hospital (RBWH) pharmacist Champika Pattullo was part of a research team awarded an EMF Trainee grant. The 12-month study aimed to reduce opioid prescriptions for people discharged from the RBWH ED through improved education and communication for patients and clinicians.

The study, led by Dr Rina Savage, was prompted through growing concerns over Australia's opioid prescriptions rates over the past 20 years, which have tripled in Queensland alone between 2008 to 2018.

At the time of the study, around five percent of patients discharged from the RBWH ED who required ongoing pain relief were automatically prescribed a standard pack of 20 tablets of the opioid oxycodone, regardless of their pain level, clinical needs, or age.

Now Assistant Director of the Safety and Implementation Service and a Healthcare Improvement Fellow for Metro North Health, Ms Pattullo said at the time of the study there was no alternative strategy in place for discharged patients requiring ongoing pain management, and little education for on appropriate opioid use.

"Not understanding the role of opioids in pain management can lead to some really harmful outcomes. Some patients treated their prescription like a course of antibiotics, believing they had to take the full pack of 20 tablets, regardless of their pain level or need.

"There is also the concern of 'opioid reservoirs' in the general public – this is when unused opioids circulate in the community and pose a greater problem in terms of substance abuse and criminal activity," said Ms Pattullo.

The EMF-funded project "Prescribing patterns and communication for oxycodone on Emergency Department discharge" assessed the impact of a multifaceted intervention which involved examining prescribing behaviour, increasing education and communication, and adopting a patient-centred approach to prescribing.



By the end of this 12-month study, the rates of opioid prescription for those discharged from RBWH ED had dropped by 21 percent, equating to an average decrease of six tablets per prescription.

The study's success prompted the development of an Opioid Prescribing Toolkit for clinicians, providing guidelines on tailoring opioid prescriptions for discharge, improving handover communication with the patients' general practitioners, and contains patient education collateral about oxycodone and alternative pain management methods.

Since the trial, the toolkit has not only reduced opioid prescriptions at RBWH and at eight EDs in Queensland, but has helped inform opioid stewardship research, programs, and resources at Queensland Health and across Australia.

The toolkit also informed the design of the Queensland Opioid Stewardship Program,

which 11 Queensland EDs have participated in. Despite being at a new role at RBWH, Ms Pattullo is continuing to make a contribution to the Opioid Stewardship by developing the framework to support the opioid stewardship program across Queensland as part of her PhD studies.

She says the focus now is embedding the program as business-as-usual across all Queensland hospitals, rather than the program serving as an example of 'best-practice.'

"The EMF funding allowed us to undertake that first comprehensive review of our prescribing practices, and the subsequent development of the toolkit provided a starting point for wider improvement.

"It helped us at the right time to show how we could create real change. The challenge now is a wider implementation and cementing the program across the state," Ms Pattullo said.

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Completed Projects - Selected Highlights



Using machine learning to better predict ED waiting time

Principal Investigator: A/Prof Andrew Staib, Princess Alexandra Hospital

Approximately 24,000 people visit hospital EDs in Australia every day. Many of them wait for hours before a doctor can see them. This study aimed to find ways to predict wait times in EDs by developing advanced forecasting methods, using more than five years of data and 320,0000 presentations at Princess Alexandra Hospital.

The developed models are more accurate than the commonly used moving averages and can give more helpful information. The research team is pursuing further studies to develop a patient interface providing information about waiting times in EDs to improve patient experience, especially for those with less urgent issues, and help manage the demand for ED services.



Relief of chest pain in the ED

Principal Investigator: Ms Emily Brownlee, Royal Brisbane and Women's Hospital

Many patients present to the ED with painful conditions. This study examined how long patients with chest pain wait for adequate pain relief in the ED. Findings showed that 30% of patients did not receive pain relief in ED despite reporting ongoing pain, and 53% of patients did not become pain-free during their time in ED.

The results highlight a need to improve pain management for chest pain patients, with future research required to further understand associations between timely, adequate pain management and patient outcomes. Data collected in this project will be used as preimplementation data for a follow-up study on the effectiveness of an education campaign, also funded by EMF.



Improving cannula insertion for kids in the ED

Principal Investigator: Dr Lucy Dunstan, formerly Gold Coast University Hospital

Inserting a cannula into a child's vein is a common procedure performed in the ED that can cause considerable distress for the child and caregiver. This project aimed to determine factors contributing to difficult intravenous access in children and found the youngest age group (<1yo) had the highest rate of complications. Younger children had a higher risk of multiple cannulation attempts or abandoned cannulation, with children who received more than four attempts reporting higher pain scores.

Surveyed emergency doctors identified the barriers to using ultrasound included difficulty in holding the patient still, and insufficient training, however most participants were interested in further training. The findings will contribute to improving cannulation success rates, potentially reducing children's pain and anxiety associated with cannulation and reducing ED length of stay.



First aid oxygen treatment of divers with decompression sickness

Principal Investigator: Dr Denise Blake, Townsville University Hospital

The optimal delivery of oxygen during first aid treatment of decompression sickness in scuba divers can be critical to the patient's survival and recovery. This study measured how effectively different breathing masks deliver oxygen to the body tissues and at which flow rate.

The researchers found that using a pocket face mask or an intraoral mask provided the best oxygen delivery using the demand valve. Equally important is the refuting of the suggestion to decrease the oxygen flow rate from 15 litres per minute to 10 litres per minute. These findings have informed training and further research in the medical and diving community domestically and internationally.

Image courtesy of Dr Denise Blake

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Nurses in the Spotlight

Nurses represent a significant proportion of the emergency healthcare workforce, and the value of their perspective and contribution cannot be understated. In the past few years EMF has succeeded in encouraging a steady increase in the number of nurses applying for research grants, with projects spanning a diverse range of interest areas and topics. Since 2018, EMF has awarded 16 research grants to projects led by clinician-researchers with a background in emergency nursing.

Nurses' involvement in research is invaluable not only in improving patient care but also in improving workforce retention, experience and quality, as emergency nurse-researchers Dr Amanda Harley and Dr Elizabeth Elder attest to.





"If you're curious, lean into that and write down your ideas and what you want to achieve and why.

"Research appears hard, scary and overwhelming and it can be! However, you have to start somewhere and you have the support of so many people that have done this many times before.

"You wouldn't graduate from university and be put in a Resus room to lead a Resus on day one - Don't put that expectation on yourself for research".

DR AMANDA HARLEY

Clinical Nurse Consultant Gold Coast University Hospital & Queensland Children's Hospital EMF grant recipient

DR AMANDA HARLEY

After taking on a nurse lead role in a randomised clinical trial six years ago, Dr Amanda Harley has become a leading expert and voice in sepsis awareness, prevention and treatment as Australia's first dedicated paediatric sepsis Clinical Nurse Consultant. She has led and contributed to a number of EMF-funded projects and holds roles in the Queensland Paediatric Sepsis Program and the Queensland Children's Hospital, as a Registered Nurse at Gold Coast University Hospital, and is also a Lieutenant in the Royal Australian Navy.

Dr Harley says her introduction to the research world was a natural progression for her to improve patient care, recognising the ability researchers hold in creating real change and the unique skills emergency nurses bring to the research field.

"Research expands my remit to be curious and use critical thinking skills in an entirely different way. I don't see researcher OR clinician, but rather see the two roles complimenting each other.

"Emergency nurses are critical and pragmatic thinkers and autonomous practitioners; all are essential elements to be a great researcher and leader.

"The ability to assess a situation, dissect the elements and piece the elements back together to

design a solution, test the proposed solution and evaluate - these 'ingredients' make the 'recipe' for clinical practice and research alike." Dr Harley said.

Making the leap into the research field has not been without its challenges, with Dr Harley highlighting the need for **collaboration and mentorship**, especially in the burgeoning stages of a research career.

"Nurses face the challenges in emergency research of perhaps not knowing where to begin. Many great ideas exist, however it is impossible to start to design a research proposal without someone guiding, supporting and advocating for your ideas.

"Find that person, make a start, believe you are capable and bring a unique skill set to the team and you will make a difference. I was fortunate to have a few people believing in me and their support made me an unstoppable force."

"One of the highlights of my career has been realising my curious mind is a gift and I am capable of doing whatever I set my mind to, including writing a thesis!

"By showing up and sticking to my belief of "I will make a difference" I have been able to achieve over 20 publications and a PhD in a short six-years whilst balancing clinical work. If you told me this would be my trajectory six years ago, I would not have believed it.

DR ELIZABETH ELDER

Research Fellow in Emergency Care at Gold Coast University Hospital and President of the Queensland branch of the College of Emergency Nursing Australia, Dr Elizabeth Elder has dedicated much of her research career to improving the wellness of emergency clinicians. Awarded a Leading Edge grant in 2022, her project "National Emergency Department Stress, Coping and Intention to Leave Survey: DESTRESS" seeks to understand the impact of stressors on the health and performance of ED staff, to inform better prevention and intervention strategies.

Dr Elder shares Dr Harley's view of emergency nurses making ideal researchers, and that while the research journey is demanding and full of challenges, the rewards are plentiful.

"When emergency nurses are presented with a problem, they'll find a way to get to the answer. We're exceptionally pragmatic at making things work in difficult situations, we're used to working under pressure, we think pragmatically and aren't confined to thinking or working within set parameters.

"One of the biggest challenges I face is when people ask me how I keep my registration, because I'm not full-time on the floor in the hospital. I am more back of house.

"I think it's about shifting the mindset and recognising that ED, research and practice do actually go together and that research informs nursing practice'.

"Most people think research just involves vials and samples and lab work, but emergency research — and for me, workforce research — is more about 'how do I resolve the issues around staff duress.' People are starting to see the value in that," Dr Elder

Dr Elder highlighted how taking on the challenge of leading a clinical research project in emergency medicine has helped advance her career.

"When we do research as undergrads and masters it's a case of "here's the topic, write about it." The most exciting thing about research at this level and as a clinician is you can own the topic and you drive everything about it, you're the go-to person. I'm in that position now, I can be a voice for the workforce.

"My career goal is to tell people what our organisations, workplaces, and clinicians need and what our patients deserve. I was seeing that we were constantly losing doctors and nurses and I couldn't fix the problem until I understood it. The beauty of it is I can now work with other students and researchers on the how and the what to be able to solve the problem.

