Queensland Government

Possible Cardiac Chest Pain Clinical Pathway

Facility: .....

(Affix identification label here)

URN:

Family name:

Given name(s):

Address:

Date of birth: Sex: ☐ M ☐ F ☐ I

Clinical pathways never replace clinical judgement
Care outlined in this pathway **must be altered** if not clinically appropriate for the individual patient
Document all variances in patient notes

Presentation time / date: ..... : .... / ..... / ..... **Symptom onset time / date:** ..... : .... / ..... / .....

POSSIBLE CARDIAC CHEST PAIN

and / or

OTHER SYMPTOMS of MYOCARDIAL ISCHAEMIA

(e.g. diaphoresis, sudden orthopnea, syncope, dyspnoea, epigastric discomfort, jaw pain, arm pain)

Consider:

Atypical Presentations

(e.g. diabetes, renal failure, female, elderly or Aboriginal / Torres Strait Islander)

TRIAGE CATEGORY 2

Always consider other critical causes

(e.g. Aortic Dissection, Pulmonary Embolism)

Do not use this pathway if a non-ACS cause for chest pain can be diagnosed.

☐ ECG* and vital signs reviewed by Senior MO within 10 mins

Review time: ..... : .....

☐ Right-sided ECG (V4R) if inferior ST-elevation present

**Contact cardiology referral service if ECG advice required*

General management:

- ☐ Aspirin
- ☐ Nitrates – S/L or IVI
- ☐ IV access
- ☐ Pathology, including Troponin, on admission
- ☐ Pain relief
- ☐ Continuous Cardiac Monitoring
- ☐ Oxygen if SpO2 <93% or evidence of shock
- ☐ Chest X-ray
- ☐ Repeat ECG if recurrent chest pain
- ☐ Frequent observations

NO

NO TO ANY

ST-ELEVATION *OR* (presumed new) LBBB

1. Confirm Indications for Reperfusion

- ☐ Chest pain >30 min and <12 hours
- ☐ Persistent ST-elevation ≥1 mm in 2 contiguous limb leads or persistent ST-elevation ≥2 mm in 2 contiguous chest leads or new or presumed new LBBB
- ☐ Myocardial infarct likely from history

2. Choose Reperfusion Method

☐ **Primary PCI** If possible within 90 mins of first medical contact urgently contact the on-call interventional cardiologist♦

☐ Notify Retrieval Services Queensland (1300 799 127) or Queensland Ambulance Service for **immediate transfer** to interventional cardiac facility♦

OR

☐ Transfer to on-site Cardiac Catheter Lab as directed

NO

☐ **Thrombolyse (if appropriate)** within 30 mins of first medical contact

Exit this pathway and commence **Thrombolysis for STEMI Clinical Pathway**

3. Administer Antithrombotic Therapy

Confirm administration or give:

- ☐ Aspirin 300 mg (soluble)
- ☐ Ticagrelor 180 mg (or alternative if advised by interventional cardiologist)
- ☐ Enoxaparin ***OR*** Unfractionated Heparin (confirm with interventional cardiologist)

☐ Prepare for urgent MEDEVAC transfer♦ ***OR***

☐ Admit to Coronary Care Unit post primary PCI

Possible:
NON ST-ELEVATION ACUTE CORONARY SYNDROME (NSTEACS)

RISK STRATIFY ACS
Medical staff to complete *Risk Stratification* on reverse of this form

Accepting Cardiologist

Dr: .....

Referral time: ..... : ..... Facility: .....

Treating Emergency Medical Officer

Dr: ..... Initial: .....

♦***Follow local referral and / or transfer processes***

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

Initials	Signature	Print name	Role	Initials	Signature	Print name	Role

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POSSIBLE CARDIAC CHEST PAIN CLINICAL PATHWAY

Queensland Government

Possible Cardiac Chest Pain Clinical Pathway

(For use in **non**-ACRE facilities only)

Facility: .....

(Affix identification label here)

URN:

Family name:

Given name(s):

Address:

Date of birth: Sex: ☐ M ☐ F ☐ I

Clinical pathways never replace clinical judgement
Care outlined in this pathway **must be altered** if it is not clinically appropriate for the individual patient
All variances must be clearly documented in the patient's clinical progress notes

EMERGENCY DEPARTMENT

Do not use this pathway if a non-ACS cause for chest pain can be diagnosed. Manage as per diagnosis.

