

NZ Major Trauma National Clinical Network

Professor Ian Civil, BSc, MBChB
CNZM, MBE (Mil), KStJ, ED, FRACS, FACS
Director of Trauma Services, Auckland City Hospital
Clinical Leader, NZ Major Trauma National Clinical Network



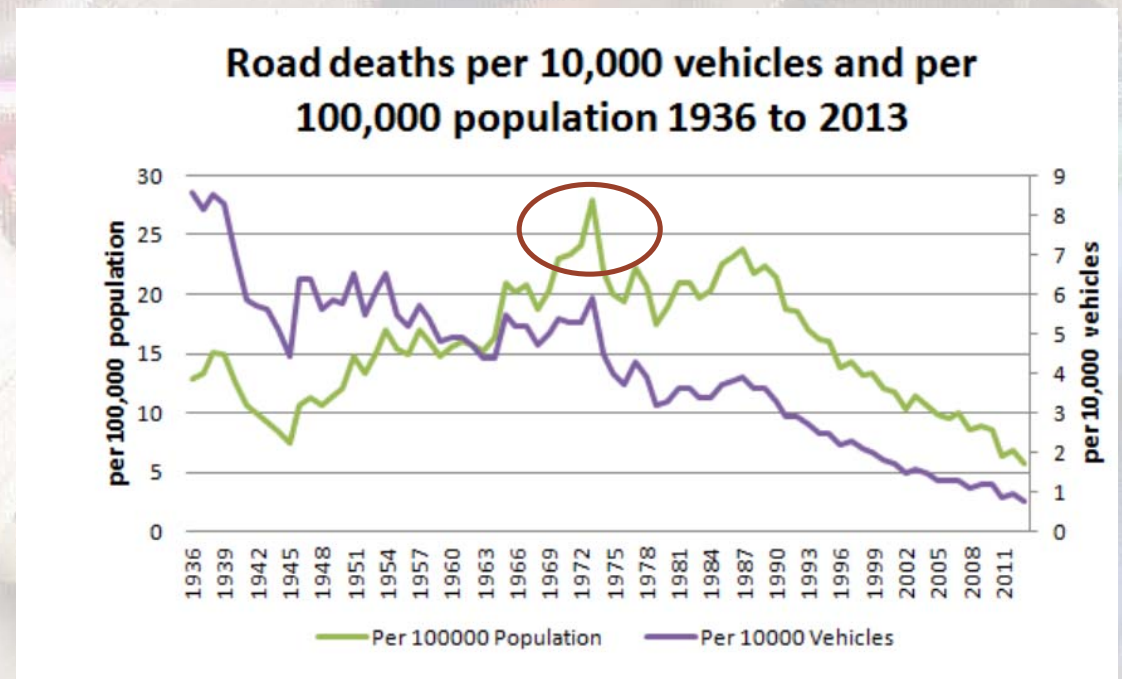
Can it make a difference?



What was trauma like in the 1970s?

- No trauma system in NZ
- Injury prevention initiatives limited
- Road traffic safety measures minimal
 - No median barriers on motorways and in particular the harbour bridge
 - No airbags
 - No mandatory back seat restraints
 - Lap belts in the back seats
- Injury care opportunistic
 - No ATLS
 - No DSTC

- Road fatality chart



Clinical care provided without guidelines/checklists

- Injuries were addressed in a priority determined by the clinicians caring for the patient
- Quality of care critically dependent on the experience and skills of the individuals concerned
- Significant variations in quality of care in relation to geography and location.



New Zealand's road fatality rates in the 1980s

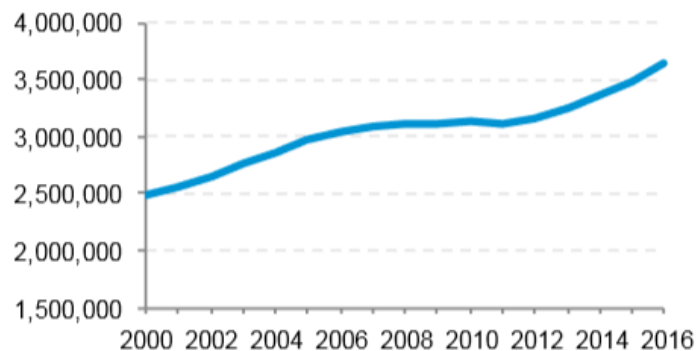
NZ's Relative Road Safety Record

Country	Deaths/100,000 population	Deaths/10,000 vehicles	Vehicles/1000 population
NZ	21.1	3.9	545
US	19.1	2.7	711
Australia	18.6	3.4	540
Canada	15.8	2.8	561
Germany	13.1	3.0	440
UK	10.3	3.2	322
Japan	10.3	2.6	403

What that would mean if nothing changed....