"Receiving grant funding from EMF has been a real highlight in my career. It is really challenging to get money for our area of research, as we are more clinically oriented, we don't fit into the typical boxes, but we are equally important, we can collect longitudinal data and look at the big picture.

"It has all helped me to grow and eventually be accepted to speak at a global conference. To have a global platform and the ability to talk about the issue on a large scale and work with others from around the world is incredible," Dr Elder said.



"Find a topic that interests you. The thing with research is you can't resolve a problem without understanding it first, so you need to pick something that you are going to want to spend hours researching and that becomes your life.

"Align with a good mentor, it's really important. I remember when mid-way through my PhD I thought 'I'm lucky I have an academic job to go to' but your supervisor should be helping you build those networks in that area and outside of it, so that in five to ten years' time you have people to go to when you need it. Find those people."

DR ELIZABETH ELDER

Research Fellow Gold Coast Health & Griffith University EMF Grant Recipient

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"I was heavily involved with the Queensland Sepsis Collaborative and the roll out of the Sepsis Pathway at my Emergency Department. With the EMF Emerge grant, I hope to improve time to diagnosis of sepsis and to antibiotics in paediatric patients.

The biggest lesson I have learnt so far in my research career is that if you are passionate and believe in what you are doing will make a difference - keep striving forward! Surround yourself with the people who support you is so important for your sanity!"

CASSANDRA ROSS

Clinical Nurse Redcliffe Hospital and Retrieval Services Queensland EMF grant recipient



DR GRACE XU

Nurse Practitioner, Royal Brisbane and Women's
Hospital
Research Fellow, Queensland University of Technology
EMF grant recipient

Dr Grace Xu was recognised throughout
the year for her work in both the research
and clinical spaces. She was awarded
Best Scientific Paper for Development of
ED Wellness Toolkits at the International
Conference for Emergency Nurses in
October 2022, and was also celebrated at
the Association of Queensland Nursing &
Midwifery Leaders Awards in November 2022,
with the Outstanding Achievement in Nursing /
Midwifery Leader Award.



Emily Brownlee (3rd from left) with fellow RBWH nurses Angela Hills, Mercedes Ray, Laura Stephensen

"Involvement in research has been incredibly rewarding for me as I have seen direct improvements in patient care occur in my department due to the implementation of research findings.

"The perspective, experience, and practicality that nurses bring to study design, data collection and result analysis is of great value. Providing high-quality patient care to improve health outcomes has long been a nursing-orientated goal, and research provides a means to help achieve this goal."

EMILY BROWNLEE

Clinical Research Nurse Royal Brisbane and Women's Hospital EMF grant recipient



Finding a balance between necessary caution and vigilance, and minimising negative impacts on patients and resources can be difficult in the ED, particularly when faced with lifethreatening conditions such as sepsis.

But as an EMF Jumpstart project has found, sometimes questioning existing practices when evaluating the benefits versus the outcomes can have surprising results.

Patients presenting to the ED with infections such as sepsis typically receive a blood culture test in the ED prior to being admitted and receiving antibiotic treatment, followed by multiple blood cultures taken during their hospital stay over several days.

Observing a lack of infection-positive results in the data of previous sepsis studies, many of which also were funded by EMF, Clinical Nurse Angela Hills began to question the necessity of follow-up blood cultures once a patient had been diagnosed and treated.

"As a clinician, I see how sepsis impacts some of the most vulnerable members of society and I enjoy the challenge of caring for these complex patients."

"During (previous research) data collection, I was surprised how often patients are subjected to repeated blood cultures once they are admitted after investigation and initial treatment in the ED.

"I was equally surprised at how few 'new pathogens' are isolated after ED has investigated, diagnosed, and initiated treatment," Ms Hills said.

Based at the Emergency and Trauma Centre at Royal Brisbane and Women's Hospital, Ms Hills said request for repeated tests took a toll on patients, clinical staff and ED capacity.

"As patient ED length of stay gets longer, this unfortunately means that ED nurses are required to perform more and more follow-up tasks for their patients. Preventing patient discomfort by minimising or eliminating unnecessary tests struck me as a possibility."

Results of the study "Subculture: Investigating the frequency and outcomes of subsequent blood cultures" overwhelmingly found that repeated blood cultures showed either the same result from the initial ED test or a negative result. This was despite any physiological changes in the patient, and none of the patients had their care altered based on repeat BC result.

These findings suggest that the first blood cultures taken in ED provide the most clinical information, with repeat blood cultures rarely yielding a conflicting result that would change treatment.

Ms Hills said the results were promising in the effort to improve clinical practice and minimise patient discomfort while also reducing staff workload and costs resulting from blood culture test requests.

"Empowering nurses with data and knowledge to question these requests will save nursing and pathology time and will prevent patients from being subjected to painful blood draws.

"Our next steps will be ongoing education of the ED team and dissemination of our findings throughout the hospital. A large part of translation will be reassurance that repeating blood cultures - except in very particular circumstances - has minimal impact on the care being provided." Having been involved in a number of research projects in recent years, Ms Hills said staying curious and collaborative was the key to a successful research career for clinicians.

"Find what intrigues you. Within that, find what irritates you. Then read anything you can find about the topic and find a mentor who will listen to, encourage, and help channel your rants into a research question.

"Stay focussed on things that will help your patients and assist your colleagues. As you learn more about the topic, funnel your knowledge back to other clinicians.

"If people know why you're asking them to do things differently and can see the value, they will support you," said Ms Hills.



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Improving Patient Flow

EDs are designed and resourced to be the first point of call for patients requiring urgent medical care. With ever increasing number of presentations, EDs in Australia are impacted by significant challenges leading to delays in patient flow.

EMF is collaborating with Queensland Health's Healthcare Improvement Unit at Clinical Excellence Queensland on a large research program to find effective and evidence-based solutions to improve patient flow in Queensland's public hospitals. This research program consists of two components: a whole-of-system study aiming to establish the magnitude of factors leading to patient flow challenges and a Special Funding Round supporting clinician-led projects aiming to improve patient flow and reduce hospital crowding.





Collaborating to solve patient flow challenges

Working to help improve one of the biggest barriers to timely emergency care takes collaboration, a multifaceted approach, and a panoramic view of the issue.

A multidisciplinary research team of experts from CSIRO, Queensland Health, the University of Queensland and Queensland Ambulance Service (QAS) commenced work on the "Study on Patient Flow in Queensland's Public Hospitals" project in November 2022.

The project takes a whole-of-system approach to identify and examine the myriad of factors contributing to access block and poor patient flow in Queensland's public health system.

The study was awarded \$593,502 in 2022 as part of the Improving Patient Flow in Queensland Public Hospitals research program, funded by EMF in collaboration with Queensland Health's Healthcare Improvement Unit at Clinical Excellence Queensland.

Lead Investigator Dr Justin Boyle, a Principal Research Scientist at CSIRO's Australian e-Health Research Centre, says the size of the study and involvement of an array of disciplines was what set this study apart from previous patient flow research.

"This is not just a single department study, and not even a whole-of-hospital study, but a systemwide analysis focusing on flows from QAS to ED to inpatient admissions. "The analysis explores factors upstream from the hospital environment such as chronic health conditions and primary care coverage, as well as downstream from hospitals including residential aged care facilities.

"The issue is large, complex and growing, and it needs to include as many disciplines and perspectives as possible. The key benefits of this study are through using a range of complementing disciplines including mathematics, social science and emergency medicine expertise to form a collaborative network for the analysis.

"Different viewpoints can offer different insights to understand complex issues better," Dr Boyle said.

While the study is largely driven by distilling a significant amount of data from Queensland Health, QAS and other sources, Dr Boyle said researchers were hoping to gain insight on influencing factors through qualitative data.

"People aren't represented by figures, and their reasons for doing things aren't coded in databases. It should be possible to draw out themes that can't be gleaned from quantitative analysis and enable us to study areas where there is insufficient data."

In its interim report delivered in June 2023, the research team outlined some key emerging areas from the initial research, with a final report expected at the end of the study. Dr Boyle said external to the actual findings of the study, there were already benefits to gain from the project.

"This is a great model for future research. A health agency like Queensland Health and a peak body such as EMF crafting a research question and working closely with a multi-disciplinary team and including clinicians and qualitative and quantitative researchers to develop actionable insights that will be used to drive policy." Dr Boyle said.

"Hopefully this project can inform and contribute to local practice change in responding to access block, leading to best practice emergency care and policy informed by evidence. It would be great to see interest from other jurisdictions to replicate the work interstate and internationally to help resolve these common chronic issues."

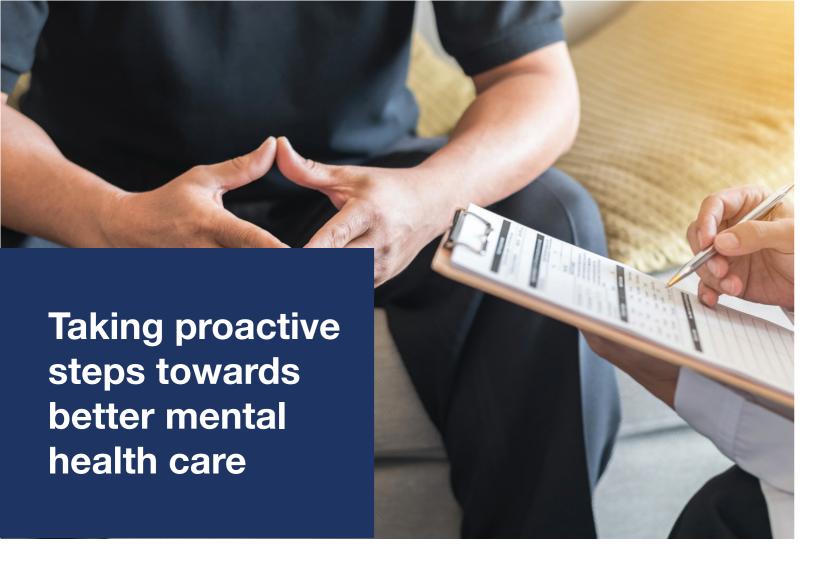
DR JUSTIN BOYLE

Principal Research Scientist CSIRO's Australian e-Health Research Centre

EMF grant recipient
With Minister Yvette D'Ath at EMF's Grants
Award Ceremony 2023



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Researchers at the Princess Alexandra Hospital (PAH) are looking for answers to better support mental health patients in the community and reduce their need to attend the ED in a crisis.

