Queensland Government

Suspected Acute Coronary Syndrome Clinical Pathway

Laboratory Troponin Assay

Facility: .....

(Affix identification label here)

URN:

Family name:

Given name(s):

Address:

Date of birth: Sex: ☐ M ☐ F ☐ I

- **CAUTION:** Ensure correct pathway is used. **Use this form for laboratory troponin assay only.** For iSTAT/point of care troponin assay, use *Suspected Acute Coronary Syndrome Clinical Pathway – iSTAT/Point of Care Troponin Assay (SW1330).*
- This is a guide only and clinical judgement relevant to the individual patient always prevails.
- Variances **must** be clearly documented in patient notes.
- Always consider other critical causes of chest pain (e.g. aortic dissection, pulmonary embolism).
- Do **not** use this pathway if a non-ACS cause for chest pain is diagnosed.
- Every person documenting in this clinical pathway **must** supply a sample of their initials and signature (page 2).

First medical contact:
☐ Queensland Ambulance Service (QAS) ☐ Hospital ☐ GP Date: ../../.. Time (24hr): .. : ..

Symptom onset:	**Presentation:**	**First diagnostic ECG:**
Date: ../../.. Time (24hr): .. : ..	Date: ../../.. Time (24hr): .. : ..	Date: ../../.. Time (24hr): .. : ..

Accepting Cardiologist:	**Referral:**
Dr:	Date: ../../.. Time (24hr): .. : ..

☐ **Presents with chest pain or other symptoms suggestive of ACS** (consider atypical presentations in diabetic or renal patients, women, elderly or Indigenous patients)
☐ **12 lead ECG and vital signs reviewed by a Senior Medical Officer within 10 minutes of presentation**
- *Consider right-sided ECG and/or posterior ECG.*
- *Follow local processes for urgent assistance with ECG interpretation if required (e.g. seek Senior Medical Officer or tertiary hub Cardiology advice).*

☐ ECG STEMI

☐ ECG STEMI
☐ MI likely from history and symptoms
☐ Symptom onset <12 hours

If symptoms >12 hours and evidence of continued myocardial ischemia, contact Interventionalist for consideration of primary PCI.

IF YES →

IMMEDIATELY ACTIVATE

***Reperfusion for STEMI Clinical Pathway (SW547)* to determine if patient is suitable for emergency reperfusion.**

If in doubt, seek urgent advice from Emergency Consultant or Interventional Cardiologist.

IF NO ↓

☐ High-Risk ECG Findings and/or Presence of Other Clinical Concerns

☐ Ongoing symptoms in the presence of high-risk ECG criteria
☐ Recurrent intermittent STE
☐ Haemodynamic instability or cardiogenic shock
☐ Life-threatening arrhythmias
☐ Mechanical complications of MI

IF YES →

IMMEDIATELY CONTACT

Cardiology Referral Centre for advice and consideration of urgent transfer.

Discussed with:

Date: ../../..

Time (24hr): .. : ..

IF NO ↓

ECG STEMI (one or more of below)

☐ STE ≥1 mm in 2 contiguous limb leads
☐ STE ≥2 mm in 2 contiguous chest leads (V1–V6)
☐ ≥0.5mm STdep in V1–3 **AND** STE ≥0.5mm in posterior leads

High Risk ECG Findings

☐ LBBB or paced rhythm with modified Sgarbossa criteria
- ◯ Concordant STE >1 mm in more than 1 lead; *OR*
- ◯ Concordant STdep >1 mm in 1 lead (V1–V3); *OR*
- ◯ Any lead with STE >25% of preceding S-wave

☐ De Winter T-waves
- ◯ Up-sloping STdep in V2–V5; **AND**
- ◯ Tall T-waves in chest leads V2–V5; **AND**
- ◯ Slight STE aVR >0.5 mm

☐ Wellens criterion
- ◯ Isoelectric or minimally elevated J-point <1 mm; **AND**
- ◯ Biphasic T-waves V2, V3; *OR*
- ◯ Symmetric T-wave inversion V3 (sometimes V1, V4–V6)

☐ Diffuse STdep in multiple leads and STE in aVR
☐ STdep and T-wave inversion

☐ **Normal ECG or absence of high-risk ECG features AND presentation consistent with suspected ACS:**
Follow clinical decision pathway on page 2.

