

# COVID-19 Guidance for Stroke Services Position Statement

## Statewide Stroke Clinical Network - December 2021

### Guideline Statement for considering impact on Stroke Services in response to COVID -19

#### Purpose Statement

The purpose of this document is to highlight potential impacts the COVID-19 pandemic may have on access to timely assessment and treatment for both ischaemic and haemorrhagic stroke.

Issues and potential solutions have been identified from across Australia to support planning at a Hospital and Health Service (HHS) and facility level to ensure continuity of stroke services in Queensland.

1. Stroke remains time critical neurological emergency which impacts patients, families, Queensland Ambulance Service (QAS), Retrieval Services Queensland (RSQ), remote, regional, and metro health services with emphasis on emergency departments and inpatient beds.
2. Care for stroke within a geographically co-located stroke unit leads to a 20% reduction in death or institutional care. Stroke patients often have multiple medical comorbidities putting them at high risk of morbidity and mortality. Co-infection with COVID-19 will greatly impact outcomes for such patients.
3. Stroke is a complication of COVID-19 infection complicating patient management whilst infectious.
4. Workforce considerations:
  - a. Stroke care is labor intensive with many patients requiring full nursing care and high-level face to face interventions from medical, nursing, and allied health staff across multiple departments.
  - b. Redistribution of workforce will significantly reduce access to stroke specific care and have flow on effects with increased length of stay in acute and rehabilitation settings, further compounding impact of COVID-19 on hospital bed access.
  - c. For more information, see [Work permissions and restrictions framework for workers in health care settings](#).
5. Supply chain/equipment/procurement:
  - a. Reperfusion therapies, namely Endovascular Thrombectomy (EVT) and Thrombolysis are reliant on specific equipment (EVT) and access to 1 of 2 very specific medications.
  - b. Disruptions in distribution of this equipment and medication will significantly impact on mortality and morbidity of Queenslanders post stroke.

#### Issue

- Rapid transfers required for some appropriate ischaemic stroke patients around the state to Brisbane Metropolitan Area for EVT:
  - In the event of widespread Delta variant community transmission, there may be a point where all emergency presentations are considered a potential COVID-19 case until they test negative, thus putting increasing pressure on QAS, RSQ and emergency departments to take appropriate Personal Protective Equipment (PPE) precautions and impacting on time to treatment.
  - Delays to transfer for EVT directly relate to poor patient outcomes and worsening

morbidity and quality of life.

- Patients requiring EVT need intubation and ventilation.
  - As per the above point, in the event of widespread community transmission of the Delta variant of COVID-19, appropriate precautions for anaesthetic team members as per their local COVID-19 protocols will be vital to minimise COVID-19 exposure whilst aiming to ensure that patients undergo this time critical procedure with minimal delay.
- Repatriation to spoke hospital is essential to maintain bed capacity in the comprehensive stroke centres.
  - There is risk to reprioritisation of repatriation considering potential increased demand on QAS, RSQ and acute hospital beds.
  - Also, there is potential exposure to COVID-19 for these patients placed within medical wards in EVT centres with potentially higher rates of COVID-19 cases at the larger hub sites based in the Southeast Corner (The Gold Coast University Hospital and the Royal Brisbane and Women's Hospital are established COVID-19 accepting hospitals; both of which are EVT centres along with the Princess Alexandra Hospital).
- Disruption of ward arrangements and staffing with COVID-19 demands has led to marked reduction in access to stroke unit care in other jurisdictions, with subsequent impact on patient outcomes and length of stay. Evidence from 2020 shows disruption in stroke care due to COVID-19 bed redistribution has led to significant reduction in stroke patient outcomes in Australia.

**Action** – Clinicians to ensure clinical appropriateness of patient transfer to EVT centres. All potential transfers must be discussed with consultant for consideration and decision to transfer. Current COVID-19 infectious status should be communicated as a priority if known or if displaying symptoms inclusive of recent travel history to any hot-spot locations.

