National Trauma Research Institute

Triennial Report 2022-2025

national trauma research institute

AlfredHealth

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Contents

Our Mission

Improving care of the injured.

Integrating injury research, education, medical technologies and trauma systems' development to improve clinical care and outcomes.

Photo from the Alfred Health Public Affairs and Communication team

NTRI Achievements 2022-25

	2022-23	2023-24	2024-25	TOTAL
Number of publications	55	29	26	110
Trauma junior medical specialists trained with NTRI support	85	88	81	254
Procedures Course (Attendees)	224	268	288	780
Master of Advanced Nursing – Trauma Nursing Stream (Enrolment Number)	0	39	90	129
The Victorian Grand Round registrations	3,976 *Online* 458 *In-person*	4,745 *Online* 350 *In-person*	1,673 *Online* 414 *In-person*	4,434 *2022-2023* 5,095 *2023-2024* 2,087 *2024-2025*
NTRI-supported Accreditation of Resuscitative Thoracotomy (Trained)	6	8	0	14

Foreword from the NTRI Director

I am pleased to present the National Trauma Research Institute's triennial report, covering the financial years 2022–2023, 2023–2024, and 2024–2025. This report reflects the collective progress and dedication of our team in advancing trauma care through translational research, evidence-informed practice and innovation.

Over this period, our focus has remained on bridging the gap between research and clinical practice – ensuring that research findings translate quickly into meaningful outcomes for patients and their providers.

Through the leadership of clinician-researchers and close collaboration with key departments, we have worked to improved outcomes with evidence-based decision-making.

We are consolidating and strengthening our work with the Trauma Allied Health team and Trauma Geriartrics, enabling more integrated, patient-centred models of care that address the complex needs of trauma patients across the continuum of recovery.

Innovation is central to our mission. By exploring emerging technologies and registry-based clinical trials, we aim to tackle the complex challenges within the trauma setting with a real-time feedback loop that continuously informs practice, accelerates learning, and drives rapid implementation of evidence-based interventions.

This report highlights our achievements, challenges, and the strides made toward a future where care of the seriously injured is responsive, more effective, and accessible to all. I extend my sincere thanks to our researchers, clinicians, partners, and supporters who have contributed to these efforts.

We look forward to continuing this important work together in the years ahead.

Director
Professor Mark Fitzgerald (ASM)
MBBS | MD (Research) | GradDipInetComm | FACEM | AFRACMA

Our focus is to bridge the gap between research and clinical practice for the seriously injured.

Message from the Research Manager

I am pleased to provide an update on key developments in trauma research, clinical registries, and education programs.

These initiatives demonstrate a comprehensive approach to advancing trauma care through evidence-based research, systematic data collection, and targeted education. By fostering collaboration across clinical, academic, and policy sectors, we aim to improve patient outcomes and support best practices in trauma management at both national and international levels.

Innovative clinical trials and research methodologies reflect the forefront of trauma research, advancing knowledge through practical, implementable solutions. The CSL TAP study, an international Phase 3 clinical trial sponsored by CSL Behring, is evaluating early administration of 4-Factor Prothrombin Complex Concentrate (4F-PCC, BE1116) in patients with major trauma-related bleeding. As a national lead, The Alfred supported the implementation across multiple national sites. The Trauma Reception & Resuscitation System has now expanded to stroke care. Our team has developed the Computer-Assisted Resuscitation Decision Support system (CARDSS) to improve decision-making during acute stroke reception, aiming to address Australia's significant delays in delivering timely thrombolysis. The Australian Traumatic Brain Injury National Data (ATBIND) project, led by A/Prof Gerard O'Reilly, continues to generate high-impact findings, with recent publications identifying key factors associated with both in-hospital and out-of-hospital mortality following moderate to severe TBI. These insights are informing national policy and clinical strategies to improve care and outcomes for patients with serious brain injuries.

The Alfred Health Trauma Registry has gone from strength to strength between 2022 and 2025. The dedicated team of three, consolidated in 2020, continues to meet all statutory reporting deadlines and fulfil its objectives. A standout service is the meticulous scribing of discussions during audits and feedback sessions, capturing key points and actions. This initiative has received positive feedback and has significantly enhanced the registry's value to the Trauma Service and Alfred Health. At a broader level, NTRI, Alfred Health, oversees the Australian and New Zealand Trauma Registry (ANZTR), supported by the Australian Department of Health and Aged Care, the Bureau of Infrastructure and Transport Research Economics, and Te Whatu Ora — Health New Zealand. Since the commencement of the four-year funding contract in 2023, NTRI has managed fund coordination and reporting milestones, with Monash University's School of Public Health and Preventive Medicine hosting the data. The ANZTR, a leading clinical quality registry, now contains over eight years of data from 28 Australian and seven New Zealand trauma services and is actively recruiting new sites to expand coverage. Key recent achievements include launching an interactive public-facing portal to improve community engagement, restructuring governance to reflect evolving registry operations, transitioning to the national mutual acceptance ethical model, updating the bi-national trauma minimum dataset to version 2.2, and exploring data linkage opportunities to increase the registry's impact.

We are also proud to support a growing cohort of clinician-researchers undertaking PhD studies within NTRI. Dr Madeline Green was recently recognised with the Hatem Salem Award for Medical Student Research Excellence at the 2024 Monash University Medicine Awards for her outstanding work in trauma research. Dr Mike Noonan, Trauma Consultant and current PhD candidate, is focused on improving the early identification and management of traumatic shock, a leading preventable cause of death in blunt polytrauma, with the goal of developing standardised definitions and data-driven care pathways. Dr Cecil Johnny's research examines the evolution and innovations in thoracic trauma management, using a mixed-methods approach to identify gaps and propose strategies for integrating emerging techniques into standard clinical care. These projects exemplify the vital role of clinician-led research in advancing translational research.

Education remains a cornerstone of our mission. Under the leadership of Professor Mark Fitzgerald and Associate Professor Joseph Mathew, the NTRI has played a pivotal role in advancing trauma nursing education, jointly led by NTRI Trauma Nurse Practitioner Jaiden Hulyer and Monash University unit coordinator Grace Huang. This collaboration resulted in the Master of Advanced Nursing – Trauma Nursing Stream, launched in mid-2023, comprising two six-credit units (Trauma Nursing 1 and 2). The program combines Alfred Health's clinical expertise with Monash's academic rigour to provide nurses with essential, evidence-based trauma care knowledge. Student enrolments have grown from 17 in the first semester to 55 by the fourth semester in 2025, reflecting growing demand both domestically and internationally. Alongside this, our Procedures Course (details at alfredhealth.org.au/events/the-procedures-course-2025) and the PARTY Program (https://www.partyalfred.org/) continue to deliver vital hands-on and community-focused education, enhancing procedural skills and injury prevention efforts across the trauma continuum.

Dr Yen Kim PhD
Research Manager, *National Trauma Research Institute, The Alfred* | **Program Manager**, *Australia and New Zealand Trauma Registry* | **Adjunct Research Fellow**, *School of Translational Medicine, Monash University*

Key Research Areas

At the National Trauma Research Institute, our research focuses on advancing trauma care through targeted innovation and evidence-based practice.

By combining translational research, cutting-edge clinical trials, trauma system improvements, and data-driven insights, we aim to accelerate the translation of knowledge into real-world impact. These strategic areas guide our efforts to enhance patient outcomes and strengthen trauma care delivery.

The NTRI continues to expand and build on our established track record in Thoracic Trauma Management, Traumatic Brain Injury (TBI) and Shock. Thoracic trauma management focuses on advancing clinical practice through evidence-based research that informs improved diagnosis, treatment, and management of thoracic trauma. Our work supports the translation of research findings into best practice and innovative interventions aimed at enhancing patient outcomes and reducing variability in the delivery.

We continue to build on seminal work by Associate Professor Gerard O'Reilly on TBI patient journey with collaborations. For example, 2024 MRFF Traumatic Brain Injury grant titled "Connect-TBI: A National Informatics and Data-Driven Approach to Improve Care for Moderate to Severe TBI", led by Professor Belinda Gabbe, aims to drive quality improvement across the trauma system from the time of TBI through each stage of care. Over 25% of all trauma cases which have a threat to life have a TBI, and research is crucial to understand how outcomes can be improved to reduce the burden of injury on patients and Australian society. At its core, the Australia New Zealand Trauma Registry (ANZTR) is an important tool to drive quality improvement in trauma care in Australia and New Zealand. Connect-TBI is an opportunity to build on the work of previous and current msTBI projects, leverage national data initiatives, and provide a compelling test case for the integration of clinical informatics systems, innovative research and quality improvement initiatives.

Dr. Jung Hee Kang and Jeffrey Gerobin from the NTRI Research Team.

Registry

Embedding trials within existing trauma registries allows researchers to leverage real-world data for more pragmatic, cost-effective studies. This approach improves patient recruitment, long-term follow-up and data linkage, making translational outcomes more meaningful and applicable to the clinical setting.