General Management

☐ Continuous cardiac monitoring
☐ Vitals signs as per Cardiac Q-ADDS
☐ Nitrates: Sublingual or IV infusion
☐ Pain relief: IV Fentanyl or IV Morphine
☐ Oxygen if SpO_2 <90% (aim SpO_2 ≤96%)
☐ Pathology: Troponin, ELFTs, Full blood count
☐ Repeat ECG if recurrent/ongoing chest pain or other symptoms of ACS every 15 minutes
☐ Loading dose of 300 mg Aspirin given
Date: ../../.. Time (24hr): .. : ..
☐ Prepare for urgent transfer (if applicable)

Comments:

Treating Emergency Department Medical Officer

Print name:	Signature:	Date: ../../..	Time (24hr): .. : ..

DO NOT WRITE IN THIS BINDING MARGIN

SUSPECTED ACS CLINICAL PATHWAY – LABORATORY TROPONIN ASSAY

v2.00 - 06/2026
WINC Code: 1NY45333
SW1329

Queensland Government

Suspected Acute Coronary Syndrome Clinical Pathway

Laboratory Troponin Assay

(Affix identification label here)

URN:

Family name:

Given name(s):

Address:

Date of birth: Sex: ☐ M ☐ F ☐ I

Atellica/Laboratory Troponin-Based Clinical Decision Pathway

- This pathway is for **normal ECG** or **absence of STEMI or high-risk ECG features** AND **presentation consistent with ACS.**
- **Serial troponin values MUST be measured using the same assay (i.e. Laboratory or Point of Care).**

STEMI/high-risk ECG changes/ clinical concerns at ANYTIME:

- **ECG STEMI** – ***immediately*** activate *Reperfusion for STEMI Clinical Pathway (SW547)*
- **ECG high risk/clinical concerns** – return to page 1 and ***immediately*** contact Cardiac Referral Centre for advice and to consider urgent transfer

☐ Onset of symptoms ≥2 hours
AND
☐ **First troponin:** <5 ng/L

☐ Onset of symptoms <2 hours
AND/*OR*
☐ **First troponin:**
- Female: ≤39 ng/L
- Male: ≤54 ng/L

☐ **First troponin:**
- Female: >39 ng/L
- Male: >54 ng/L

Second troponin at 2–3 hours and repeat ECG*

☐ **Both troponin:** <5 ng/L

☐ **Second troponin:**
- Female: ≤39 ng/L
- Male: ≤54 ng/L

AND
☐ Change: <3 ng/L **(rise or fall)**

☐ **Second troponin:**
- Female: >39 ng/L
- Male: >54 ng/L

OR
☐ Change: ≥3 ng/L **(rise or fall)**

LOW RISK

No further objective cardiac testing recommended (including troponin)

Discharge home with:
- ☐ GP follow-up for CVD risk
- ☐ Discharge summary

INTERMEDIATE RISK

Discharge home with:
- ☐ Referral for appropriate, locally available, non-invasive cardiac testing within 30 days
- ☐ Chest pain action plan
- ☐ GP follow-up for CVD risk
- ☐ Discharge summary

HIGH RISK

- ☐ Immediate/early referral to Cardiologist/interventional facility (follow local referral and transfer processes)
- ☐ Loading dose of 300 mg Aspirin given (if advised)
  Date: ..... / ..... / .....
  Time (24hr): ..... : .....
- ☐ Continuous cardiac monitoring
- ☐ Take second troponin and ECG at 2 hours, unless already done
- ☐ Commence *Acute Coronary Syndrome Clinical Pathway (SW594)* if advised by Cardiology

Signature Log (Every person documenting in this clinical pathway **must** supply a sample of their initials and signature)

Print name	Designation	Signature	Initials

ACS	Acute Coronary Syndrome	**LBBB**	Left Bundle Branch Block	**pPCI**	Primary Percutaneous Coronary Intervention
aVR	Augmented Vector Right	**MACE**	Major Adverse Cardiac Event	**SpO_2**	Oxygen Saturation
CVD	Cardiovascular Disease	**MI**	Myocardial Ischemia	**STE/MI**	ST-Elevation/Myocardial Infarction
ELFTs	Elevated Liver Function Tests	**PCI**	Percutaneous Coronary Intervention	**STdep**	ST-segment Depression

DO NOT WRITE IN THIS BINDING MARGIN