

**FACILITY DOCUMENT NO: C104.013** 

PROCEDURE TITLE: ASSESSMENT AND MANAGEMENT OF

CARDIAC CHEST PAIN PRESENTATIONS TO

THE EMERGENCY DEPARTMENT

Joondalup Health Campus recognises that the principal responsibility for a patient's care lies with that patient's doctor. Following consultation with doctors and clinical employees, and through reference to current industry best practice standards, we have developed this procedure as a <u>minimum standard</u> designed to deliver optimal care to patients.

### Keywords/search terms

Cardiac Monitoring

### Bookmarks to section or topic headings:

JHC Code STEMI/Primary PCI Guideline, Acute Coronary Syndrome Guideline

### PROCEDURE SCOPE

This document applies to medical and nursing staff in the Emergency Department.

### PROCEDURE PURPOSE

The purpose of this document is to is to guide staff in the timely and efficient assessment and management of patients presenting to the Emergency Department (ED) with chest pain.

### **EQUIPMENT**

- Cardiac monitor with 12 lead recording capabilities Draeger Cardiac Monitor M500/540
- Oxygen
- Sphygmomanometer
- SpO<sub>2</sub> monitor
- Adult Observation Chart Early Warning System (HR 549-1)
- Emergency Department Triage/Nursing Assessment (RHC WA 1109)
- Emergency Department Medical Assessment (RHC WA 1108)
- Integrated Progress Notes (RHC WA 290)

### PROCEDURE<sup>1-4</sup>

Patients presenting with clinical features which may be consistent with Acute Coronary Syndrome are to be assessed for the same. This is not for patients with a non-cardiac cause for the chest pain, i.e. Pulmonary Embolism, Aortic Dissection.

Clinical pathways never replace clinical judgement. Care outlined on the flowchart must be altered if not clinically appropriate for the patient.

Version: 1.00



FACILITY DOCUMENT NO: C104.013
ASSESSMENT AND MANAGEMENT OF
CARDIAC CHEST PAIN PRESENTATIONS TO
THE EMERGENCY DEPARTMENT

PROCEDURE TITLE:

### Nursing:

- 1. An initial rapid assessment confirms a complaint of chest pain and the patient is transferred immediately into a monitored bay<sup>2,3</sup>
- 2. Apply oxygen to
  - Patients with oxygen saturation (SpO<sub>2</sub>) of less than 94% who are not at risk of hypercapnic respiratory failure. Aim for SpO<sub>2</sub> of 94–98%
  - Patients with chronic obstructive pulmonary disease who are at risk of hypercapnic respiratory failure, to achieve a target SpO<sub>2</sub> of 88–92%
- 3. The patient is attached to the cardiac monitor and a rhythm obtained.
- 4. A 12 lead ECG is performed, and the pain score **must** be recorded on the ECG.
  - a. Refer the ECG to an ED Registrar or ED Consultant with a concise history of the presentation. Repeat ECG time determined by senior doctor or change in patient condition. Patients to remain cardiac monitored until reviewed by the Emergency Department Medical Officer (EDMO).
  - b. Ongoing frequency of ECG determined by EDMO or on change of patient pain or clinical condition
- 5. Perform a blood pressure and SaO<sub>2</sub> monitoring
- 6. Document a full assessment in the Emergency Department Triage/Nursing Assessment (RHC WA 1109) or Integrated Progress Notes (RHC WA 290).

### Medical:

- EDMO assessment conducted.
  - a. If evidence of a ST elevation myocardial infarction (STEMI) identified follow STEMI guideline below.
  - b. If nil evidence of STEMI follow Acute Coronary Syndrome Guideline below

