Minimum Standards for Chest Pain Evaluation

Implementation Support Guide — Clinicans' Summary

Consultation Edition (October 2011)

REDESIGN

NSW GOVERNMENT Health

Contents

Executive Summary

Objectives

To improve patient safety by implementing minimum standards for chest pain evaluation in NSW Public Hospitals, for every patient, every time.

Background

There is a significant wealth of experience in care for patients presenting with chest pain to hospitals. A number of chest pain pathways already exist; however, there is inconsistency in the use of pathways within and between hospitals across NSW.

The minimum standards for chest pain evaluation and Chest Pain Pathway were developed in response to significant adverse events in NSW that required investigation and attention to preventative measures.

Mandatory Requirements

For further explanation of the minimum standards, see page 12 in this guide.

1. All facilities with Emergency Departments must have and use a pathway that meets the following minimum standards for chest pain patients:
   - Assigns triage category 2
   - ECGs are taken and reviewed by someone competent in ECG interpretation
   - Includes risk stratification
   - Troponin levels are taken and reviewed
   - Vital signs are taken and documented
   - Critical times are documented (symptom onset, presentation)
   - Aspirin is given, unless contraindicated
   - A Senior Medical Officer is assigned to provide advice and support on chest pain assessment and initial management, 24/7
   - A nominated Cardiologist is assigned to provide advice on further management 24/7
   - The pathway gives instruction regarding atypical chest pain presentations
   - High risk alternate diagnosis listed for consideration e.g. Aortic Dissection, Pulmonary Embolism & Pericarditis.
   - Sites that do not have 24/7 PCI capability must have Thrombolysis as the default STEMI management strategy unless there is an existing documented system for transfer.

For more information on the differences between Primary and non-Primary PCI sties, see: page 16

2. All facilities who do not have, and do not use, an existing Chest Pain Pathway that meets the minimum standards must implement the standard NSW Chest Pain Pathway that matches their facility (i.e. only sites that can provide 24/7 Primary PCI are able to use the Primary PCI site Pathway) as the minimum standard.

Key questions to guide implementation

Monitoring the minimum standards for chest pain evaluation should form an ongoing part of the local quality and safety program. There are three basic questions to answer to determine the current state of your hospital against the minimum standards and guide your implementation focus:

1. **Does our hospital have a Chest Pain Pathway?**

   If no – implement the generic NSW Chest Pain Pathway appropriate to your hospital
   → **Then** – monitor the pathway to ensure that it is used (every patient, every time)

2. **Does our existing pathway meet the minimum standards?**

   If no – either amend the existing pathway to meet the minimum standards or implement the appropriate generic pathway.
   → **Then** – monitor the pathway to ensure that it is used (every patient, every time)

3. **Is our existing pathway used (every patient, every time)?**

   If no – understand why the existing pathway is not being used consistently and develop a plan to improve compliance
   → **Then** – monitor the pathway to ensure that it is used (every patient, every time)

Key messages for clinicians and managers

Patients presenting with chest pain for evaluation in NSW EDs are suffering significant adverse events due to inconsistencies in the practice of minimum standards for chest pain evaluation.

The mandated minimum standards for chest pain evaluation must be implemented to ensure consistency of practice for every patient, every time.

The take-home message from this implementation support guide is slightly different depending on who you are. Consider the following questions:

For more information on roles, see: page 22

Clinicians in Emergency Departments (doctors and nurses)

- Do we have a local chest pain pathway?
- Do I know what is on it and how to use it?
- Do I use this pathway for every patient every time?

Cardiology and Emergency Department Directors

- Do we have a local chest pain pathway that meets the minimum standards?
- Have we trained our clinicians in how to use the pathway?
- Do we monitor compliance with the local pathway and feed back to staff?

Hospital and Local Health District Executive (particularly Directors of Clinical Governance)

- Is there Hospital/District sponsorship for a chest pain pathway?
- Does our Hospital/District meet all requirements of the mandated minimum standards for chest pain evaluation (PD2011_037)?
- Do our clinicians have the training and resources required to use the chest pain pathway for every patient, every time?

Quality and Safety Departments

- Do we monitor patient safety against the performance of existing local chest pain pathways?
- How can we integrate monitoring of the minimum standards for chest pain evaluation into ongoing quality and safety improvement?