Led by Professor Fitzgerald, titled “The Australia New Zealand Trauma Registry — Improving Brain Injury Outcomes” was submitted for MRFF-NCRII — 2024 Clinical Trial Enabling Infrastructure grant application. This is an important proposal asking whether an established clinical quality registry can be used to conduct randomised clinical trials. To answer this question, this project will focus on moderate and severe traumatic brain injury (msTBI) – the commonest injury associated with death and long-term functional impairment. This proposal seeks to determine if Australian msTBI mortality can be reduced with the introduction of a simple intervention that reduces brain swelling, through a randomised clinical trial of the early administration of 3% hypertonic saline (3% HTS) for subjects with msTBI. If successful, we aim to recruit 11 out of 28 ANZTR contributing sites to partake in this registry-based clinical trial.

Innovative clinical trials

The future of trauma clinical trials is shaped by innovative methodologies that emphasise technological integration and enhanced data utilisation. Adaptive trial designs enable researchers to modify study protocols based on accumulating evidence, improving responsiveness to the complexities of trauma setting. Platform trials offer an efficient framework for evaluating multiple interventions simultaneously, accelerating the identification of effective treatments. The integration of advanced medical devices, such as novel haemorrhage control technologies and portable imaging systems, provides new opportunities to assess their impact in real-world clinical environments. Additionally, remote monitoring and telemedicine are expanding the scope of patient follow-up, facilitating timely detection of complications beyond the hospital setting. Complementing these advances, artificial intelligence and machine learning contribute to optimised trial design and data analysis, enabling more precise patient stratification and outcome prediction. Collectively, these innovations hold significant promise to enhance the efficiency and relevance of trauma research.

Trauma systems development

We continue to work closely with our domestic and international partners on trauma systems development. Effective trauma care requires not only clinical innovation but also the continuous development and optimisation of wider trauma care systems. Our research focuses on strengthening system-wide coordination, enhancing prehospital care, and streamlining patient pathways to ensure timely and equitable access to life-saving interventions. By analysing system-level data and outcomes, we identify bottlenecks and opportunities for improvement. Integration of telehealth services, real-time data sharing, and regionalised trauma networks are critical areas where innovation drives better trauma care system performance. Our work supports policy development and implementation strategies that align with the evolving needs of the consumers and healthcare infrastructure.

Research

Clinical Trial

Evaluation of BE1116 in Patients With Traumatic Injury and Acute Major Bleeding to Improve Survival (CSL TAP Study)

Uncontrolled haemorrhage remains the leading preventable cause of death following traumatic injury, with mortality often occurring within hours of hospital arrival despite significant advancements in trauma resuscitation. Driven by a longstanding commitment to improving trauma care and patient outcomes, Professor Mark Fitzgerald — Director of Trauma and Principal Investigator of the CSL TAP (Trauma And Prothrombin Complex Concentrate) Study — brings over three decades of clinical experience to this pivotal research initiative.

The CSL TAP study sponsored by CSL Behring is an international Phase 3, randomised, double-blind clinical trial evaluating the efficacy of early administration of 4-Factor Prothrombin Complex Concentrate (4F-PCC, BE1116) in patients experiencing acute major bleeding due to trauma. The trial is designed to enrol up to 8,000 patients over a two- to three-year period across multiple sites in the United States, United Kingdom, and Australia. The study is the largest international clinical trial on evaluating the use of 4-Factor Prothrombin Complex (4F-PCC) to improve the survival in adult patients with traumatic injury and acute major bleeding. The Alfred Hospital serving as the lead site in Australia develops trial documentation as well as supports the implementation across other Australian sites.

The study officially commenced at The Alfred on 13 November 2023, with the aim to enrol between 50 and 200 patients over the anticipated study period. Eligible participants include adults aged 18 years or older, with a minimum body weight of 50 kilograms, who have sustained traumatic injuries accompanied by suspected or confirmed acute major bleeding. The eligible participants are administered a single IV dose of 4F-PCC, BE1116 within 90 minutes of emergency department arrival, along with standard trauma care.

To facilitate timely enrolment in the emergency setting, Professor Fitzgerald and his research team have obtained a waiver of consent from the Human Research Ethics Committee. Furthermore, the research team, including clinical trial coordinator Grace Huang, has implemented a number of innovative communication strategies — including the use of barcodes, WhatsApp, Microsoft Teams, and JotForm — to ensure rapid information dissemination and closed-loop communication among clinical and research teams.

The Alfred Hospital successfully enrolled 68 participants in the study, placing it among the top five recruiting sites globally. The clinical trial ended on 30 September 2024. The results are due for publication in early 2026.

Professor Mark Fitzgerald with the study team at CSL TAP Study's first enrolment

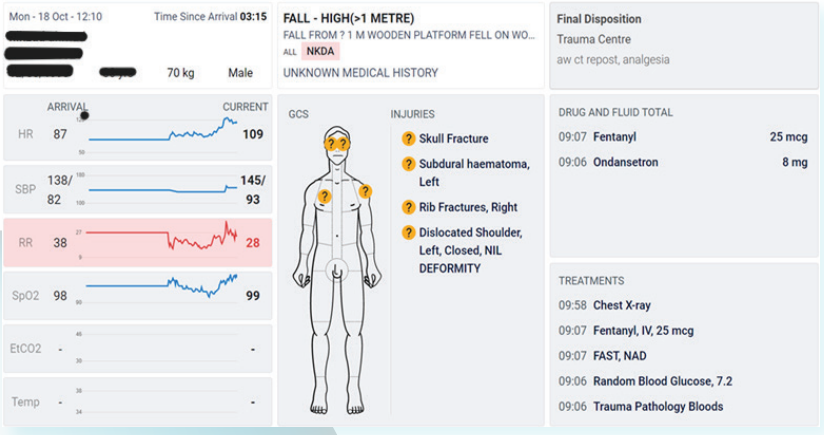
Grant Project

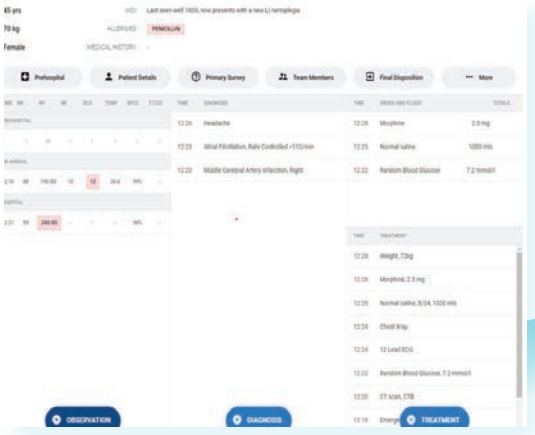
The Computer Assisted Resuscitation Decision Support (CARDS) System for Stroke Reception & Hyperacute Management

Stroke is a leading cause of disability and death in Australia; early treatment leads to improved patient outcomes. In ischaemic stroke, intravenous thrombolysis and endovascular thrombectomy have been shown to improve patient outcomes, with the greatest benefit achieved when these interventions are provided as soon as possible. The reception of a 'Code Stroke' is a challenging process where multiple diagnostic and therapeutic interventions take place within a short period of time. There is a risk for a delay in critical interventions due to failure to follow evidence-based algorithms systematically. In Australia, only 29% of patients with acute ischaemic stroke (AIS) are treated with intravenous thrombolysis within 60 minutes of hospital arrival compared with other countries, including the UK (61%) and US (80%). This results in poorer patient outcomes, increased healthcare and carer burden and early death.

The Computer-Assisted Resuscitation Decision Support (CARDS) System for Stroke Reception & Hyperacute Management is a derivative of The Trauma Reception & Resuscitation (TR&R®) Project which was developed and tested in The Alfred between 2006 and 2008. The TR&R® system provides hospital Trauma Teams with access to computerised decision support based on evidence-based algorithms for the first 30 minutes of trauma management.

The NTRI has received NHMRC funding - Project 2009283 — 'Reducing Resuscitation Errors' to develop and test a decision support system that addresses not only trauma but the majority of resuscitation cases. These key resuscitation domains are stroke, cardiac, sepsis, toxidromes, paediatrics and obstetrics. In our current study, we aim to test 'The Stroke CARDS System' for real-time use in the management of patients presenting to The Emergency Department with suspected stroke. Specifically, we aim to standardise acute stroke resuscitation, documentation, interventions and management and develop evidence-based algorithms for stroke hyperacute management. 'The Stroke CARDS System' will provide real-time decision-making support prompts to assist the clinical staff.





Research

Grant Project

Australian Traumatic Brain Injury National Data (ATBIND)

Professor Gerard O'Reilly

With the excellent leadership of Professor Gerard O'Reilly, the Medical Research Future Fund (MRFF) awarded Australian Traumatic Brain Injury National Data (ATBIND) Project (Figure 1) demonstrated national clinical quality indicators and an overall epidemiological profile for moderate to severe traumatic brain injury (msTBI).
To date, ATBIND project has identified multiple dependent and independent factors associated with in-hospital mortality following msTBI in Australia using the Australia New Zealand Trauma Registry (ANZTR) and the National Coronial Information System (NCIS).