Divisional Director of Adult Mental Health at PAH, A/Prof Manaan Kar Ray, is leading the "SAFE STEPS – SAFE and Seamless Transition through Enhanced Proactive Support" project. It seeks to identify factors contributing to a patient's deterioration in the community, aiming to prevent patients reaching crisis point and requiring a visit to ED and possible hospital admission.

The project, funded through the Improving Patient Flow in Queensland Public Hospitals Special Funding Round, analyses data from more than 2,500 mental health presentations at the PAH ED to establish clinical characteristics of people who were successfully diverted from ED, and those who required admission.

A/Prof Kar Ray said most community-managed mental health patients in EDs don't require an inpatient stay and are referred back to their case manager, and the volume and frequency of these presentations in the busy ED environment puts undue pressure on the ED, other patients, and the distressed mental health patient themselves.

"A busy ED is ill suited to meet the needs of people with mental health challenges. However, amid a crisis there are few alternatives available for rapid assessment and support.

"What we are hoping from this research is that patients and their care team will have proactive identification of an impending crisis, and any earlier intervention will decrease relapses and decrease the need for unplanned ED presentations and inpatient admissions.

A/Prof Kar Ray said the need for proactive care to keep mental health ED presentations low was a matter of life and death.

"A psychotic relapse or a suicidal crisis is the psychiatric equivalent of a person having a stroke or a myocardial infarction.

"In my decade and a half of being a Director I have heard many good stories of how an early assessment or intervention, or enhanced monitoring, has prevented such crises.

"Similarly, I have seen the converse where opportunities for proactive care have been missed. Also, as part of my role I meet with families who have been bereaved following suicide. Those are some of the most difficult meetings that I have done and are always humbling."

A/Prof Kar Ray said while the significant dataset would shed light on common trends and patterns, researchers will also survey and interview patients,

families, staff and conduct focus groups to obtain their views on community support and care, as well as ED avoidance strategies.

"Stories are data with a soul. The qualitative component will reveal the lead-up to an unplanned ED presentation or admission. It will reveal the patient and family's thinking and feeling prior to making the decision to attend ED.

"We are hoping that this time window will reveal unique opportunities to meet their needs proactively before the situation developed into a crisis and thus prevent future presentations. "These insights will not only help us decrease overcrowding in ED but will also decrease patient suffering through proactive care," said A/Prof Kar Ray.



"I am hopeful that this research will shed light on unique and creative ways to keep patients well in the community and that they will not need to access emergency services."

A/PROF MANAAN KAR RAY

Divisional Director of Adult Mental Health
Princess Alexandra Hospital
EMF grant recipient

With Minister Yvette d'Ath at EMF's Grants Award Ceremony 2023

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Emergency Health Care in Rural and Remote Regions

More than one third of all Australians live in regional, rural and remote areas. Compared to their urban counterparts however, they do not have equitable access to high-quality healthcare, resulting in higher burden of disease, higher death rate and lower life expectancy. Clinicians in rural, regional and remote areas are vastly underrepresented in emergency care research. Yet, local health research can help identify gaps in healthcare delivery and inform improvements in quality of care, evidence-based practice and localised solutions.

EMF is committed to supporting doctors and other healthcare professionals in these regions with research training and research opportunities to address geographical health inequities. Two of our research funding programs are explicitly designed for frontline clinicians who have the insight and emotional investment in emergency healthcare in rural and remote locations.



Commitment to rural and remote patients pays off

An unwavering passion for improving the care of highly vulnerable people in some of the most remote areas of Australia has helped one EMF researcher overcome the odds and complete a world-first research project.

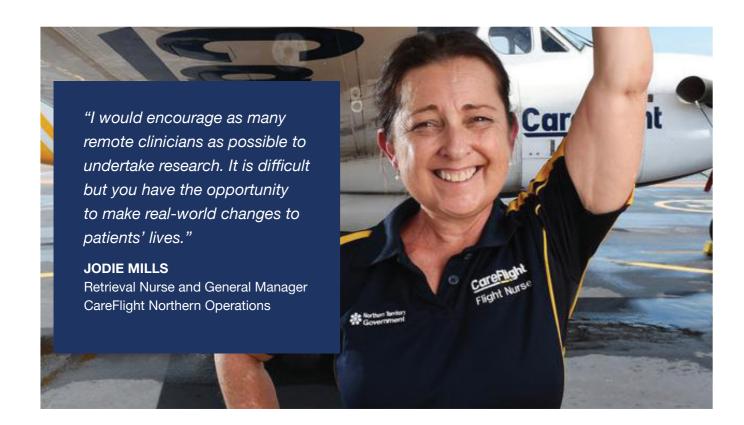
Retrieval nurse and General Manager of CareFlight's Northern Operations, Jodie Mills, recently completed her study into improving sedation for rural and remote acute psychiatric patients for aeromedical retrieval in the Northern Territory, eight years after commencing the project.

Acute psychiatric patients account for around 15 percent of CareFlight's retrieval missions across

the Territory each year. In 2015 Ms Mills received a grant under EMF's Rural and Remote funding scheme for a randomised clinical trial to determine if Ketamine is safer and more efficacious than Propofol for sedating these patients.

"Traditionally, there were very high rates of intubation in this patient population – that just didn't sit right with me. We must retrieve mental health patients according to the Mental Health Acts throughout Australia, including retrieving patients in the least restrictive way possible.

"One of the reasons I wanted to do this research is that there was a paucity of literature in the field around what sedation options are available for this specific patient cohort, in place of general anesthesia," she said.





The study found 75% of flight doctors were satisfied or strongly satisfied with the sedation provided by Propofol, while 56% were satisfied or strongly satisfied with the sedation provided by Ketamine. Furthermore, none of the 125 patients who received Ketamine or Propofol had any documented post-flight complications.

Ms Mills said the potential impact for the community was profound.

"When you think about research in aeromedicine there was a lot of emphasis, at the time, on what I would call "the big ticket items" such as trauma.

"When I talk about this subject, I introduce it by saying 'this may not be the most exciting of subjects to some, but this is what we do most days, so getting it right is extremely important for our patients.'

"I am proud we have been able to decrease our intubation rates to <1% in this patient population, and the administration protocols from the study are used to this day at CareFlight," Ms Mills said.

Juggling the research around her demanding full-time role at CareFlight, Ms Mills faced a string of hurdles including low recruitment numbers,

telephone communication barriers with followingup patients, rotations of registrars...and a global pandemic.

Despite this, Ms Mills remained steadfast in her commitment to the research and her unwavering dedication to improving care for one of the most vulnerable populations in the country.

"I am passionate about the subject matter, and I am in a privileged position to be a change maker.

"It is absolutely incumbent on me to make all of our patients' experiences in the Northern Territory the best they can be. Whether this is through research, sitting on boards, attending networking events or just telling the story when the opportunity presents itself.

"I want to make a difference in the lives of all Territorians, and I think this is how I do that."

The EMF Rural and Remote Research Program was funded through philanthropic donations to support research projects in the field of emergency medicine to improve patient outcomes in Australian rural and remote locations, with projects outside of Queensland eligible for funding.

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Supporting rural and remote trauma care

Thanks to the support from the Motor Accident Insurance Commission (MAIC), EMF continued to deliver research opportunities for clinicians working outside major healthcare centres.

Two research projects received grants in Round Two of the Special Research Grants Program 'Trauma Care in Regional, Rural and Remote Queensland' in early 2023, and the launch of Round Three in June 2023 saw EMF offer scholarship opportunities for clinicians new to research.

Round Two grant recipient Queensland Ambulance Service Advance Care Paramedic Stephanie Nixon is using her funding to research optimal pain relief for rural and regional ambulance patients on the way to hospital following traumatic injury.

The Charleville-based researcher said with typically longer transport times in non-metropolitan areas it was critical to ensure pain relief protocols in rural and remote areas aligned with the needs of local patients.

"Inadequate pain relief has lasting negative physiological and psychological implications and decreases overall quality of life. We are interested to find out whether rural and remote trauma patients are at higher risk of this.

"By studying existing QAS data and speaking to paramedics across the state about their experiences and perceptions of current pain management, we're looking to identify any differences in how pain is managed in different areas.

"Our goal is to ensure we optimise pain management for trauma patients in rural and remote areas by identifying barriers, facilitators and innovative solutions. We aim to ensure high-quality, patient-centred, locally relevant pain management for trauma patients throughout Queensland," Ms Nixon said.

Retrieval Services Queensland Clinical Director of Research and Evaluation, Dr Clinton Gibbs, received a grant in Round Two for research on whether some rural and remote patients with minor Traumatic Brain Injuries (mTBI) from road accidents are being unnecessarily transported to major hospitals away from home for CT scans.

With a significant proportion of mTBI patients either returning normal CT scans or not receiving a scan at all, Dr Gibbs and his research team will explore the transfer of people with mTBI by road ambulance or aeromedical flight to understand the nature of their presentations and their outcomes following transfer.

"People with mTBI are transferred hours away from their home, their family and their support network to receive a CT scan. We believe a large proportion of these people may not need to be transferred, but the current paucity of evidence does not empower the healthcare professionals in rural and remote facilities to keep them there.

"We hope to identify those who may have "lowvalue" transfers and develop approaches to avoid this occurring in the future.

"This will have immense personal and financial benefits to the people of rural and remote Queensland, as well as beneficial impacts on the state's road ambulance and aeromedical network. Reducing transfers will also assist the ongoing access block issues continuing to plague Queensland's Emergency Departments." Dr Gibbs explained.

In addition to providing \$100,000 in grant funding for research projects, Round Three of the Trauma Care funding program offered scholarships for clinicians with no prior research experience to attend a university course in emergency healthcare research training.

MAIC Insurance Commissioner Mr Neil Singleton highlighted the importance of having a dedicated stream of funding in this area of healthcare.

"Given Queensland's vast geographic spread, road trauma patients in rural and remote areas are often needed to be transferred to metropolitan hospitals, which can delay or complicate their treatment and recovery.

"It is critical that emergency teams in these areas are equipped and empowered to explore improvements in local clinical care so patients can be treated close to home, reducing transport costs and above all – saving lives.