Common issues with Chest Pain Pathway compliance

In May 2006 the Chest Pain Evaluation Area Toolkit was released by the Health Services Performance Improvement Branch. Research relating to the use of existing pathways and in conjunction with the repeated findings of Root Cause Analyses and Coronial investigations, highlights some common issues to be:

This confirms that the issue with existing Chest Pain Pathways in NSW is not the level of sophistication of the pathway, but the implementation of minimum standards of chest pain evaluation into core practice.

Ordering the NSW Chest Pain Pathway

There are 2 generic NSW Chest Pain Pathway forms to select from:

- PCI Hospital Pathway
- Non PCI Hospital Pathway

These forms are now available for order from Salmat:

Chest Pain Pathway PCI Site
Stockcode NH606600

Chest Pain Pathway Non PCI Site
Stockcode NH606601

Case For Change

Significant adverse events continue to occur where patients presenting to NSW Emergency Departments experience inconsistencies in the minimum standards for chest pain evaluation.

"every patient, every time."

The high rate of chest pain presentations, coupled with the potentially catastrophic outcomes when inconsistencies lead to suboptimal care, demands a strategic response.

The NSW State Coroner and Root Cause Analysis Committees have called for the use of minimum standards of chest pain evaluation for every patient, every time.

Real life examples below highlight the need to ensure that the minimum standards are implemented and **actively used** consistently in all NSW Public Hospitals.

Implementing standardised protocols of care has been shown to significantly improve patient outcomes.

NOTE: *the causes identified in Coronial and Root Cause Analysis investigations frequently relate to lapses in the basic fundamentals of care for chest pain patients, rather than the use of sophisticated treatment protocols.*

Coroner's recommendations

The NSW State Coroner's recommendations arising from investigation of recent deaths include the need to:

- Consider Chest Pain as the cause of other, related symptoms presented
- Consider the different causes of Chest Pain
- Follow a Chest Pain pathway in its entirety
- Train all staff in any chest pain treatment protocol
- Stratify the risk of a patient's condition deteriorating

Excerpts from the Coronial Inquest into the death of a 61 year-old man at a metropolitan hospital in 2006:

> … Acute Chest Pain Protocol should be reviewed and amended as appropriate to emphasise the necessity to **consider and exclude life-threatening conditions other than cardiac ischaemia, specifically aortic dissection, coronary artery occlusion and pulmonary embolism, in all presentations of acute chest pain.**

> The … Acute Chest Pain Protocol should be reviewed and amended as appropriate to emphasise that **all sections of the Chest Pain Evaluation ED Management Form are to be completed** …Specifically, the person filling in the form must note the **likelihood of ischaemic heart disease, the risk stratification, the preliminary diagnosis and the action to be taken**.

> … an exercise stress test is not to be carried out in any case where the patient is experiencing any form of chest pain at the time of the proposed test.

> … an induction program presented by a senior cardiologist to ensure that **all residents and interns caring for cardiac patients are familiar with relevant protocol …**

Final RCA Report

The following factors have been consistently identified through the Root Cause Analysis (RCA) process as contributing to ACS incidents:

- Failure to undertake appropriate investigations, e.g. ECG, Troponin testing
- Failure to interpret ECGs correctly
- No formal system for obtaining senior clinician review of the ECG
- Delay or failure to notify the consultant on call / consultant responsible for the patient
- Failure to review results prior to patient transfer or discharge
- Failure to have a chest pain pathway in place for the management of patients with cardiac / possible cardiac pain

These are illustrated by factors and recommendations highlighted in the following real-life RCA investigations.

Death of a 51 y-o male (rural district hospital)

Contributing factor:

The network specific- chest pain/ ACS pathway was not initiated for an atypical acute coronary syndrome presentation resulting in a missed opportunity for further assessment and acute coronary syndrome risk stratification and subsequent management which may have reduced the likelihood of cardiac arrest resulting in death.

Recommendation:

"…the RCA team recommend that all patients presenting to the emergency department with both typical and atypical chest discomfort/tightness or symptoms suggestive of ACS be **triaged category 2** and have a **chest pain /ACS pathway initiated** and followed according to **ACS stratification**."

Contributing Factor:

Lack of timely Troponin T analysis resulted in missed opportunity for early recognition and management of acute coronary syndrome which may have prevented cardiac arrest and death.

