Peninsula Health

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Premier's Award Metropolitan Health Service of the Year 2007, 2009

General Counsel

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3 January 2014

Coroners Court of Victoria
Level 11, 222 Exhibition Street
MELBOURNE VIC 3000

Dear Coroner Jamieson

Findings without inquest in the matter of the death of Mr Trevor Hammond
Coroner's Reference: COR 2011 2037

We refer to the findings without an inquest in relation to the death of Trevor Hammond.

The following recommendation was made pursuant to section 72(2) of the *Coroners Act 2008* (Vic):

"That Peninsula Health develop/review guidelines for clinicians in the Emergency Department for the management of patients presenting with chest pain that supports the performance of Troponin measurement in circumstances where [sic] a definitive cause of the chest pain has not been identified."

Response to Recommendation:

In response to this recommendation, Peninsula Health has reviewed its chest pain protocols and developed a comprehensive, evidence based chest pain pathway ("**Pathway**") for emergency department management of patients presenting with chest pain. The Pathway is enclosed as **Enclosure A.**

The Pathway is available to all staff, and is subject to regular audit.

In addition, Peninsula Health has commenced a new Cardiac Review Outpatient Clinic ("**Clinic**"). Patients who are assessed as "non-high risk" are booked into this Clinic for a review, such review to occur within one week of discharge from the emergency department or inpatient settings.

We note that Peninsula Health has engaged in a number of open disclosure meetings with Mrs Hammond and other members of the Hammond family following the Mention Hearing in this matter. The family has been informed of the new Pathway and Clinic.

We trust that this is of assistance to the Court.

Please do not hesitate to contact me if you have any queries.

Yours faithfully

Mr David Goldberg
General Counsel
Peninsula Health

Enc.