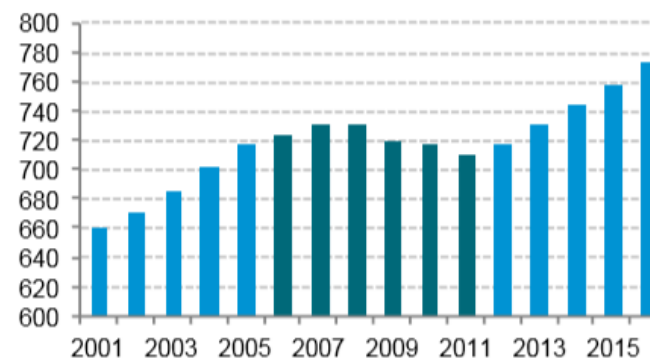
Light fleet size

The light fleet has grown significantly since registrations first picked up in 2013.



Light vehicles per 1000 people

Vehicle ownership rates started increasing in the second half of 2012 after dropping from 2007 to 2011, and have kept on increasing. They are now at their highest ever level.

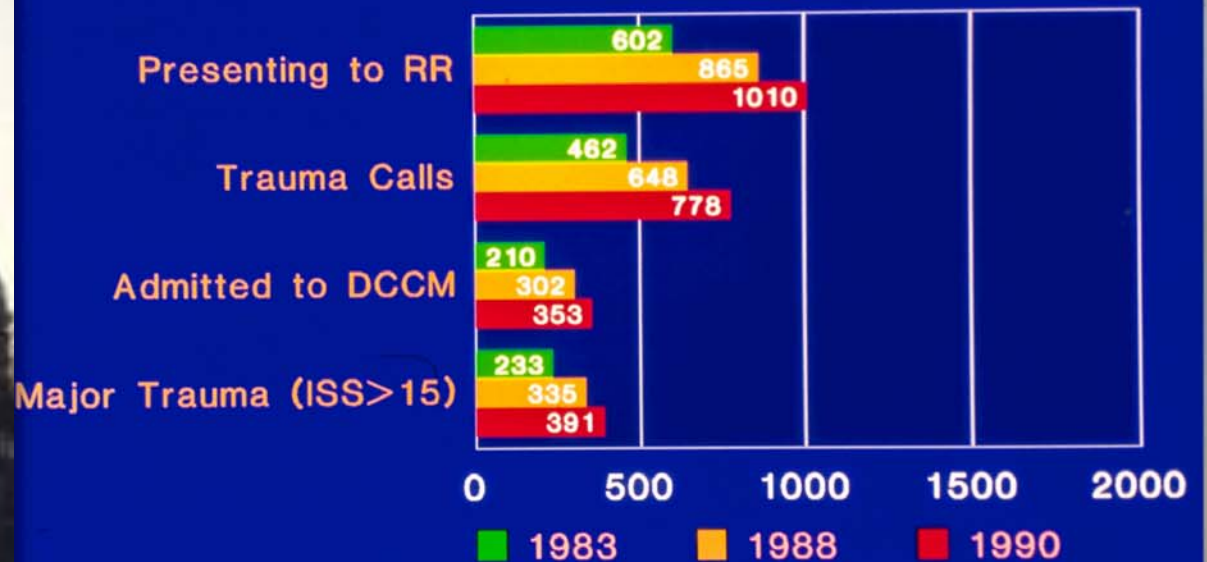


New Zealand would have had 1443 deaths in 2017!

What did this mean at Auckland Hospital in the 1980s?



AUCKLAND HOSPITAL TRAUMA



Mortality after trauma was high

- Trauma presentations to Auckland Hospital resus room in 1983
- 602 patients of whom 223 subsequently shown to have major trauma.
- Mortality 60/223 (26.9%)



Early death from exsanguinating haemorrhage was common

Table 1. Causes of death (N=60)

<i>Cause of death</i>	<i>N</i>	<i>Mean age</i>	<i>Mean ISS</i>
CNS injury	31 (51%)	35	39
Exsanguinating haemorrhage (closed injury)	16 (27%)	41	55
(penetrating injury)	3 (5%)	32	—
Burns	4 (7%)	33	44
Multiple organ failure secondary to sepsis	2 (3%)	36	34
Pneumonia (sorted out not to receive active therapy)	4 (7%)	70	33

“.....there was something wrong with the system and the system had to be changed.”