Recommendation:

"If **Troponin T** analysis is clinically indicated it should be **processed immediately** and **results known before patients leave** the department."

Death of a 76 year old female, district hospital

Contributing factor:

A delay in seeking specialist advice … may have contributed to further myocardial ischaemia and the patient's deterioration which contributed to the patient's death.

Recommendation:

"… ensure the emphasis on the use of the **Chest Pain Pathway** and ensure knowledge of the process for obtaining **specialist medical advice and support 24 hours a day**."

Contributing Factor:

A chest pain pathway was not initiated and the recommended treatment was not followed.

Recommendation:

" … a **chest pain pathway is initiated at triage** for patients with chest pain regardless of the cause of the pain."

Death of 52 year old female, rural referral hospital and tertiary hospital

Contributing Factor:

Failure to review the patient's pathology results prior to discharge meant that a patient with a positive Troponin was discharged home with an incorrect diagnosis. As a consequence the patient experienced an acute cardiac event at home resulting in cardiac arrest from which they did not survive.

Recommendation:

"Patients who have test results pending, specifically Troponin results, are not to be discharged from hospital until the **results have been reviewed, documented in the notes and appropriate actions have been undertaken to address the findings.**"

Contributing Factor:

Chest Pain Pathway … was not used. These tools are designed to assist clinicians to recognise acute cardiac events and to reduce the possibility of a missed diagnosis.

Recommendation:

"Patients presenting to the Emergency Department with cardiac/ possible cardiac pain are to be commenced in the NSW Health state-wide Chest Pain Pathway documentation…"

Incident involving 70 year old female, metropolitan hospital

Contributing Factor:

There are gaps in competence of ECG analysis and/or interpretation skills among medical and nursing staff in ED. This led to an inability to identify ST elevation on ECG and resulted in delay in diagnosing an acute STEMI that required an urgent coronary angioplasty.

Recommendation:

"Implementation of a formal **education program on ECGs** for both medical and nursing staff and a competency assessment according to the expected standard for each."

Minimum Standards for Chest Pain Evaluation

Minimum Standards for Chest Pain Evaluation

Minimum Standards Explanation

The minimum standards for chest pain evaluation must be implemented in all NSW hospitals. They aim to ensure that the fundamentals of care are delivered, every patient, every time.

The following explains some basic detail for each of the minimum standards and the generic NSW Chest Pain Pathway.

1. Assigns triage category 2

All patients who present to an Emergency Department with chest pain or other symptoms of myocardial ischaemia, (eg. sweating, sudden orthopnea, dyspnea, syncope, epigastric discomfort, jaw pain or arm pain) within the last 48hrs MUST be assigned triage category 2.

Where the patient's clinical situation demands it, these patients could also be assigned triage category 1.

2. ECGs are taken and reviewed

Within 10 minutes of starting on the Chest Pain Pathway, all patients are to have a 12 Lead ECG taken, reviewed and interpreted by a professional who is accredited to interpret the ECG.

A formal process to document that the review has occurred should be in place.

3. Includes risk stratification

National Heart Foundation of Australia Cardiac Society of Australia and New Zealand Guidelines for the management of acute coronary syndromes 2006, MJA, 184:8

All Chest Pain pathways must contain a process for risk stratification that assigns either:

- High Risk
- Intermediate Risk, or
- Low Risk

This risk stratification must be in line with the NHF/CSANZ guidelines for the management of Acute Coronary Syndromes.

4. Troponin levels are taken and reviewed

All patients MUST have a blood sample collected for testing that includes Troponin (or equivalent cardiac biomarker) level on arrival. Once the sample is collected, it must be labelled "urgent" and sent for processing immediately.

The staff member who ordered the Troponin (or equivalent cardiac biomarker) test must actively seek the results to ensure that they are reviewed in a timely fashion.

NO patient is to be discharged prior to the review of a Troponin (or equivalent cardiac biomarker) test that has been ordered.

Sites that are able to conduct high sensitivity Troponin assay are encouraged to do so providing that the timeframes meet the recommendations in the 2011 addendum to the NHF/CSANZ guidelines for the management of Acute Coronary Syndromes.

It is recommended that the laboratory reports elevated Troponin levels to the ordering physician as soon as possible.