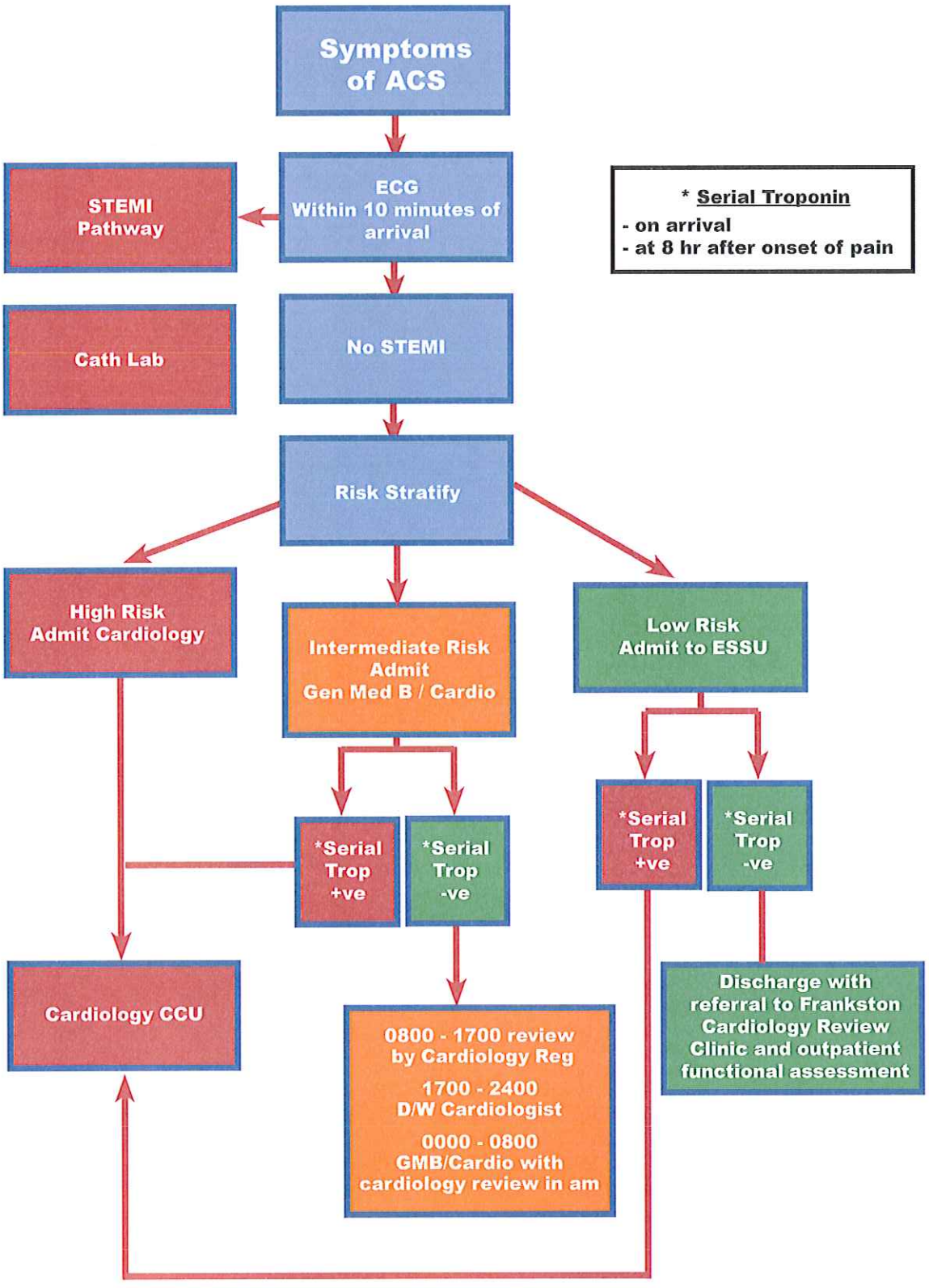
ENCLOSURE A

PENINSULA HEALTH
Emergency Department

CHEST PAIN
(CARDIAC) MANAGEMENT

Trial 12/12/13. Print Code 15607

INFORMATION ONLY - DO NOT SEND FOR SCANNING



PENINSULA HEALTH
Emergency Department

Chest Pain (Cardiac)
Emergency Department Management

INFORMATION ONLY - DO NOT SEND FOR SCANNING

Risk Stratification Of NSTEACS Patients

High Risk

Presentation with clinical features consistent with ACS and any of the following:

- Elevated troponin
- Diabetes with typical ACS symptoms
- Haemodynamic compromise (SBP <90mmHg and/or new mitral regurgitation)
- Prior CABG/PCI in previous 6 months
- Persistent/dynamic ST depression ≥ 0.5mm or new T wave inversion > 2mm
- Transient ST elevation (≥ 0.5mm) in more than 2 contiguous leads

Intermediate Risk

Presentation with clinical features consistent with ACS and any of the following:

- Known history of AMI
- Known coronary lesion > 50%
- No high risk ECG changes
- Two or more of hypertension, family history, smoker, hyperlipidaemia
- Diabetes with atypical symptoms of ACS
- Chronic Kidney Disease with typical symptoms

Low Risk

Presentation with clinical features of ACS without intermediate or high risk features

- No Intermediate or high risk features
- Eg. Onset of anginal symptoms within the last month
- Normal ECG or unchanged from previous pain free ECG

- Patients of Aboriginal/Torres Strait Islander descent have a higher incidence of ischaemic heart disease than the general Australian population.

Like all tests, Troponin must be interpreted in the correct clinical context. A careful history, examination and interpretation of all tests is important in reaching the likely diagnosis, and thus providing the most appropriate care.

Consider other, non-ACS causes of Troponin elevation.

CONDITIONS IN WHICH TROPONIN MAY BE ELEVATED

Cardiac	Respiratory	Other
Congestive Cardiac Failure	Pneumonia	Renal Failure
Myopericarditis	Exac COPD	Sepsis
Left ventricular hypertrophy	Pulmonary embolism	Hypothyroidism
Aortic dissection		Intracranial events
Cardiac surgery trauma		
Dysrhythmias		
Defibrillation		

Note The presence of an elevated Troponin is usually suggestive of a poorer prognosis for the underlying condition. However, this should be interpreted in context, and an increased Troponin which is not consistent with ACS is not in itself an indication for cardiac monitoring, or a higher level of care. In selected patients, measurement of other cardiac markers such as CK, CK-MB or natriuretic peptides may assist in diagnosis.

PENINSULA HEALTH
Emergency Department

Chest Pain (Cardiac)
Emergency Department Management

Facility: .....

UR NUMBER.....

SURNAME.....

GIVEN NAMES.....