#### **Advice**

- EVT centres to communicate with spoke sites to ensure patients transferred only for EVT or concerns for post-stroke malignant oedema that may require surgical intervention.
- Assessment and imaging for acute stroke should take place at spoke site to reduce impact of transfers on RSQ and QAS.
- Assess for COVID-19 symptoms prior to transfer to EVT centre: follow spoke site protocol +/- discuss with local ID team to see if they meet criteria for rapid testing for COVID-19 prior to transfer
- Each site to follow local protocols for bed allocation for potential versus confirmed COVID-19 cases. As much as possible the aim is to minimise the interruption to stroke unit care and to maintain geographically defined stroke units staffed by specialised medical, nursing and allied health professionals to provide evidenced-based stroke care.
- Rapid implementation of Qld Virtual Stroke Service to support provision of acute stroke care at spoke sites and to facilitate care as close to home as possible and minimise any unnecessary inter-hospital transfers.

#### **Issue**

Potential high risk of exposure to COVID-19 for patients with stroke due to extended stay in acute settings.

**Action** – Consider early discharge and rapid access follow-up for patients with mild stroke/Transient Ischaemic Attack.

Consider increasing capacity for rapid access rehabilitation settings and Hospital in the Home (HiTH) services.

Consider collaboration with private rehabilitation partners and community-based rehabilitation to promote rapid access to rehabilitation options and reduce length of stay in acute beds to improve flow and reduce demand.

**Advice** – Local meetings with appropriate stakeholders to facilitate the following-

- Open all available rehabilitation beds.
- Increase capacity in community setting for outpatient rehabilitation options.
- Utilise and expand Hospital in the Home HITH Services.
- Create patient transfer pathways into private rehabilitation settings both inpatient and outpatient.

## Considerations from other States during the COVID-19 pandemic.

Learnings from other interstate jurisdictions have highlighted the need to consider the following within the context of local policy and procedures.

- Many large hospitals required allocation of 2 Stroke teams – A and B.
  - Ensure the A and B teams do not have contact if there is a close contact or COVID case within one of the teams.
- Many stroke coordinators/Clinical Nurse Consultants (CNCs) may be required to provide direct patient care.
  - Ensuring the role responsibilities of the CNC can be delivered by the other stroke team members to safeguard continuity of stroke services.
- Requirements for family interactions via telehealth and associated interpreter services will need to be accessed rapidly as required when COVID related visitor restrictions are in place.
  - Ensure adequate access to technology and interpreter services.
- EVT patients may need immediate repatriation or transfer to other stroke units (hospitals).
  - Ensure all hospitals can provide post EVT care.
- In the event of a COVID positive patient having stroke, it is unlikely the patient will be admitted to anywhere but the COVID ward.
  - Ensure the COVID ward staff have a key contact to seek advice on stroke care, access to stroke education or have been trained in stroke unit care.

## Role of the Statewide Stroke Clinical Network

The Statewide Stroke Clinical Network (SSCN) will add value by providing a unified view on the above issues and encourage clinicians to be COVID-19 vigilant and only transfer appropriate patients with a view to reduce demand on major hospitals and transport services.

The SSCN will engage and collaborate with other Clinical Networks which will likely have similar challenges. For instance, collaboration with the Statewide Rehabilitation Clinical Network is vital to ensure maximal flow to rehabilitation and access to alternate rehabilitation settings such as tele-rehabilitation into the home and use of private rehabilitation providers.

## References

Australian Stroke Coalition. (2020). *Australian Stroke Coalition statement on Stroke Care during the COVID-19 crisis*. Australian Stroke Coalition. Retrieved 27<sup>th</sup> Oct 2021.

Cadilhac, D. A., Kim, J., Tod, E. K., Morrison, J. L., Breen, S. J., Jaques, K., ... & Campbell, B. C. (2021). COVID-19 Pandemic Impact on Care for Stroke in Australia: Emerging Evidence from the Australian Stroke Clinical Registry. *Frontiers in neurology*, 12, 230. <https://doi.org/10.3389/fneur.2021.621495>

## Version control

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Version	Date	Author	Changes	Date Approved by CSRG	Proposed review date
V2	27/10/2021	Statewide Stroke Clinical Network	Recommendations adjusted to reflect Queensland Health COVID policy		
V3	15/11/2021	Statewide Stroke Clinical Network	Edits as suggested by CSRG. Learnings from other states impacted by COVID-19.		
V4	09/12/2021	Statewide Stroke Clinical Network	Purpose Statement and Workforce permissions and restrictions reference added. Approved by CSRG.	22/12/2021	27/04/2022