

# New Zealand Out-of-Hospital Major Trauma Destination Policy

Midland Area

This document is for the use of clinical personnel when determining the destination hospital for patients with major trauma in the out-of-hospital setting in the Midland Area of New Zealand. It has been developed by the Midland Trauma System in conjunction with the National Major Trauma Clinical Network and the Ambulance Sector.

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## Major Trauma Destination Matrix

Midland Area

Area	Waikato				Bay of Plenty			Lakes			Taranaki		Tairāwhiti
	WKO	THA	TOK	TAU	TEK	TGA	WHK	ROT	TPO	TBH	HAW	GIS	
<b>Incident Locality</b>	<b>Destination hospital</b>												
<b>Condition</b>	Closest appropriate medical facility. Activate staging if this is not a major trauma hospital												
<b>Life threatening problem requiring immediate medical intervention</b>													
<b>Severe TBI likely to require urgent neurosurgery<sup>1</sup> (aged ≥2 years)</b>	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	
<b>Severe TBI likely to require urgent neurosurgery<sup>1</sup> (aged &lt;2 years)</b>	SSH	SSH	SSH	SSH	SSH	SSH	SSH	SSH	SSH	SSH	SSH	SSH	
<b>Complex multi-system trauma</b>	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	GIS <sup>2</sup>	
<b>Manageable airway obstruction</b>	WKO	WKO	WKO	WKO	WKO	TGA	TGA	ROT	ROT	TBH	TBH	GIS	
<b>Respiratory distress</b>	WKO	WKO	WKO	WKO	WKO	TGA	TGA	ROT	ROT	TBH	TBH	GIS	
<b>Shock</b>	WKO	WKO	WKO	WKO	WKO	TGA	TGA	ROT	ROT	TBH	TBH	GIS	
<b>Motor score less than or equal to five</b>	WKO	WKO	WKO	WKO	WKO	TGA	TGA	ROT	ROT	TBH	TBH	GIS	
<b>Penetrating injury to the neck or torso</b>	WKO	WKO	WKO	WKO	WKO	TGA	TGA	ROT	ROT	TBH	TBH	GIS	
<b>Crush injury to the neck or torso</b>	WKO	WKO	WKO	WKO	WKO	TGA	TGA	ROT	ROT	TBH	TBH	GIS	
<b>Flail chest</b>	WKO	WKO	WKO	WKO	WKO	TGA	TGA	ROT	ROT	TBH	TBH	GIS	
<b>Penetrating trauma to a limb with arterial injury</b>	WKO	WKO	WKO	WKO	WKO	TGA	TGA	ROT	ROT	TBH	TBH	GIS	
<b>More than one long bone fracture</b>	WKO	WKO	WKO	WKO	WKO	TGA	TGA	ROT	ROT	TBH	TBH	GIS	
<b>Crushed, amputated, mangled or pulseless limb</b>	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	TBH	TBH	GIS	
<b>Clinically obvious pelvic fracture</b>	WKO	WKO	WKO	WKO	WKO	TGA	TGA	ROT	ROT	TBH	TBH	GIS	
<b>Clinically significant signs/symptoms of isolated spinal cord injury<sup>3</sup> (≥15 years)</b>	MMH	MMH	MMH	MMH	MMH	MMH	MMH	MMH	MMH	CCH	CCH	MMH	
<b>Clinically significant signs/symptoms of isolated spinal cord injury<sup>3</sup> (&lt;15 years)</b>	SSH	SSH	SSH	SSH	SSH	SSH	SSH	SSH	SSH	SSH	SSH	SSH	
<b>Burns involving the airway</b>	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	
<b>Burns &gt;10% of body surface area (≥15 years)</b>	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	
<b>Burns &gt;5% of body surface area (&lt;15 years)</b>	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	
<b>Major facial injuries with obvious deformity</b>	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	WKO	

### Transport direct to the destination listed provided it is feasible and safe to do so

CCH	Christchurch Hospital	TEK	Te Kuiti Hospital
GIS	Gisborne Hospital	TGA	Tauranga Hospital
HAW	Hawera Hospital	THA	Thames Hospital
MMH	Middlemore Hospital	TOK	Tokoroa Hospital
ROT	Rotorua Hospital	TPO	Taupo Hospital
SSH	Starship Hospital	WHK	Whakatane Hospital
TAU	Taumarunui Hospital	WKO	Waikato Hospital
TBH	Taranaki Base Hospital		

#### Notes:

- ▶ <sup>1</sup>Criteria for severe TBI likely to require urgent neurosurgery: Patient has been intubated and ventilated or has lateralising neurological signs (for example unilateral pupil dilatation or unilateral weakness) or has a clinically obvious penetrating brain injury.
- ▶ <sup>2</sup>Patients with complex multi-system trauma will only be transported to Gisborne Hospital by road. All patients with complex multi-system trauma in the Tairāwhiti Area being transported by helicopter will be transported to Waikato Hospital provided it is feasible and safe to do so.
- ▶ <sup>3</sup>Criteria for clinically significant signs/symptoms of isolated spinal cord injury include: Paraplegia, quadriplegia, clinically significant limb weakness or clinically significant loss of sensation.

# Major Trauma Destination Policy: Midland Area



## Additional Information

### Introduction

- ▶ This policy is for the use of personnel in the out-of-hospital setting, when determining the transport destination for patients with major trauma in the Midland Area of New Zealand.
- ▶ It should be read in conjunction with the New Zealand Out-of-Hospital Major Trauma Triage Policy, the National Major Trauma Network Staging Guidelines, the New Zealand Spinal Cord Injury Destination Policy and the Ambulance Sector Clinical Procedures and Guidelines (CPGs).
- ▶ The goal of this policy is to ensure that patients with major trauma are transported directly to the most appropriate major trauma hospital, whenever it is feasible and safe to do so.

### Major trauma hospitals

- ▶ The following hospitals are designated to receive patients with major trauma:
  - Waikato Hospital.
  - Tauranga Hospital.
  - Rotorua Hospital.
  - Gisborne Hospital.
  - Taranaki Base Hospital.
  - Starship Children’s Hospital.
- ▶ Waikato Hospital is the tertiary major trauma hospital.

### Determining the most appropriate major trauma hospital

- ▶ The destination matrix describes the preferred major trauma hospital, based on the best descriptor of the patient’s clinical condition.
- ▶ The patient should be transported to the preferred major trauma hospital as described in the matrix, whenever it is feasible and safe to do so.
- ▶ To use the matrix:
  - Begin at the top and choose the locality that best matches the location of the incident.
  - Go down the matrix to the condition that best describes the patient’s known injuries.
  - The hospital listed is the preferred major trauma hospital.
- ▶ If it is not feasible or safe to transport the patient to the preferred major trauma hospital, the patient should be transported to the most appropriate major trauma hospital. This will usually be the nearest major trauma hospital, but it may be appropriate to transport the patient to another major trauma hospital if that hospital has the appropriate facilities to meet the patient’s needs.
- ▶ Personnel will determine the most appropriate major trauma hospital taking into account all of the following:
  - The information within this policy.
  - The patient’s expected treatment requirements.
  - The transport time to the relevant hospitals
- ▶ Personnel should seek clinical advice if there is deviation from the matrix

## Life threatening problems requiring immediate intervention

- ▶ Transport the patient to the closest appropriate medical facility if the patient has a life-threatening problem requiring immediate intervention that cannot be provided by personnel at the scene.
- ▶ The decision to transport a patient with a life-threatening problem to a medical facility that is not a major trauma hospital requires clinical judgement and must have a low threshold for seeking clinical advice. The decision should take into account the nature of the patient's injuries, the rate of deterioration, the relative proximity of the medical facilities and the personnel available at the medical facility.
- ▶ Staging must be activated via Comms, preferably before leaving the scene, if the medical facility is not a major trauma hospital.
- ▶ Personnel in the receiving medical facility must be notified as soon as possible, preferably before leaving the scene.

## Severe traumatic brain injury (TBI)

- ▶ Most patients with severe TBI do not require urgent neurosurgery. However, patients with any of the following clinical features have a high probability of requiring urgent neurosurgery and/or neuro-intensive care and should be transported to Waikato Hospital (if 2 years of age or older), or Starship Children's Hospital (less than under 2 years of age) whenever it is feasible and safe to do so:
  - Intubated and ventilated **or**
  - Lateralising neurological signs, for example unilateral pupil dilatation or unilateral weakness **or**
  - Clinically obvious penetrating brain injury.
- ▶ Personnel should seek clinical advice if transport to Waikato Hospital or Starship Children's Hospital will involve a prolonged flight, particularly if the patient is not intubated and ventilated.

## Complex multi-system trauma

- ▶ Complex multi-system trauma cannot be tightly defined, and clinical judgement is required, but includes patients with major trauma involving very severe injuries to more than one body region.
- ▶ Patients with complex multi-system trauma should be transported to Waikato Hospital, provided this is feasible and safe.
- ▶ Patients with complex multi-system trauma in the Tairāwhiti Area will only be transported to Gisborne Hospital by road. All patients with complex multi-system trauma in the Tairāwhiti Area being transported by helicopter will be transported to Waikato Hospital provided it is feasible and safe to do so.
- ▶ Personnel should have a low threshold for seeking clinical advice if transport to Waikato Hospital will involve a prolonged flight.

## Burns

- ▶ Patients with burn injury should be transported to Waikato Hospital in the following circumstances whenever it is feasible and safe to do so:
  - Burns of greater than 10% TBSA in an adult or 5% in a child.
  - Burns involving the airway.
- ▶ Burns involving the face, hands or genitals may require treatment at Waikato Hospital, however, treatment is not usually time sensitive and the patient should usually be transported to the most appropriate secondary hospital and be subsequently transferred if required.