Bridging the gap in trauma care across New Zealand

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Trauma or physical injury is a common presentation to New Zealand hospitals and results in many deaths and long-term consequences for those injured. Optimal trauma care can increase survival and improve outcomes. However, trauma care in New Zealand has historically been viewed as the "poor cousin" of healthcare, suffering from inadequate resource allocation and attention. This concern has been consistently raised in the *New Zealand Medical Journal* over the past decade, highlighting the significant disparities in trauma resource provision between the North and South Islands.[1–3]

The North Island boasts established trauma services in Auckland and Waikato, which have been functional for many years. However, even within this region, critical gaps remain. Wellington, recognised as the third-busiest trauma admitting hospital in the North Island, notably lacks a formal trauma admitting service (TAS). Instead, it defaults to intensive care unit resources, leading to potential delays in comprehensive trauma management. The availability and interest in specialised trauma surgeons have also been insufficient, limiting the hospital's ability to provide optimal care. Such systemic weaknesses have implications not only for Wellington but for the entire North Island trauma care landscape.[2]

Trauma verification

The Royal Australasian College of Surgeons (RACS) operates the Trauma Care Verification Program as an independent benchmarking process. This involves a team of multidisciplinary assessors reviewing a hospital's (or network's) trauma service against set international standards, providing a level of care verification (I–IV) or a review as unsuccessful at achieving the verification standard. A review also identifies strengths and weaknesses and recommends actionable improvements. This rigorous process is essential for ensuring high-quality trauma care and is increasingly focussing on entire trauma systems rather than individual centres.[4]

Historically, the North Island has been far more advanced in the RACS Trauma Care Verification Program: Waikato has successfully passed, Auckland is on track, and Central Regions underwent verification in 2024, with Masterton reaching the standard of Level IV (no others achieving this standard). By contrast, no South Island hospitals have undergone verification—a missed opportunity to benchmark services and drive improvement. If Health New Zealand – Te Whatu Ora is serious about ending the postcode lottery, then Christchurch should be expected to meet the same standards as Waikato. In reality, it would currently fail, but such a failure would provide valuable, unbiased identification of service gaps and help guide the allocation of resources to where they are most needed.

Current state of the South Island

Christchurch Hospital, despite being the South Island's busiest trauma facility, faces considerable operational challenges. Its TAS, which is only partially funded and staffed, operates under severe constraints, running from 8 am to 4 pm, Monday to Friday. Within this current roster there is inadequate clinical staffing to remain open consistently, let alone during the hours of peak trauma presentations—evenings and weekends. This pattern not only hampers immediate trauma care but further perpetuates disparities in treatment outcomes across the South Island.[1,5,6]

In 2015 the National Health Board required all district health boards to collect data for the National Minimum Dataset. In mid-2016 Christchurch Hospital established a trauma nurse coordinator (TNC) role to begin collecting data on admitted major trauma patients. The average caseload per TNC in the first few years was one full-time equivalent (FTE) per 190 major trauma patients. Currently, Christchurch Hospital has a TNC caseload of one FTE per 260, well in excess of the median caseload determined by the National Trauma Network (NTN) of 1:75. Christchurch Hospital has seen a significant increase in trauma admissions with no increase in resourcing for many years. When accounting for less severely

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injured patients that are admitted to Christchurch Hospital, TNCs are unable to collect any meaningful data or offer any ongoing clinical support as this would more than double their workload. The incidence rate of major trauma by region shows the South Island at 64 per 100,000 people, well above the national average of 51. The Christchurch TAS has no FTE allocated for administration or data management support. When combined with the recent reviews of the TAS that highlighted the alarming lack of medical resourcing, we have a complete picture of a service under critical strain. Despite this, Christchurch Hospital has maintained its improved outcome measures; if we can be resourced out of our "treading water" situation, we can plan to make further improvements.

We now are seeing the fact that we have a service that is funded in a piecemeal fashion, which is, as a result, underperforming. Despite knowing that the Trauma Care Verification Program process would be a very important step forwards, we need to acknowledge the fiscal cost of verification running close to NZ$50,000, as well as the person-time required to prepare for the audit. However, given that the desired outcomes include decreased mortality, shorter hospital stays and less demand on ongoing care services, the cost should be viewed as an investment rather than an expense.