National Heart Foundation of Australia Cardiac Society of Australia and New Zealand Guidelines for the management of acute coronary syndromes 2006, MJA, 184:8

5. Vital signs are taken and documented

Vital signs (Blood Pressure, Temperature, Pulse, Respiratory Rate and Pain) must be taken and documented in the patient notes at the time that they are taken. If any of the results are outside the acceptable parameters then they must be acted upon, in line with the recognition and management of a deteriorating patient.

If it is not possible to obtain a pain score, a description of the pain is also very useful. A report of ongoing, unresolved pain requires a repeat ECG to be taken and reviewed.

Recognition and management of a patient who is clinically deteriorating: PD2010_026

6. Critical times are documented (symptom onset, presentation)

All patients must have critical times documented. These include, but are not limited to, symptom onset and time of presentation.

Other important times to document are:

- Diagnostic (or “trigger”) ECG
- Thrombolytic administration
- Cath Lab arrival
- On table time
- First device use
- TIMI 3 flow
- Discussion with Cardiologist.

7. Aspirin is given, unless contraindicated

Aspirin use is recommended as per the NHF/CSANZ guidelines

If patients present via Ambulance, ensure that Aspirin administered by Paramedics is recorded in the patient record.

This should already be documented in the paramedics' notes. A reference to the advice provided by the paramedics should subsequently be sufficient.

National Heart Foundation of Australia Cardiac Society of Australia and New Zealand Guidelines for the management of acute coronary syndromes 2006, MJA, 184:8

8. A Senior Medical Officer is assigned to provide advice and support on chest pain assessment and initial management, 24/7

Identifying Senior Medical Officers should be considered based on the local staff base and could be defined as:

- Consultants
- Visiting Medical Officers
- Staff Specialists

- Career Medical Officers
- Registrars
- Senior Nurses (as a first line of assistance where a senior doctor is not immediately available)

Consideration should be given to strengthening networking linkages through local referral networks and centralised ECG reading services.

9. A nominated Cardiologist is assigned to provide advice on further management 24/7

All Emergency Departments MUST have a defined and documented process that ensures that a nominated Cardiologist is contacted to provide further management advice for the following patient groups:

- STEMI
- High Risk ACS
- Intermediate Risk ACS who are being discharged without access to stress testing within 72hrs

Consideration should be given to strengthening networking linkages through local referral networks and centralised ECG reading services.

10. The pathway gives instruction regarding atypical chest pain presentations

Review the Generic NSW Chest Pain Pathway for an example of atypical chest pain: PD2011_037

Most chest pain presentations are 'typical' with symptoms, such as: sweating, orthopnea, syncope, dyspnoea, epigastric discomfort, jaw pain and arm pain. There are, however, occasions when chest pain presentations are 'atypical'.

Pathways must contain a listing of common high risk atypical presentations eg. diabetes, renal failure, female, elderly or aboriginal.

Source: Expert opinion of Chest Pain Patient Journey Working Group

Some populations require additional considerations/awareness of the presence of Acute Coronary Syndrome due to the nature of atypical presentations for chest pain and other symptoms of myocardial ischaemia or for the increased prevalence of cardiovascular disease.

These populations are patients with diabetes or renal failure, age>65yrs, chronic renal failure or aboriginal.

11. High risk alternative diagnosis listed for consideration e.g. Aortic Dissection, Pulmonary Embolism & Pericarditis.

Review the Generic NSW Chest Pain Pathway for an example of high risk alternative diagnoses being integrated into the pathway: PD2011_037

Following advice from the Coroner the alternate High Risk diagnoses MUST be included on the pathway to ensure consideration during the initial diagnostic process.

Reference :Harrison's Principles of Internal Medicine, Seventeenth Edition (2008) Chapter 12:1

Chest discomfort is a common challenge for clinicians in the office or emergency department. The differential diagnosis includes conditions affecting organs throughout the thorax and abdomen, with prognostic implications that vary from benign to life-threatening. Failure to recognize potentially serious conditions such as acute ischemic heart disease, aortic dissection, tension pneumothorax, or pulmonary embolism can lead to serious complications, including death. Conversely, overly conservative management of low-risk patients leads to unnecessary hospital admissions, tests, procedures, and anxiety.

Aortic dissection, pulmonary embolus, expanding pneumothorax, pericarditis with impending tamponade or serious gastrointestinal pathology are all potentially life threatening and may closely mimic presentations of an acute coronary syndrome. Further, the presence or absence of reproducible chest wall pain does not preclude the possibility of a more serious underlying cause.

