



Queensland Government

Acute Coronary Syndrome 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 it is not clinically appropriate for the individual patient.

This pathway is for patients diagnosed with any one of the following: ST-segment Elevation Myocardial Infarction (STEMI) or High Risk Non-STEACS i.e. Non-STEMI (NSTEMI) or Unstable Angina (UA)

Pathway commenced Date: Time: Initials:

Principal (final) diagnosis: Unstable angina NSTEMI STEMI Late presentation Initials:

Treating consultant (print name):

Has patient transferred from another facility / ward? Yes From:

Transfer guide for Non-Interventional Facilities

- All STEMI's refer for immediate transfer to Interventional Cardiac facility for urgent angiography.
- For High Risk NSTEMACS (as soon as identified) contact cardiology referral service to consider next day transfer to cardiac interventional facility. Once accepted, notify Retrieval Services Queensland on 1300 739 127 or Queensland Ambulance Service to arrange transport.
- If clinical unstable: Urgent medical review Notify cardiology referral service Immediate transfer
- Follow local Hospital and Health Service (HHS) referral and transfer processes.

Recommended time-frame for angiography

Unstable / High Risk TIMI >4 GRACE score >140	<24 hours
Stabilised TIMI ≤4 GRACE score ≤140	<72 hours

TIMI (Thrombolysis in Myocardial Infarction study group) Risk Scores

<input type="checkbox"/> Age ≥65 years	<input type="checkbox"/> ASA use in past 7 days
<input type="checkbox"/> ≥3 CAD Risk factors	<input type="checkbox"/> Recent (≤24 hours) severe angina
<input type="checkbox"/> Known CAD (stenosis ≥50%)	<input type="checkbox"/> ST segment deviation ≥0.5mm
<input type="checkbox"/> Elevated Troponin	
Total (one point for every feature):	

GRACE ACS Risk Score 2.0 Calculator: www.gracescore.org

Referral sent Date: Time: TIMI score:

Accepting Cardiologist: Facility:

Retrieval Services Queensland (Aeromedical transport) OR Queensland Ambulance Service (Road transport)

Transfer date: N/A

Procedures (follow local HHS referral processes)

Thrombolysis: Yes Date: Time: No
 Chest x-ray: Yes Date:
 Echocardiogram: Yes Date: EF%:
 Angiogram: Yes Date: N/A
 Angioplasty (PCI): Yes Date: N/A

Coronary Artery Bypass Grafts (CABG): N/A
 Surgical referral completed? Yes Date:
 Cardiac surgeon review? Yes Date:
 Scheduled for CABG? Yes Date:

Documentation Instructions

- For acute STEMI or NSTEMI commence page 4.
- For UA and late presentation MI (ie pain onset >24 hours), commence page 5.
- Initials:** Indicates action / care has been ordered / administered.
- N/A:** Indicates preceding care / order is not applicable.
- Crossing out:** Indicates that there is a change in the care outlined.
- V:** Indicates a variation of care from the pathway. When applicable initial in the "Variance column", then document in the patient notes details of the variation including actions taken, contributing factors and outcomes.
- Key:** ■ Medical ▲ Nursing ◆ Allied Health
- Symbols guide care to a primary professional stream, it is a visual guide only and its direction is not intended to be absolute.*
- Every person documenting in this clinical pathway must supply a sample of their initials and signature below.

Signature Log

Initials	Signature	Print name	Role

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Signature Log *(continued)*

Initials	Signature	Print name	Role

FOR ILLUSTRATIVE PURPOSES ONLY

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Expected Discharge Date (EDD): / /

All care givers who initial are to sign signature log Key: ■ Medical ▲ Nursing ◆ Allied Health

Discharge Checklist Initial Date

Rehabilitation / Education

- • Review with patient and carer:
- ▲ » Resumption of lifestyle activities (sexual activity, physical activity, return to work)
- ◆ » Driving / pilot / commercial licensing
- » Current status, diagnostic and therapeutic options and general prognosis
- » Chest pain home management plan
- » Education and counselling for all current medications
- Given:
 - » Written and personalised risk factor control information:
 - smoking nutrition diabetes stress management high blood pressure cholesterol
 - » Information on disease process (e.g. atherosclerosis)
 - » 'My Heart My Life' book or similar
 - » Information to access Heart Foundation website or phone / tablet app for further patient resources and information
 - » Written medication information: Consumer Medicines Information Discharge Medication Record (DMR)
- Smoking cessation pathway Yes No N/A
- Stress / Depression identified? Yes No (*If Yes, consider psychologist / social worker review*)
- Cardiac rehab OPD referral completed? Yes No
- Heart Failure Service referral completed? Yes No N/A
- Aboriginal and Torres Strait Islander Liaison Officer referral Yes No N/A