The path forwards

The Christchurch Hospital TAS is functioning on lesser funding than other major trauma centres across Australasia. Although this was previously highlighted in 2017 in the *New Zealand Medical Journal*, there has been no increase in funding for the Christchurch TAS, or any of the South Island trauma services.[3] As a result, we are not reaching the desired patient outcomes. To bridge the gaps in trauma care across New Zealand, several essential steps must be taken:

Standardising trauma admitting practices across tertiary centres, alongside targeted investment in regional resources, is essential for minimising treatment delays and addressing inequities in access to care. A key challenge in New Zealand's trauma care system is the inequitable funding allocation across hospitals and regions, which exacerbates variability in service delivery.[7] Smaller centres should be benchmarked against appropriate trauma service levels and supported by multidisciplinary oversight, with well-defined transfer pathways when higher-level care is required. However, variability in care and resource distribution remains a significant barrier to quality improvement, echoing Edwards Deming's assertion that "*variability is the enemy of quality*".[8] To better understand the long-term effects of trauma care disparities, it is critical that patient-reported outcome measures be collected systematically, as they are currently lacking and hinder the evaluation of outcomes across different regions. Strengthening the responsiveness and cultural competence of emergency medical services, particularly for rural and Māori communities, is another priority for enhancing system performance.[4,5] Additionally, initiating trauma service verification processes in South Island hospitals would provide an objective assessment of existing deficiencies, align services with national standards and inform the strategic prioritisation of future resource allocation. The NTN has an important role to play in addressing these issues, and a concerted push for its leadership could accelerate efforts to reduce disparities and improve overall system performance.

By committing to data-driven audits and continuous quality improvement, New Zealand can effectively address the existing challenges in trauma care delivery. It is imperative that all residents—regardless of geographical location or ethnic background—receive access to world-class trauma care that meets international standards.

In concluding, integrating these suggestions will not only bridge the gaps in trauma care but also foster a more equitable healthcare system for all New Zealanders. Let us aspire to elevate the standard of trauma care throughout the nation, ensuring that every patient receives timely and effective treatment in their moment of need.

COMPETING INTERESTS

Nil.

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https://nzmj.org.nz/journal/vol-138-no-1626/bridging-the-gap-in-trauma-care-across-new-zealand

REFERENCES

1. Civil I, Isles S. Optimal trauma care delivers cost savings: the New Zealand Trauma Network experience. N Z Med J. 2023 Apr 28;136(1574):8-10. doi: 10.26635/6965.e1574.
2. Wakeman C, Civil I. Why are there still regional differences in the way we deliver trauma care in New Zealand? N Z Med J. 2021 Mar 26;134(1531):8-10.
3. Fleischer D, Wakeman C. A tale of two islands-trauma care in New Zealand. NZ Med J. 2017 May 12;130(1455):8-9.
4. Royal Australasian College of Surgeons. Australian and Aotearoa New Zealand Trauma Verification Program: Model Resource Criteria for Trauma Services [Internet]. Melbourne: Royal Australasian College of Surgeons; 2022 Apr [cited 2025 Sep 29]. Available from: https://www.surgeons.org/-/media/Project/RACS/surgeons-org/files/trauma-verification/model-resource-criteria.pdf
5. Lilley R, Davie G, Dicker B, et al. Rural and Ethnic Disparities in Out-of-hospital Care And Transport Pathways After Road Traffic Trauma in New Zealand. West J Emerg Med. 2024 Jul;25(4):602-613. doi: 10.5811/westjem.18366.
6. Gabbe BJ, Isles S, MacBride P, Civil I. Disability-Adjusted Life Years and cost of health loss of hospitalised major trauma patients in New Zealand. N Z Med J. 2022 Oct 7;135(1563):62-69. doi: 10.26635/6965.5878.
7. Feng Y, Haig T, McCombie A, et al. Trauma patient outcomes after the implementation of a trauma admitting service: a pre-post cohort study. N Z Med J. 2025 Aug 15;138(1620):46-53. doi:10.26635/6965.6999.
8. Kang CW, Kvam PH. Basic Statistical Tools for Improving Quality. 1st ed. New York: Wiley; 2012.

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