Reference: Institute for Clinical Systems Improvement, Diagnosis and Treatment of Chest Pain and ACS, 2010 pp.26

12. Sites that do not have 24/7 PCI capability must have Thrombolysis as the default STEMI management strategy unless there is an existing documented system for transfer.

Sites that do not have 24/7 PCI capability (referred to in the Chest Pain Pathway as Non Primary PCI Sites) must have Thrombolysis as the default STEMI management strategy. The only exceptions to this directive are sites that have a predetermined and documented process for the emergent transfer of patients to a defined Primary PCI site that is able to deliver this service 24/7. The documented system for transfer MUST ensure that the maximum acceptable delay from first medical Contact (FMC) to percutaneous intervention (National Heart Foundation of Australia Cardiac Society of Australia and New Zealand Guidelines for the management of acute coronary syndromes 2006, MJA, 184:8) is not exceeded.

NB: It is accepted that some non Primary PCI sites have the capability to perform primary PCI during limited hours. However, outside these hours, thrombolysis must be the default strategy unless a documented system for transfer exists.

Maximum Acceptable Delay from First Medical Contact (FMC)	
Time since symptom onset	Acceptable delay from FMC to percutaneous intervention
< 1hours	60 minutes
1-3 hours	90 minutes
3-12 hours	120 minutes
>12hours	Not routinely recommended
from NHF/CSANZ Guidelines for the management of acute coronary syndromes 2006	

Generic NSW Chest Pain Pathway

If your hospital does not have an existing chest pain pathway, you must implement the generic NSW Chest Pain Pathway to ensure compliance against the minimum standards.

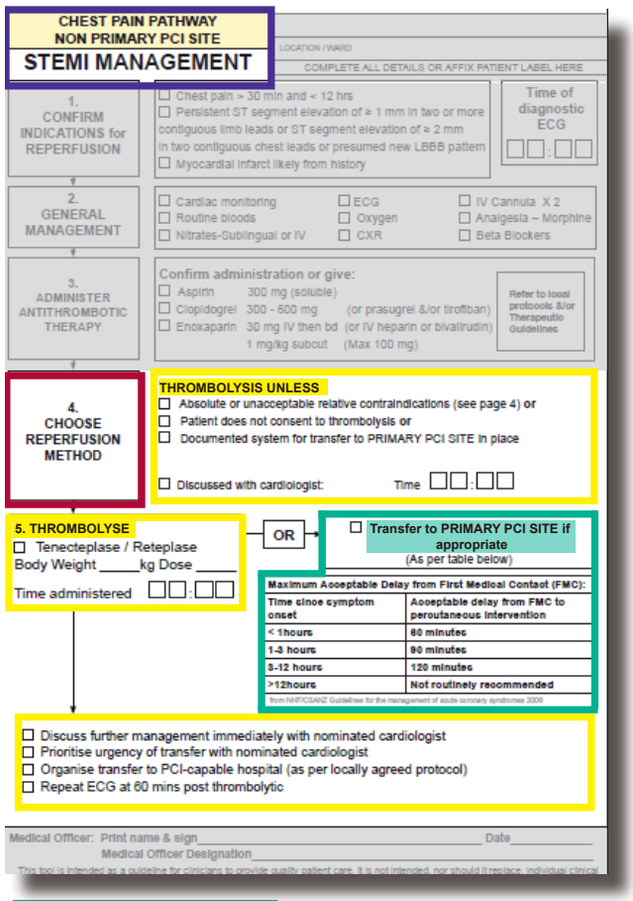
There are two versions of the generic NSW Chest Pain Pathway that are applicable to two different hospital types:

PCI Hospital

A copy of the generic PCI Hospital pathway can be found at PD2011_037

A PCI Hospital is one that does Percutaneous Coronary Intervention, i.e. Coronary Angioplasty.

The PCI site pathway provides users with opportunity to perform primary angioplasty or thrombolysis depending on the clinical situation of the patient.



