

Management of STEMI during COVID-19 in NSW

Recommendation

The Cardiac Community of Practice recommends the State Cardiac Reperfusion Strategy (SCRS) to remain unchanged during the COVID-19 pandemic, with primary percutaneous coronary intervention (PCI) offered as the first-line therapy for patients presenting with STEMI.

At the outset of the COVID-19 pandemic response in NSW, approximately 50% of cardiac catheter laboratory sites indicated that they would consider switching to thrombolysis administration as first-line treatment for STEMI patients with suspected or confirmed COVID-19.

At that time China, the first country to experience the pandemic, recommended fibrinolytic therapy as first-line therapy due to advantages in speed, logistics and reduced staff exposure. However, researchers have found COVID-19 is associated with STEMI mimics and the use of lysis may confer risk without benefit in some cases and can be exacerbated by virus-associated coagulation abnormalities.¹

Furthermore, a review of available thrombolytics across NSW has identified a reliance on overseas stock and with no capacity to secure ongoing supply, which could result in shortages.

An evidence review performed by the Critical Intelligence Unit demonstrated that PCI has resulted in better outcomes than lysis.¹ Fibrinolysis is indicated when timely PCI cannot be provided and tenecteplase is the preferred lytic medication due to lower rates of bleeding and ease of administration.

As a result of these findings, the current recommendation from the Cardiac Community of Practice is that the State Cardiac Reperfusion Strategy remain unchanged and primary PCI is offered as first-line therapy for STEMI patients.

Further details on the SCRS are available at https://www.aci.health.nsw.gov.au/resources/cardiac/state_cardiac_reperfusion_strategy/scrs.

References

1. Agency for Clinical Innovation. Fibrinolysis and PCI for STEMI Evidence check [Internet]. Sydney: ACI; 2020 [cited 9 June 2020]. Available from: https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0011/582923/20200508-Evidence-Check-STEMI-COVID-19.pdf.

Document information	
Version number	1
Original publication date	27 July 2020
Developed by	Cardiac Advisory Group. David Brieger Co-Lead, Director of CCL Interventional Cardiologist Concord Hospital, Jacqueline Colgan Co-Lead CNC Cardiac Services CCLHD, Aaron Sverdlov Cardiologist John Hunter Hospital, Bridie Carr Cardiac Network Manager ACI, Mark Ryan Cardiologist Shoalhaven Hospital, Natalie Wilson Project Officer, PRISM ACI, Neil Rickwood Implementation Project Officer ACI, Rachael Taoho Manager, Cardiac Investigation Unit Nepean Hospital, Robert Zecchin NUM Area Cardiac Rehabilitation WSLHD, Sharon Verhoeven NUM, CCL Nepean Hospital, Sophie Rayner CNC Cardiology POWH, Steve Faddy Cardiovascular Manager, Clinical Systems Integration NSW Ambulance.
Consultation	Cardiac CoP, ACI Cardiac Network, ACI Evidence Generation and Dissemination Team, Cardiac Advisory Group.
Endorsed by	Nigel Lyons
Review date	
Reviewed by	
For use by	To assist clinicians manage patients with STEMI in COVID-19 pandemic



© State of New South Wales (Agency for Clinical Innovation) 2020.
[Creative Commons Attribution-NoDerivatives 4.0 licence](https://creativecommons.org/licenses/by-nd/4.0/).
 For current information go to: [aci.health.nsw.gov.au](https://www.aci.health.nsw.gov.au)
 The ACI logo is excluded from the Creative Commons licence and may only be used with express permission.