New Zealand Out-of-Hospital STEMI Pathway: Bay of Plenty Area

This document is for the use of clinical personnel when treating and transporting patients with ST elevation myocardial infarction (STEMI) in the out-of-hospital setting in the Bay of Plenty Area of New Zealand. It has been developed by the Midland Cardiac Network in conjunction with the National Cardiac Network and the Ambulance Sector.

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Notify the dispatcher of "code STEMI" if air transport is being considered 1

Complete fibrinolytic therapy/PCI checklist

YES

Can transport to Tauranga Hospital clearly occur within 90 minutes of the diagnosis of STEMI being made?

NO

NO

Will the patient arrive in Tauranga Hospital between **0800–1500 Mon, Wed, Fri?**

YES

Primary PCI pathway

Transmit ECG to Tauranga Hospital (CR04)

- ▶ If helicopter transport is required, confirm activation of the helicopter crew and helicopter meeting point with the dispatcher
- Minimise time on scene and transport expediently

Phone cath lab coordinator at Tauranga Hospital on **027 704 7712 ASAP** to advise patient's details and the ETA³

Notify receiving ED personnel en route

Fibrinolytic therapy pathway

Administer fibrinolytic therapy ASAP if all answers to the fibrinolytic therapy/ PCI checklist questions are "no" ²

Commence transport to a hospital with facilities for immediate PCI ASAP:

- ► Tauranga Hospital (must arrive between 0800–1500 Mon, Wed or Fri)
- Waikato Hospital (outside hours)

Personnel transporting the patient:

Contact receiving hospital personnel to advise patient's details and the ETA:

- ► Tauranga Hospital: notify receiving ED personnel
- Waikato Hospital: phone on-call cardiology registrar on 07 839 8676 and notify receiving ED personnel

Notes:

- ▶ ¹The dispatcher will notify personnel on the Air Desk, who will then phone ambulance personnel at the scene to advise of helicopter availability and estimated flight time to Tauranga Hospital.
- ²Personnel must seek clinical advice prior to administering fibrinolytic therapy if any of the answers to the checklist questions are "yes" or "uncertain".
- If the cath lab coordinator advises that another prolonged cardiac procedure is underway and that the cath lab is not immediately available, ambulance personnel must proceed with the fibrinolytic therapy pathway.

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Additional information

Introduction

- ▶ This pathway is for the use of personnel in the out-of-hospital setting (for example ambulance and primary care personnel), when treating patients with ST elevation myocardial infarction (STEMI) in the Bay of Plenty Area of New Zealand and should be read in conjunction with the Ambulance Sector Clinical Procedures and Guidelines (CPGs).
- ▶ The goal of this pathway is to ensure that patients with STEMI receive prompt reperfusion therapy and that there is a consistent approach to determining which reperfusion therapy patients receive.

Guideline summary

- ▶ Primary percutaneous coronary intervention (primary PCI) is the preferred reperfusion strategy provided transport to a hospital with facilities for immediate PCI can clearly occur within 90 minutes of the diagnosis of STEMI being made.
- ▶ Fibrinolytic therapy should be administered as soon as possible (unless contraindicated) if transport to a hospital with facilities for immediate PCI cannot clearly occur within 90 minutes of the diagnosis of STEMI being made.
- ▶ Patients receiving fibrinolytic therapy will be transported to a hospital with facilities for immediate PCI from the scene whenever it is feasible and safe to do so, provided the patient is eligible for rescue PCI in the event of failed reperfusion.

Pathway steps

1 Notify the dispatcher of "code STEMI" if helicopter transport is being considered

- ▶ Personnel must call the dispatcher by radio and notify "code STEMI" if helicopter transport is being considered. The dispatcher must be informed of:
 - The hospital the patient is likely to be transported to and
 - The cell phone number for Air Desk personnel to call.
- ▶ The dispatcher must immediately notify Air Desk personnel of the incident. Air Desk personnel will phone personnel at the scene to advise helicopter availability and the estimated flight time to Tauranga Hospital.
- ▶ Ambulance personnel will use this information to determine whether transport to Tauranga Hospital can clearly occur within 90 minutes of the diagnosis of STEMI being made before proceeding with the chosen reperfusion pathway.

2 Complete fibrinolytic therapy/PCI checklist

- ▶ Personnel must complete the fibrinolytic therapy/PCI checklist prior to proceeding with the chosen reperfusion pathway.
- Personnel must seek clinical advice from the on-call doctor for St John via the Clinical Desk on 0800 111 HELP (0800 111 4357) prior to the administration of fibrinolytic therapy if the answer to any of the checklist questions is "yes" or "uncertain".

