

The logo features the word "SQUIRE" in a bold, red, sans-serif font. A silver quill pen is positioned diagonally, with its tip pointing towards the center of the letter 'Q'. The quill has a dark grey feather and a silver shaft. The letters have a slight drop shadow effect.

SQUIRE

Every Clinician · Every Patient · Every Time

SQUIRE Guide

Acute Myocardial Infarction

as at January 2009

Acute Myocardial Infarction

GOAL: TO OPTIMISE CLINICAL CARE FOR ACUTE MYOCARDIAL INFARCTION

Sections:

- Resources
- Eligible Patient Population
- Measure 1 - Complete Care
- Definition
- Patients who should be excluded from measurement
- Measurement Methods and Tools
- Measure 2 - AMI Mortality
- Definition
- Patients who should be excluded from measurement
- Measurement Methods and Tools

Resources

Some of these resources may be protected by copyright, please ensure all copyright requirements are met prior to their use.

- The 'How-to' Guides developed by IHI and Safer Healthcare Now! and websites of the programs listed below provide excellent information, contain invaluable tips, lessons from success, and measurement and data collection tools that can be adapted if desired:
 - Institute for Healthcare Improvement 5 Million Lives campaign:
<http://www.ihl.org/nr/ronlyres/4a61bd0f-56e0-44b2-8f6d-faba49c017b2/0/amihowtguide.doc>
 - Safer Healthcare Now! campaign:
<http://www.saferhealthcarenow.ca/ViewResource.aspx?resourceId=484>
 - Safer Systems Saving Lives campaign:
<http://www.health.vic.gov.au/sssl/interventions/acute.htm>
- The programs mentioned above also include additional treatment modifications, such as smoking cessation counselling. Some of these treatments are not applicable to all Western Australian hospitals therefore have not been included in this document. However if a treatment is relevant to your health service's current practice, this can be used in addition to the basic changes that are implemented.
- The Cardiovascular Health Network in WA also has extensive knowledge and expertise in this area. For all queries relating to the Cardiovascular Health

Network contact the Clinical Networks Support Unit:

HealthPolicy@health.wa.gov.au

Eligible Patient Population

- All patients presenting to the hospital with a diagnosed acute myocardial infarction.
- The proportion of such patients that are in a clinical area where AMI care processes are being actively improved (i.e. either included or eligible for inclusion in the sample for measure 1) is the estimate of spread. For example, all AMI patients at a hospital are admitted to CCU. Coverage is 100%.
- Measure 2 should ideally include the same patient population as measure 1. If this is not the case, then explain in OSQH report.

MEASURE 1 - COMPLETE CARE

- The inclusions, exclusions and definitions for this measure are the same as the Outcome Measure 1-5 in Safer HealthCare Now! Getting Started Kit <http://www.saferhealthcarenow.ca/Default.aspx?folderId=82&contentId=266>
- Teams at WA Hospitals that do not regularly provide all aspects of care (e.g. health services that transfer patients after thrombolysis), can adapt aims and measures to reflect those aspects of care provided at their institution, e.g. customised AMI bundle may include early administration of aspirin and timely thrombolysis for eligible patients only.
- Hospitals providing care for few or no AMI patients can elect not to implement this CPI target area.
- Any adaptations made to Measure 1 should be clearly stated in the report to the OSQH.

Definition

- The percentage of AMI patients documented to have received *all* three appropriate AMI evidence-based elements:
 1. Early administration of aspirin - aspirin should be administered before or within 24 hours of arriving at hospital.
 2. Timely initiation of reperfusion - eligible patients should receive either, percutaneous coronary intervention (PCI) within 90 minutes of hospital arrival or thrombolytics within 30 minutes of hospital arrival or timing as determined by hospital protocols.

3. Discharge medication regimen - discharge medication regimen should include aspirin, beta-blocker, statin and ACE inhibitor/Angiotensin-Receptor Blocker (ARB) - if systolic dysfunction.
 - If an evidence-based element is contraindicated for a particular patients and this is documented appropriately, then the patients can be considered compliant with respect to that element.

Patients who should be excluded from measurement

- Less than 18 years of age.
- Expired in the emergency department.

Patients who should be excluded from the early administration of aspirin element of care:

- Discharged on day of arrival.
- Left against medical advice on day of arrival.
- Aspirin contraindication
- Those transferred to another hospital on day of arrival and not transferred back within 24 hours.
- Those received in transfer from another hospital, including another emergency department, and not transferred back within 24 hours.

Patients who should be excluded from the timely initiation of reperfusion element of care:

- Patients with NSTEMI, non Q wave or subendocardial MIs.
- (thrombolytic agent exclusion) Patients transferred in from another hospital, including another emergency department.

Patients who should be excluded from the discharge medication regimen element of care:

- Less than 18 years of age.
- Transferred to another acute care hospital.
- Who expired in hospital.
- Who left against medical advice.
- With a chart documenting participation in a trial testing alternatives to discharge medication elements such as ACE-inhibitors or ARBs.

- Whose discharge regimen does not comply in its entirety with the AMI bundle.
- With one or more of contraindications/reasons for not prescribing any of the drugs included in the regimen documented in the medical record from: Safer HealthCare Now <http://www.saferhealthcarenow.ca/ViewResource.aspx?resourceId=484>

Measurement Methods and Tools

- Monthly measurements should use a sample of patients from the relevant patient population and can be completed using either retrospective or concurrent data collection.
- For technical definitions refer to Safer HealthCare Now AMI How-to Guide (pg 71-75): <http://www.saferhealthcarenow.ca/ViewResource.aspx?resourceId=484>
- Easy-to-use calculation worksheets which may be used or adapted are available from: <http://www.saferhealthcarenow.ca/ViewResource.aspx?resourceId=497> or <http://www.saferhealthcarenow.ca/ViewResource.aspx?resourceId=505>

Measure 1 calculation:

Number of AMI patients who received all three AMI evidence-based care elements, or documented as contraindicated/not applicable	X 100 =	% of AMI patients who received all three AMI evidence-based care elements, or documented as contraindicated
Number of patients with an AMI discharged during the reporting period		

MEASURE 2 - AMI MORTALITY

- The inclusions, exclusions and definitions for this measure are the same as Outcome Measure 2 in Safer HealthCare Now!
<http://www.saferhealthcarenow.ca/ViewResource.aspx?resourceId=484>

Definition

- The percentage of AMI patients who died during their hospital admission.

Patients who should be excluded from measurement

- Patients less than 18 years of age.
- Patients transferred in from another hospital, including another emergency department.
- Patients transferred out to another hospital.
- Death in emergency department.

Measurement Methods and Tools

- Monthly measurements should include all patients who died.
- If practical, retrospective sampling using coding data can be used, as suggested in the Safer Healthcare Now AMI How-to Guide (Measure 8, pg 78-80): <http://www.saferhealthcarenow.ca/ViewResource.aspx?resourceId=484>
- Easy-to-use calculation worksheets which may be used or adapted are available from: <http://www.saferhealthcarenow.ca/ViewResource.aspx?resourceId=506>

Measure 2 calculation:

$\frac{\text{Number of patients with an AMI who die in hospital}}{\text{Number of AMI patients discharged during reporting period}}$	=	AMI mortality rate
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