

## 1. PURPOSE

This policy provides the steps the paramedic may take when attending to a patient complaining of continuous cardiac ischemic “chest pain” with a STEMI positive ECG.

## 2. SCOPE

This procedure applies to the Medical Direction area of the program. The application of this policy applies to all paramedics (ACP and PCP) within the CEPCP catchment area.

## 3. RELATED DOCUMENTS

ALS PCS November 2013 v3.1

## 4. PROCEDURE

A patient that meets the indications and conditions for treatment according to the Cardiac Ischemia Medical Directive may be a candidate for a STEMI bypass if:

- The patient complains of continuous (defined as, once the pain started, it has not gone away prior to your contact and assessment) pain, and;
- The 12 (or 15) lead is diagnostic for an acute myocardial infarction.

With both continuous pain and a 12 (or 15) lead indicative of an infarct, transport the patient to the closest facility equipped with a Cardiac Catheterization lab (PCI lab), bypassing closer Emergency Departments, when:

- The current episode of pain is less than 12 hours in duration, and
- The patient can be transported to the PCI lab in less than 60 minutes from your initial patient contact time.

A STEMI bypass is contraindicated if any of the following apply:

- The systolic blood pressure is less than 80 mmHg (despite field interventions such as: fluid bolus, inotropes or trans-cutaneous pacing), or
- A STEMI imitator is present, specifically a Left Bundle Branch Block (LBBB), a Ventricular paced rhythm, Left Ventricular Hypertrophy (LVH) or pericarditis is present, or
- The airway is unsecured or the patient cannot be adequately ventilated, or
- The patient has Advanced Directives in place indicating a restriction in care, or they are unable to co-operate or consent due to dementia or other cause

To complete the transfer of care, ensure a print copy of the diagnostic 12 (or 15) lead is provided to the receiving staff.

## 5. NOTES

12 lead electrical criteria for presumptive evidence of a STEMI:

- ST elevation of 1 mm or more in two (2) or more anatomically contiguous limb leads, or
- ST elevation of 2 mm or more in two (2) anatomically contiguous precordial leads.

A 15 lead cardiogram should be performed when the 12 lead appears “normal” (posterior wall with V8 and V9 to be evaluated), or demonstrates ST elevation consistent with an inferior myocardial infarction (V4R to be evaluated).

A Right Bundle Branch Block (RBBB) does not prohibit the interpretation of the 12 lead and is not a contraindication to initiating a STEMI bypass.

If a patient does not meet the indications for bypass, a patch to the Base Hospital Physician is NOT recommended.

A STEMI bypass may not be indicated for a patient with a valid MOH DNR confirmation form or who is in palliative care.

Once a diagnostic 12 (or 15) lead has been obtained indicating a STEMI, additional 12 leads are unnecessary. Further, it is recommended to replace the monitoring electrodes with defibrillation pads.

Where possible, intravenous initiation should be performed in the left arm to facilitate right radial artery access by the Code STEMI team.

Ensure a copy of the 12 (or 15) lead is attached to your call report.

While there are numerous PCI labs that may receive direct from field patients, a process has been established for the transfer of care and information with Southlake, Peterborough and Centenary. Once the decision has been made to transport to one of these facilities, a code STEMI is to be activated as early as possible, by calling the receiving facility:

- Southlake Regional Health Centre at 905-952-2466
- Rouge Valley Health System – Centenary site at 416-287-8364
- Peterborough Regional Health Centre at 705-743-2121 ext “0” (directly or via CACC) and a patch to the Emergency Department should also be made.
  
- And advising:
  - You are EMS (identify your service)
  - Estimated time of arrival (ETA)
  - Patient age and gender and initials (do NOT provide the patient name over phone or radio lines)
  - Whether the patient has received treatment with an advanced airway, defibrillation, inotropes or trans-cutaneous pacing.

On arrival at the receiving facility:

- Southlake: Proceed directly to the PCI lab without stopping in the Emergency Department. NOTE – if outside of regular hours and the code STEMI team has not arrived, proceed to the Coronary Care Unit (CCU). Remain with the patient until the transfer of care is complete.
- Centenary: Proceed directly to the PCI lab without stopping in the Emergency Department. NOTE – if outside of regular hours and the code STEMI team has not arrived, proceed to the Coronary Care Unit (CCU). Remain with the patient until the transfer of care is complete.
- Peterborough: Proceed to the Emergency Department and report to the triage staff who will advise if and when the PCI lab is ready to receive the patient.