- What can happen and how can the Network help
 - Advocacy
 - Training
 - Clinical improvements
 - Regionalisation
 - National governance
 - Funding
 - Overall system change



Major Trauma
National Clinical Network

Advocacy

Dear TVNZ,

I was disappointed to hear the word "accident" used in relation to a major crash in Taranaki this am. We have to use appropriate words if we as a society are to address the issue of road crash systematically. I attach here the text I sent to the NZ Herald earlier last week about the same issue.

Using the words "accident" to describe a road crash and "toll" to describe road deaths, as in Monday's editorial, is both inaccurate and unhelpful. An accident can be defined as an event that happens by chance or is without apparent or deliberate cause and a toll can be defined as a payment or fee exacted by the state, or others, for some right or privilege. "Accidents" are perceived as unavoidable and the road "toll" could be considered the inevitable price society has to pay for using the roading network. Using words like accident and toll in the context of road crash fatalities creates an unfortunate perception that these are beyond our control. Sadly this is usually not the case and very often the deaths are a direct or indirect result of unlawful or inappropriate driving behaviour in vehicles and roading conditions that do not mitigate the outcome. Until we consider road crash deaths as preventable and use English language that supports that position we have little chance of seriously addressing the climbing road fatality rate.

Ian Civil
Clinical Leader, Major Trauma National Clinical Network



Christine Wilton (help.TVNZ)

Jul 5, 17:51 NZST

Hi there

We were very interested to read your comments about this wording. Thanks for giving us this feedback. I have passed on your comments to the News and Current Affairs producers.


They will be interested in your email and will only contact you if they would like more information.

Thanks again.

Kind regards

Christine Wilton
TVNZ

Training



PREHOSPITAL & RETRIEVAL MEDICINE WORKSHOP

1 AUGUST

- Prehospital trauma systems
- Prehospital blood
- Chain of survival
- Prehospital trauma research
- Prehospital trauma quality metrics
- Options for exsanguinating pelvic trauma
- Prehospital paediatric trauma
- Prehospital situational awareness


[FIND OUT MORE](#)

INJURY CONFERENCE 2018

2 AUGUST

- Open abdomen in trauma
- Trauma systems
- Quality outcomes & patient experience
- Cardiac contusion
- Prehospital mortality
- Complex hepatic trauma
- Is REDO relevant in Australasia?
- Cost of trauma & its effects
- Major Trauma Network
- How to treat pancreatic injuries
- Major trauma injuries in adolescents
- Complex case presentations

[FIND OUT MORE](#)



5th REGIONAL TRAUMA SYMPOSIUM 2018



Fri 18TH MAY
9:00 to 16:00
Horne Lecture Theatre
Wellington Regional Hospital

Join us in Wellington for the fifth annual regional trauma symposium. The meeting will appeal to any clinicians involved in **trauma care**.

Themes this year include:

- **MAJOR HAEMORRHAGE:** Identifying & managing major bleeding from pre-hospital to the ED
- **THE PREGNANT TRAUMA PATIENT:** update on obstetric trauma
- **MILITARY TRAUMA:** lessons learnt from the battlefield
- **PREPARING THE HOSPITAL FOR A MASS CASUALTY INCIDENT**
- **POINT OF CARE ULTRASOUND:** making decisions easily



MIDLAND TRAUMA SYMPOSIUM

UNDERSTANDING TRAUMA BRIDGING THE GAPS

REGISTER NOW

THURSDAY 19 & FRIDAY 20 MAY 2016

CLAUDELANDS CONFERENCE AND EXHIBITION CENTRE | HAMILTON

INTERNATIONAL GUEST SPEAKER

PROFESSOR GORDON S. SMITH, MS ChB (Otago), M.P.H.
Department of Epidemiology & Public Health
University of Maryland School of Medicine
Charles "Mac" Mathias National Study Center for Trauma and EMS
Shock, Trauma and Anesthesiology Research - Organized Research Center



HealthHospital

Home Back Issues Subscribe Contribute Advertise Communications Services

Southland Trauma Symposium

Posted on February 10, 2017 | by [rhadmin](#) | Posted in Education and Training

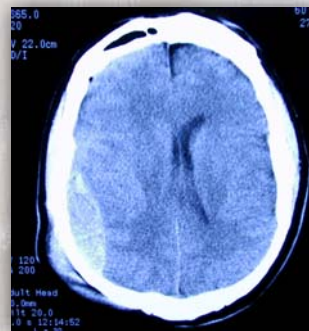
Almost 80 health professionals from across the sector attended the first 'Southland Trauma Symposium' in Invercargill, including representatives from St John, Southland Hospital and Dunedin Hospital, as well as a number from rural hospitals and regions.