Medications

- • Discharge medications for review:
- ▲ ACE inhibitor Aspirin Beta Blocker Ticagrelor or Clopidogrel (or alternative) Statin
- ◆ • Sublingual Glyceryl Trinitrate (GTN) PRN: Patient has supply at discharge? Yes No
- Discharge script completed and sent to pharmacy? Yes No
- If No, reason:*

Appointments

- • Patient to make appointment with General Practitioner (GP) within one week
- ▲ • Cardiologist
- Other (specify):

Forms

- • Medical discharge summary (copy to GP and patient)
- ▲ • Travel forms N/A
- Medical certificate N/A
- Other (specify):

Additional Comments

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Category	☞	DAY 1 (first 24 hours)	Date: _____ / _____ / _____	Ward: _____	ND	AM	PM	V
		<input type="checkbox"/> Acute STEMI <input type="checkbox"/> Acute NSTEMI	Commence page 5 if unstable angina or late presentation MI					
Investigations	■ • Non-interventional facilities: STEMI and clinically unstable patient refer for immediate transfer to interventional cardiac facility ▲ • ECG on arrival to CCU (<i>right side ECG V4R if inferior STEMI</i>), repeat with pain or clinical deterioration and review by MO • Post Thrombolysis ECG <input type="checkbox"/> 90 mins and review by MO <input type="checkbox"/> N/A • Continuous cardiac monitoring (ST segments if available) • <input type="checkbox"/> Troponin (6 hours after presentation) <input type="checkbox"/> CHEM 20 / CHEM 7 <input type="checkbox"/> FBC <input type="checkbox"/> COAGS <input type="checkbox"/> BGL <input type="checkbox"/> HbA1C • Request for next day: <input type="checkbox"/> Fasting glucose / lipids <input type="checkbox"/> TFT							
Medication	■ • Record weight and height on medication chart ▲ • Confirm Aspirin given • Confirm Ticagrelor or Clopidogrel (or alternative) given <input type="checkbox"/> N/A • Confirm prescription of beta blocker (in absence of acute heart failure or heart block) • Confirm prescription of PRN medication: <input type="checkbox"/> Sublingual Glyceryl Trinitrate (GTN) <input type="checkbox"/> IV analgesia <input type="checkbox"/> IV anti-emetic • Review need for: <input type="checkbox"/> Enoxaparin (caution for renal impairment, elderly and low body-weight); or <input type="checkbox"/> IV Heparin							
Observations Treatments	■ • 4 hourly if stable (<i>or as per MO order*</i>) TPR, BP, breath sounds (BS), SaO ₂ rhythm, circulation and pain assessment. <input type="checkbox"/> Neurological observations post-lysis <i>*Record alternate frequency: _____</i> ▲ • <input type="checkbox"/> Post Angiography / PCI observations (follow local protocol) <input type="checkbox"/> N/A • Assess, manage and report chest pain • Assess, manage and report arrhythmia • <input type="checkbox"/> Blood glucose level (BGL) monitoring <input type="checkbox"/> N/A <i>(if newly diagnosed diabetes, refer to Diabetic Educator)</i> • IVC site(s) patent and no signs of inflammation - resite if inserted by QAS or ED within 24 hours (remove if not required) Resite due: _____ / _____ / _____ <input type="checkbox"/> Resited <input type="checkbox"/> Removed • Oxygen if evidence of hypoxia (SaO ₂ <93%), or shock • Fluid balance chart • Emotional assessment / reassurance <input type="checkbox"/> N/A							
Nutrition	▲ • <input type="checkbox"/> Healthy Heart <input type="checkbox"/> Other (<i>specify</i>): _____ • If for fasting lipids / glucose, no food after 8pm (<i>may have H₂O</i>)							
Mobility / Elimination / Hygiene	▲ • Strict rest in bed with commode privileges 12 hours post MI (>12 hours if clinically stable and post MO review can be supervised to toilet with telemetry on wheelchair) <i>Record alterations in mobility: _____</i> ◆ • Sponge at bedside • Falls and Pressure injury risk assessment • Mouth care after meals and PRN							
Other Care (<i>specify</i>)	_____							
Education and Discharge Plan	▲ • Commence discharge planning checklist (page 3) ◆ • Discuss treatment plan with patient / carer							
Expected Outcomes (<i>complete at end of 24 hour period</i>)	▲ Patient demonstrates: A - Achieved V - Variance • Anginal pain controlled with rest / medication / intervention • Patient will verbalise understanding of condition and verbalise concerns • Successful PCI or thrombolysis of acute STEMI • At non-interventional facilities - Acute STEMI prepared for urgent transfer to interventional cardiac facility • NSTEMACS patient referred and prepared for next day transfer to interventional cardiac facility and / or scheduled for angiography within 24–72 hours of presentation							