DATE OF BIRTH .....
Please fill in if no Patient Label available

PHF452210/

Acute Management Chest Pain - NURSING

	Date / /	Time	Initial
1. Initial observations attended			
2. Oxygen and pain relief administered as per medical order • Check and document allergies and contraindications on the Medical Chart • The RN must ensure there is a written or standing medication order prior to drug administration • The person administering a medication according to this protocol must record on the medication chart in the 'once only' section			
3. 12 lead ECG performed and reviewed by MO within 10 minutes of presentation • If persistent ST elevation > 1mm in 2 contiguous limb leads OR ST elevation > 2mm in 2 contiguous chest leads OR new left bundle branch block pattern, proceed to STEMI management Plan. Otherwise continue ECG monitoring as required • Persistent ST elevation < identified above may represent transmural ischaemia or pericarditis and should be considered for further investigations including early angiography • Normal ECG or other changes, proceed to risk stratification on the reverse of this form			
4. Pathology ordered. Insert IVC. Tests: Troponin, FBC, U+E, Random Glucose			
5. Medications Guidelines for Emergency Department use only » Asprin, 300mg, oral, stat dose - Contra indication: history of severe allergic reactions or severe active bleeding, already given (e.g. by Ambulance) » Glyceryl Trinitrate, 300mcg to 600mcg, sublingual, every 5mins until pain relieved unless BP < 100mm Hg systolic » Morphine Sulphate, 2.5mg, intravenous, maximum 10mg then MO review, every 5 minutes until pain relieved unless BP < 100mm Hg systolic			
6. Frequent observations performed until pain free, and then at 30 minute intervals Pulse, rhythm, respirations, temperature, O_2 saturation and BP			
7. Chest x-ray scheduled			
8. Reassure the patient / family and provide appropriate information in regard to plan of care			
9. Repeat ECG and Troponin at 8 hr after onset of pain			

CHEST PAIN (CARDIAC) MANAGEMENT

Name:..... Signature:..... Pager No:..... Date: .....

PENINSULA HEALTH
Emergency Department

Chest Pain (Cardiac)
Emergency Department Management

Facility: .....

UR NUMBER.....

SURNAME.....

GIVEN NAMES.....

DATE OF BIRTH .....
Please fill in if no Patient Label available

Acute Management Chest Pain - MEDICAL

Presentation Date..... Time..... Triage Category 1 2 3 4 5

Chest pain commenced Date..... Time..... Time seen by Doctor.....

Referral source ☐ Self ☐ Transfer inter-hospital ☐ GP ☐ Other.....

	Yes	No	Unknown
ECG performed and checked within 10 minutes of presentation			
Have there been previous episodes of the same pain? If yes, frequency and duration.....			
Previous presentation to an ED with chest pain? If yes, within 48 hours more than 48 hours			
Previous admission to a hospital with chest pain? If yes, within 48 hours within the last 28 days			
Any previous exercise ECG or other stress test? If yes, date and results.....			

Medications
Asprin given ☐ Yes ☐ No If no, why not? ☐ Medications *record on the white Medication Reconciliation form on the back page*

History of Heart Disease	Yes	No	Unknown	If yes, results including dates	Risk Category?
Previous Myocardial Infarction					
Previous Angina/ Current Pain the same? Current Pain more severe?					
Previous Coronary Angiography				(CAD >50%)	
Previous CABGs					
Previous Angioplasty (PCI) / Stent					
Pacemaker					
Implanted automated Cardiac Defibrillator					
Congestive Heart failure					
Other					

History of Vascular Disease	Yes	No	Unknown	If yes, results including dates
Previous CVA				

Peripheral Vascular Disease ☐ No ☐ Yes ☐ Claudication ☐ Angioplasty ☐ Surgery

Risk Factors	Yes	No		Risk Category?
Hypercholesterolemia			Mmol/l:	
Hypertension			Years:	
Diabetes			Years:	
Smoking				
Obesity			Weight: kg BMI:	

Sex ☐ Male ☐ Female Age: .....Years

Positive family history: ☐ **Yes** **No**
(Brother/Father <55yrs or Sister/Mother <65yrs): .....

PENINSULA HEALTH
Emergency Department

Chest Pain (Cardiac)
Emergency Department Management

Facility: .....

UR NUMBER.....

SURNAME.....

GIVEN NAMES.....