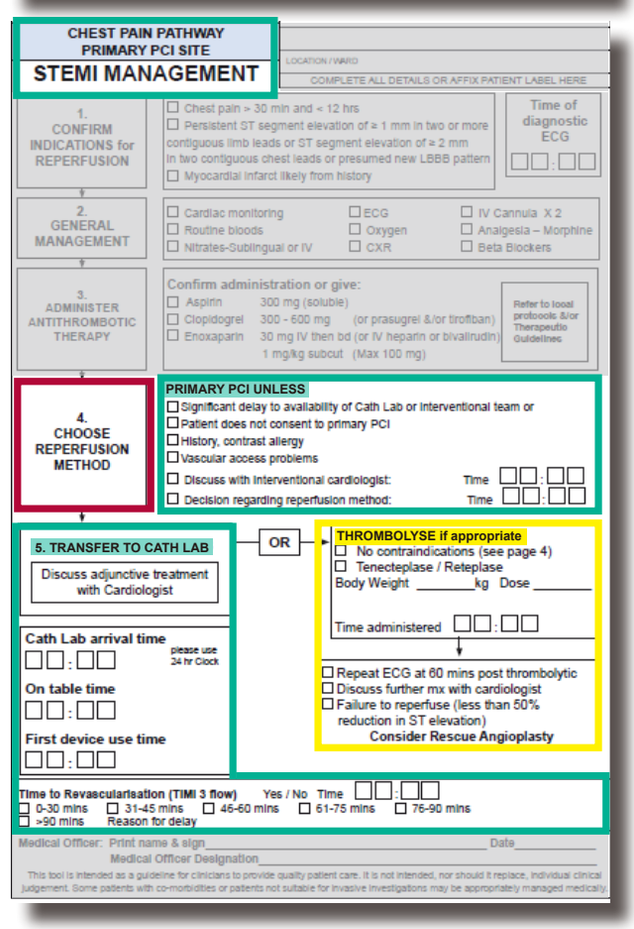
Non-PCI Hospital

A copy of the non-PCI Hospital pathway can be found at PD2011_037

A non-PCI Hospital is one that does not have access to a Cardiac Catheter Laboratory to perform Percutaneous Coronary Interventions, i.e. Coronary Angioplasty.

The non-PCI site pathway directs users to perform thrombolysis on patients unless contraindicated.

Non-PCI sites may also choose to transfer the patient directly to a PCI site for Coronary Angioplasty, as long as the referral network is established and can meet the timeframes identified on the pathway.



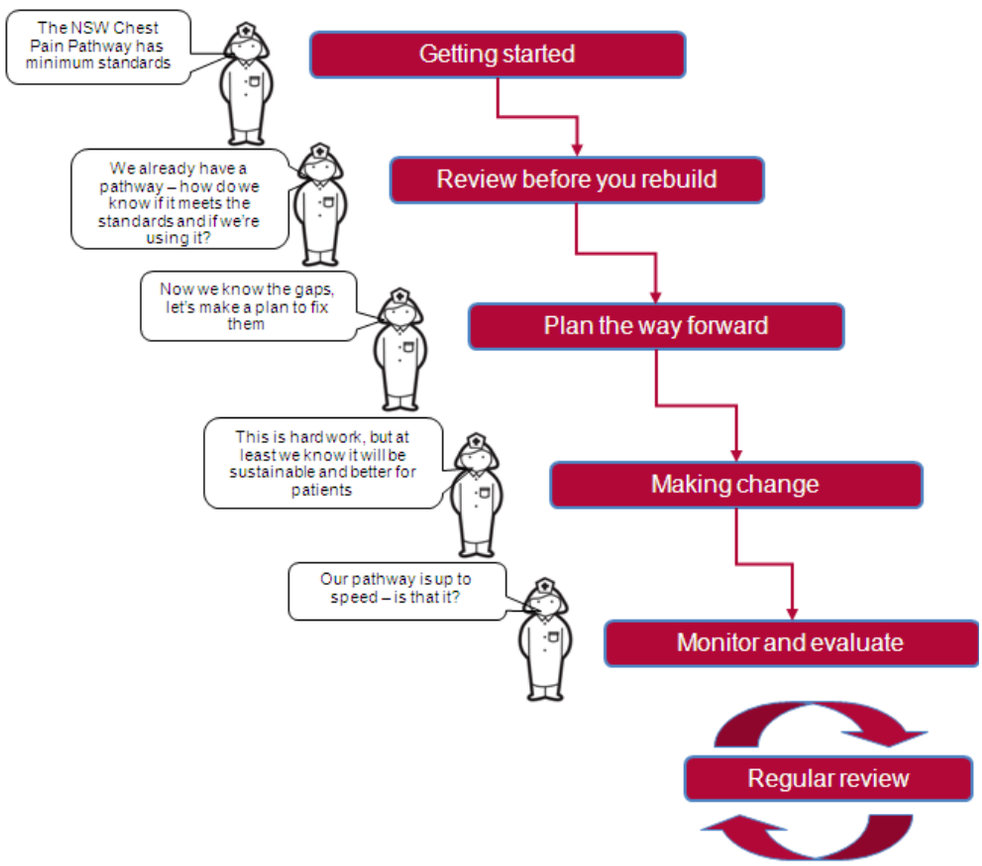
Implementation of minimum standards for chest pain evaluation