Presentation topics by keynote speakers and specialists included new developments in trauma, ACC statistics and rehabilitation, patient and family perspectives, as well as trauma complications. Chair of the National Trauma Network, Professor Ian Civil, was one of the speakers.

The symposium, held on 28 November, focused on educating clinicians to increase their knowledge and provide better care to trauma patients, whether in hospital or at the scene of an accident, says trauma nurse coordinator and organiser of the event, Rebecca Coats. "It's about understanding how to apply this knowledge in a clinical context, as well as keeping up-to-date in current best practice."

The South Island Major Trauma Workstream supports the initiative and will encourage the symposium model in other South Island districts in 2017.

Clinical improvements



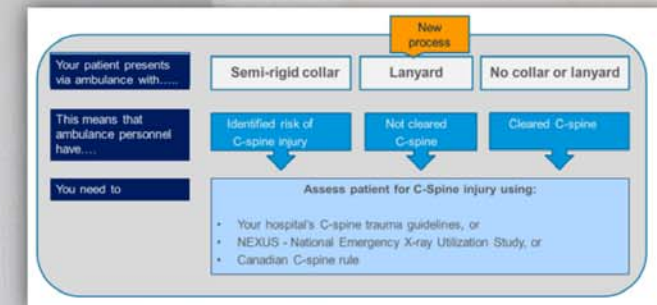
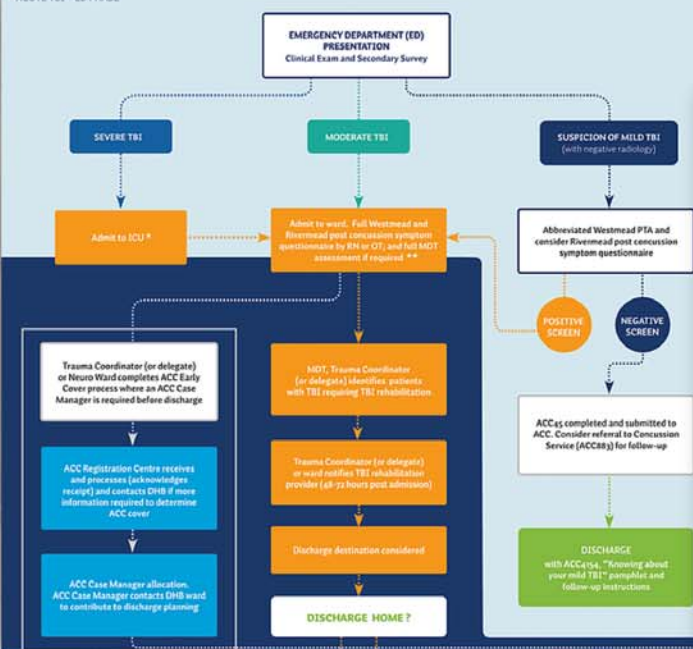
TRAUMATIC BRAIN INJURY

Adult acute flowchart



ACC process completed by DHB ACC process completed by ACC Discharge points DHB clinical processes

