Staging Guidelines

These guidelines are for the use of medical facility personnel when a medical facility is being used as a staging point (or meeting point) by road ambulance personnel, for a patient with major trauma that is going to be transported by helicopter to a major trauma hospital. The helicopter will have been called by the road ambulance personnel and will arrive as soon as possible without further requests from the staging facility.

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Major Trauma National Clinical Network

St John

Wellington Free Ambulance kia ora te tangata

Introduction

These guidelines have been developed by a working group of the National Major Trauma National Clinical Network, including representatives from the ambulance sector and the Rural Hospitals Clinical Directors Forum and should be read in conjunction with the out-of-hospital major trauma triage policy.

These guidelines are for the use of medical facility personnel when a medical facility is being used as a staging point (or meeting point) by road ambulance personnel, for a patient with major trauma that is going to be transported by helicopter to a major trauma hospital.

These guidelines do not replace the need for clinical judgement and do not override DHB guidelines.

Roles and responsibilities

The role of medical facility personnel is to provide immediate treatment and to prepare the patient for handover to helicopter personnel. Medical facility personnel are responsible for the clinical care of the patient at the medical facility.

Ambulance personnel are responsible for the clinical care of the patient at the scene and during transport. Ambulance personnel may provide assistance at the medical facility under the direction of medical facility personnel.

General principles

Road ambulance personnel may transport a patient with major trauma to a staging medical facility if the patient has a life threatening problem requiring immediate medical intervention and arrival of a helicopter is going to be delayed. Ambulance personnel will provide medical facility personnel with an estimated time of arrival for the helicopter. The helicopter will be crewed by the usual personnel for an out-of-hospital mission and this may include a doctor if one is normally available.

Medical facility personnel:

- Are not required to accompany the patient by helicopter to the major trauma hospital, but may do so by arrangement with the helicopter crew.
- Are not required to contact personnel at the major trauma hospital to accept the patient, but are encouraged to contact an appropriate doctor at the major trauma hospital to inform them of the patient's condition and expected arrival, noting that this may need to occur after the patient has left the medical facility.
- Should follow their usual process for seeking clinical advice, particularly if helicopter arrival is delayed. If medical facility personnel need clinical advice but are unable to access this via their usual process, they may seek advice from the on-call doctor for the ambulance service, via the Clinical Desk within the Ambulance Control/Communications Centre[1].
- Should complete their usual documentation, noting that this may need to occur after the patient has left the medical facility. A brief written summary of the treatment provided to the patient should be given to the helicopter crew if possible and transmitted to the major trauma hospital.

The patient should not leave the emergency area of the medical facility unless this is required for a life-saving intervention.

Very rarely, the patient's clinical complexity may be such that it is more appropriate for an inter-hospital transfer team to retrieve the patient. This should usually only occur if the staging facility is a hospital and the patient's clinical needs during transfer are clearly more skill critical than time critical. In this situation medical facility personnel should seek clinical advice via their usual process.

[1] To contact the Clinical Desk within the Ambulance Control\Communications Centre, call 0800 244 111, at options select "9", at next options select "9" again and ask to speak to the on-call doctor

General treatment principles

Medical facility personnel should provide immediate treatment that is required prior to flight, taking into consideration the patient's clinical condition, the estimated time of arrival of the helicopter and the expected flight time to the major trauma hospital. Examples include, but are not limited to:

- Opening and/or gaining control of the airway.
- Stemming external bleeding.
- Gaining IV access and providing intravenous resuscitation for shock.
- Administering pain relief.
- Aligning and splinting fractures.

Intubation with an endotracheal tube

- This should only be performed by personnel experienced at intubation.
- Patients that have been intubated should be ventilated and receive a long acting neuromuscular blocker and sedation. Sedation using a combination of morphine and midazolam (for example 1-2 mg of each every 10-15 mins) is preferred as this will be familiar to ambulance personnel on the helicopter.
- A chest x-ray is not routinely required post intubation.

Chest drains

- Pneumothoraces do not require routine drainage prior to flight, unless there are clinical signs of tension pneumothorax or a large pneumothorax is visible on chest x-ray.
- A one-way valve is preferred over an underwater sealed drain, but an underwater sealed drain is acceptable.

Intravascular access, intravascular infusions and monitoring

- Two well-secured peripheral lines should be in place if possible.
- Intra-osseous access is preferred over multiple attempts at peripheral access.
- Central lines should usually only be placed if no other vascular access is available. The preferred sites are via the femoral or internal jugular vein. An x-ray is not required routinely post placement.
- Arterial lines should not usually be placed.
- Infusions via a pump should not usually be commenced unless they are vital for the resuscitation needs of the patient, because infusion pumps may not be compatible with transfer in a helicopter.

X-rays

- X-rays should not usually be performed unless the result will immediately change the treatment the patient is receiving.
- In the absence of a significant delay in transfer, the only x-ray that may be indicated is a chest x-ray if there is concern that a clinically significant pneumothorax is present.