"MAIC is proud to be working with EMF in supporting these important clinician-led research projects to enhance clinician expertise and improve patient care and outcomes," Mr Singleton said.





Insurance Commissioner Mr Neil Singleton with Ms Stephanie Nixon and Dr Clinton Gibbs at EMF's Grants Award Ceremony 2023

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Supporting Research Excellence



(Left to right): Dr Christopher Tang, Adam Cureton, Dr Henry Tsao

"The EMF funding, together with the Metro South Health Research Support Scheme, has allowed us to recruit two clinical research nurses to assist with data collection and analysis for the trial. Without the clinical research nurses, the SUPraclavicular block for Emergency Reduction of upper limb injuries vs Bier block (SUPERB) trial would have been difficult if not impossible to undertake, and I am grateful to EMF for their support."

DR HENRY TSAO

Staff Specialist Redland Hospital EMF grant recipient



Building research culture in regional centres

In 2022-23, EMF awarded more than \$379,000 in Research Capacity Building funding, to Sunshine Coast University Hospital, Townsville University Hospital, Retrieval Services Queensland and The Prince Charles Hospital.

Through EMF Research Capacity Building grants, both Sunshine Coast University Hospital (SCUH) and Townsville University Hospital (TUH) are on track to cultivating strong, sustainable cultures of research.

SCUH will use the grant to appoint an ED Research Manager, a new role focussed on developing site-wide support and resources for research, to work alongside SCUH ED staff specialist and Research Clinical Lead Dr Kent Perkins.

The ED Research Manager will provide a range of support services to strengthen the research team at SCUH, including establishing processes for grant applications and tracking, completing research governance requirements and recruiting and supporting new researchers.

As Principal Investigator for the grant, Dr Perkins described the importance of the EMF funding in transforming research within the ED and beyond.

"The ED is transitioning from a few dedicated individuals contributing to research, to establishing and cementing a culture of research. Our aim is to build research capacity on three key levels - structural, community and individual," Dr Perkins explained.

"By thinking on these three levels, we are confident the whole ED can make sustainable progress," he said.

There are also plans to establish long-term research culture with new spaces for researchers to discuss projects, as well as promotion and education within the ED and beyond.

"We recognise that research is a team sport and that those contributing are influenced by their own human experience," said Dr Perkins.

"It is therefore important to support those we work with, such as the Trauma team, so that patients can benefit from well-designed research that reflects their experience and is not limited to a single hospital department."

The Sunshine Coast Hospital and Health Service ED includes SCUH, Nambour and Gympie Hospitals, with all three expected to benefit from the research capacity generated through the EMF grant.

In Townsville, Research Capacity Building Grant recipient Dr Vinay Gangathimmaiah said the funding will enable the TUH ED to sustain current levels of research activity, augment research capacity and eventually transition out of a research capacity building phase.

Dr Gangathimmaiah said the ED has particular research projects on the horizon, set to benefit from the additional resourcing.

"Some of the areas of focus we are looking at over the next few years are Pulmonary Embolism diagnostics, de-implementation of low value care, geriatric trauma, contactless vital sign monitoring and innovative workforce strategies.

"Involvement of sites like TUH in emergency medicine research is important to ensure delivery of high-quality, equitable emergency care to regional, rural and remote Queenslanders," Dr Gangathimmaiah said.



Statewide study aiming to improve the management of bleeding in patients with chronic liver disease

A Leading Edge grant is supporting a state-wide study to investigate the use of Prothrombinex®-VF to treat bleeding in patients with Chronic Liver Disease (CLD).



"This collaboration is unique, brilliant and shows how emergency physicians excel with teamwork and collaboration. With teamwork across specialties, we bring complementary expertise to the table, achieve innovation and excellence in research. Working together, we are dynamic and rich,"

DR AKMEZ LATONA

Emergency Physician Ipswich Hospital EMF Grant Recipient When CLD patients present to the ED with gastrointestinal (GI) bleeding, blood products including Prothrombinex®-VF are sometimes administered for clotting disturbances.

Emergency physician Dr Akmez Latona from Ipswich Hospital is expanding on his earlier research which showed that Prothrombinex®-VF has been used across Queensland Health outside guidelines, to manage cirrhotic coagulopathy.

Dr Latona is leading the project "Prothrombinex®)-VF for coagulopathy of liver disease in acutely bleeding patients; Too much of a good thing?" which entails a review of more than six years of patient records, involving multiple specialties across all major Queensland Health hospitals. This project will help define efficacy and safety of the blood product and contribute to future guidance for clinicians.

Since receiving a Leading Edge grant in December 2022 the project has received multi-site ethics approval, with Dr Latona now working with the Office of Research and Innovation at Queensland Health to navigate the governance around this state-wide study.

"The collaboration of each Hospital and Health Service (HHS) has been fantastic.

"The uptake of our project across all HHS demonstrates that coagulopathy assessment and use of Prothrombinex®-VF to treat GI bleed in liver disease patients is an important topic in both metropolitan and regional settings.



Dr Akmez Latona (middle) with Co-Investigators Dr Kate Hill and Dr Katherine Stuart

"We are forming a state-wide collaborative group through this network, which will be useful for further projects."

Co-investigator Dr Kate Hill, a haematologist at Princess Alexandra Hospital (PAH) explains the importance of multiple clinical specialties and sites taking part in the research project.

"Emergency medicine, hepatology and haematology regularly share care of bleeding in patients with CLD, so it makes good sense to work together to advance research,"

"This type of large-scale study is what makes research in medicine both exciting and relevant," Dr Hill said.

Fellow investigator Dr Katherine Stuart, Head of Hepatology at PAH explains that the project aims to provide clearer direction for Queensland clinicians.

"The fact that so many hospitals are involved will ensure an accurate and real-life study of the use of Prothrombinex®-VF in patients with CLD presenting with GI bleeding," said Dr Stuart.

Dr Latona said receiving the grant in Round 38 of the Queensland Research Program was critical for the collaborative project to go ahead, and had advice for other clinicians looking to take on research.

"Allow for at least 10 months of paperwork before a state-wide project can be started.

"I underestimated the amount of paperwork involved: state-wide ethics application, approval from data custodian of every hospital followed by state-wide data custodian of iEMR, EDIS, pathology and The Viewer systems, Public Health Act Application at the Office of Research and Innovation, and governance approval from each HHS." said Dr Latona.

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How grants are awarded

EMF is renowned for having a transparent, rigorous and robust grant review process, supported by a national network of clinicians, researchers, academics and stakeholders who serve on our Research Evaluation Panel (REP) and Research Committee.

Thanks to our expert reviewers and committee members, EMF enjoys a strong reputation in the emergency medicine and research community for the quality of our research grant programs.

Dr Andrew Spiller, Chair of the EMF Research Committee and Director of the ED at The Prince Charles Hospital, explains the multi-stage assessment process involved for our Queensland Research Program.



"At the REP stage, each grant is reviewed by three independent assessors against defined criteria, with grant applicants having a chance to respond to feedback. These assessors are selected from the REP pool with the most relevant expertise for the application topic.

"Following this, applications are scored in each area and judged as fundable or not. These results are submitted to the Research Committee who deliberates and makes final recommendations to the EMF Board which has final approval on grant recipients," explained Dr Spiller.

EMF's Research Committee is comprised of eight experts drawn from diverse but relevant backgrounds including emergency medicine practice, health economics, research governance and consumer advocacy. This broad range of experience ensures each project is considered from multiple and varied viewpoints.

Dr James Hughes is a senior lecturer at the School of Nursing at Queensland University of Technology, and a member of the Research Committee. A clinician and researcher with more than 20 years of experience in emergency nursing, Dr Hughes said there are several factors that the REP and Research Committee consider when reviewing applications.

"The best studies do not try to answer every question but answer an important question well.

"Teams are very important, as one clinician researcher is unlikely to have all the skills required, and contributions from a range of areas and different knowledge bases is always well received.



"What we look for in a standout application is one that is achievable with the resources available, will have an impact on patient care and will further emergency medicine knowledge." said Dr Hughes.

Dr Spiller agreed. "Above all, the research needs to be useful and have the potential to improve emergency medical care. Where the applicant is able to clearly articulate a strong case for improving emergency medicine practice, that is an important advantage," said Dr Spiller.

When crafting a grant application and research project, both researchers cautioned applicants to be pragmatic when considering the size, scope and resourcing required.

"Our biggest concern is making sure that the research scope is practical, and the project aims are achievable. It's crucial to ensure the methodology is considered and achievable, and staffing, timelines and budget are appropriate to complete the project," said Dr Spiller.

"A red flag is when we see a budget that does not match the question being asked or the amount of work that needs to be done," Dr Hughes added. "I also scrutinise any application that involves only one institution or workplace. It's rare that all the knowledge needed is in one place, and so it's always good practice to reach out and engage other departments, academic institutions or experienced researchers to make your project successful," said Dr Hughes.

Dr Hughes said vision beyond the life of the research project and its publication is also a defining factor of a successful application for an EMF grant.

"All projects funded by EMF need to have a clear road in translation to practice. How far that translation to practice is depends on the project. Whatever the project, it must be clear to the Research Committee that your work will be translatable to practice or inform a translation to practice."

For first-time applicants and novice researchers, both Dr Hughes and Dr Spiller recommend seeking advice and guidance from colleagues and other mentors.

"Get help. EMF has spent the last 15 years building research capacity in emergency medicine research. If you are unable to find someone close to home, don't be afraid to reach out to someone you may never have met.

"If all else fails, then contact EMF and they will put you in touch with other researchers," said Dr Hughes.

"Reach out to more experienced researchers for advice and support early in your project planning," Dr Spiller said.

"This can greatly improve the quality of an application and save a lot of headaches in getting the project completed. EMF is happy to facilitate this advice or arrange mentorship."

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New Grants - Selected Highlights



Deadly Steps in the Emergency Department with Aboriginal and Torres Strait Islander Consumers

Aboriginal and Torres Strait Islander people presenting to EDs are more likely to have trouble communicating with healthcare providers, feel isolated, and experience shame and distress, often resulting in them leaving before being seen or before treatment is completed. The Deadly Steps project aims to evaluate a co-designed cultural safety improvement and awareness tool to improve cultural understanding and communication between Indigenous ED patients and clinicians. Expected benefits include improved health outcomes and experiences for Indigenous people seeking treatment in the ED.