Importantly, CI Courtney Ryder and the team addressed the unmet need for improved TBI care amongst Priority Population in Australia, while also noting barriers to Indigenous Data Sovereignty and Governance. The ATBIND project integrates both conventional and Indigenous research methodologies (i.e. Yarning) methodologies to foster rich data collection and data partnerships with First Nations communities.

Incidence

What is the incidence of msTBI, and what are the outcomes for people with msTBI

Predictors

What are the determinants of death and hospital discharge destination for people with msTBI?

Quality indicators

What are the most appropriate indicators for monitoring the outcomes and care for people with msTBI?

Figure 1. Overview of ATBIND Project

1. From ATBIND Phase 2 – ANZ Trauma Registry[1]

Extract from Abstract:

Objectives: To establish the determinants of death in hospital for patients with moderate to severe traumatic brain injury (TBI) in Australia. Design, setting, participants: Retrospective analysis of Australia New Zealand Trauma Registry (ANZTR) data. Cases were included if they presented to a participating hospital between 1 July 2015 and 30 June 2020 and had an Abbreviated Injury Severity (AIS) score–head greater than 2.

Conclusion: Among people presenting to a major trauma hospital in Australia following moderate to severe TBI, there were multiple factors independently associated with death in hospital. The potentially modifiable determinants of in-hospital death included out-of-hours access to emergency care, mode of transfer from the scene of the injury, prior facility care and pre-definitive hospital endotracheal intubation.

2. From ATBIND Phases 1 and 2 – National Coronial Information System (NCIS)[2]

Extract from Abstract:

Objectives: To identify the determinants of death occurring outside of hospital following moderate to severe traumatic brain injury (msTBI) across Australia.

Results: There were 3751 deaths with msTBI, of which 1064 (28.4%) occurred outside of an acute hospital setting and 605 (16.1%) occurred outside any medical service. The odds of death occurring outside hospital were lower for male patients (odds ratio [OR]: 0.6, 95% confidence interval [CI]: 0.5–0.7), higher in penetrating injuries (OR 5.2, 95% CI: 3.0–8.9) and highest in Tasmania followed by the Northern Territory and Queensland. The odds of death occurring outside any medical service area (e.g. hospital, rehabilitation, nursing home) were higher for: younger adults (OR 3.6, 95% CI: 1.0–12.7), those with penetrating injuries (OR 8.9, 95% CI: 4.5–17.3), and where the time between injury and death was less than 24 h. The odds of death outside any medical service area were less for people with msTBI in South Australia (OR 0.1, 95% CI 0.0–0.2).

Professor Gerard O'Reilly
MBBS MPH MBiostat AStat FACEM PhD

NHMRC Research Fellow and Trauma Registry Project, *National Trauma Research Institute* | **Emergency Physician, Head, Global Programs and Lead**, *Biostatistics, Emergency and Trauma Centre, Alfred Health* | **Adjunct Clinical Professor**, *School of Public Health and Preventive Medicine, Faculty of Medicine, Nursing and Health Sciences, Monash University* | **Head of Global Programs**, *Alfred Emergency Academic Centre*

1 O'Reilly GM, Afroz A, Curtis K, Mitra B, Kim Y, Solly E, Ryder C, Hunter K, Hendrie DV, Rushworth N, Tee J, Fitzgerald MC. The determinants for death in hospital following moderate to severe traumatic brain injury in Australia. Emerg Med Australas. 2025 Feb;37(1):e14562. doi: 10.1111/1742-6723.14562. PMID: 39844697; PMCID: PMC11755221.

2 O'Reilly GM, Afroz A, Curtis K, Mitra B, Kim Y, Solly E, Ryder C, Hunter K, Hendrie DV, Rushworth N, Tee J, Fitzgerald MC. The incidence and determinants of traumatic brain injury deaths occurring outside hospital in Australia. Emerg Med Australas. 2025 Jun;37(3):e70051. doi: 10.1111/1742-6723.70051. PMID: 40313233; PMCID: PMC12046458.

Alfred Trauma Allied Health Research and Quality Improvement Report

Allied health research plays a crucial role in advancing clinical practice, improving patient outcomes, and integrating evidence-based care into everyday healthcare settings. By focusing on various aspects of healthcare delivery within trauma care, allied health professionals contribute significantly to the development and implementation of innovative practices and quality improvement initiatives. This report provides an overview of the research and quality improvement outputs of the Allied Health workforce across the Trauma Service of Alfred Health.

Research and Scholarly Output

Allied Health Trauma staff published 19 trauma-related papers across this time period (list can be seen in "publications section"), many in high impact journals. Research focused on clinical outcomes, implementation science, and workforce innovations. Collaborative authorship across disciplines demonstrating interdisciplinary research culture. Below are top 5 publications from the Allied Health trauma:

1) Kimmel L, Webb M, McCaskie D, Maric V, Fitzgerald M, Gabbe B. Outcomes following intensive allied health therapy in the acute hospital for trauma patients. Injury. 2025 Jan;56(1):111942

   An early and intensive allied health model of care improved the odds of discharge directly home by over 50% and return to work by 65% for patients at 12 months compared to a retrospective cohort.

2) Gabbe BJ, Reeder S, Ekegren CL, Mather A, Kimmel L, Cameron PA, Higgins AM. Cost-effectiveness of a purpose-built ward environment and new allied health model of care for major trauma. J Trauma Acute Care Surg. 2023 Jun 1;94(6):831-838.

   Introduction of a 7 day per week, early, intensive, allied health model of care was cost-effective, reduced hospital length of stay by 2 days as well as improving complications for major trauma patients.

3) Muller K, Ridley EJ, Tatucu-Babet OA, Kimmel L, Groombridge C, Fitzgerald M, Elliott A, Lambell KJ. The feasibility and acceptability of measuring resting energy expenditure using indirect calorimetry in self-ventilating patients following traumatic injury: An observational study (The FAME Trauma study). Injury. 2025 Jul 12;56(8):112606

   A prospective observational trial exploring the feasibility of using indirect calorimetry (IC) to measure energy expenditure in self-ventilating trauma patients. We showed that using IC is both feasible and well-tolerated by our patients, and that regularly reported discordance between estimated and measured energy expenditure is also observed in this unique patient group.

4) O'Rorke S, Tipping CJ, Lodge M, Mathew J, Kimmel L. Frailty across the adult age spectrum and its effects on outcomes: Experience from a level 1 trauma centre. Injury. 2025 Feb;56(2):112037.

   Frailty is associated with nearly five times the increase in odds of a discharge to further inpatient care and longer-term outcomes are also significantly poorer for patients with frailty. Identifying frailty on admission may help outcomes by targeting this patient group and optimising healthcare resource usage.

5) Webb M, Kimmel L, Johnny C, Holland A. Retrospective validation of the STUMBL score in a Level 1 trauma centre. Injury. 2025 May;56(5):112088.

   The STUMBL score (a risk prediction score to establish discharge disposition from ED for chest trauma patients) performs poorly in our chest trauma cohort. Further validation work including additional risk factors may improve the positive predictive value and clinical utility of the score in our cohort.

Conference Presentations and Awards

Allied Health Trauma staff delivered multiple presentations at both international and national conferences across disciplines including physiotherapy, occupational therapy, speech pathology, dietetics, and social work. Presentation topics spanned innovative models of care, rehabilitation outcomes, health system integration, and patient-centred care.

The Allied Health researchers received multiple accolades for their contributions to trauma research and interdisciplinary collaboration. At the Australia and New Zealand Trauma Society Conference during this period, awards included Best New Presenter in the Interdisciplinary Forum (Asher Kirk and Kara Falloon), Best Presenter in the Interdisciplinary Forum (Lara Kimmel), and Best Non-Medical Poster Prize (Jason Pereira). Jason Pereira was also awarded the Henrietta Law Memorial Prize for Best Novice Allied Health Research at Alfred Health Research Week (2022) for the paper titled "Non-weight bearing 2 or more limbs following trauma: hospital-based outcomes". In addition, the team was named runner-up for the prestigious Chair of the Board Award (2023) at Alfred Hospital for their project "Early and Intensive Allied Health following Trauma."

Funded Research Projects

The Allied Health Trauma team achieved competitive grant success, including a $170,000 Department of Health grant for a Physiotherapy-led Trauma Tertiary Survey project, awarded to an interdisciplinary team led by Project Lead Melissa Webb. Allied health researchers also actively participated in grant applications under the mentorship of senior investigators. Notably, the team secured a major MRFF 2024 Survivorship Care and Collaborative Research Prioritisation grant totalling $1,985,313 for the *"Advancing Care Through Injury Outcome Navigators (ACTION) Study"*, with Associate Professor Lara Kimmel as one of the chief investigators (CIE) and Melissa Webb as Associate Investigator.

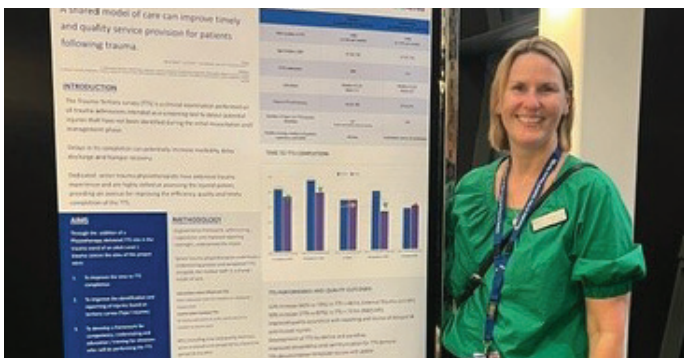
Postgraduate Research Students

Two physiotherapy staff are currently undertaking PhD studies, contributing to the advancement of trauma care through focused research.