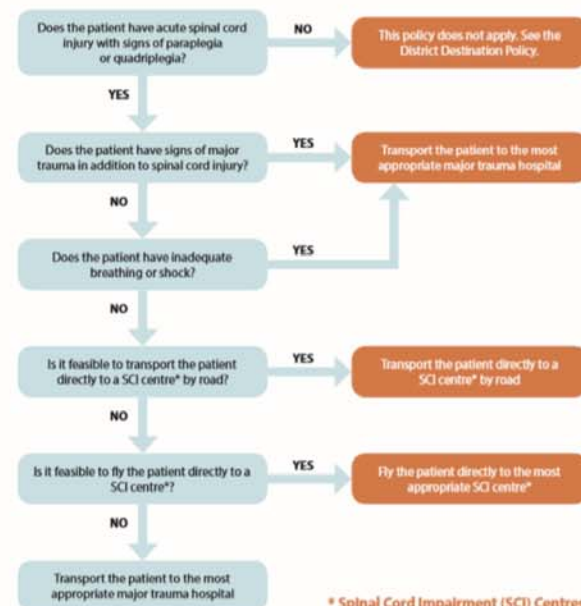
ACUTE TBI - ED PHASE



Regionalisation

Spinal Cord Injury Destination Policy

Flowchart for Prehospital Personnel



* Spinal Cord Impairment (SCI) Centres

- ▶ Middlemore Hospital (adults)
- ▶ Christchurch Hospital (adults and children)
- ▶ Starship Children's Hospital (children)

Spinal Cord Injury Destination Policy

Catchment Area Boundaries

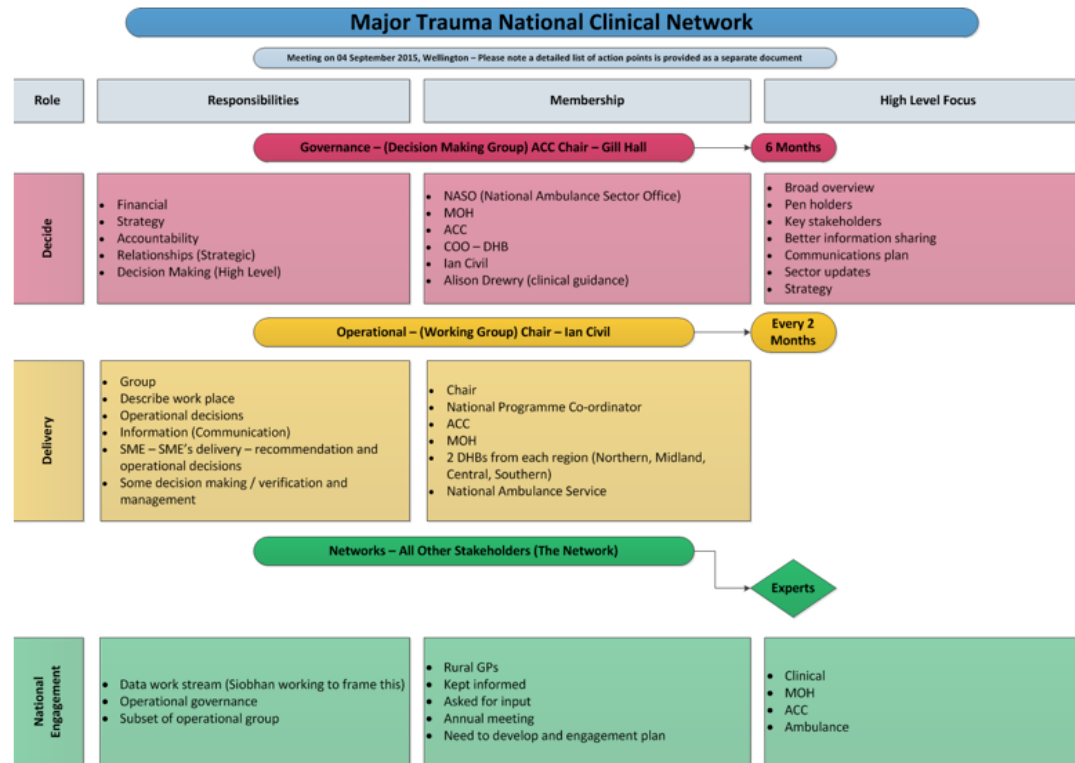
Key

- Middlemore Hospital
- Christchurch Hospital
- Starship Hospital (all of NZ)



