

Rapid rule out pathway for myocardial infarction

For use in patients with suspected acute coronary syndrome

Review of pre-hospital and departmental ECG by senior staff within 10 mins

Immediate IV access and bloods including high-sensitivity cardiac troponin T (hs-cTnT)

Cardiac monitoring

Non-diagnostic or normal ECG

- Consider Aspirin 300 mg
- Sub-lingual GTN or analgesia
- CXR as indicated

ST-depression/T-wave inversion

New horizontal **or** downsloping
ST-depression $\geq 2\text{mm}$ **or** deep symmetrical
T-wave inversion in 2 adjacent leads

Senior review or cardiology referral

- Aspirin 300 mg
- Sub-lingual GTN or analgesia
- Consider Clopidogrel 300 mg
- Consider Fondaparinux 2.5 mg SC (if not anti-coagulated)
- CXR as indicated

ST-segment elevation

$\geq 2\text{mm}$ in 2 adjacent chest leads **or** $>1\text{mm}$ in 2 adjacent limb leads **or** new LBBB **or** $>2\text{mm}$ ST depression V1-V3

Bleep 5834 for emergency PCI

- Aspirin 300 mg
- Clopidogrel 600 mg
- Sub-lingual GTN or analgesia
- Heparin 5,000 units IV (if not anti-coagulated)

Admit and hs-cTnI at 6 hrs

Review baseline hs-cTnT

Myocardial infarction ruled out

- A) Clear alternative diagnosis;** treat as appropriate
- B) Atypical chest pain or previous negative investigations;** reassure low cardiac risk, chest pain leaflet, and GP follow up
- C) Typical cardiac pain on exertion with no previous investigations;** For RIE refer to Chest Pain Nurse. Out of hours or other sites consider aspirin 75 mg od, GTN spray and referral to RACPC.

$<5\text{ ng/L}$

$\geq 2\text{ hrs}$ since symptom onset at time of first test

No

Send Repeat Troponin when first result available

CHANGE $<3\text{ ng/L}$ AND $\leq 9\text{ ng/L}$ (women) $\leq 16\text{ ng/L}$ (men)

CHANGE $\geq 3\text{ ng/L}$ AND $\leq 9\text{ ng/L}$ (women) $\leq 16\text{ ng/L}$ (men)

$>9\text{ ng/L}$ (women) $>16\text{ ng/L}$ (men)

Myocardial injury or myocardial infarction

A) Consider other causes of injury (e.g. heart failure, kidney disease)

***If chronic injury suspected retest when first result available – confirmed if CHANGE $<3\text{ ng/L}$. Senior review.**

B) If diagnosis of type 1 myocardial infarction:

- Clopidogrel 300 mg
- Fondaparinux 2.5mg sc
- Arrange for admission, senior medical review and repeat at 6 hrs

EMERGENCY DEPARTMENT OR OBSERVATION WARD

HOSPITAL ADMISSION

Admit and hs-cTnT 6 hrs from attendance

Myocardial infarction ruled out
Senior medical review or referral to cardiology

$\leq 9\text{ ng/L}$ (women)
 $\leq 16\text{ ng/L}$ (men)

$>9\text{ ng/L}$ (women) $>16\text{ ng/L}$ (men)

Myocardial injury or infarction
Referral to cardiology for in-patient assessment