Version: 1.00

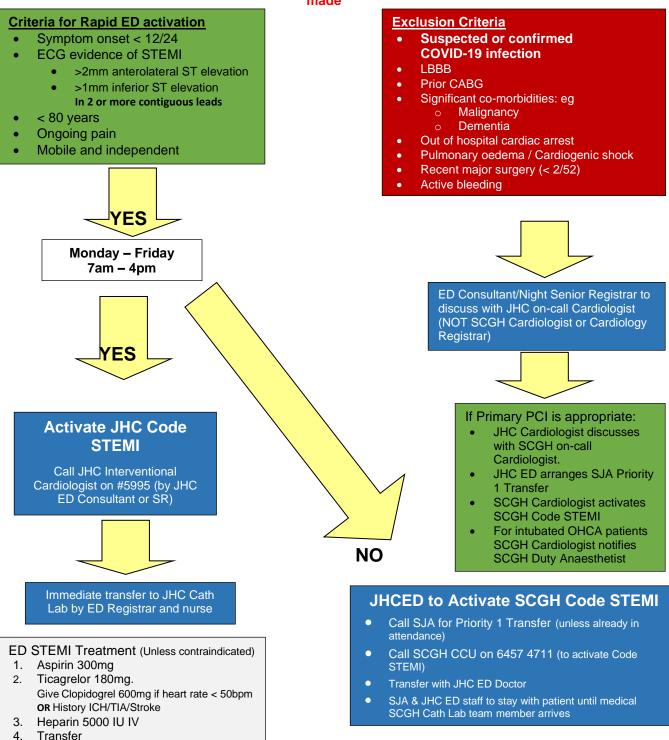


PROCEDURE TITLE:

FACILITY DOCUMENT NO: C104.013
ASSESSMENT AND MANAGEMENT OF
CARDIAC CHEST PAIN PRESENTATIONS TO
THE EMERGENCY DEPARTMENT

### JHC Code STEMI/Primary PCI Guideline

\*\*\*If suspected STEMI with SJA out of hours keep on stretcher and conduct an ECG until decision is made\*\*\*



Procedure Title: Assessment and Management of Cardiac Chest Pain Presentations to the Emergency Department Facility Procedure Number: C104.013

Page 3 of 6 Version: 1.00



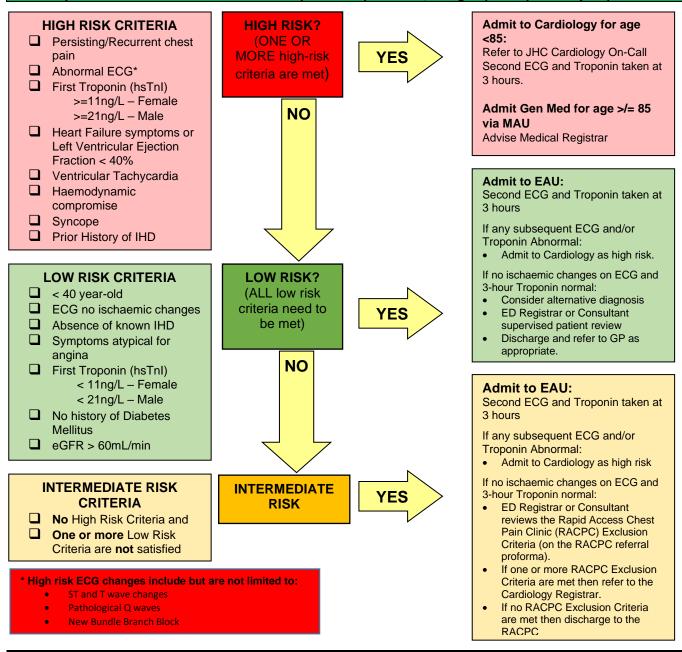
PROCEDURE TITLE:

**FACILITY DOCUMENT NO: C104.013** ASSESSMENT AND MANAGEMENT OF CARDIAC CHEST PAIN PRESENTATIONS TO THE EMERGENCY DEPARTMENT

## Acute Coronary Syndrome Guideline

# If STEMI then EXIT THIS GUIDELINE and GO TO JHC CODE STEMI GUIDELINE If not then perform initial Troponin testing (0 hr) and risk stratify as below:

<<NB: If pain-free with a normal ECG and 6 hours post chest pain onset, a single spot Troponin may be performed>:



Cardiac Monitoring Required: On initial presentation for all possible cardiac chest pain Ongoing Cardiac Monitoring Not Required: On low risk patients after first normal ECG and pain free

Procedure Title: Assessment and Management of Cardiac Chest Pain Presentations to the Emergency Department

Page 4 of 6

Facility Procedure Number: C104.013

Version: 1.00



PROCEDURE TITLE:

ASSESSMENT AND MANAGEMENT OF
CARDIAC CHEST PAIN PRESENTATIONS TO
THE EMERGENCY DEPARTMENT

### **Cardiac Monitoring Guideline:**

Patients requiring cardiac monitoring in the Emergency Department (ED) or for admission to the Telemetry Care Unit or Coronary Care Unit include:

- STEMI patients (NB COVID-19 STEMI patients will have to go to Intensive Care Unit (ICU) post)
- NSTEMIs,
  - NOTE: Patients with a normal troponin need to have ECG changes and/or ongoing pain to fulfil monitoring criteria when no capacity
- Cardiogenic syncope
- · Resuscitated cardiac arrest, not intubated
- Arrhythmias:
  - Rapid ventricular response (should shift out once rate/rhythm control achieved)
  - Other symptomatic dysrhythmias, eg:
    - 1st AV block Only monitor if cardiogenic syncope or other concerning features (eg. with bifascicular block)
    - 2<sup>nd</sup> AV block
      - Symptomatic Mobitz I monitor
      - Mobitz II monitor
    - 3<sup>rd</sup> AV block All require monitor with and without syncope
- Acute Heart failure if unstable
  - NOTE: once stable should have monitoring ceased
- <u>Clinical</u> Tamponade (not just CT scan showing effusion)
- Left sided infective endocarditis
  - NOTE: (only if very unwell; otherwise could go to ward)

The following patients should not go to a monitored bed. Ideally for review and discharge from the ED for outpatient workup:

- Palpitations
- Troponin negative chest pain unless marked ECG changes
- Presyncope without ECG changes/arrhythmia on monitor, and
- Non-specific shortness of breath

### **REFERENCES**

- National Institute for Health and Care Excellence. (2016). Chest pain of recent onset: assessment and diagnosis. Retrieved on the 27 January 2021 from <a href="https://www.nice.org.uk/guidance/CG95">https://www.nice.org.uk/guidance/CG95</a>
- 2. Heart Foundation. (2016). *Acute coronary syndromes (ACS) clinical guidelines*. Retrieved from on the 27 January 2021 <a href="https://www.heartfoundation.org.au/conditions/fp-acs-guidelines">https://www.heartfoundation.org.au/conditions/fp-acs-guidelines</a>
- 3. National Heart Foundation. (2016). Australian clinical *guidelines for the management of acute coronary syndromes*. Retrieved on the 27 January 2021 from

Facility Procedure Number: C104.013

Page 5 of 6 Version: 1.00



**FACILITY DOCUMENT NO: C104.013** 

PROCEDURE TITLE: ASSESSMENT AND MANAGEMENT OF

CARDIAC CHEST PAIN PRESENTATIONS TO

THE EMERGENCY DEPARTMENT

https://www.heartfoundation.org.au/images/uploads/publications/ACS-guidelines-longpresentation 2016 v2 1.pdf

4. Australian Commission on Safety and Quality in Health Care. (2014). Acute coronary syndromes clinical care standard. Retrieved on the 27 January 2021 from https://www.safetyandguality.gov.au/sites/default/files/migrated/Acute-Coronary-Syndromes-Clinical-Care-Standard.pdf

### RELATED RHC AND JHC POLICIES, GUIDELINES, PROCEDURES

- Joondalup Health Campus. Medications: Administration (C13.58)
- Joondalup Health Campus: Management of the Patient with ST Elevation Myocardial Infarction (STEMI) (C105.005)

### RELATED FORMS/PATIENT INFORMATION RESOURCES

- Adult Observation Chart Early Warning System (HR 549-1)
- Emergency Department Triage/Nursing Assessment (RHC 1109)
- Emergency Department Medical Assessment (RHC WA 1108)
- Integrated Progress Notes (RHC WA 290)

### RELATED NATIONAL STANDARDS

NSQHS Standard 8 Recognising and Responding to Acute Deterioration Standard

### COMMITTEE/SUBCOMMITTEE REPORTING

Nil

### **AUTHORISATION**

Prepared/Authorised By Y Naidoo Emergency Department Consultant, D Thomson Oct 2020

Cardiologist, J Hathaway Emergency Department CNS, Y Mamoojee Director of Emergency Medicine, H Landers A/DDCS, V Reid CNM

**Date Implemented** January 2021 **Next Review Due** January 2024

### VERSION CONTROL AND HISTORY

Procedure implemented. Amalgamates C03.24, JEDO ED STEMI Version 1.00

Policy and temporary COVID-19 Cardiac Monitoring Guidelines

January 2021

Procedure Title: Assessment and Management of Cardiac Chest Pain Presentations to the Emergency Department

Facility Procedure Number: C104.013

Page 6 of 6 Version: 1.00