- Asher Kirk: 'Understanding movement behaviours during the transition from hospital to home following orthopaedic trauma'
- Melissa Webb: 'The performance, quality and impact of the Trauma Tertiary Survey in modern trauma care'

Quality Improvement Activity

Numerous quality improvement (QI) projects completed across key themes including discharge planning efficiency, nutrition optimisation, early mobilisation, and patient engagement strategies. Many QI projects acted as a bridge to formal research studies, with successful translation from local projects into peer-reviewed outputs. Integration of QI learnings into daily ward-based care, with rapid-cycle testing and iterative improvement.



Allied Health researchers Ms Melissa Webb, and Ms Sarah Calthorpe presenting their studies at the 2024 ANZTS Trauma Conference

Research

Alfred Trauma Allied Health Research and Quality Improvement Report

Leadership and Research Culture

Through strong leadership, Allied health has developed a culture of collaboration and integration into the broader trauma service research landscape as evidenced by:

(i) establishing a **research and quality framework** across disciplines

(ii) fostering collaboration between clinicians, academics, and health system partners

(iii) ensuring research outputs align with **clinical service priorities** and patient care needs, and

(iv) membership on the NTRI research committee to integrate and align allied health research into the trauma service research profile

Key to this culture is the Allied Health leadership from Associate Professor Lara Kimmel which has enabled allied health professionals to see research as core business, not an optional activity, embedding a sustainable culture of inquiry and innovation. Associate Professor Kimmel was also awarded the ANZTS 2024 Trauma Leadership Award.

Ongoing future research focus

Allied Health Trauma team remains focused on expanding its research impact through a range of strategic priorities. Key priorities include

(i) benchmarking allied health services and outcomes against other Level 1 trauma centres,

(ii) conducting multi-site research trials, and

(iii) publishing findings from quality improvement activities,

(iv) building on the culture of education by establishing educational opportunities for external allied health professionals,

(v) supporting and role-modeling postgraduate studies across a wider range of disciplines, and

(vi) ongoing integration and contribution of allied health research within the trauma service research framework.

Associate Professor Lara Kimmel, Professor Mark Fitzgerald, and Associate Professor Joseph Mathew (from right to left) honoured at the 2024 ANZTS Trauma Conference. Photo from the Alfred Health Public Affairs and Communication team

Photo of the Alfred Allied Health Team

Older persons' Trauma

The increasing number of older people being diagnosed with traumatic injury and significant opportunity to build an evidence-base to improve outcomes for these patients and the healthcare system in which they are cared for. The advent of The Alfred Traumageriatric Service has created a nexus for research focusing on older trauma patients. Growing research collaborations between medical, allied health, nursing teams are reflective of the multidisciplinary clinical care required for these patients. We are leading the way in advocacy and clinical leadership for older trauma patients, across Australia and New Zealand and with our growing international older persons' trauma collaborations

The following projects highlight key areas of research in older persons' trauma being undertaken.

- **Cost-consequence analysis of the introduction of a traumageriatric service** (PI Dr Philip Belleville; NTRI co-investigators Dr Margot Lodge, A/Prof Joseph Mathew, Prof Mark Fitzgerald): This study is investigating the financial and clinical outcomes of the introduction of an older person-specific trauma model of care. We compared the outcomes of 463 older trauma patients in the 12 months prior to the introduction of the traumageriatric service, with the outcomes of 489 patients seen in the first 12 months of the service. This research found that introduction of the traumageriatric service was associated with a 2-day reduction in length of stay, $3492 reduced per-patient net loss and decreased 12-month mortality (33% vs 21%).
- **Family and caregivers' perspectives on delirium education in an inpatient trauma setting** (PI Dr Melanie Hoich; NTRI co-investigators Dr Margot Lodge, A/Prof Lara Kimmel, A/Prof Chris Groombridge): This mixed methods study is investigated the experiences of family and caregivers of older trauma patients who experience delirium. This is an area with little evidence to guide the provision of person-centred delirium education, despite the high incidence of delirium in older trauma patients and the high associated mortality and morbidity. The study will utilise both survey and interview methodology to understand the perceptions of family and caregivers on the information they receive and explore how this information could be delivered in the future. The results of this study will be used to inform a project with family and caregivers to co-design trauma-specific delirium education.
- **Delirium in the older trauma patient: A systematic review of risk factors** (PI Dr Stefan Milevski, NTRI co-investigators Dr Margot Lodge, Dr Yung Hee Kang, A/Prof Chris Groombridge): Delirium is common in older trauma patients and associated with a range of adverse outcomes but there is little evidence to guide management of its risk factors. This systematic review aims to understand risk factors (both fixed and potentially modifiable) for the development of delirium in older trauma patients.

Research

Older Persons' Trauma

The following presentations showcase the research and clinical leadership in older persons' trauma:

- Age Anaesthesia Association ASM, Brighton, United Kingdom: Dr Margot Lodge (invited international speaker): Setting up perioperative and trauma services
- Australian and New Zealand Society for Geriatric Medicine: Dr Philip Belleville: Cost-consequence analysis of the introduction of a traumageriatric service
- Alfred Health Grand Round: Dr Margot Lodge: A Trip to Trauma — The Alfred Traumageriatric Service
- ANZTS ASM, Brisbane: Dr Margot Lodge: Moving Forward — The need for a bi-national trauma in older person's framework

The following awards recognised outstanding contributions in the field of older persons' trauma:

(i) the Age Anaesthesia Association ASM Best Poster Award, presented to Dr Margot Lodge and Dr Philip Belleville, and

(ii) the Australian and New Zealand Society for Geriatric Medicine PM Gibson Award for best scientific paper from an Advanced Trainee, awarded to Dr Philip Belleville.

Education initiatives in older persons' trauma have been delivered across a range of clinical and academic settings:

(i) Older persons' trauma clinical education: Alfred Trauma registrars, Alfred Trauma nurse practitioner candidates, Caulfield Hospital junior medical staff, Alfred Health emergency medicine registrars, Alfred Health ICU nurses,

(ii) Trauma in the Older Person: The Alfred Introduction to Trauma Physiotherapy,

(iii) Care of the Older Trauma Patient: Monash University Master of Advanced Nursing, and

(iv) Falls and Older Trauma Patients: Victorian Geriatric Medicine Training Program.

Dr Margot Lodge MBBS GChPOM PhD FRACP
Consultant Geriatrician and Clinical Lead of The Alfred Traumageriatric Service | Adjunct Research Fellow,
National Trauma Research Institute, School of Translational Medicine, Monash University

PhD/BS Medicine Science Students Research Projects

Dr Madeline Green

NTRI congratulates Dr Madeline Green for receiving the Hatem Salem Award for Medical Student Research Excellence at the 2024 Monash University Medicine Awards for her research work on brachiocephalic vein central venous access during shock resuscitation. The award is given to the final-year Medicine student whose BMedSci (Hons), undertaken at the School of Translational Medicine, is determined to have made a significant impact on their field of study.

Dr Mike Noonan (MBChB (Hons) BPhty (Hons) PGCertMedEd FACEM)

I am a Trauma Consultant currently undertaking a PhD at NTRI with a passion for clinical leadership, education and translational research. My PhD focuses on improving the early identification and management of traumatic shock (TS), a leading preventable cause of injury-related deaths, particularly in blunt polytrauma. By exploring clinical criteria for the early identification of TS, my research aims to develop a standardised clinical definition for TS in polytrauma patients and develop data-driven approaches to improve the outcomes of our most severely injured patients.

Research

PhD/BS Medicine Science Students Research Projects

Dr Shifeng Bai

Tension pneumothorax (tPTX), a life-threatening condition frequently seen in trauma cases, has for so long been treated with needle thoracostomy (NT), tube thoracostomy (TT), and finger thoracostomy (FT). Despite NT being the primary recommended approach in both civil (Advanced Trauma Life Support, ATLS) and military (Tactical Combat Casualty Care, TCCC) guidelines, its efficacy has been a matter of contention. The medical community's pursuit of superior outcomes ushered in innovations like the McSwain Dart, Thoracic vent, ThoraQuik and C-Lant. However, even these novel tools fall short of capturing all the essence of an ideal pleural decompression procedure.

Stepping into this void is the groundbreaking semi-automated pleural decompression (SaPD) device. A blend of contemporary engineering and medical acumen, this patented solution introduces a series of innovations. A standout feature is its specialized penetration mechanism, ensuring safer, controlled chest wall entries. It also incorporates an organ protection mechanism, significantly reducing the chances of over-penetration. Additionally, its unique one-way valve efficiently manages fluid dynamics, and the adaptable extendable cannula, designed to accommodate varying chest wall thicknesses, not only ensures a blockage-free operation but also eliminates concerns of kinking.