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DOCUMENT ALL VARIANCES IN PATIENT NOTES



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Category	\rightarrow DAY of pathway	Date: / /	Ward:	ND	AM	PM	V			
	Commence pathway for <input type="checkbox"/> Unstable Angina <input type="checkbox"/> Late presentation MI									
Investigations	\blacksquare	<ul style="list-style-type: none"> ECG performed daily, repeat with pain or clinical deterioration and review by MO <input type="checkbox"/> Continuous cardiac monitoring <input type="checkbox"/> CHEM 7 <input type="checkbox"/> FBC <input type="checkbox"/> APTT (if applicable) <input type="checkbox"/> TFT (on admission only) <input type="checkbox"/> Fasting glucose / lipids (request for next day if Day 1) <input type="checkbox"/> Other: <input type="checkbox"/> Echocardiogram <input type="checkbox"/> Other tests: If for angiography: <input type="checkbox"/> N/A <input type="checkbox"/> Preparation and education as per local HHS practice <input type="checkbox"/> N/A <input type="checkbox"/> Prepare for transfer to interventional facility as per local HHS practice <input type="checkbox"/> N/A 								
Medications and Pain Management	\blacksquare	<ul style="list-style-type: none"> Record weight and height on medication chart Confirm prescription of Aspirin, Ticagrelor or Clopidogrel (or alternative), Beta blocker (in absence of acute heart failure and heart block), ACE inhibitor, Statin and Sublingual Glyceryl Trinitrate Review AM Enoxaparin and Metformin on day of planned angiography <input type="checkbox"/> N/A Review need for: <input type="checkbox"/> Enoxaparin (caution for renal impairment, elderly and low body-weight); or <input type="checkbox"/> IV Heparin 								
Observations Treatments	\blacksquare	<ul style="list-style-type: none"> 4 hourly if stable (or as per MO order*) TPR, BP, breath sounds (BS), SaO₂ rhythm check, circulation and pain assessment. *Record alternate frequency: Post Angiography / PCI observations (follow local protocol) <input type="checkbox"/> N/A Assess, manage and report chest pain Assess, manage and report arrhythmia <input type="checkbox"/> Blood glucose level (BGL) monitoring - frequency: <input type="checkbox"/> N/A (if newly diagnosed, refer to Diabetic Educator) Daily weight and / or fluid balance chart if evidence of heart failure <input type="checkbox"/> N/A IVC site(s) patent and no inflammation - resite if inserted by QAS or in DEM / ED within 24 hours (remove if not required) Inserted: / Resite due: / / <input type="checkbox"/> Resited <input type="checkbox"/> Removed Oxygen if evidence of hypoxia (SaO₂ <93%) or shock Falls and Pressure injury risk assessment Emotional assessment / reassurance <input type="checkbox"/> N/A 								
Nutrition	\blacktriangle	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Healthy Heart <input type="checkbox"/> Other (specify): If for fasting lipids, confirm blood collection before breakfast <input type="checkbox"/> N/A 								
Mobility / Elimination / Hygiene	\blacktriangle \blacklozenge	<ul style="list-style-type: none"> Gentle mobilisation, shower with supervision and toilet privileges permitted with telemetry (if pain free and clinically stable) Record alterations in mobility: 								
Other Care (specify)									
Education and Discharge Plan	\blacktriangle \blacklozenge	<ul style="list-style-type: none"> Discuss treatment plan with patient / carer Review and continue discharge planning checklist (page 3) 								
Expected Outcomes (complete at end of 24 hour period)	\blacktriangle	Patient demonstrates: A - Achieved V - Variance					A	V		
		<ul style="list-style-type: none"> Anginal pain controlled with rest / medication / intervention Patient will verbalise understanding of condition and verbalise concerns NSTEACS patient referred and prepared for transfer to interventional cardiac facility and / or booked for angiography within 24–72 hours of presentation Other: 								