The research team led by Dr Michelle Davison will adapt a UK consumer-centred toolkit which prompts clinicians to see the ED from the patient's perspective, and use codesign methodology based on the "Yerin Dilly Bag" model of indigenist health research for Australian Indigenous people.



Consumer engagement in emergency healthcare research: A national cross-sectional study

Consumer engagement can improve the quality and relevance of research, identify unmet needs and improve ED services and patient experiences, particularly for vulnerable and high-risk patient groups. Whilst there has been an increase in consumer engagement in international emergency research, it is not the case in Australia, with few opportunities or documented studies in existence.

This project led by Prof Julia Crilly OAM aims to understand the current challenges and barriers to including consumer engagement in ED research, in Queensland and across Australia.

Researchers will also identify readiness for consumer engagement, exploring factors which influence, drive and support researchers to engage consumers. It will also scope the potential for a state-wide / national emergency collaborative network for consumer engagement and assess support among key stakeholders in emergency care.



Criteria Led Discharge from Emergency Department Short Stay Unit

At Redcliffe Hospital, the Emergency
Department Short stay Unit (EDSSU) is
used to facilitate flow through the ED for
patients requiring further investigations,
treatment or period of observations, with the
likely disposition of home. Current access
block issues at Redcliffe Hospital including
increasing patient presentations and only one
junior doctor rostered to follow up means the
SSU is consistently full, with multiple patients
waiting to be transferred to this unit.

Criteria Led Discharge (CLD) is a proposed strategy that allows for safe and timely discharge of patients by nursing staff from the EDSSU once diagnosis-specific criteria have been met without the need for final medical review.

Clinical Nurse Jessica Christie and Dr Jason Chan will evaluate the efficacy of CLD from a patient flow perspective and its benefits for staff and patients alike.



Vasopressor infusion for ED patients with shock

Shock is an umbrella description for poor blood supply to vital organs. Low blood pressure, a key feature of shock, can be treated with medications called vasopressors. Vasopressors traditionally have been given through a so-called 'central line'. Central lines are invasive to insert and require skill, and the actual insertion can lead to complications. More evidence has emerged that so-called peripheral lines are safe for vasopressor infusion and can avoid adverse events caused by central lines.

Dr Thomas Holland and colleagues will conduct a feasibility study to compare central and peripheral lines to inform clinicians as to which approach is best for patients, staff and the healthcare budget. Expected outcomes include improved patient outcomes from avoiding risks of central lines, applicability to low-resource settings such as rural, regional and remote areas, and cost savings for healthcare services through reduced use of central lines.

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Grants Awarded 2022-23

PRINCIPAL INVESTIGATOR	PROJECT	ADMINISTERING INSTITUTION	AMOUNT (\$)
JUMPSTART			
Dr Thomas Holland	Vasopressor Infusion via Peripheral vs Central Access in emergency department patients with shock - The VIPCA RCT	Metro North HHS	\$38,766
Prof Julia Crilly OAM	Consumer engagement in emergency healthcare research: A national cross-sectional study	Gold Coast HHS	\$39,287
Dr Sean Clark	Diabetes Service Mapping After Hours	Metro North HHS	\$39,999
Ms Emily Brownlee	Relief of chest pain in the Emergency Department (RELIEF)	Metro North HHS	\$37,356
LEADING EDGE			
Dr Jessica Forbes	Composition, Quality and Delivery of Major Haemorrhage Protocols (MHP) and critical bleeding clinical practice guidelines in hospitals across Queensland Health	Gold Coast HHS	\$95,507
Dr Clinton Gibbs	Aeromedical Retrieval of people with Acute Behavioural Disturbance in Queensland – ELEVATE Study	Retrieval Services Queensland	\$80,595
Dr Michelle Davison	Deadly Steps in the Emergency Department with Aboriginal and Torres Strait Islander Consumers: an evaluation of a co-design cultural safety improvement and awareness tool	Sunshine Coast HHS	\$99,527
Dr Elizabeth Elder	National Emergency Department Stress, Coping and Intention to Leave Survey: DESTRESS	Griffith University	\$99,607
Dr Akmez Latona	Prothrombinex-VF® for coagulopathy of liver disease in acutely bleeding patients; Too much of a good thing?	West Moreton HHS	\$100,000
Dr Kent Perkins	Pharmacological Emergency management of Agitation in Children and Young People – randomised controlled trials of Oral and intraMuscular medication: PEAChY-O and PEAChY-M	Sunshine Coast HHS	\$94,936
PROJECT			
Dr Julian Williams	Trials in Emergency for Advancing Management of Sepsis: TEAM SEPSIS	Metro North HHS	\$261,787
RESEARCH CAPACITY BUILDING			
Dr Kent Perkins	Research capacity building grant for SCHHS	Sunshine Coast HHS	\$91,408
Dr Clinton Gibbs	Research capacity building grant for RSQ	Retrieval Services Queensland	\$97,120
Dr Vinay Gangathimmaiah	Research capacity building grant for TUH	Townsville HHS	\$98,108
Dr Faye Jordan	Research capacity building grant for TPCH	Metro North HHS	\$93,337

PRINCIPAL INVESTIGATOR	PROJECT	ADMINISTERING INSTITUTION	AMOUNT (\$)
EMERGE			
Dr Kong Liew	Paediatric peripheral intravenous cannulation package to improve practice: the experience of a mixed metropolitan Emergency Department.	Metro North HHS	\$9,600
Dr Rudesh Prasad	Maximising the effects of feedback in regional emergency medicine	The University of Queensland	\$9,976
Dr Benjamin Powell	Predicting in-flight hypotension in aeromedical trauma patients	The University of Queensland	\$9,583
Ms Anita Wall	External Ventricular Devices in Aeromedical Retrieval- Are they Safe?	James Cook University	\$9,734
Dr Jennifer Jones	Assessment of emergency presentations, outcomes and departmental impact of patients presenting after COVID-19 immunisation to a tertiary Paediatric Emergency Department.	Children's Health Queensland HHS	\$10,000
Dr Henry Tsao	Ultrasound-guided supraclavicular block versus Bier block for closed reduction of upper extremity injuries in the emergency department: an open-label, non-inferiority, randomised control trial	Metro South HHS	\$8,758
Ms Cassandra Ross	Point of care lactate testing for the earlier recognition, antimicrobial administration, and definitive management of Paediatric Sepsis in the Emergency Department	Metro North HHS	\$10,000
Dr John Glasheen	Safety and efficacy prehospital procedural sedation for fracture and dislocation reduction	Queensland Ambulance Service	\$9,786
TRAUMA CARE			
Ms Stephanie Nixon	REPRIEVE: Rural/Remote Emergency Pain Relief Investigation and Evaluation (Out-of-Hospital Pain Management in Rural and Remote Trauma Patients)	Queensland Ambulance Service	\$35,600
Dr Clinton Gibbs	Interhospital transfer of mTBI in rural and remote Queensland – can "low-value" transfers be avoided?	Retrieval Services Queensland	\$27,170
IMPROVING PATIENT FLOW	1		
Ms Andrea Hetherington	Paeds with a wheeze - Improving patient flow with Nurse Led Stretching of Inhaled Salbutamol (NLSIS)	Metro North HHS	\$70,904
Ms Jessica Christie	Criteria Led Discharge from Emergency Department Short Stay Unit	Metro North HHS	\$25,873
A/Prof Manaan Kar Ray	SAFE STEPS – SAFE and Seamless Transition through Enhanced Proactive Support	Metro South HHS	\$200,000
Dr Wayne Loudon	optimiSed PAtient Flow using prEhoSpital Triage (safest)	Queensland Ambulance Service	\$24,368

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List of clinicians and researchers on new grants awarded by EMF in 2022-23

Ms Natasha Adams A/Prof John Allan A/Prof Chris Anstey Dr Yogesh Apte Prof Franz Babl Ms Leisa Bauer Dr Daniel Bodnar Ms Sarah Borg A/Prof Emma Bosley Dr Elyssia Bourke Ms Nerys Brackman Dr Caitlin Brandenburg Dr Andrew Brier A/Prof Marc Broadbent Ms Emily Brownlee Prof Paula Brough Ms Jemma Bruynesteyn Prof Joshua Byrnes Prof Peter Cameron Dr Don Campbell OAM Ms Jessica Carl Dr Joan Carlini Dr John Casev Dr Jason Chan Ms Jessica Christie Dr Sean Clark Ms Meg Clarke Dr Katie Clift Dr Jason Conn Ms Jacqueline Coulter **Prof Simon Craig** Dr Susanna Cramb Dr Alison Craswell Ms Paressa Cresswell Prof Julia Crilly OAM Prof Louise Cullen Mr Michael Cussen Mr Nathan Daley Dr Michelle Davison

Ms Sue Denham

Ms Lisa Dibley Dr Michelle Dodds Ms Natasha Edwards Dr Mark Edwards A/Prof Mark Elcock PSM Dr Elizabeth Elder Dr Jessica Forbes A/Prof Amanda Fox Dr Thuy Frakking Prof Richard Franklin Dr Hayley Frieslich A/Prof Jeremy Furyk Dr Vinay Gangathimmaiah A/Prof Shane George Dr Clinton Gibbs Dr John Glasheen A/Prof Jaimi Greenslade Mr Aaron Gribble Mr Yasaru Gunaratne Dr Alistair Hamilton Ms Rhianna Hardie Dr Matthew Harwood Ms Tracey Hawkins Mr Elwyn Henaway Ms Andrea Hetherington Dr Kate Hill Ms Angela Hills Ms Ann Hinde Dr Andrew Hobbins-King Dr Brett Hoggard Dr Thomas Holland Dr Steven James Ms Michelle Jeffress Dr Jennifer Jones Dr Philip Jones

Dr Hock Lai Dr Akmez Latona Dr Kong Liew A/Prof Frances Lin Dr Georgia Livesay A/Prof Debbie Long Dr Wayne Loudon A/Prof Julia Lowe Dr Tegan Lynam Ms Melissa Malley Dr Rajesh Mamadigi Dr Kristin McBain-Rigg Ms Ellyse McCormick Mr Jack McKenzie Dr Allan McKillop Ms Donna McLean Dr Gary Mitchell Prof Elizabeth Molloy A/Prof Julia Morphet Ms Alannah Morrison Dr Rachel Muir Ms Stephanie Nixon Dr Christy Noble Dr Jacob O'Gorman Ms Fiona Packwood Prof William Parsonage Prof David Paterson Dr Joanne Perel Dr Anna Peri Dr Kent Perkins Prof Lin Perry Dr Natalie Phillips Dr Benjamin Powell Dr Rudesh Prasad A/Prof Penelope Prasad Dr Lachlan Quick Dr Mahesh Ramanan

