Why are there still regional differences in the way we deliver trauma care in New Zealand?

Christopher Wakeman, Ian Civil

This issue of the New Zealand Medical Journal highlights a number of facets of the care of trauma patients in New Zealand. In each circumstance, either the epidemiology, medical care or outcomes of patients suffering injuries has been investigated, studied and reported on. Each report comes from a group of clinicians with a specific interest in trauma care and a focus on optimal outcomes.

This situation is vastly different from 30 years ago when reports of cohorts of patients suffering injury were rare and published by individual clinicians with an interest in this area. The publications in this issue provide evidence of a robust data-collection and reporting system which facilitates research and audit. Through the audit cycle we can improve outcomes.

Although research output related to trauma care has progressed dramatically over time, there is still considerable variation between the ways trauma patients are cared for in the 22 hospitals empowered by the National Trauma Network to provide definitive care for patients suffering major trauma. The Major Destination Policy was published for each region in 2017 and gives guidelines as to where major trauma patients should be treated. These hospitals (7 tertiary and 15 others responsible for the care of major trauma patients) need the proper staffing, resources and training to provide appropriate care.

Increasing subspecialisation within all branches of surgery has resulted in more narrow scopes of practice than was previously the case. In tertiary hospitals, surgical clinicians are recognised as having expertise within a subset of their broader scope (eg, colorectal surgery within general surgery). Trauma care has been considered such a basic tenet of surgical care that all surgeons were regarded as retaining competency within their speciality. While that is probably true in relation to emergency surgery, the needs of a multiple-injury trauma patient extend way beyond the initial life-saving surgery.

Apart from multispecialty input from emergency medicine, intensive care and more than one surgical discipline, the ongoing medical needs of the trauma patient include assessment and management for mild-moderate traumatic brain injury, pain management, physio and occupational therapy and organisation of timely and appropriate rehabilitation. These needs are best met by a specialty team who focus on the trauma patient and coordinate the patient’s overall care. In only two of the tertiary trauma hospitals in New Zealand is this process facilitated by the admission of multi-trauma patients under a trauma admitting service. This is not universal.

Trauma surgery is now a recognised subspecialty of general surgery with a separate fellowship training programme. Currently, Auckland and Waikato are the only centres with trauma fellowship positions.

Apart from meeting the needs of the individual patients, this cohorting of patients and coordination of care facilitates the training and experience of surgeons and other subspeciality groups in trauma care. The expectation that patients are admitted under a trauma admitting service is embodied in the Model Resource Criteria for Trauma Services published by the Australian and New Zealand Trauma Verification
Program of the Royal Australasian College of Surgeons (RACS). It is also an expectation of the Australian and New Zealand Association for the Surgery of Trauma as a requirement for hospitals that apply for the credentials to train surgeons in trauma care.

Clinical quality care organisations, such as the Health Quality and Safety Commission, recognise that variability in care leads to inconsistent and variable outcomes. In New Zealand we have both systematic variability in how clinical care is provided for trauma patients and individual variability. Two of New Zealand’s seven tertiary hospitals provide care through a consistent trauma admitting service. In one case, this service has been in place for over 25 years. One tertiary hospital has been accredited by RACS at the highest level of trauma care provision, which includes a trauma admitting service. In other hospitals the traditional practice of admitting the patients under the (sub)speciality associated with the most severe injury is usually undertaken. This is sometimes associated with considerable debate and discussion in the emergency department and risks the needs of patients not being met in a full and timely way. This causes delays in time to admission and treatment and can lead to potentially worse outcomes for patients.

In 2017 a paper in this journal was titled Is high-quality care “business as usual” in New Zealand? The editorial in the same journal questioned why the South Island in particular did not have the same resources for trauma care as the North Island trauma centres in Auckland and Hamilton. Wellington is in the same situation as Christchurch, trying to be a level one trauma centre but with limited staff and resources. The 2017 editorial raised the question as to whether a substantial investment in trauma is needed to have trauma services which are world-class across the whole country. Is it time for the funding of trauma care in New Zealand to be re-examined? We have had great success with outcomes from mass causality events such as the Whakaari/White Island volcano eruption and the Christchurch terror attacks. But the district health boards (DHBs) have limited resources for the coordination of care, data collection and reporting which underpin a world-class system of trauma care. Better funding would allow employment of trauma nurse specialists, fellows and senior medical officers (SMOs) to run a trauma admitting service in all the tertiary trauma centres. As Christey concluded after reviewing trauma care in New Zealand in 2008, “It’s time to move ahead.”

The research outputs reported in this issue of the New Zealand Medical Journal address important areas of trauma care which have the potential to improve the processes of care and outcomes. Research is an important output from the healthcare sector in New Zealand, and no less so than for those involved in trauma care than any other. However, the ability of that research to impact on individual patient journeys is crucially dependent on the presence of structures and individuals associated with delivery of that care. This is the case in some hospitals in New Zealand, but not all.

New Zealand is in the unique position of having a defined national trauma care system. Indeed, we are the only country in the world where our trauma system has been assessed in total by the verification process of RACS and the American College of Surgeons. Among the many recommendations of this review was that tertiary trauma hospitals should have trauma admitting services. Why this is possible in some and not others is unclear.

In 2010 an editorial in this journal was titled A national trauma network: Now or never for New Zealand. Fortunately, the National Trauma Network was created in 2012 and today provides the background for structured delivery of trauma care with improved outcomes as described in their latest annual report. What is lacking is the national consistency necessary for high-quality care at every level and in every region.
REFERENCES


Author information:
Mr Christopher Wakeman: University of Otago Christchurch Department of Surgery.
Professor Ian Civil: University of Auckland; Auckland Hospital.

Corresponding author:
Mr Christopher Wakeman: University of Otago Christchurch Department of Surgery
0211768189

URL: