

New Zealand Out-of-Hospital Major Trauma Destination Policy

Northland and Auckland Areas

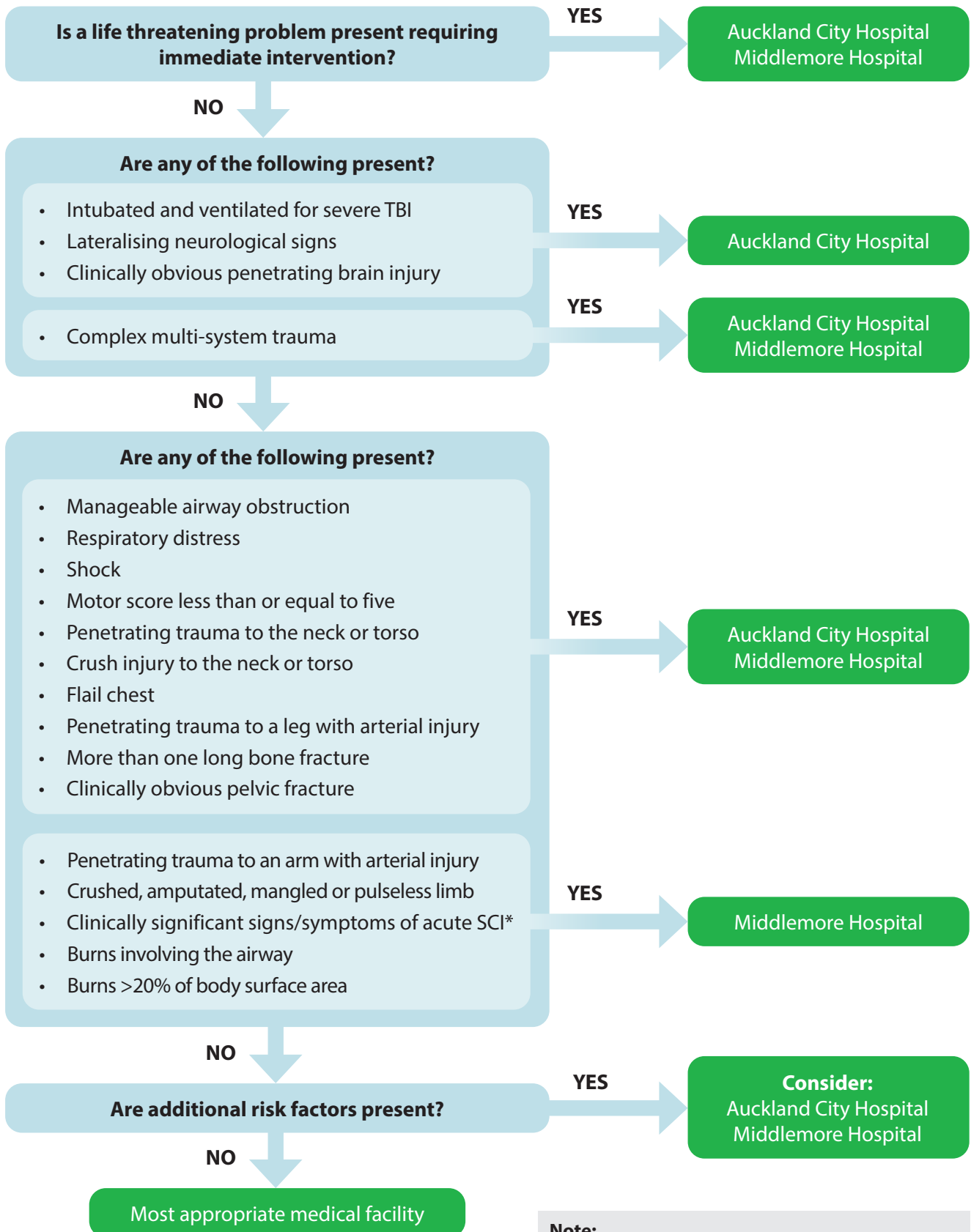
This document is for the use of clinical personnel when determining the destination hospital for patients with major trauma in the out-of-hospital setting in the Northland and Auckland Areas of New Zealand. It has been developed by the Northern Regional Major Trauma Network in conjunction with the National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

Publication date October 2020



Major Trauma Destination Flowchart: Adults

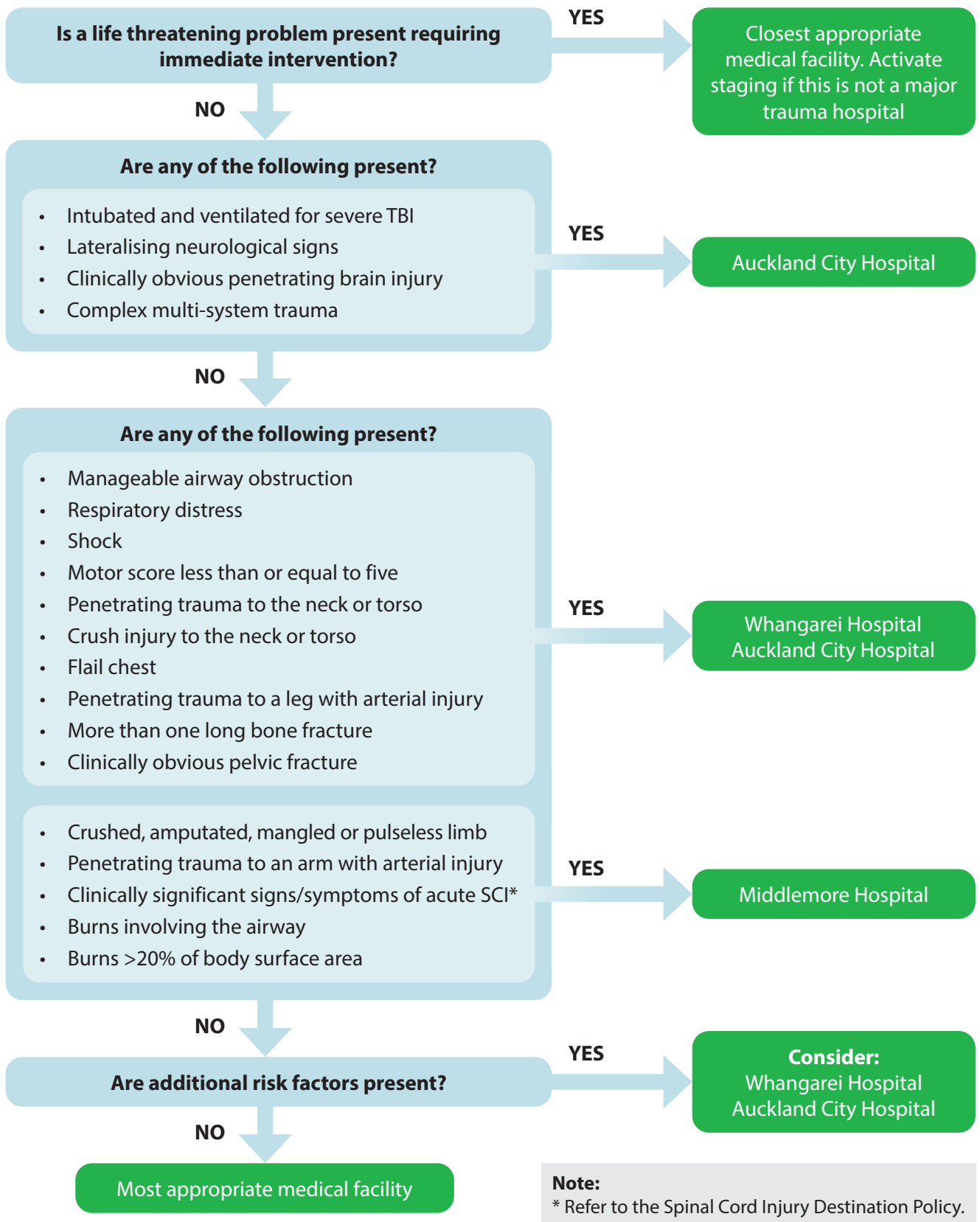
Auckland Area



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

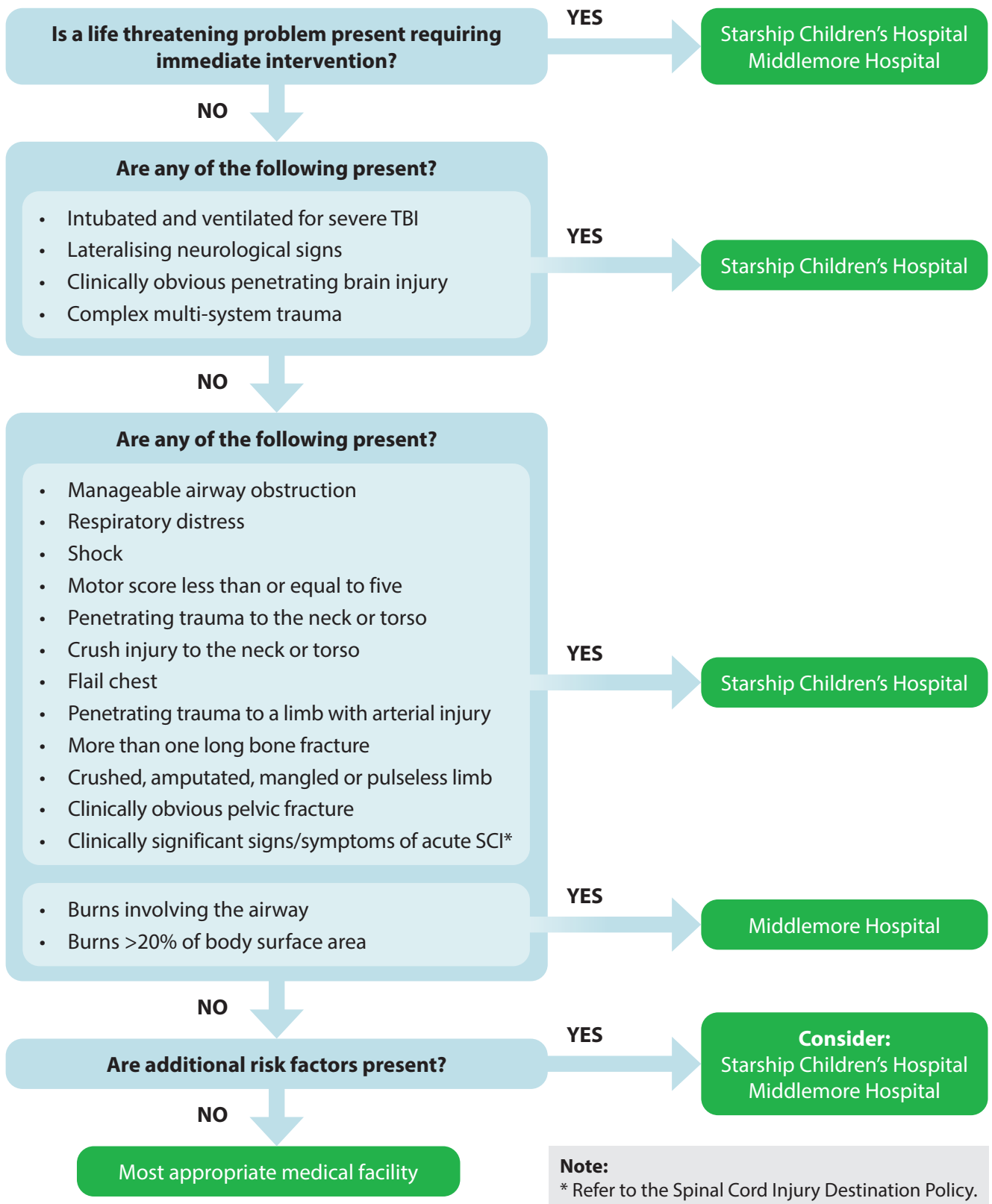
Major Trauma Destination Flowchart: Adults

Northland Area



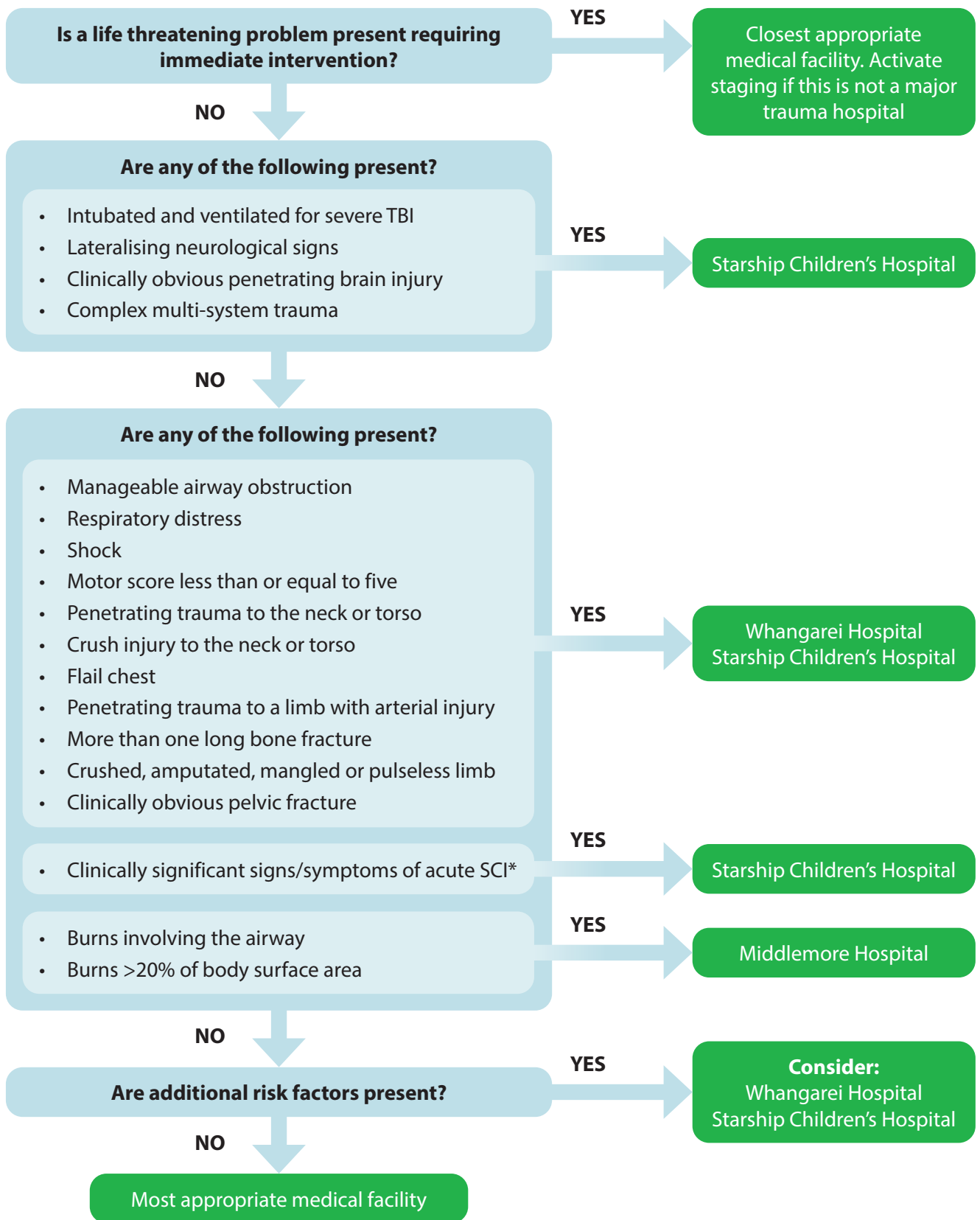
Major Trauma Destination Flowchart: Children

Auckland Area



Major Trauma Destination Flowchart: Children

Northland Area



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

Major Trauma Destination Policy: Northland and Auckland Areas



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 Northland and Auckland areas 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:
 - Whangarei Hospital (adults and children).
 - Auckland City Hospital (adults only).
 - Starship Children’s Hospital (children only).
 - Middlemore Hospital (adults and children*).

***Note:** Middlemore Hospital is only designated to receive children with burns and children with a life-threatening problem requiring immediate intervention.
- ▶ The following hospitals are tertiary major trauma hospitals:
 - Auckland City Hospital (adults only).
 - Starship Children’s Hospital (children only).
 - Middlemore Hospital (adults only).

Determining the most appropriate major trauma hospital

- ▶ The flowcharts describe the preferred major trauma hospital/s, 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 flowchart, whenever it is feasible and safe to do so.
- ▶ If it is not feasible or safe to transport the patient to the preferred major trauma hospital or more than one major trauma hospital is listed as an option, 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 most 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 have a low threshold for seeking clinical advice if the transport time to the chosen major trauma hospital is significantly longer (this is not defined and requires clinical judgement) than the transport time to the nearest major trauma hospital.

Life threatening problems requiring immediate intervention

- ▶ Auckland Area: the size and geography of the Auckland Area is such that the patient should be transported to a major trauma hospital, even in the presence of a life-threatening problem requiring immediate intervention.
- ▶ Northland Area: the size and geography of the Northland Area is such that the patient should be transported to the closest appropriate medical facility if they have 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 personnel 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 Auckland Hospital (adults) or Starship Children's Hospital (children) 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.
- ▶ Auckland Area: patients with the above clinical features should be transported to Auckland City Hospital (adults) or Starship Children's Hospital (children), even if the scene is south of Middlemore Hospital, unless there is a compelling reason to transport to Middlemore Hospital.
- ▶ Northland Area: patients with the above clinical features should be transported to Auckland City Hospital (adults) or Starship Children's Hospital (children) if a helicopter is immediately available, unless there is a compelling reason to transport to Whangarei Hospital.

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.
- ▶ Auckland Area: patients with complex multi-system trauma should be transported to Auckland City Hospital (adults), Middlemore Hospital (adults) or Starship Children's Hospital (children).
- ▶ Northland Area: patients with complex multi-system trauma should be transported to Auckland City Hospital (adults) or Starship Children's Hospital (children) if a helicopter is immediately available, unless there is a compelling reason to transport to Whangarei Hospital.

Limb injuries

- ▶ A differentiation has been made within the flowcharts between adults with an upper limb injury involving arterial injury and adults with a lower limb injury involving arterial injury.
- ▶ Adults with an upper limb injury involving arterial injury should be transported to Middlemore Hospital. This is because a combined approach involving plastic surgery and vascular surgery is almost always required and these services are only both available at Middlemore Hospital.
 - Auckland area: adults should be transported to Middlemore Hospital unless there is a compelling reason to transport to Auckland City Hospital.
 - Northland area: adults should be transported to Middlemore Hospital if a helicopter is immediately available, unless there is a compelling reason to transport to Whangarei Hospital.
- ▶ Adults with limb injury involving crush, amputation or mangled should be transported to Middlemore Hospital. This is because a combined approach involving plastic surgery and orthopaedic surgery is almost always required and these services are only both available at Middlemore Hospital.
 - Auckland area: adults should be transported to Middlemore Hospital unless there is a compelling reason to transport to Auckland City Hospital.
 - Northland area: adults should be transported to Middlemore Hospital if a helicopter is immediately available, unless there is a compelling reason to transport to Whangarei Hospital.
- ▶ Children with limb injuries involving arterial injury, crush, amputation or mangled:
 - Auckland area: children should be transported to Starship Children’s Hospital unless there is a compelling reason to transport to Middlemore Hospital.
 - Northland area: children should be transported to Starship Children’s Hospital if a helicopter is immediately available, unless there is a compelling reason to transport to Whangarei Hospital.

Burns

- ▶ Patients with a burn injury of greater than 20% of TBSA or burns involving the airway should be transported to Middlemore Hospital (if feasible and safe), including patients in the Northland area.
- ▶ Patients with a burn injury greater than 10% of TBSA in an adult or greater than 5% of TBSA in a child should be transported to Middlemore Hospital (including patients in the Northland Area) or to a hospital with surgical facilities.
- ▶ Burns involving the face, hands or genitals may require treatment in a regional burn centre. However, provided the burn injury is less than 10% of TBSA in an adult or less than 5% of TBSA in a child, treatment is not usually time sensitive and the patient should usually be transported to the most appropriate hospital, and subsequently transferred if required.