Further enhancing the SaPD device's utility is the integration of the mid-arm-point entry technique, paving the way for a seismic shift in the treatment paradigm of tension pneumothorax. The device, with its multifaceted functionalities, doesn't just promise enhanced treatment outcomes; it intends to set a new benchmark. It envisions streamlined, efficient, and more universally accessible treatments, drastically cutting down on risks and complications inherent to current methods.

Dr Yuewei (Vivian) Xiao

Moderate to severe traumatic brain injury (msTBI) is a leading cause of death and disability but there is limited Australian epidemiology data on msTBI mortality extending over decades. This longitudinal cohort study analysed data from The Alfred Trauma Registry for adults 16-70 years old with blunt msTBI from 2002-2021.

Over the period, msTBI mortality reduced three-fold for patients admitted to the Alfred Trauma Service. The proportion of patients discharged to home, as a surrogate for improved early functional outcomes, increased by two-fold. These findings foster optimism towards msTBI outcomes and support further research into advancing neurotrauma care."

Dr Cecil Johnny (MBBS MS FACEM)

Thoracic trauma is a cause of death in greater than 50% of severely injured trauma patients. This research aims to explore the evolution and current innovations in the management of thoracic trauma.

By analysing historical data, current practices, and emerging techniques, the study seeks to identify gaps and propose new strategies to improve patient outcomes. The research will employ a mixed-methods approach, combining quantitative data from clinical trials combining with qualitative studies. Expected outcomes include a comprehensive overview of innovative practices and recommendations for integrating these into standard care protocols.

Registries

Alfred Health Trauma Registry

Alfred Health Trauma Registry (AHTR) has continued to enjoy a symbiotic relationship with the National Trauma Research Institute (NTRI), Victorian State Trauma Registry (VSTR) and Australia New Zealand Trauma Registry (ANZTR), to which it provides data for research purposes, and in return, receives expert guidance and oversight.

Reflections from Jane Ford (Alfred Health Trauma Registry Manager, 2022 – 2024)

The Alfred Health Trauma Registry (AHTR) went from strength to strength during the years 2022 to 2024. The team of three that was consolidated in 2020 continued to meet statutory reporting deadlines and fulfil its stated objectives[3].

The AHTR's role in preparing the weekly Trauma Service audit has grown exponentially with the audit itself becoming a high profile, well attended, comprehensive examination of the Service's activity for that week. In addition to the in-depth clinical focus on all cases of interest, there are now data presented by the AHTR on patient demographics, inpatient length of stay, readmissions, operations, interventional radiology procedures and listings of MET calls and Code Grey, allowing a multidisciplinary overview of the Trauma Service operations to all audit attendees.

One of the standout services offered by the AHTR is our meticulous scribing of discussions during audits and feedback sessions, capturing all key points and actions. We utilise a purpose-built Clinical Governance REDCap database to securely store these notes, actions, and outcomes for future reference. This initiative has garnered positive feedback, and we are proud to have significantly enhanced our value to the Trauma Service and Alfred Health as a whole.

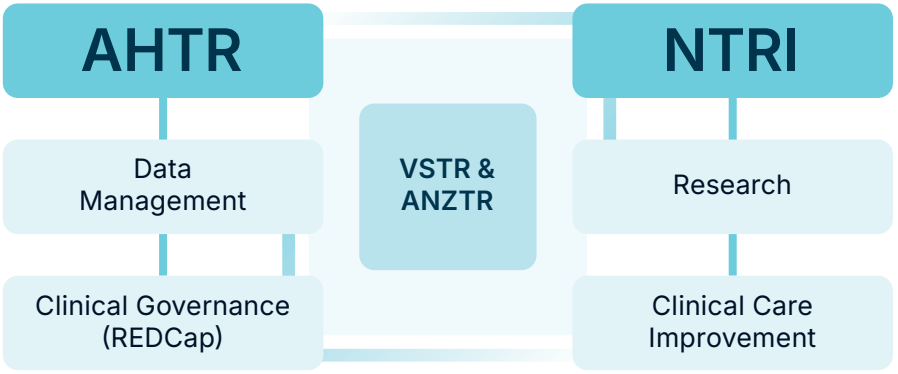


Figure to represent a symbiotic relationship between AHTR and NTRI

3 ..\..\..\AHTR Admin_post 2019\Governance\Policies\AHTR_Governance_statement_V5.pdf

Reflections from Zoe Cheung (Alfred Health Trauma Registry Manager, 2024 to Present)

Zoe Cheung, Alfred Health Trauma Registry Manager

The AHTR is a comprehensive program focused on trauma epidemiology, injury surveillance, and performance monitoring. Established in 2001, its core objective is to provide the Alfred Health Trauma Service with high-quality, reproducible, and accessible data to support performance management and research. The registry currently holds over 200 data items and includes nearly 90,000 patients, with the cohort continuing to grow each year. To manage this increasing volume within a small team of three, we have progressively streamlined our data collection processes for greater efficiency.

In recent years, we have significantly improved the capture of in-hospital complications, aligning closely with World Health Organization Guidelines for Trauma Quality Improvement. We are also integrating our legacy complication data from a separate platform into a unified database. As a result, our complications dataset is now more comprehensive, accurate, and of higher quality.

AHTR at a glance for 2022-2025	FY 2022 - 23	FY 2023-24	FY 2024-25
Count of cases registered on the database (n)	4682	4725	4396
Age range and median age (years)			
Youngest age	15	9	16
Median age	54	53	56
Oldest age	102	103	101
Causes/How			
Proportion of Road traffic crashes (%)	34.4%	34.0%	33.0%
Proportion of low falls (%)	30.6%	29.8%	31.7%
Proportion of Blunt trauma (%)	91.5%	91.6%	91.2%
Proportion of penetrating trauma (%)	4.5%	4.2%	4.5%
Proportion of road/street highway as injury location (%)	39.2%	38.2%	37.6%
Proportion of home as injury location (%)	29.5%	26.3%	27.8%
When			
Peaks on the Weekends			
Count of admission from scene by road ambulance [n(%)]	2575 (83%)	2416 (82%)	1983 (76.9%)
Count of admission from referral hospital [n(%)]	1359 (29.0%)	1579 (33.4%)	1559 (35.5%)
Count of admissions by helicopter from scene [n(%)]	352 (11.3%)	331 (11.2%)	301 (11.7%)
Count of Major, non major and non trauma plus percentages			
Major trauma [n(%)]	1598 (34.1%)	1662 (35.2%)	1734 (39.4%)
Non-major trauma [n(%)]	2625 (56.1%)	2668 (56.5%)	2379 (54.1%)
Non- trauma [n(%)]	459 (9.8%)	395 (8.4%)	283 (6.4%)
Count of patients discharged home (n)	3516 (75.1%)	3523 (74.6%)	3143 (71.5%)
Count of patients discharged to rehab facilities (n)	645 (13.8%)	627 (13.3%)	624 (14.2%)
Count of pt died (n)	178	174	169
E-scooter accidents (%)	1.8%	2.1%	1.50%
Proportion of working for income as injury activity (%)	7.2%	7.2%	5.30%

AHTR Year at a glance – 2024-2025

WHO?

4396

Cases registered on the database

Youngest person

16 years

Median age

56 years

Oldest person

101 years

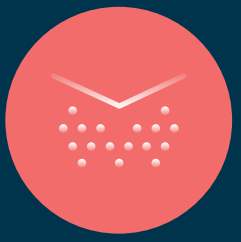
HOW?

33.0%

Road traffic crashes

31.7%

Low falls



91.2%

Blunt trauma

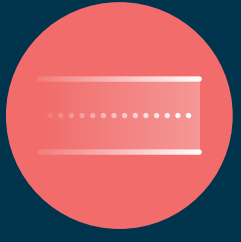
4.5%

Penetrating trauma

WHERE?

37.6%

Road/street/highway



27.8%

Home

WHEN?

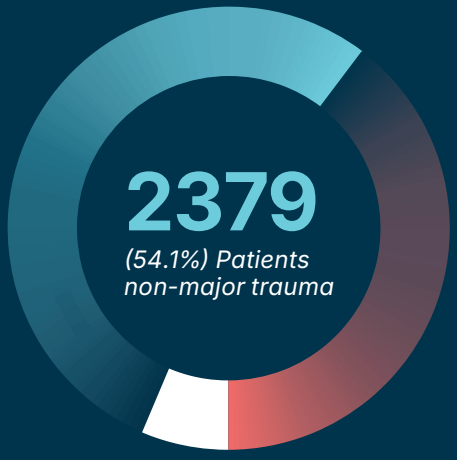
Peaks on weekends

PRE-ARRIVAL

1983
76.9% Patients arrived from scene by road ambulance

1559
35.5% Patients transferred from referral hospitals

301
11.7% Patients arrived from scene by helicopter



1734
(39.4%) Patients major trauma

283
(6.4%) Patients non-trauma i.e. no injuries identified

3143
71.5% Patients discharged home

624
14.2%Patients discharged to rehabilitation facilities

169
Patients died (automatically classified as major trauma)

5.3%
Proportion of working for income as injury activity

1.5%
E-scooter accidents

Registries

Australia New Zealand Trauma Registry

The NTRI, Alfred Health, oversees funding provided by three agencies, the Australian Federal Department of Health and Aged Care, The Bureau of Infrastructure and Transport Research Economics (BITRE), and the Te Whatu Ora — Health New Zealand, for the ANZTR. The 4-year funding contract with the Department of Health and Aged Care commenced in 2023. As the legal entity, the NTRI, Alfred Health, is responsible for the coordination of funds and reporting milestones. The School of Public Health and Preventive Medicine, Monash University was contracted for data hosting and management of the ANZTR.