Dr Jamie Ranse

Dr Katie Rasmussen

Ms Mercedes Ray

Mr Graham Reeks Dr Jack Righton Ms Idalia Rodriguez Mr Adam Rolley Ms Cassandra Ross Dr Ben Rowe Dr Jan Sadewasser Mr Brendan Schultz Dr Moshood Shittu A/Prof Matthew Sibbald Dr Peter Snelling Ms Rosemary Sorrensen A/Prof Andrew Staib Ms Laura Stephensen Dr Katherine Stuart Dr Alexis Tabah Dr Christopher Tang Dr Theo Theodoros A/Prof Ogilvie Thom Dr Sara Towle Dr Mark Trembath Dr Henry Tsao Dr Jason Waddell Ms Elizabeth Wake Dr David Walker Ms Anita Wall Ms Brigid Wall **Prof Robert Ware Prof Kerrianne Watt** Ms Stacey Watts Dr Sophie Wen Dr Kate Wick Dr Julian Williams Dr James Winearls Dr Rachel Wooldridge Dr Marianne Wyder

Dr Alan Yan

2022/23 Reviewers

EMF is grateful to the many expert reviewers who bring unique skills, expertise and perspectives to our review panels and advisory committees. Our volunteers include clinicians, academics and professionals who span the country and represent the depth and breadth of emergency medicine as a discipline.

Dr Kylie Baker Dr Daniel Bodnar Prof Meredith Borland AM Dr Malcolm Boyle A/Prof Peter Buzzacott Dr Jason Chan A/Prof Robyn Clay-Williams Dr Marlow Coates **Prof Simon Craig Prof Kate Curtis** A/Prof Martin Downes Dr Kathryn Eastwood ASM Emeritus Prof Gerry FitzGerald Dr Vinay Gangathimmaiah Prof Hugh Grantham ASM Dr Kim Hansen Ms Laureen Hines

Dr Adam Holyoak Dr James Hughes Dr Thomas John A/Prof Peter Jones Prof Gerben Keijzers Dr Debra Kerr Dr Sanjeewa Kularatna A/Prof Luke Lawton Dr David Lim Dr Grainne Lowe Dr Bill Lukin A/Prof Stephen Macdonald A/Prof Silvia Manzanero Dr Karyn Matterson Dr Robert Nayer

A/Prof Amanda Neil Dr Angie Nguyen Vu

A/Prof Vasilios Nimorakiotakis Distinguished Prof Greg Peterson A/Prof Stephen Priestley Prof Anu Rammohan Dr Stephen Rashford ASM Dr John Reilly Prof Karen Smith Dr Peter Snelling Dr Andrew Spiller A/Prof Ogilvie Thom Prof Amanda Ullman **Prof Kerrianne Watt Prof Jennifer Watts** Ms Maureen Williams Dr Frances Williamson

Dr Ryan Windish







Distinguished Prof Patsy Yates AM







EMF reviewers (top left to bottom right): Dr Dan Bodnar (left, with Dr Brett Hoggard), Dr Jason Chan, Prof Gerben Keijzers, A/Prof Peter Jones (right, with Adj Prof Shelley Nowlan), A/Prof Silvia Manzanero (right, with Dr Susanna Cramb), A/Prof Martin Downes

Dr Faye Jordan

Dr Anup Joseph

Dr Alex King

A/Prof Manaan Kar Ray

Prof Gerben Keijzers

Insights from our expert reviewers

Two of our long-term reviewers and researchers in their own right, Distinguished Professor Greg Peterson and Adjunct Professor Kerrianne Watt, shared insights on their experiences with the EMF REP and being on the other side of the research application process.

Distinguished Professor Greg Peterson

"Queensland is very fortunate to have the EMF program. I would encourage all health professionals working in emergency medicine or paramedicine, especially from rural regions of the state, to consider applying."

With 30 years' experience in pharmacy practice, education and governance, Prof Greg Peterson has been a member of the REP since 2016.

As Distinguished Professor of Pharmacy at the University of Tasmania, Prof Peterson brings a unique perspective to emergency medicine research, and says EMF's alignment with his own interests was what drew him to the panel.

"I was excited to hear that there was a funding scheme to support projects that were directly relevant to improving patient care and health system performance, and so I was keen to assist.

"At that time, and it's still largely the same today, too few research programs in Australia support practice or health system research," Prof Peterson said.

"I enjoy the opportunity to be involved in supporting applied projects in this field. It's also a learning experience – reviewing any grant application or manuscript provides a continuing education opportunity."

Having received more than \$40m in research funding and published more than 600 research papers, Prof Peterson knows better than most what makes a standout research project and grant application.



"When designing a project and applying for a grant, it's important to have a very clear research question, with a method that directly addresses the question in a robust manner (adequate sample size, controlling for possible confounders etc.).

"Firstly, though, be sure you have identified and quantified the problem you think needs addressing. Is it really a significant problem? Don't devise solutions and projects implementing those solutions until you are fully across the issue and its causes (which itself may warrant starter grant funding).

"With the larger EMF grants, it's always great to see a well-designed clinical trial addressing a significant and unresolved emergency medicine issue. The results should have immediate applicability in practice.

"And, if you are not successful the first time, use the comments from the reviewers and apply again."

Adjunct Professor Kerrianne Watt

"EMF grants are usually very translational in nature and so many of them have profoundly changed patient care or service delivery in Queensland, but also more broadly in Australia. We are extremely fortunate to have EMF in Queensland as a funding source for prehospital and emergency research."

An epidemiologist who has been involved in emergency medicine research throughout her career, Prof Kerrianne Watt is Principal Research Manager at Queensland Ambulance Service (QAS). First volunteering as a reviewer for what was then known as Queensland Emergency Medicine Research Fund (QEMRF) in 2010, Prof Watt has witnessed first-hand the surge in research activity in emergency and pre-hospital medicine in the state. Her passion for supporting research in the field is evident.

"I relish the exposure to content that I'm not familiar with when reviewing EMF grants. I love finding out about other people's ideas and seeing creative, innovative and translation-focused approaches to challenges within health care, and finding out what clinicians at the coal face consider to be important.

"The EMF grant review process is quite unique and very much focused on increasing research capacity and skills of researchers in the prehospital and ED environment. It is much more interactive and supportive than other competitive grants.

"The fact that applicants have the opportunity to respond to reviewer comments before their applications are formally scored can be a wonderfully instructive and constructive process," she said.

An Adjunct Professor at the College of Public Health, Medical and Veterinary Sciences at James Cook University and highly active in research projects as a lead investigator, consultant and reviewer, Prof Watt has a wealth of sage advice for new and aspiring clinician-researchers.



Prof Watt's advice for new researchers

- 1. Devote time to it: It takes much longer than you think to finalise the application. Think about all aspects of the application, and all assessment criteria. Get someone completely independent to proof-read it before submitting.
- 2. Take the feedback: If a reviewer takes the time to provide insight or advice on how to improve the application, take this advice. Reviewers are trying to improve the integrity of the research and the chances of the application being funded. Even if you disagree with the reviewer, it is a good idea to respond and explain why.
- 3. Bring in additional expertise: I strongly advise including an active team member with methodological expertise from inception an epidemiologist and/or biostatistician if it's quantitative (or at least someone with strong quantitative analytical skills), and a qualitative or a mixed-methods researcher if there is a qualitative element. They have good insight about research design and ensuring the project will address the research questions.
- 4. It's important to be clear in your application with the research question or aim, methods, etc but it is also important to be creative. This might be what makes your application stand out from others.
- 5. Take the time to develop the translational aspect of the application. The application needs to have something more than a generic "will present at conferences and in peer-reviewed journals" statement. How else will the results be translated? Through what mechanisms?

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Authentic Listening and Effective Communication in Emergency: A Patient Perspective.



Maureen Williams is a member of the EMF Research Committee, as our Consumer Representative. Holding a Masters in Public Health, Maureen has more than 40 years' experience as a consumer representative, researcher and as a patient herself. She has worked on the Patient Safety and Quality Standards for the Australasian College for Emergency Medicine (ACEM), consumer representative committees for NSW Health and the Australian Diagnostic Error Conference, and several research projects. Through her unique experience, insight and passion for advocating for patients, Maureen brings an invaluable perspective to the EMF Research Committee.

Drawing on her expertise and reflecting the imperative for active patient involvement in their own healthcare journey, Maureen explores the critical need for engaged listening and effective communication by clinicians, to ensure accurate diagnoses, effective and sustainable care outcomes and increased patient satisfaction.

For several years now, advocates and researchers have examined communication and language in healthcare from the perspective of the health professional, how doctors can improve their language, their cognitive biases and their relationship with the patient.

As a patient advocate with 40 years' experience, the most common complaint I hear from patients, regarding their relationship with the doctor, is that they are not heard or acknowledged. ("The doctor - didn't want to know my history - didn't seem interested - kept interrupting me - wasn't listening - seemed to be in a hurry") These issues are particularly relevant in ED where treatment is time limited.

In the New Quality Standards publication of the Australasian College for Emergency Medicine it states "The team demonstrates a questioning attitude in routine and non-routine situations to enable high quality patient care". A questioning attitude requires authentic listening and yet the Clinical Excellence Commission undertook a study that found that when a doctor asks a patient a question, they **interrupt** them within 11 seconds and never longer than 30 seconds. They also found that if a patient is allowed to answer uninterrupted, they will encapsulate their problem within a minute. A GP friend told me that as soon as a patient mentions a symptom, the doctor's mind goes to auto-pilot to find a diagnosis and that they can stop really listening for further information from the patient.

If a patient is in ED then the premise is that they are either sick or injured and they are therefore vulnerable and anxious. If a doctor interrupts and does not communicate effectively, then the patient is unlikely to offer any more, possibly vital information. Bear in mind that within the first hour of being admitted to ED, a patient can see upwards of eight total strangers - the triage nurse, the admitting nurse, several doctors, the pathologist, the radiologist, the ward nurses etc. If this is a first visit to hospital it can be frightening and confusing, especially if there is not effective communication.

