

# 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. This document has been reviewed to reflect the changing epidemiology of COVID-19 in NSW; in particular, with the outbreak of the Delta variant beginning in June 2021.

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.<sup>1</sup>

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.<sup>1</sup> 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](https://www.aci.health.nsw.gov.au/resources/cardiac/state_cardiac_reperfusion_strategy/scrs).

## Methodology

This document should be read along with local health district infection prevention and control policies, [NSW Ministry of Health COVID-19 information](#), including the [latest case locations and alerts](#) and policies and active public health orders, the Clinical Excellence Commission's [COVID-19 Infection Prevention and Control Manual](#) and the [Cardiac Society of Australia and New Zealand consensus guidelines](#).<sup>2-5</sup>

This document was developed by the COVID-19 Cardiac Advisory Group with input from the Cardiac Community of Practice.

The information in this document is not meant to be a guideline nor should it supersede NSW Government, NSW Health or local health district policies.

## References

1. Agency for Clinical Innovation. Fibrinolysis and PCI for STEMI Evidence Check [Internet]. Sydney: ACI; 2020. Available from: [https://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0011/582923/20200508-Evidence-Check-STEMI-COVID-19.pdf](https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0011/582923/20200508-Evidence-Check-STEMI-COVID-19.pdf)
2. NSW Ministry of Health. COVID-19 (Coronavirus) [Internet]. Sydney: NSW Ministry of Health 2021 [cited 23 September 2021]. Available from: <https://www.health.nsw.gov.au/Infectious/covid-19/Pages/default.aspx>
3. NSW Ministry of Health. Latest COVID-19 case locations and alerts in NSW [Internet]. Sydney: NSW Ministry of Health 2021 [cited 23 September 2021]. Available from: <https://www.health.nsw.gov.au/Infectious/covid-19/Pages/case-locations-and-alerts.aspx>

4. Clinical Excellence Commission. COVID-19 Infection Prevention and Control Manual. Version 1.5 - 27 July 2021. Sydney: CEC; 2021. Available from: <https://www.cec.health.nsw.gov.au/keep-patients-safe/COVID-19/COVID-19-IPAC-manual>
5. Cardiac Society of Australia and New Zealand. COVID-19 Resources [Internet]. Sydney: CSANZ [cited 23 September 2021]. Available from: <https://www.csanz.edu.au/covid-19>

## Other resources

- Clinical Excellence Commission. Respiratory Protection in Healthcare. Version 1. 2020. Available from: [https://www.cec.health.nsw.gov.au/\\_data/assets/pdf\\_file/0006/597687/Respiratory-Protection-in-Healthcare.pdf](https://www.cec.health.nsw.gov.au/_data/assets/pdf_file/0006/597687/Respiratory-Protection-in-Healthcare.pdf)
- Critical Intelligence Unit. COVID-19 Risk Monitoring Dashboard [Internet]. 2020 [updated 29 Sept 2021]. Available from: <https://aci.health.nsw.gov.au/covid-19/critical-intelligence-unit/dashboard>
- National Heart Foundation of Australia. COVID-19 and heart disease [Internet] [updated 23 Aug 2021]. Available from: <https://www.heartfoundation.org.au/covid-19/covid-19-and-heart-disease-risks>

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