Implementation of minimum standards for chest pain evaluation

A number of resources and tools are available to facilities implementing the minimum standards for chest pain evaluation:

- Making Change — see below
- Frequently Asked Questions — *APPENDIX A on page 20*
- Roles and Responsibilities — *APPENDIX B on page 22*

A resource aimed at facilitating effective local change projects has been developed and is available for review (http://www.archi.net.au/resources/moc/making-change).



Appendices

Frequently Asked Questions

1. What is a pathway?

A pathway provides the standard map of care for all patients presenting to hospital with a particular clinical condition or set of symptoms.

The generic NSW Chest Pain Pathway is targeted at all patients presenting with symptoms of chest pain or symptoms suggestive of myocardial ischaemia and directs their care to achieve definitive diagnosis of Acute Coronary Syndrome or not and their subsequent management.

2. Why have a Chest Pain Pathway?

Acute Coronary Syndrome is a time-critical and potentially life-threatening condition. Using an evidence-based, standardised protocol of care for every patient, every time, will help to quickly identify the patients with the greatest clinical need.

3. We have a pathway already. Why change?

If you have an existing pathway, it meets the minimum standards and you can demonstrate that the pathway is actively and consistently used in your facility, then you do not need to change a thing.

However, if your facility does not have a pathway, or has one that does not meet the minimum standards or your facility has a low compliance rate with an existing pathway, then you need to make change. The Implementation Support Guide is designed to help.

4. How do I utilise the Chest Pain Pathway in a facility using an electronic Medical Record for patients?

The Chest Pain Pathway is flagged as a high priority to be integrated into the State Based Build for EMR. However (as at June 2011), it does not currently exist in the integrated electronic form.

Unless facilities have existing Chest Pain Pathways (meeting the minimum standards) integrated into their local EMR, paper based forms must continue to be used.

5. How do the minimum standards apply to rural and regional NSW?

The policy (PD2011_037) mandates that the minimum standards are implemented and that all hospitals have a Chest Pain Pathway for patients presenting to Emergency Departments.

Rural and regional hospitals are advised to implement the minimum standards in a locally appropriate way, by exploring linkages with rural referral networks and centralised ECG reading services.

6. What are 'the basics'?

The minimum standards are defined in this toolkit, however, there is also a list of considered 'basics' with respect to care for patients presenting with symptoms of chest pain. It is these 'basics' that are often found to have been suboptimal in the root cause analyses of critical adverse events. 'The basics' include:

- Triage category 2 being assigned
- ECG being taken
- ECG being reviewed (accurately)
- Troponins being taken
- Troponins being reviewed (accurately)
- Lack of senior leadership being available or sought

7. Do the minimum standards apply to children?

The minimum standards for chest pain evaluation have been developed in response to critical adverse events occurring in the adult population presenting with symptoms of chest pain.

It is very rare that children with presenting with symptoms of chest pain or associated symptoms are in fact experiencing Acute Coronary Syndrome (ACS). It is therefore considered that the minimum standards for chest pain evaluation do not apply as a value-add to the existing specialised care of paediatric patients.

8. Do the minimum standards for chest pain evaluation apply to inpatients on wards?

The minimum standards and associated generic NSW Chest Pain Pathway have been designed for patients presenting to Emergency Departments (e.g. Assigns triage category 2).

Hospitals are recommended to focus their implementation on the Emergency Department initially. However, the minimum standards should be considered transferable to tailored implementation for patients who experience chest pain or associated symptoms on inpatient wards. The Emergency Department pathway would need to be altered, but the bulk of the minimum standards remain highly relevant to safe clinical care.