Patients are generally in awe of the medical profession, whom they believe have the skills to help them and they trust them completely. In Emergency, the medical professional employs their skills, treating a patient within at most a few hours. That patient however, has lived in their body for 24/7 for their lifespan and they are the expert on themselves. They may not have the health literacy to express themselves adequately, but if truly listened to, will give valuable clues.

Our basic human needs are said to be food, shelter and sex, but in my opinion, acknowledgement is also an important human need. We just need someone to say "I see you and I hear you". How many of you have been to a social event where you don't really know anyone - the conversation is flowing around you, but you are not part of it? It can be a very isolating experience. Often patients feel intimidated by the doctor and don't offer up vital information or the doctor is time poor and doesn't ask important questions. Communication and acknowledgment are important for a patient to feel safe and where there is effective communication, the patient feels acknowledged and listened to and it is a win/win situation for all.

MAUREEN WILLIAMS

Grad.Dip Counselling and Communication. Masters
Public Health (UNSW)
EMF consumer representative



Grants Award Ceremony



"As a clinician who practices both in hospital and prehospital, I'm interested in the crossover of patient care between the two environments. I believe that excellence in patient care can be achieved in spite of the challenges of the environment. There is very little published evidence establishing the efficacy or safety of prehospital fracture and dislocation reduction, although it is a standard practice. The EMF Emerge grant was key to facilitating my research in this area as the funding will allow me to conduct the research while continuing in my busy clinical roles."

DR JOHN GLASHEEN Medical Consultant Queensland Ambulance Service EMF grant recipient





On Wednesday 8 March 2023, EMF held its biggest Grants Award Ceremony to date, with Queensland's emergency healthcare community gathering to celebrate EMF's grant recipients from the past year.

In what has become a key event for the emergency healthcare community, close to 90 people came to celebrate and congratulate recipients of the 28 research projects awarded more than \$2.2m in funding during the previous 12 months.

Hosted by EMF Board Director and immediate past Board Chair, Dr Kim Hansen, EMF was pleased to welcome the then Queensland Minister for Health and Ambulance Services, The Hon Yvette D'Ath as a special guest.

In her address to attendees, Minister D'Ath highlighted the important role EMF plays in fostering clinician-led research to facilitate positive change in emergency healthcare, and also confirmed the extension of EMF's funding from the Queensland Government.

The event heard from EMF grant recipients Dr Daniel Bodnar, QAS Deputy Medical Director, and Dr Amanda Harley, Clinical Nurse Consultant from Children's Health Queensland and GCUH. Both keynote speakers detailed the impact EMF funding had on their research careers as practicing clinicians.

Following the Grants Award Ceremony, EMF held its 2023 symposium "Improving Patient Flow in Queensland Public Hospitals", which also attracted significant interest with a large crowd of attendees.

The symposium heard presentations from researchers investigating contributing factors and potential solutions to improve patient flow in Queensland public hospitals, with research projects supported by EMF and Queensland Health's Health Improvement Unit at Clinical Excellence Queensland.

Guests also heard perspectives on patient flow from leading emergency clinicians, including ACEM President-Elect Dr Stephen Gourley, New Zealand emergency clinician and researcher A/Prof Peter Jones, and Professor of Trauma and Emergency Nursing Prof Kate Curtis from New South Wales.

















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Corporate Governance



"I joined the EMF Board as I see it play a pivotal role in advancing medical knowledge, improving patient care, and enhancing healthcare systems. It contributes to the well-being of individuals and communities by ensuring that the best practices and evidence-based approaches are used in emergency situations.

The passion and culture of research that EMF has cultivated is unmatched and seeing how we can further this reach is a priority for me."

A/PROF VIET TRAN

EMF Board Director



Our Board



Chair (ACEM Nominee)
Prof Hugh Grantham ASM MBBS, FRACGP

Prof Grantham has been on the EMF Board for more than three years, and was appointed Board Chair in March 2023. He is the senior educator for the National Advanced Life Support Program and teaches for the Royal Australian College of General Practitioners and the College of Sport Physicians. He was previously Medical Director of the Ambulance Service in Adelaide and was the inaugural professor of paramedics at Flinders University. Prof Grantham was awarded both the Ambulance Service Medal and the Humanitarian Service medal with Bar. He is also a member of the EMF Research Committee.



Director (ACEM nominee)
Dr Kim Hansen MBBS(Hons), MBA, FACEM

Dr Hansen is an experienced emergency medicine consultant, passionate about high quality care that is accessible for patients and streamlined for clinicians. She is Queensland Faculty Chair for ACEM, Director of the Virtual Emergency Department for Metro North Hospital and Health Service, and the Director of Critical Care, Women's and Children's Health at Redcliffe Hospital. Dr Hansen joined the EMF Board in 2018 and served as Board Chair from March 2019 until March 2023.



Director
Dr Andrew Gosbell BAppSC, PhD, GAICD

Dr Gosbell has been a Director of the EMF Board since 2021, and is an advisor and consultant to the associations and charities sector. Previously Deputy CEO and Executive Director of ACEM, as well as CEO of General Practice Registrars Australia, Dr Gosbell holds a PhD in vision science and has an enduring passion for research and its translation to improving healthcare outcomes.



Director (Queensland Health representative) Adj Prof Shelley Nowlan

RN, BN, MHM, GradDip PM, MAICD, FACN

Adj Prof Nowlan is Queensland's Chief Nursing and Midwifery Officer, and joined the EMF Board in July 2019. An executive leader at Queensland Health since 1998, she is also the Deputy National Rural Health Commissioner. Her strong advocacy for nursing and midwifery informs policy development at State and National level for clinical practice innovation, research, curricula and workforce development.



Director (retired):

Dr Andrew Spiller BAppSC, FACEM, PhD, GAICD

Dr Spiller is an emergency medicine physician and Director of the emergency department at The Prince Charles Hospital. He is a member of the Queensland Faculty of ACEM and previously worked as a General Practitioner and a Medical Officer (Officer in Charge) with the Royal Australian Navy. Dr Spiller served on the EMF Board from 2019 until November 2022, and is now Chair of the EMF Research Committee.



The EMF Board holds fiduciary, legal and strategic responsibilities and our Directors represent a vast and deep knowledge and experience in emergency medicine practice, research and executive governance roles.

The Board includes four emergency medicine specialists nominated by the ACEM and appointed by EMF founding members, a nominated Queensland Health representative and two skills-based Directors, elected by the Board.



Director (ACEM nominee)

A/Prof Viet Tran BSc. MBBS. FACEM

A/Prof Tran developed a passion for emergency medicine while training in Queensland and is now an emergency physician at Royal Hobart Hospital. He is foundational director of the Tasmanian Emergency Medicine Research Institute, discipline lead for Emergency Medicine at the University of Tasmania School of Medicine and Chair of ACEM's Research Committee. Joining the EMF Board in November 2020, A/Prof Tran is driven to enhance infrastructure to improve emergency medicine research capacity and capability.



Director (retired):

Ms Cathy Montesin BBus (Hons), GradDipAppFinInv, ACA

Ms Montesin is the Chief Financial Officer for Affinity Education Group and has extensive experience in finance. She was a skilled Director on the EMF Board and Chair of the EMF Finance, Risk and Audit Committee (FRAC) from 2018 to August 2022. Ms Montesin continues to support EMF as a member of the FRAC.



Director (ACEM nominee) A/Prof Luke Lawton

BAppSc, MBBS (Hons), MPH (Aeromedical Retrieval), FACEM.

A/Prof Lawton is a senior staff specialist in Emergency Medicine at Townsville University Hospital (TUH) and was Director of the TUH ED for five and a half years. He is an Associate Professor of Medicine at the James Cook University College of Medicine and Dentistry and works as an aeromedical coordinator for Retrieval Services Queensland. A/Prof Lawton joined the EMF Board in November 2022.



Director Mr Jon Tyers GAICD, CAANZ

Mr Tyers is a Chartered Accountant with more than 20 years' experience in Lead Internal Audit roles. He is currently General Manager, Internal Audit at MLC Life Insurance, a former Deputy Chair of the Australian Auditing & Assurance Standards Board and a former member of the NSW Treasury Audit & Risk Committee. Mr Tyers joined the EMF Board in August 2022 and is Chair of the FRAC.

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The EMF team

GENERAL MANAGER AND RESEARCH MANAGER: Dr Hong Nga (Angie) Nguyen Vu MA, PhD

As EMF General Manager, Angie leads the team and works closely with the Board to set and achieve strategic direction, organisational objectives, vision and purpose. Angie is also responsible for overseeing EMF's research grants programs in her capacity as Research Manager. She has extensive experience in university research and research management in Germany, USA, Switzerland and Australia. Angie completed her PhD at the University of Zurich. Angie was appointed to the role of General Manager in October 2022, having previously served as Research Manager for more than four years.

COMPANY SECRETARY / CHIEF FINANCIAL OFFICER: Ms Beth Chapman BBus, CPA

Beth is responsible for overseeing all aspects of financial management, company secretarial and statutory reporting obligations. Beth brings extensive experience from the private, public and not for profit sectors in Australia and the United Kingdom, with more than 25 years in senior positions. Since joining EMF in 2013, Beth has held various leadership roles focused on supporting the organisation's growth and operations. Beth previously served as General Manager of EMF until October 2022.

GRANTS ASSOCIATE:

Dr Annice Kong BSc (Hons I), PhD

Annice works closely with the General Manager (Angie) and Grants Officer (Dee) to provide comprehensive support for all aspects of EMF grant programs. Annice completed her PhD at The University of Queensland and has experience in clinical research and data management.

COMMUNICATIONS MANAGER: Ms Lauren Kippin

Lauren supports EMF by sharing the stories of its research programs through media and social media activities, publications, marketing collateral, the EMF website and events. Lauren has extensive experience working in journalism, communications and marketing roles for several not-for-profit organisations in Queensland.

GRANTS OFFICER:

Ms Dee Tierney

Dee is the first point of call for EMF grant recipients. Her position entails the comprehensive administration of all EMF awarded research grants.

OFFICE ADMINISTRATOR: Ms Jody Tregidgo

Jody plays an integral role in the daily operations of EMF. Her extraordinarily broad remit makes her indispensable to the entire team.