3 Follow appropriate reperfusion pathway (primary PCI or fibrinolytic therapy)

Primary PCI pathway

- ▶ Ambulance personnel should commence transport ASAP (while phoning the cath lab coordinator at Tauranga Hospital) if transport to Tauranga Hospital can clearly occur within 90 minutes of the diagnosis of STEMI being made **and** the patient will arrive in hospital between the hours of 0800–1500 Monday, Wednesday or Friday.
- If it is outside these hours or a public holiday, Tauranga Hospital does not have facilities for immediate PCI and personnel should proceed with the fibrinolytic therapy pathway.
- ▶ Personnel must transmit the ECG to Tauranga Hospital ED (**CR04**) whenever possible, ensuring the patient's surname and NHI (if known) are entered into the 12 lead ECG before transmission.
- Ambulance personnel will phone the cath lab coordinator at Tauranga Hospital on **027 704 7712 ASAP** (preferably before leaving the scene) and advise them of the patient's details, including:
 - Surname, age and NHI (if known).
 - Time of symptom onset.
 - 12 lead ECG findings.
 - Summary of the patient's overall condition.
 - Expected time of arrival.
 - Ensure there is explicit discussion if the answer to any of the checklist questions is "yes" or "uncertain".
- ▶ The cath lab coordinator will activate cardiac catheter lab personnel. Occasionally, the cath lab coordinator may advise ambulance personnel that another prolonged cardiac procedure is underway and that the catheter lab is not immediately available. If this occurs, ambulance personnel must proceed with the fibrinolytic therapy pathway.
- ▶ Personnel must notify receiving emergency department personnel prior to arrival that the patient is on the primary PCI pathway.
- ▶ On arrival in ED, the cath lab coordinator will meet the patient and ambulance personnel in ED. The patient should be transferred directly to the cardiac catheter lab on the ambulance stretcher, provided cardiac catheter lab staff are ready.

Fibrinolytic therapy pathway

- ▶ If transport to Tauranga Hospital cannot clearly occur within 90 minutes of the diagnosis of STEMI being made **or** the patient will arrive in hospital outside the hours of 0800–1500 Monday, Wednesday or Friday or it is a public holiday, personnel will administer fibrinolytic therapy ASAP if all the answers to the fibrinolytic therapy/PCI checklist questions are "no". Personnel must seek clinical advice prior to administering fibrinolytic therapy (as above) if any of the answers to the checklist questions are "yes" or "uncertain".
- ▶ The patient must be transported to a medical facility with personnel able to administer fibrinolytic therapy if there will be a significant delay in the arrival of ambulance or PRIME personnel able to do this.
- If the patient is being transported to a medical facility for fibrinolytic therapy:
 - Staging should be activated via the dispatcher ASAP and preferably before leaving the scene.
 - Personnel in the receiving medical facility must be notified ASAP (and preferably before leaving the scene) that staging has been activated.
- ▶ If staging is occurring at a medical centre:
 - The patient should remain in the ambulance if possible.
 - The patient should remain on the ambulance stretcher if taken into the medical centre if possible.

- ▶ Following the administration of fibrinolytic therapy personnel will commence transport to a hospital with facilities for immediate PCI:
 - **Tauranga Hospital:** if the patient will arrive between 0800–1500, Monday, Wednesday or Friday (excluding public holidays) only.
 - Waikato Hospital: outside the above hours.
- ▶ En route to hospital, personnel **transporting the patient** will contact receiving hospital personnel approximately 30 minutes prior to arrival to notify them of the patient's details (as above), provide an update on the patient's condition and advise the ETA:
 - **If the destination is Tauranga Hospital:** personnel will notify receiving ED personnel and convey the patient to ED.
 - If the destination is Waikato Hospital: personnel will phone the on-call cardiology registrar at Waikato Hospital on 07 839 8676 and notify receiving ED personnel.

Appendix one: Approximate PPCI and fibrinolytic therapy catchment areas When Tauranga Hospital has facilities for immediate PCI

Primary PCI zone Fibrinolytic therapy zone Primary PCI if the 'usual' helicopter is immediately available from its base location Waihi Te Kaha Tauranga Matata Matamata Whakatane Rotorua Murupara Taupo Gisborne