9. If a patient is part of a clinical trial, do they still use the pathway?

Clinical trials are highly important for researching treatment regimes that lead to improvement of the way we deliver healthcare. This however must not stop a patient presenting with chest pain commencing on a chest pain pathway that meets the minimum standards when they present to hospitals.

There is no reason why patients on a Chest Pain Pathway cannot be enrolled in a clinical trial, as the pathway mandates the minimum standards only.

APPENDIX B

Minimum standards implementation — What's my role?

Implementation of the minimum standards is of critical importance and requires that all of the necessary clinicians and managers understand and perform their necessary roles.

LHD Chief Executives

- Direct a LHD gap analysis against the chest pain evaluation minimum standards.
- Assign LHD sponsorship to the appropriate Executive figure to implement the minimum standards for chest pain evaluation (likely Director of Clinical Governance).
- Report minimum standards for chest pain evaluation implementation to the LHD Governing Board.
- Report Chest Pain Pathway implementation and performance against the minimum standards to NSW Department of Health as requested.

LHD Directors of Clinical Governance

- Provide Hospitals direction and lead the LHD initial gap analysis of compliance against the minimum standards for chest pain evaluation.
- Ensure data from current information systems is accessible.
- Develop and sponsor the implementation strategy to ensure LHD compliance with the minimum standards.
- Coordinate appropriate educational resources for clinicians.
- Evaluate LHD momentum and performance against the local implementation strategy to meet the minimum standards.
- Investigate RCA incidents relating to the minimum standards for chest pain evaluation.

Facility General Managers and Heads of Cardiology and Emergency Departments

- Undertake the local gap analysis against the minimum standards for chest pain evaluation – 1) Do we have a pathway; 2) Does it meet the minimum standards, and; 3) Do we actively and consistently use our local pathway?
- Involve clerical and medical records staff as appropriate to access date from existing information systems.
- Communicate a united message that patients presenting with symptoms of chest pain must commence and complete a chest pain pathway that meets the minimum standards – every patient, every time.
- Lead local implementation of the chest pain evaluation minimum standards.
- Engage junior and senior clinicians to get feedback on current barriers, risks and opportunities relating to any existing chest pain pathway and the implementation of the minimum standards.
- Engage junior and senior clinicians in implementation.

- Engage Imaging, Pathology and Cardiac Catheter Laboratory teams to ensure that each understand the needs of the minimum standards as they relate to them and can be involved in implementation.
- Evaluate and monitor local implementation momentum and performance.
- Determine requirements and provide local education for clinicians.
- Coordinate local rostering to ensure that a senior clinician is available to assist 24/7 as per the chest pain evaluation minimum standards or utilise documented referral networks.

Clinicians

- Triage nurses will be the first point to initiate the use of a local chest pain pathway that meets the minimum standards and hand over to subsequent clinicians that the patient is on the chest pain pathway.
- Junior doctors should provide feedback to senior clinicians regarding the challenges and opportunities relating to the use of any current chest pain pathway.
- Senior clinicians need to be available and place a high value on providing clinical advice to more junior colleagues with regards to questions relating to chest pain evaluation.
- Junior clinicians need to proactively seek out the advice of more senior colleagues when they are concerned about any aspect of management for patients presenting with symptoms of chest pain.
- All clinicians should seek opportunities to engage in implementation of the minimum standards for chest pain evaluation.
- All clinicians must comply with the minimum standards of chest pain evaluation.
- All clinicians need to provide Safe Clinical Handover when there is a transfer of accountability and responsibility for patient care (e.g. shift change, when seeking advice from senior colleagues or when a patient transfers for a test).
- Escalate management of deteriorating patients as per Between the Flags (PD2010_026).
- In Emergency Departments that do not have a medical officer accessible 24/7, it will be necessary to implement processes where the nurse in charge of the ED signs the Chest Pain Pathway form in place of the medical officer. Where the nurse in charge of the ED is not accredited or competent and active in interpreting ECGs, a process must also be implemented to engage suitably accredited practitioners through ECG reading networks with coronary care or other facilities.
- Clerical data and medical records staff have a role in accessing data during implementation and ongoing monitoring.

NSW Health

73 Miller St

North Sydney 2060