DATE OF BIRTH .....
Please fill in if no Patient Label available

Acute Management Chest Pain - MEDICAL

Physical Examination and Initial Results				
Vital Signs				
Heart Rate	Temperature		Resp rate	
Heart Rhythm	Blood Pressure R		L.....	
High Risk Features	**Yes**	**No**	**If yes, details**	**AND CALL CARDIOLOGY COVER URGENTLY**
Hypotension (SBP < 90 mmHg)				
Basal crepitations				
New/worsening mitral regurgitation				
Other Past Medical History and Examination				

ECG Findings	**Yes**	**No**	**ECG changes in leads**	
Normal				
Right bundle branch block				
Left bundle branch block			☐ Old ☐ New ☐ Unknown	
ST changes			Elevation:.....mm	Depression: .....mm
Q Wave present			☐ Old ☐ New	
Dynamic T Wave change				
ST elevation present in II, III, AVF			If yes, record V4R	
Dynamic ST depression ≥0.5mm or new T wave inversion >2mm			If present admit cardiology	
Changes present in leads:				

Bloods:

Troponin: ..... Cholesterol: ..... Glucose:.....

U&E: ..... FBC: ..... Thyroid: .....

What is the assessment of risk for this patient?

High Risk	Intermediate Risk	Low Risk
Admit Cardiology	Admit MSSU for serial troponin and further risk stratification	Admit ESSU. If serial troponin negative, ECG unchanged and patient stable, can be discharged with Cardiology review in Chest Pain Clinic for follow-up and outpatient functional assessment. Referral forms for Chest Pain Clinic available in the Emergency Department. Fax to ext. 7150.

UR NUMBER.....

SURNAME.....

GIVEN NAMES.....

DATE OF BIRTH .....
Please fill in if no Patient Label available

Clinical Pathways Never Replace Clinical Judgment
Care Outlined In This Protocol **MUST BE ALTERED** If It Is Not Clinically Appropriate for the individual patient
timing of referral to cardiology/medical may vary for local circumstances

This protocol can only be used for patients that have

- A complaint of chest discomfort (non traumatic) or jaw, shoulder, arm back, or epigastric pain. Consider other atypical features (e.g. diaphoresis, shortness of breath, hypotension, transient LOC)
- Please consider other causes (e.g. reflux, pneumonia, thoracic aortic dissection, PE, symptomatic abdominal aortic aneurysm)
- Can you diagnose non-cardiac chest pain? If there is no clear alternative diagnosis, use this protocol

Other Important Information

For patients in the intermediate risk category who may be undertaking a functional study during their admission, please WITHOLD CAFFEINE (Tea, coffee, chocolate) until they have been reviewed by the cardiology team. Please keep all high risk patients fasted overnight so that they can have urgent coronary angiography if required.

Signature Log
Every person documenting in this management protocol must supply a sample of their initials and signature below.

Initials	Signature	Print Name	Role	Initials	Signature	Print Name	Role

PENINSULA HEALTH

MEDICATION HISTORY & RECONCILIATION CS NOTES PAGE

UR NUMBER.....

SURNAME.....

GIVEN NAMES.....

DATE OF BIRTH ..... Sex: M F

Please fill in if no Patient Label available

Rev. 5/2/13. Print Code: 15279

PHF568600p

Allergies: (Substance/ Reaction)

This form is to be used by Medical, Pharmacy and nursing staff to help aid in the reconciliation of medications at admission.

Social history: .....

Medications Compliance Alerts: .....

Medication administration device filled by: ☐ Patient ☐ Carer ☐ Community pharmacy ☐ Other.....

Contact details:

General Practitioner:..... Tel: ..... Fax:.....

Community Pharmacy: ..... Tel: ..... Fax:.....

Medication Dose / Route / Frequency	Source 1 & 2	Reconciled	Comments

Source Key: C = Carer, CP = Community Pharmacy, DR = External Doctor, MR = Medical Record, O = Other, PAR = Partner, PT = Patient, OM = Patient's Own Medication(s), R = Relative, RC = Residential Care Facility, U = Unknown

Reconciled Key: Y = Continue, WH = Withhold, X = Cease, CH = Change

Vaccinations	
Administration date	Vaccine

Contents of this form MUST be entered into the clinical system.

Prepared by:..... Signed by:..... Date:.....

Rev. 5/2/13. Print Code: 15279

MEDICATION HISTORY & RECONCILIATION CS NOTES PAGE MR/568600