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Category	☞	DAY _____ of pathway	Date: _____ / _____ / _____	Ward: _____	ND	AM	PM	V
Investigations	<ul style="list-style-type: none"> ■ ECG with pain or clinical deterioration and review by MO ▲ <input type="checkbox"/> Continuous cardiac monitoring (cease if clinically stable post 48 hours) Blood pathology if required as per MO <input type="checkbox"/> Echocardiogram <input type="checkbox"/> Other tests: _____ If for angiography: <input type="checkbox"/> N/A <ul style="list-style-type: none"> <input type="checkbox"/> Preparation and education as per local HHS practice <input type="checkbox"/> N/A <input type="checkbox"/> Prepare for transfer to interventional facility as per local HHS practice <input type="checkbox"/> N/A 							
Medications and Pain Management	<ul style="list-style-type: none"> ■ Confirm prescription of Aspirin, Ticagrelor or Clopidogrel (or alternative), Beta blocker, ACE inhibitor, Statin and Sublingual Glyceryl Trinitrate ▲ Review AM Enoxaparin and Metformin on day of planned angiography <input type="checkbox"/> N/A Review need for: <input type="checkbox"/> Enoxaparin (caution for renal impairment, elderly and low body-weight); or <input type="checkbox"/> IV Heparin (cease at 48 hours if clinically stable) 							
Observations Treatments	<ul style="list-style-type: none"> ■ QID or BD as indicated (<i>or as per MO order*</i>) TPR, BP, breath sounds (BS), SaO₂ rhythm check, circulation and pain assessment. ▲ <i>*Record alternate frequency:</i> _____ Post Angiography / PCI observations (follow local protocol) <input type="checkbox"/> N/A Assess, manage and report chest pain Assess, manage and report arrhythmia <input type="checkbox"/> Blood glucose level (BGL) monitoring - frequency: _____ <input type="checkbox"/> N/A <i>(if newly diagnosed, refer to Diabetic Educator)</i> Daily weight if evidence of heart failure <input type="checkbox"/> N/A IVC site(s) patent and no inflammation (remove if not required) Inserted: _____ / _____ / _____ Resite due: _____ / _____ / _____ <input type="checkbox"/> Resited <input type="checkbox"/> Removed Emotional assessment / reassurance <input type="checkbox"/> N/A 							
Nutrition	<ul style="list-style-type: none"> ▲ <input type="checkbox"/> Healthy Heart <input type="checkbox"/> Other (<i>specify</i>): _____ If for fasting lipids, confirm blood collection before breakfast <input type="checkbox"/> N/A 							
Mobility / Elimination / Hygiene	<ul style="list-style-type: none"> ▲ Increase mobilisation if pain free and clinically stable ◆ Self care Other - <i>record alterations in mobility / hygiene:</i> _____ 							
Other Care <i>(specify)</i>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>							
Education and Discharge Plan	<ul style="list-style-type: none"> ▲ Discuss treatment plan with patient / carer ◆ Review and continue discharge planning checklist (page 3) 							
Expected Outcomes <i>(complete at end of 24 hour period)</i>	<p>▲ Patient demonstrates: A - Achieved V - Variance</p> <ul style="list-style-type: none"> • Anginal pain controlled with rest / medication / intervention • Patient will verbalise understanding of condition and verbalise concerns • NSTEMI patient referred and prepared for transfer to interventional cardiac facility and / or booked for angiography within 24-72 hours of presentation • Other: _____ 				A	V		

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Table with columns: Category, DAY of pathway, Date, Ward, ND, AM, PM, V. Rows include: Investigations, Medications and Pain Management, Observations Treatments, Nutrition, Mobility / Elimination / Hygiene, Other Care, Education and Discharge Plan, Expected Outcomes.