HIGH RISK FEATURES - Clinical features consistent with ACS and any of the following:

- ☐ Repetitive or prolonged (>10 mins) **ongoing** chest pain or discomfort
- ☐ Elevated Troponin
- ☐ Persistent or dynamic ECG changes of ST-segment depression ≥0.5mm or new T-wave inversion ≥2mm
- ☐ Transient ST-segment elevation (≥0.5mm) in more than two contiguous leads
- ☐ Haemodynamic compromise - systolic blood pressure <90mmHg, cool peripheries, diaphoresis, Killip Class >1, and / or new-onset mitral regurgitation
- ☐ Sustained ventricular tachycardia
- ☐ Syncope
- ☐ Left ventricular systolic dysfunction (left ventricular ejection fraction <0.40), and / or clinical evidence of heart failure
- ☐ Prior percutaneous coronary intervention within 6 months or prior coronary artery bypass surgery

YES TO ANY → **HIGH RISK NSTEACS**

NO TO ALL ↓

INTERMEDIATE / LOW RISK FEATURES - Clinical features consistent with ACS and any of the following:

- ☐ **Resolved** chest pain or discomfort within the past 48 hours that occurred at rest, or was repetitive or prolonged (>10 mins)
- ☐ Age >65 years
- ☐ Diabetes with typical or atypical symptoms of ACS
- ☐ Chronic kidney disease (GFR <60 mL / minute) with typical or atypical symptoms of ACS)
- ☐ Known Coronary Artery Disease (CAD) or previous Myocardial Infarction (MI)
- ☐ Two or more of the following risk factors: known hypertension, family history, active smoking or hyperlipidaemia
- ☐ Prior regular aspirin use
- ☐ Recent onset of crescendo or unstable angina symptoms

YES TO ANY → **RE-STRATIFY**

NO TO ALL ↓

- ☐ Discharge home if repeat ECG normal, Troponin negative at 3–6 hours (or 6–8 hours if using point-of-care testing), and no further chest pain

HIGH RISK NSTEACS

- ☐ Commence ACS pathway
- ☐ Continuous cardiac monitoring
- ☐ Admit to appropriate cardiac monitored unit (e.g. CCU / HDU)
- ☐ As soon as identified, contact Cardiology referral service to consider next day transfer to interventional facility (immediate transfer is clinically unstable)♦

  Referral date: ..... / ..... / ..... Time: ..... : .....

  Discussed with: .....
  (accepting Cardiologist / Cardiology Registrar)
- ☐ Once interventional facility accepts, contact Retrieval Services QLD on 1300 799 127 or Queensland Ambulance Service to arrange transport
- ☐ Transfer to another health care facility if required♦

RE-STRATIFY

- ☐ Admit to: .....
- ☐ Regular vital observations
- ☐ Repeat ECG and Troponin at 3–6 hours (***OR*** 6–8 hours for point-of-care test)

Does not require continuous cardiac monitoring if first (0 hour) Troponin negative, ECG normal, and no further chest pain

- ☐ MO review following repeat ECG and Troponin

Manage as *HIGH RISK* if YES to any:

- ☐ Positive Troponin
- ☐ New ECG changes
- ☐ Recurrent chest pain or develops other high risk features

NO TO ALL ↓

- ☐ **Consider direct cardiology referral if known CAD and presents with typical symptoms of unstable angina *OR***

Refer for appropriate diagnostic testing♦:

If TIMI risk score 0

- ☐ Discharge and refer for OPD Exercise Stress Test (EST) or alternative testing within 14 days

If TIMI risk score 1–4

- ☐ Refer for urgent in-patient EST or alternative testing

TIMI risk score	
☐ Age ≥65 years	
☐ ≥3 CAD risk factors	
☐ Known CAD (stenosis 50%)	
☐ ASA use in past 7 days	
☐ Recent (≤24 hours) severe angina	
☐ ↑Troponin	
☐ ST deviation ≥0.5mm	
TIMI risk score *(add up ticks)*	

DISCHARGE HOME:

- ☐ **Chest Pain Action Plan** given to patient
- ☐ Aspirin (if appropriate)
- ☐ Investigations plan (if applicable)
- ☐ Cardiology OPD follow up (if appropriate)
- ☐ GP follow up for risk factor modification
- ☐ Discharge summary / referral letter

♦*Follow local referral and / or transfer processes*