National governance

Major Trauma National Clinical Network – Organisational Structure



Funding



Business Case

Funding to achieve a contemporary

New Zealand Trauma System

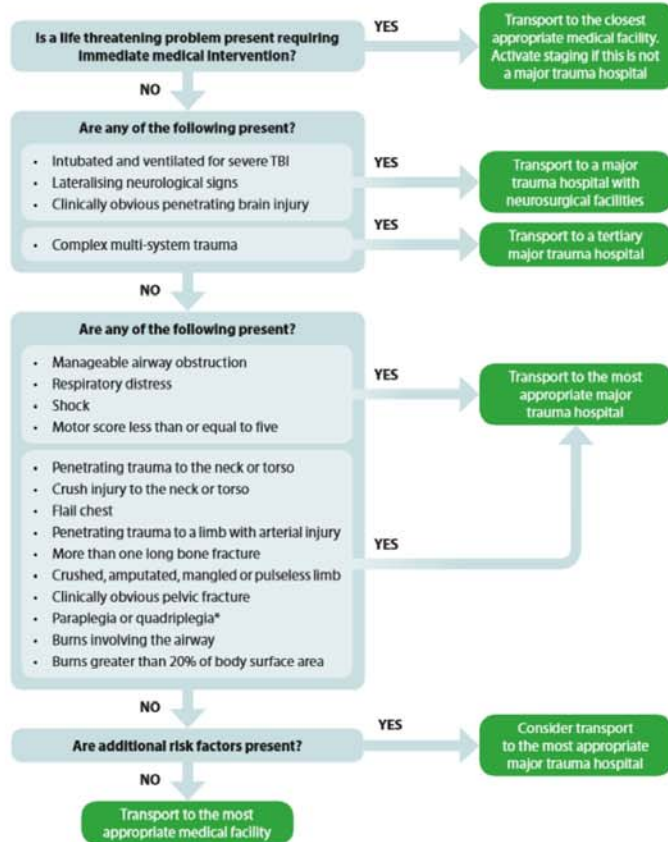
Presented to Accident Compensation Corporation
February 2018

Professor Ian Civil National Clinical Leader
Trauma Service, Auckland City Hospital
Park Road, Grafton, Auckland 1022

Siobhan Isles National Programme Manager
UNSW Building, Level 2, 650 Great South Road
Penrose, Auckland 1051

- Leadership
- Registry
- Academic research direction
- Research support
- Data analysis and reporting
- Quality improvement expertise
- Administration

Major Trauma Triage Flowchart

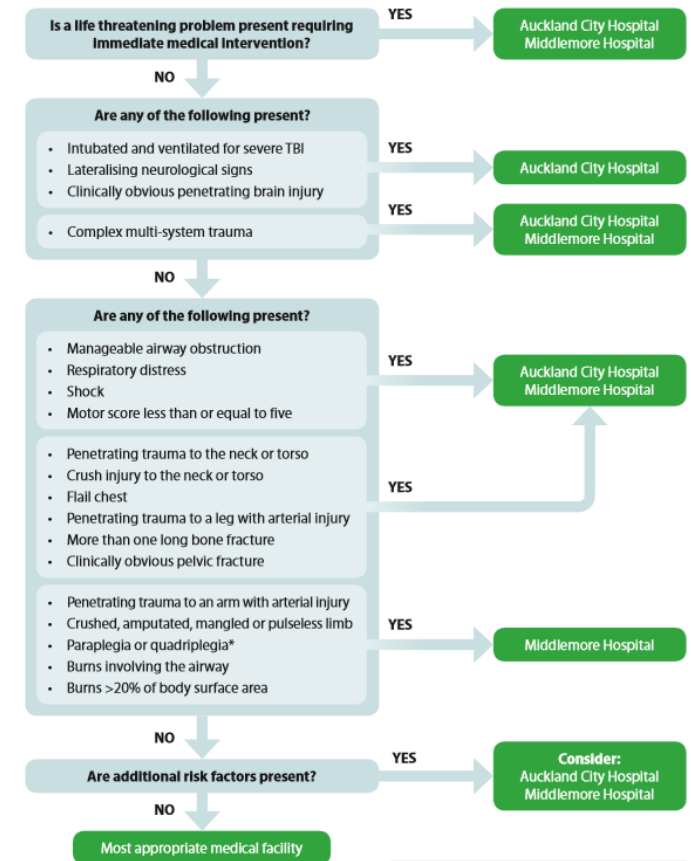


Note:
* Refer to the Spinal Cord Injury Destination Policy.

Overall
system
change

Major Trauma Destination Flowchart: Adults

Auckland Area



Note:
* Refer to the Spinal Cord Injury Destination Policy.



Major Trauma
National Clinical Network

[HOME](#)

[ABOUT](#)

[EVENTS](#)

[SERVICES](#)

[RESOURCES](#)

[CONTACT](#)



PHYSICAL INJURY IS A COMMON CAUSE OF DEATH & DISABILITY IN NEW ZEALANDERS

We aim to reduce the number of
deaths and the severity of disability
for those who survive.

2,000 People pa
reach hospital alive

[WHAT WE DO](#)