The ANZTR is a leading clinical quality registry, providing risk adjusted outcomes on mortality and length of stay from 28 Australian and seven New Zealand designated trauma services. The ANZTR now houses over eight years of quality data for research purposes and is currently recruiting more sites to collect population-level major trauma data across Australia and New Zealand.

Key accomplishments of ANZTR include:

(i) launching the ANZTR clinician facing portal at contributing sites (an interactive, secure online platform to enhance 'feedback loop' reporting to clinicians) and working towards release of a public facing portal;

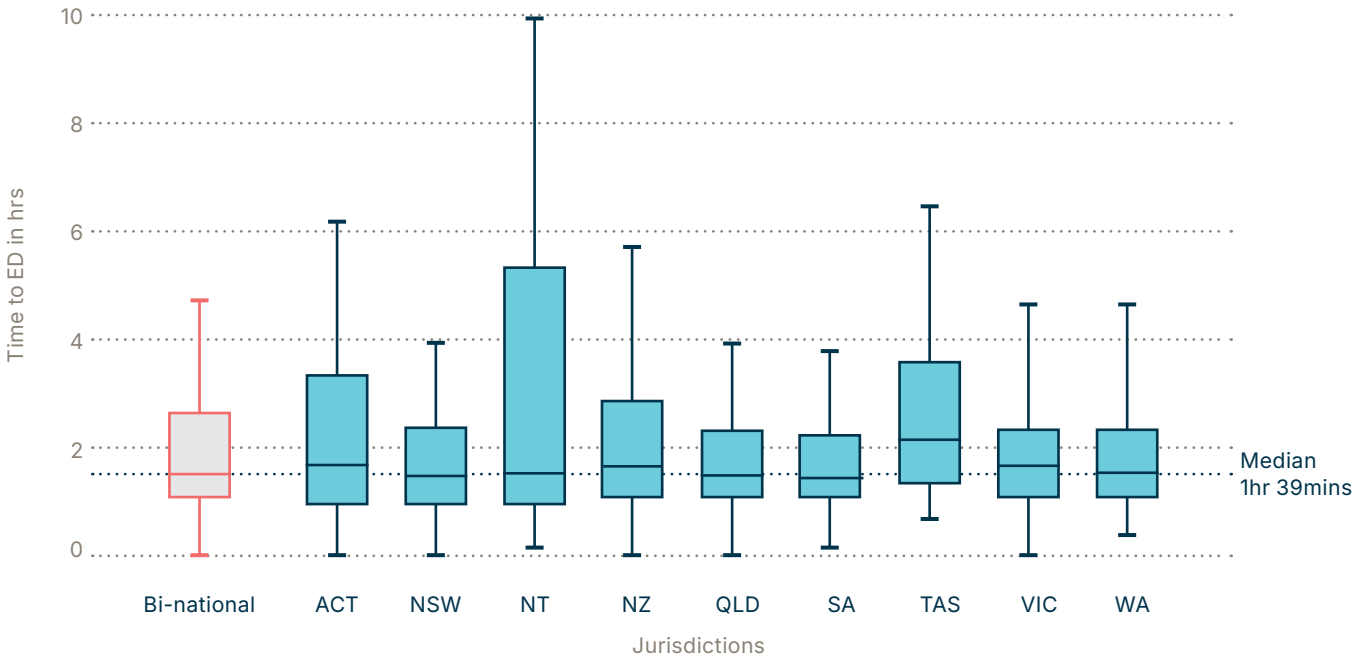
(ii) enhancing the governance of the ANZTR including development of a Privacy Management Plan and the establishing the ANZTR Data Governance Group, as well as expanding the Board composition to have a broader representation across more jurisdictions;

(iii) finalising the move to the national mutual acceptance model for ethical oversight of the ANZTR;

(iv) assisting sites to transition to the updated bi-national trauma minimum dataset (v2.2); and

(v) examining options for expanding the ANZTR's value through data linkages with other national health data sources.

Time to ED



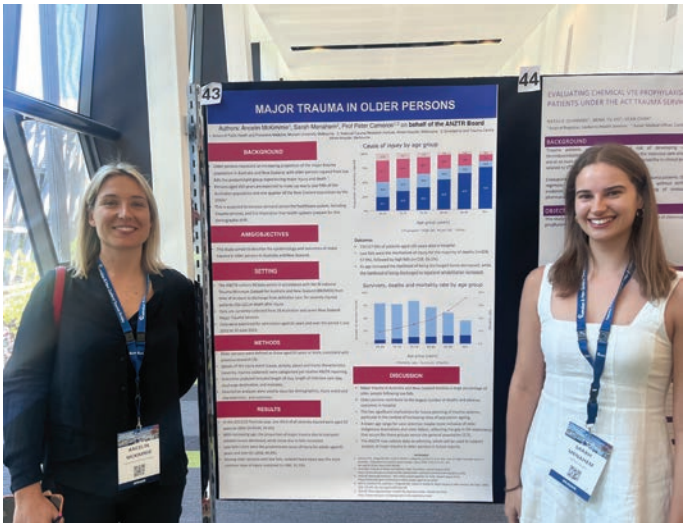
For NT, this is inclusive of 'Directly from Scene' & 'Clinic Transfers' to Royal Darwin Hospital

ANZTR Portal

The ANZTR Public Portal provides a platform for interactive engagement with ANZTR data across various data configurations. This includes number of cases by year, jurisdiction, demographics, injury cause/type, time to Emergency Department, length of stay and deaths. The Portal also features a patient journey timeline that presents injury details, transportation method and outcome status.

During the planning phase, a Public Portal Working Group was formed to discuss the content of the portal and how to maximise community engagement. Working group members included trauma data collectors/coordinators, registry data managers, ANZTR Board Co-Chairs, clinicians and an academic representative. The Public Portal was developed in consultation with stakeholders to ensure optimal usability, and that the design incorporated data fields deemed most important.

Originally launched in December 2024, the ANZTR Public Portal has since been refined in response to additional stakeholder feedback. The second iteration of the ANZTR Public Portal was published on the ANZTR website in August 2025, and can be found here — https://anztr.org.au/portal.



Ancelin McKimmie and Sarah Menahem from the ANZTR Team

Education

Prevent Alcohol and Risk-Related Trauma in Youth (P.A.R.T.Y Program)

The P.A.R.T.Y. Program has run at The Alfred since 2009 as an initiative of the National Trauma Research Institute (NTRI) (www.ntri.org.au). The P.A.R.T.Y. program at the Alfred provides participants with an authentic experience to create insight into the consequences that patients and their families are faced with because of risk-related trauma. Participants engage with paramedics, doctors, nurses, allied health practitioners, patients and their families in the hospital or outreach setting. Learning occurs through a combination of classroom-based information delivery, interactive scenario based learning and proactive demonstrations.

The P.A.R.T.Y. Program at The Alfred shares a common goal with all The P.A.R.T.Y. Program sites and trauma systems throughout Australia: to reduce the impact of trauma and burden of injury on society.

The P.A.R.T.Y program has been busy since recommencing in February this year.

We have delivered for June 2023-June 2025

- 5 sessions of P.A.R.T.Y. program to approximately 225 Apprentices from Cummins group
- 7 sessions of the After-Hours P.A.R.T.Y. On program (sponsored by The Highland Foundation) delivered to approximately 530 have people from the ages of 16 years to 26 years.
- 24 sessions of In-Hospital P.A.R.T.Y. program for senior metropolitan and regional schools reaching approximately 600 students aged between 16-18
- 5 sessions of on base NAVY programs in Cerberus delivered to approximately 600 Navy recruits.
- Extra sessions-2 programs delivered to OLSH =700 students
- Regional Programs - Horsham&Hamilton delivered to 900 students

The program is fully booked for 2025 with currently 180 schools on the waitlist. We are also planning to deliver a program for students from an Orthodox Jewish School in Melbourne in November, after a Rabbi reached out asking for some education for his students. This will be the first time a program has been delivered for this special cohort of students.

We are currently collecting feedback from students at the conclusion of each program which is not being used for research. This feedback is helping us to ensure our content is relevant and engaging to our audience.

Some examples of feedback are:

"Thank you to all of the staff who have given up their time today. It was an exceptional experience!"

"I really enjoyed and learned alot about thing today thank U for opening my eyes."

"Loved it would do it again."

"Very great day, learnt so much information. It was an amazing opportunity."

"A massive thank you to everyone who does their part here. where would people be without you."

"Incredible day spent with such wonderful staff, thank you for sharing so much knowledge with us."