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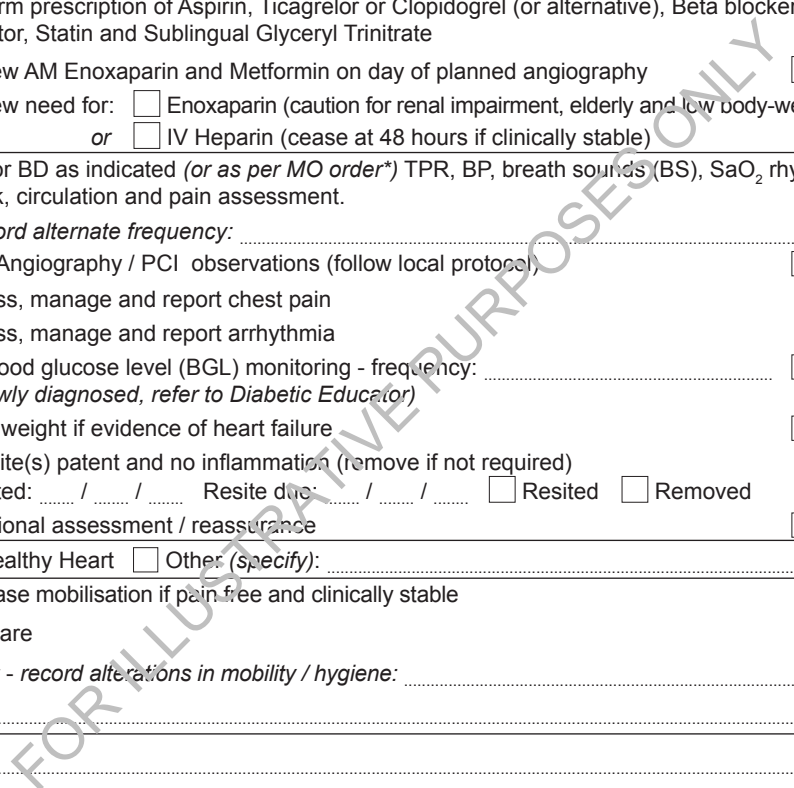
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Category	→	DAY _____ of pathway	Date: _____ / _____ / _____	Ward: _____	ND	AM	PM	V
Investigations	■ • ECG with pain or clinical deterioration and review by MO ▲ • <input type="checkbox"/> Continuous cardiac monitoring (cease if clinically stable post 48 hours) Cease time: _____ • Daily bloods as requested • <input type="checkbox"/> Echocardiogram <input type="checkbox"/> Other tests: _____ • If for angiography: <input type="checkbox"/> N/A <input type="checkbox"/> Preparation and education as per local HHS practice <input type="checkbox"/> N/A <input type="checkbox"/> Prepare for transfer to interventional facility as per local HHS practice <input type="checkbox"/> N/A							
Medications and Pain Management	■ • Confirm prescription of Aspirin, Ticagrelor or Clopidogrel (or alternative), Beta blocker, ACE inhibitor, Statin and Sublingual Glyceryl Trinitrate ▲ • Review AM Enoxaparin and Metformin on day of planned angiography <input type="checkbox"/> N/A • Review need for: <input type="checkbox"/> Enoxaparin (caution for renal impairment, elderly and low body-weight); or <input type="checkbox"/> IV Heparin (cease at 48 hours if clinically stable)							
Observations Treatments	■ • QID or BD as indicated (or as per MO order*) TPR, BP, breath sounds (BS), SaO ₂ rhythm check, circulation and pain assessment. ▲ *Record alternate frequency: _____ • Post Angiography / PCI observations (follow local protocol) <input type="checkbox"/> N/A • Assess, manage and report chest pain • Assess, manage and report arrhythmia • <input type="checkbox"/> Blood glucose level (BGL) monitoring - frequency: _____ <input type="checkbox"/> N/A (if newly diagnosed, refer to Diabetic Educator) • Daily weight if evidence of heart failure <input type="checkbox"/> N/A • IVC site(s) patent and no inflammation (remove if not required) Inserted: ____ / ____ / ____ Resite due: ____ / ____ / ____ <input type="checkbox"/> Resited <input type="checkbox"/> Removed • Emotional assessment / reassurance <input type="checkbox"/> N/A							
Nutrition	▲ • <input type="checkbox"/> Healthy Heart <input type="checkbox"/> Other (specify): _____							
Mobility / Elimination / Hygiene	▲ • Increase mobilisation if pain free and clinically stable ◆ • Self care • Other - record alterations in mobility / hygiene: _____							
Other Care (specify)	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____							
Education and Discharge Plan	▲ • Discuss treatment plan with patient / carer ◆ • Review and complete discharge planning checklist (page 3)							
Expected Outcomes (complete at end of 24 hour period)	▲ Patient demonstrates: A - Achieved V - Variance • Anginal pain controlled with rest / medication / intervention • Patient will verbalise understanding of condition and verbalise concerns • Patient and carer will verbalise understanding of personalised discharge plan • Other: _____						A	V
DOCUMENT ALL VARIANCES IN PATIENT NOTES								



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