State Cardiac Reperfusion Strategy

Clinician Information

WHAT IS THE STATE CARDIAC REPERFUSION STRATEGY (SCRS)?

The SCRS is a system of care for patients with a suspected Acute Coronary Syndrome (ACS). NSW Health clinicians (including physicians, nurses and paramedics) are working collaboratively to deliver patient centred care that is tailored to specific settings.

All patients with a suspected ACS, regardless of their geographical location or presentation path (i.e. ambulance or hospital) can benefit from early access to specialist medical advice and appropriate treatment. Implementation of the SCRS has occurred in two stages.

SCRS IN YOUR AREA

Which cardiac reperfusion strategies are being implemented in your area?

The Agency for Clinical Innovation and the Ambulance Service of NSW are working with teams in each Local Health District (LHD) to develop and implement locally appropriate operating models. For many rural residents the most practical and timely reperfusion treatment is thrombolysis.

Who is leading SCRS implementation in your area?

There is a clinical lead and implementation team in your LHD which is supported and led by your LHD executive team.

IMPLEMENTING SCRS

Stage 1

Stage 1 established primary angioplasty as the preferred model of care in metropolitan Sydney and Newcastle for patients with ST-Elevation Myocardial Infarction (STEMI) who call an ambulance.

This model is now widely known as PAPA (Pre-hospital Assessment for Primary Angioplasty). During the first stage, ten tertiary hospitals were designated as PAPA facilities (i.e. they are able to provide 24/7 access to primary angioplasty).

The ten sites are:

- Concord Repatriation General Hospital
- John Hunter Hospital
- Liverpool Hospital
- Nepean Hospital
- Prince of Wales Hospital
- Royal North Shore Hospital
- Royal Prince Alfred Hospital
- St George Hospital
- St Vincent's Hospital
- Westmead Hospital

Stage 2

Stage 2 involves the expansion of the strategy to encompass patients in the remainder of the state.

The cornerstone of Stage 2 is the establishment of ACS 12 Lead ECG Reading Services in Rural and Regional Local Health Districts (LHDs) to facilitate the implementation of the Clinical Support Model (CSM) for small and/or remote rural hospitals, and provide support for alternative reperfusion models e.g. paramedic administered Pre-Hospital Thrombolysis (PHT) and Nurse Administered Thrombolysis (NAT).

Expansion of the PAPA model has also occurred in Stage 2, with Wollongong Hospital established as a PAPA site for the Illawarra area and agreement obtained from Canberra Hospital to provide a PAPA service for Southern NSW.

AMBULANCE PRESENTATION MODELS

Paramedics acquire and transmit 12 lead ECGs to the ECG Reading Service for diagnosis confirmation. If a ST-Elevation Myocardial Infarction (STEMI) is confirmed, the choice of reperfusion model is directed by ambulance protocol.

The Pre-hospital Assessment for Primary Angioplasty (PAPA) model is suitable for patients within a 45 minute safe travel radius of a designated PAPA facility. Treatment times are reduced because system activation occurs before the patient arrives at the hospital.

The Pre-Hospital Thrombolysis (PHT) model provides an alternative reperfusion strategy for patients outside a 45 minute safe travel radius of a PAPA facility. If a STEMI is confirmed, paramedics can immediately initiate protocol directed thrombolysis, unless contraindications exist.

HOSPITAL PRESENTATION MODELS

The Clinical Support Model (CSM) is being established to improve the care of patients who self-present to small hospitals by enhancing the level of expert advice available to clinicians. Hospitals are equipped with transmission capable ECG machines, and given access to a specialist Acute Coronary Syndrome (ACS) ECG Reading Service.

The Nurse Administered Thrombolysis (NAT) model is suitable for hospitals that do not have 24 hour on-site medical cover.

WHY IS CARDIAC REPERFUSION IMPORTANT FOR PATIENTS WITH STEMI?

Blood flow to the myocardium must be re-established as soon as possible, so it is essential to decrease the time from symptom onset to definitive treatment.

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