"Very beneficial and educational. Although we have risk taking education at school, the PARTY program was a lot better and gave me much more perspective and reality."

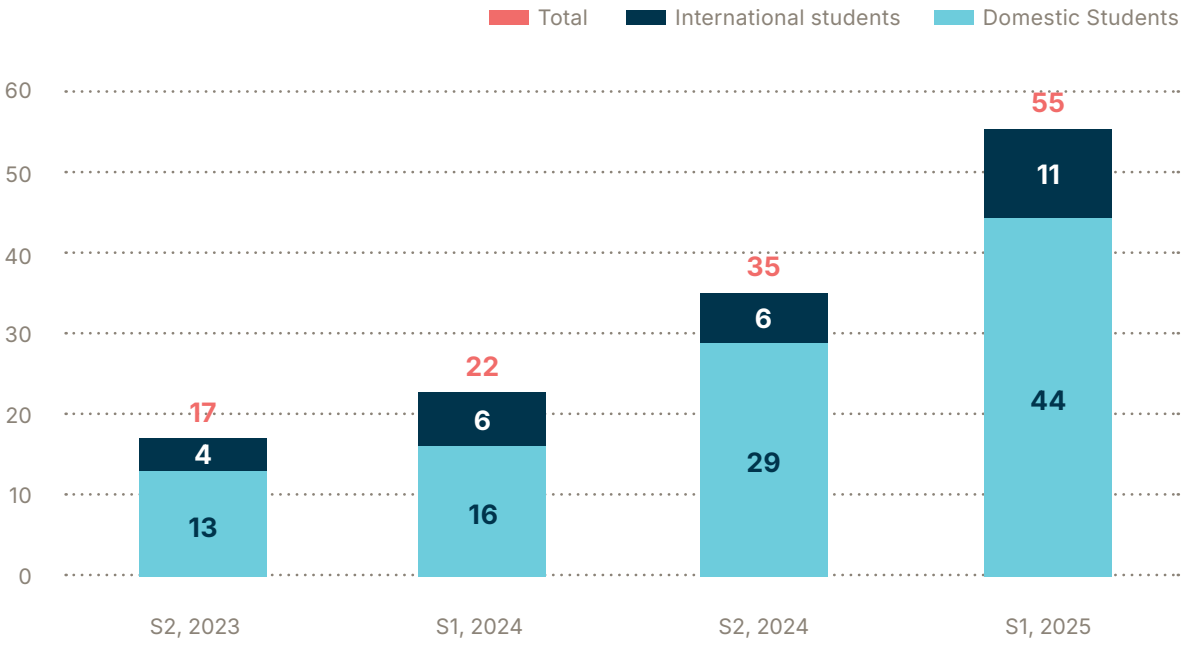
Monash University Master of Advanced Nursing Trauma Program

Under the leadership of Professor Mark Fitzgerald, the National Trauma Research Institute (NTRI) has played a pivotal role in advancing trauma nursing education. Recognizing a significant gap in formal education opportunities for nurses specialising in trauma care, Professor Fitzgerald, who also serves as the Director of Trauma Services, initiated the development of a specialised trauma nursing curriculum led by the NTRI Education Lead, Ms. Ellaine Boo, in collaboration with Monash University.

This partnership resulted in the creation of a dedicated trauma nursing program, comprising two six-credit units: Trauma Nursing 1 (NUR5500) and Trauma Nursing 2 (NUR5510) as part of the Master of Advanced Nursing course. Officially launched in mid-2023, the program integrates the clinical expertise of Alfred Health with the academic rigor of Monash University, ensuring a comprehensive and practical learning experience.

Since its launch, the program has demonstrated remarkable growth, with student enrolment increasing from 17 in its first semester in 2023 to 55 in its fourth semester in 2025. This reflects both the program's success and the growing demand for advanced trauma nursing education. Open to both domestic and international students, the program is making a substantial impact on a global scale. Through collaboration with leading clinical and academic professionals, the program equips nurses with the critical knowledge and skills, based on current best evidence, required to provide high-quality trauma care, from the initial injury phase through to patient rehabilitation in the trauma patient journey.

Alfred-Monash Post-graduate Trauma Nursing Program Enrolment Number



Education

The Procedures Course

The Procedures Course has experienced a period of rapid growth, expansion, and consolidation as a leading provider of advanced trauma education.

Over this three-year span, the program set new benchmarks across registrations, revenue, and international reach. The momentum began in FY 2022–2023 with the first-ever course in Europe, held in Leuven, Belgium. Building on this success, subsequent years saw additional courses delivered in the United Kingdom, Austria, and Sweden. To date, a total of 8 courses have been delivered in Europe and the UK for a combined 212 attendees. In December 2024, another important landmark was achieved with the delivery of the inaugural course in the United States. Held in San Diego, the course was exceptionally well received by the 16 attendees based on the feedback provided.

Crucially, this growth never came at the expense of quality. Across the entire three-year period, participant feedback remained overwhelmingly positive, consistently highlighting the hands-on intensity, practical relevance, and confidence-building nature of the course. With few exceptions, courses sold out quickly — demonstrating that the appetite for high-calibre trauma education remains strong despite an increasing number of offerings both locally and internationally. The overseas expansion also did not negatively impact the number of courses held within Australia, or the geographic spread of Australian course locations. In the period 2022–2023 through FY 2024–2025, courses were hosted across 6 Australian states and territories.

Together, these three years represent a defining chapter in the history of The Procedures Course — a period where its reputation for excellence was not only preserved but expanded across continents, establishing it as an unmissable and trusted educational experience for trauma professionals worldwide.

Associate Professor Christopher Groombridge
TPC Course Director

The Victorian Trauma Grand Round

The Victorian Trauma Grand Round (VTGR) is a state-wide collaborative initiative aimed at enhancing trauma care through multidisciplinary dialogue and shared learning. Funded by the Victorian Department of Health, VTGR brings together key stakeholders across the trauma care continuum to foster clinical excellence and system-wide improvement

The following organisations managed the VTGR events:

- Alfred Health — via the National Trauma Research Institute
- Ambulance Victoria — including Adult Retrieval Victoria
- Melbourne Health — through the Royal Melbourne Hospital Trauma Service and Emergency Department
- The Royal Children's Hospital — encompassing the Trauma Service, Emergency Department, and the Paediatric Infant Perinatal Emergency Retrieval (PIPER) Service

Each session is designed to:

(i) facilitate open discussion and critical analysis of trauma care practices across agencies,

(ii) serve as a leading platform for ongoing clinical education in trauma,

(iii) encourage professional networking and collaboration within the trauma care community, and

(iv) highlight the expertise and resources available throughout Victoria's trauma system.

From 2022-2023 FY to 2024-2025 FY, 12 VTGR events were delivered with 11,616 registrations across Victoria's trauma care community. Event recordings can be accessed via the VTGR website: https://vtgr.org/.

The list of 2022-2025 VTGR events:

Date	Topic	Organisation
31 Aug-2022	Evolution and Revolution – Advances in Pre-hospital Trauma Care	Ambulance Victoria
22-Nov-2022	Trauma Cardiac Arrest	Royal Melbourne Hospital
24-May-2023	Managing Spine Trauma	Alfred Health
25-Jul- 2023	Water Safety: Drowning is Preventable	Royal Children's Hospital
27-Sep-2023	School Bus vs Truck - Where do you start?	Ambulance Victoria
21-Nov-2023	Pelvic and Pelvic Floor Trauma	Royal Melbourne Hospital
12-Mar-2024	Updates in Acute Trauma Management Alfred	Alfred Health
06-Jun-2024	Unveiling the Invisible: Raising Awareness on Inflicted Traumatic Injuries in Young Children	Royal Children's Hospital
29-Aug-2024	Management of Trapped Vs Non-Trapped Trauma Patient	Ambulance Victoria
19-Nov-2024	Trauma and Elderly – 5 years on	Royal Melbourne Hospital
25-Mar-2025	Mangled Limbs: Should it cost you an arm or a leg?	Alfred Health
18-Jun-2025	The ABCs of out of Hospital Trauma Care	Ambulance Victoria

Finance

Executive Summary

This report presents a comparative analysis of the financial performance across key organisational segments over three consecutive fiscal years. The data highlights year-on-year growth trends in funding allocations and reveals strategic priorities based on investment trajectories. The segments under review include Research, Education, Clinical Trials, and Operating Accounts

Business Segmentation	FY 22-23	FY 23-24	FY 24-25
Operational Accounts	28,805	50,000	59,000
Clinical Trials	25,000	65,000	491,156
Education	260,555	480,503	639,000
Research	47,499	604,847	626,000
TOTAL	**1,061,859**	**1,500,350**	**1,815,156**