Vale:

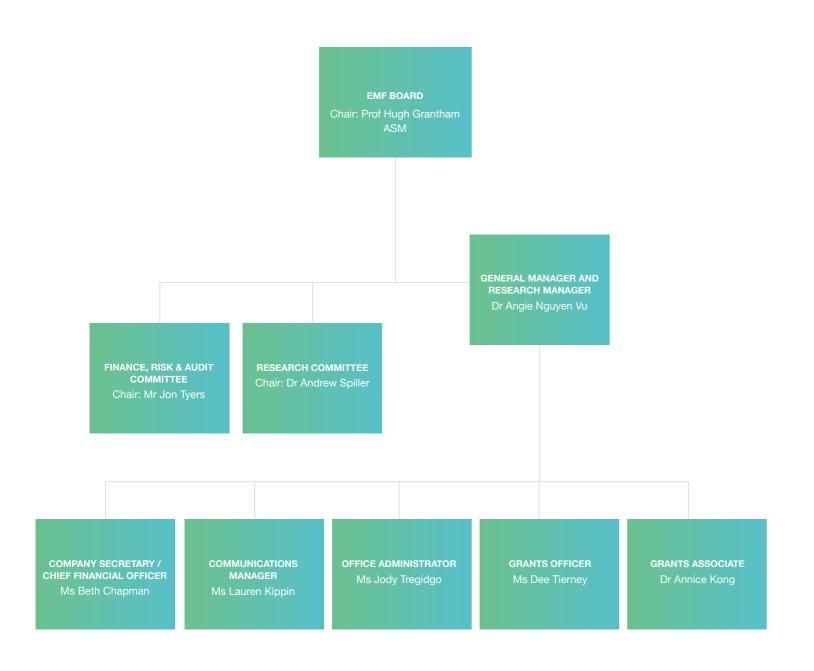
Ms Kellie Furey – EMF Communications Manager

March 2023 saw the untimely and very sad passing of EMF Communications Manager, Kellie Furey. Kellie joined EMF in January 2020 and was a cherished and valued member of the close-knit EMF team, bringing with her more than 20 years' experience in health and not-for-profit communications. Kellie was instrumental in delivering several successful initiatives at EMF, including the introduction of our Emerge grants.

Both personally and professionally, Kellie was a passionate advocate for the delivery of quality health and emergency care for all. This passion was heightened during her year of cancer treatment, as Kellie frequently experienced ED presentations first-hand due to various complications and concerns. In Round 40 of the Queensland Research Program, EMF offered a special grant in memory of Kellie, to support research projects that improve the ED experiences of other people in Kellie's position.

Kellie was beloved by all those who knew her, and personified kindness, generosity and grace. She is deeply missed by the EMF team and Board, and our condolences go to her family and friends.

Organisational Structure



Attendance Register

NAME	POSITION	BOARD	FRAC	RC
FRAC: Finance, Risk and Audit Committee; RC: Research Committee Meetings key: x/y (x=number attended y=number held)				
Dr Kim Hansen	Board Chair until March 2023, Board Director from March 2023	5/5		
A/Prof Viet Tran	Board Director	5/5		
Prof Hugh Grantham ASM	Board Director, Board Chair from March 2023 RC member	5/5		3/3
Ms Cathy Montesin	Board Director until August 2022, FRAC Member	1/1	5/5	
Adj Prof Shelley Nowlan	Board Director	5/5		
Dr Andrew Spiller	Board Director until November 2022, RC Chair from March 2023	3/3		2/3
Dr Andrew Gosbell	Board Director	5/5		
Mr Jon Tyers	Board Director, FRAC Chair	4/4	4/4	
A/Prof Luke Lawton	Board Director	3/3		
Ms Susanne Le Boutillier	FRAC Member		3/5	
Mr Scott Bryant	FRAC member until November 2022		2/3	
Mr Martin Heads	FRAC Member		3/5	
Mr Simon James	FRAC Member		4/5	
Distinguished Prof Patsy Yates	REP Chair, RC member			2/3
A/Prof Stephen Macdonald	RC Member			3/3
A/Prof Amanda Neil	RC Member			2/3
Ms Maureen Williams	RC Member			2/3
Dr James Hughes	RC Member			2/2
Ms Beth Chapman	General Manager until October 2022, Company Secretary, Chief Financial Officer, FRAC Member		5/5	
Dr Angie Nguyen Vu	General Manager from October 2022, Research Manager, RC Member, FRAC Member		3/3	3/3

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Financial Summary

With a very small team, EMF runs a highly efficient operation.

In 2022-23, EMF committed \$2.4m to research grants and programs. Included was an investment of \$915,000 jointly funded by Queensland Heath and EMF for four research projects as well as a large collaborative study to find effective and evidence-based solutions to improve patient flow in Queensland's public hospitals, \$63,000 was invested in research into regional, rural, and remote trauma, funded by the Motor Accident Insurance Commission (MAIC) and \$1.45m awarded through the flagship Queensland Research Program.

EMF continues to look to invest in research programs that support post-Covid recovery as we emerge to a time when clinician-researchers have the renewed energy and resources to refocus their attention on this important work. EMF has made a targeted investment to support novice researchers and to offer opportunities to build research capacity so as to ensure continued and increased research activities.

Other funds were used to manage research grants, to support new and expanded research initiatives in the future, fulfil our contractual reporting and promotional obligations, and for corporate administration. Further financial information is available in the EMF 2022-23 Financial Report available online.

Completion of annual financial statements
On 25 August 2023, the EMF Finance, Risk and
Audit Committee (FRAC) made recommendation
to the EMF Board which endorsed the 202223 Financial Statements for signing on 11
September 2023. Bentleys Chartered Accountants
independently audited the Statements.

FINANCIAL OUTCOMES

EMF operated within budget in accordance with total sources of funds and revenue from the Queensland Government, earnings on investments as well as income from other sources, for the 2022-23 financial year. In total, EMF dispersed \$1.58m for research and research infrastructure. The company incurred operational expenses of \$523,000, including corporate expenses, and communication and marketing activities. This was a slight increase of 4%, under inflation, on expenditure from the previous year (2021-2022: \$500,000).

SOURCES OF FUNDS

Since 2008, the Emergency Medicine Foundation has received \$2 million, plus GST, annually from Queensland Health to enable and fund the Queensland Research Program. In 2022-23, EMF received the final tranche of funding under its threeyear funding contract with Queensland Health, from 2020-21 to 2022-23. In June 2023 EMF signed a Deed of Variation to this agreement which extends the same funding annually to the end of June 2025. Other income received in the 2023 financial year totalled \$639,000 from other sources, including \$314,000 generated in interest on EMF's invested cash reserves, \$120,000 in grant funding from MAIC to support research in regional, rural and remote trauma and \$200,000 being the second instalment of a three-year agreement with Queensland Health to fund vital research into patient flow, as well as \$5.000 in donations.

CAPITAL MANAGEMENT AND RESERVE

At the end of the 2023 financial year EMF had unpaid financial commitments to grant projects totalling \$2,152,563 (2022: \$1,119,930). Of the funds held in reserve this amount must be quarantined to enable obligations to be met as and when they fall due.

Statement of Financial Position As at 30 June 2023

STATEMENT OF FINANCIAL POSITION AS AT 30 JUNE 2023

	Note	2023	2022
		\$	\$
ASSETS			
CURRENT ASSETS			
Cash and cash equivalents	7	8,903,453	8,132,261
Trade and other receivables	8	37,417	33,732
Other assets	9	15,825	14,494
TOTAL CURRENT ASSETS	2	8,956,695	8,180,487
NON-CURRENT ASSETS			
Property, Plant & Equipment	10	67,883	123,610
TOTAL NON-CURRENT ASSETS	,	67,883	123,610
TOTAL ASSETS		9,024,578	8,304,097
LIABILITIES			
CURRENT LIABILITIES			
Trade and other payables	11	340,778	136,026
Lease liability – office space		58,657	55,812
TOTAL CURRENT LIABILITIES		399,435	191,838
NON CURRENT LIABILITIES	a de la companya de		
Provisions	12	78,485	42,133
Lease liability – office space		14,899	73,558
TOTAL NON CURRENT LIABILITIES	×	93,384	115,691
TOTAL LIABILITIES	2	492,819	307,529
NET ASSETS	3 3	8,531,759	7,996,568
EQUITY			
Retained surplus (deficit)		8,531,759	7,996,568

The accompanying notes form part of these financial statements.

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Auditors Report



INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF EMERGENCY MEDICINE FOUNDATION LTD

Report on the Audit of the Financial Report

Opinior

We have audited the financial report of Emergency Medicine Foundation Ltd (the "Company"), which comprises the statement of financial position as at 30 June 2023 and the statement of profit and loss and other comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, notes comprising a summary of significant accounting policies and other explanatory information, and the director's declaration.

In our opinion the financial report of the Company is in accordance with Division 60 of the Australian Charities and Not-for-Profit Commission Act 2012, including:

- giving a true and fair view of the Company's financial position as at 30 June 2023 and of its performance for the year then ended; and
- (ii) complying with Australian Accounting Standards Simplified Disclosures and Division 60 of the Australian Charities and Not-for-Profits Commission Regulations 2013.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Report* section of our report. We are independent of the Company in accordance with the ethical requirements of the Australian Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants* (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of the Directors for the Financial Report

The directors of the Company are responsible for the preparation and fair presentation of the financial report in accordance with Australian Accounting Standards and the Australian Charities and Non-for-Profits Commission Act 2012 and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the Company to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

The directors are responsible for overseeing the company's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Report

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Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.



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INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF EMERGENCY MEDICINE FOUNDATION LTD (Continued)

Auditor's Responsibilities for the Audit of the Financial Report (Continued)

As part of an audit in accordance with Australian Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial report, whether due to
 fraud or error, design and perform audit procedures responsive to those risks, and obtain audit
 evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not
 detecting a material misstatement resulting from fraud is higher than for one resulting from error,
 as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override
 of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit
 procedures that are appropriate in the circumstances, but not for the purpose of expressing an
 opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Bentleys Brisbane (Audit) Pty Ltd

And

Director Brisbane

Ashley Carle

13 September 2023



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Image courtesy of Queensland Ambulance Service