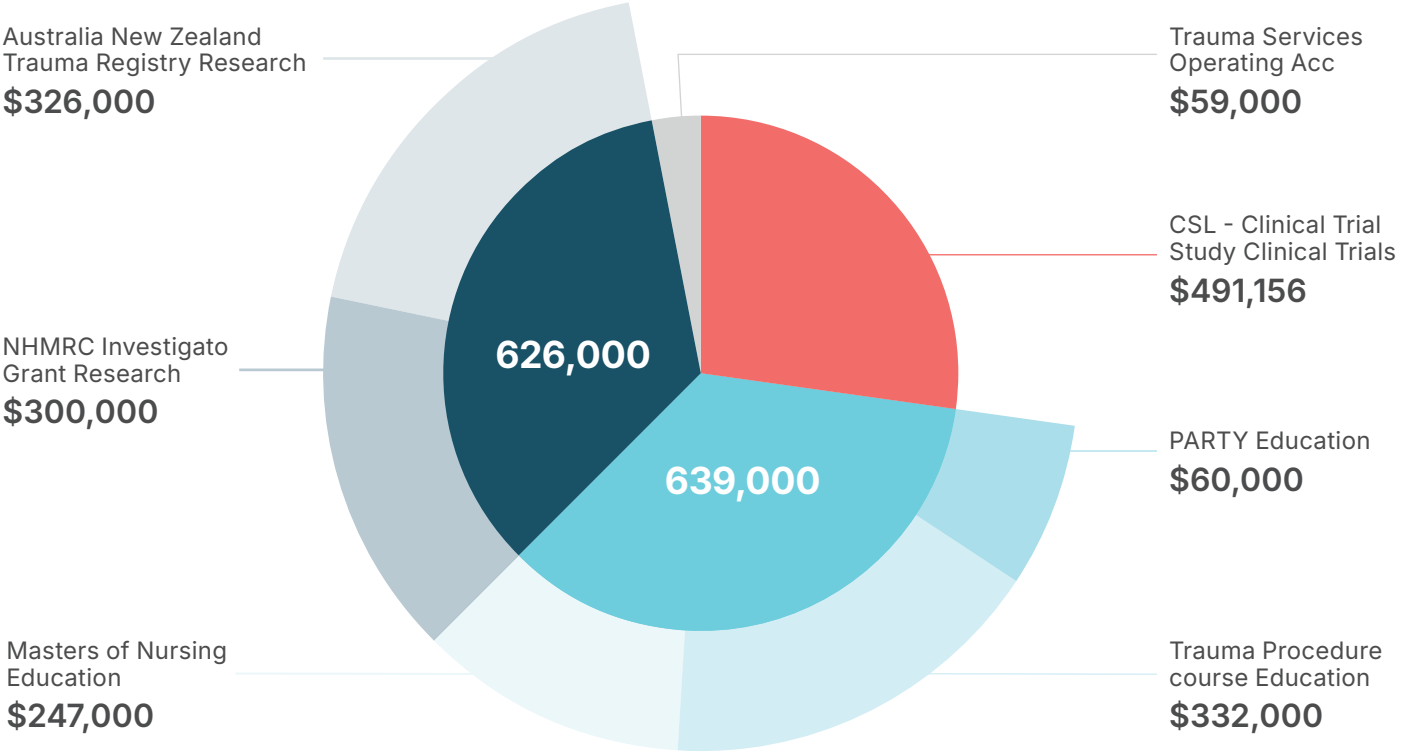
This report delivers a compelling analysis of our organization's financial performance over three consecutive fiscal years, showcasing robust growth and strategic investment across key segments: Research, Education, Clinical Trials, and Operating Accounts. The data underscores dynamic year-on-year funding increases, highlighting our commitment to innovation, education, and cutting-edge clinical advancements. These strategic priorities position our organization as a high-potential investment opportunity, driving transformative impact and sustainable returns.

The Education and Clinical Trials segments show the most notable upward trends in relative terms. Education funding more than doubles over the three years, indicating the expansion of academic offerings and professional development programs. Similarly, Clinical Trials funding surges from $25,000 to over $491,000, highlighting a rapid scale-up in clinical research activities. This suggests the potential for new or deepening partnerships with external trial sponsors and future commercial and translational research opportunities.

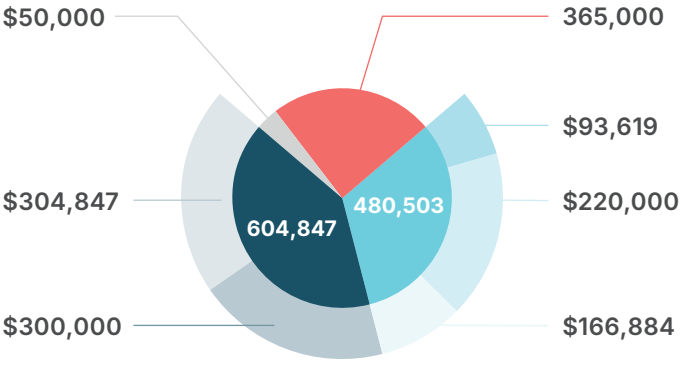
Meanwhile, the Operational Accounts segment, although showing stable growth, remains the smallest in financial terms. This stability may reflect the maintenance of essential administrative and operational services rather than areas of expansion. Collectively, the financial trends signal a well-aligned funding strategy that supports growth in high-impact areas while ensuring the sustainability of core operations. Going forward, further optimisation could be achieved by reassessing underperforming segments and reallocating resources to those with the highest return on investment.

(by Aman Thakur, NTRI Management Accountant)

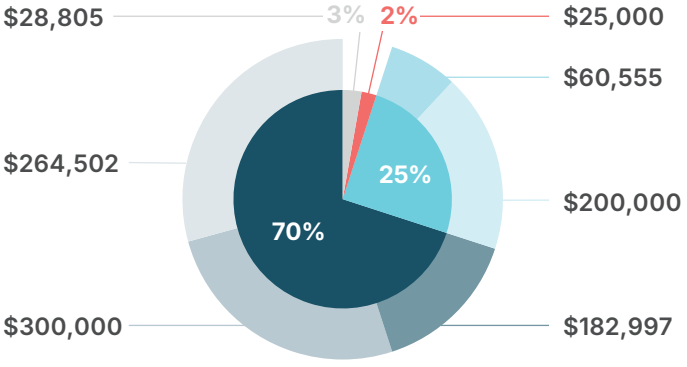
FY 24-25



FY 23-24



FY 22-23



Legends

- Research
- Education
- Clinical Trials
- Operating Acc
- ATBIND Research
- PARTY Education
- NHMRC Investigato Grant Research
- Trauma Procedure course Education
- Australia New Zealand Trauma Registry Research
- Masters of Nursing Education

Publications

2022-2023 FY

1. Herron LM, Phillips G, Brolan CE, Mitchell R, O'Reilly G, Sharma D, Körver S, Kendino M, Poloniati P, Kafoa B, Cox M. "When all else fails you have to come to the emergency department": Overarching lessons about emergency care resilience from frontline clinicians in Pacific Island countries and territories during the COVID-19 pandemic. The Lancet Regional Health-Western Pacific. 2022 Jul 8:100519.
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3. Mitchell R, O'Reilly G, Herron LM, Phillips G, Sharma D, Brolan CE, Korver S, Kendino M, Poloniati P, Kafoa B, Cox M. Lessons from the frontline: The value of emergency care processes and data to pandemic responses across the Pacific region. The Lancet Regional Health-Western Pacific. 2022 Jul 6:100515.
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10. O'Reilly GM, Curtis K, Kim Y, Mitra B, Hunter K, Ryder C, et al. The Australian Traumatic Brain Injury National Data (ATBIND) project: a mixed methods study protocol. Medical journal of Australia. 2022.
11. Tan T, Huang MS, Rutges J, Marion TE, Fitzgerald M, Hunn MK, et al. Rate and Predictors of Failure in the Conservative Management of Stable Thoracolumbar Burst Fractures: A Systematic Review and Meta-Analysis. Global Spine Journal. 2022;12(6):1254-66.
12. Qiu Y, Fitzgerald M, Mitra B. Association of the neutrophil–lymphocyte ratio to patient outcomes after trauma: a systematic review. Trauma. 2022;24(3):195-203.
13. O'Donohoe RB, Lee HQ, Tan T, Hendel S, Hunn M, Mathews J, et al. The Impact of Preinjury Antiplatelet and Anticoagulant Use on Elderly Patients with Moderate or Severe TBI Following Traumatic Acute Subdural Hematoma. World Neurosurgery. 2022.
14. Mitra B, Beck B, Dipnall J, Ponsford J, Gabbe B, Cameron PA. Long-term outcomes of major trauma patients with concussion. Injury. 2022.
15. Tong EY, Hua PU, Edwards G, Van Dyk E, Yip G, Mitra B, et al. Partnered pharmacist medication charting (PPMC) in regional and rural general medical patients. Australian Journal of Rural Health. 2022.
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1. Mark Fitzgerald and Toby St Clair. 'Severe Chest Injury and Tension Pneumothorax'. Chapter 29 in 'Critical Care Paramedicine – a Case-Based Approach'. Anderson Meadley and Olaussen editors, Class Professional Publishing UK 2025. ISBN

2. Michael Noonan, Ben Meadley and Alexander Olaussen. 'Shocked Blunt Trauma'. Chapter 27 in Critical Care Paramedicine – a Case-Based Approach'. Anderson Meadley and Olaussen editors, Class Professional Publishing UK 2025. ISBN


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