



Clinical Practice Procedures: Other/Suspected large vessel occlusion stroke referral

Policy code	CPP_OT_SLVR_1024
Date	October, 2024
Purpose	To ensure a consistent procedural approach to suspected large vessel occlusion stroke referral.
Scope	Applies to Queensland Ambulance Service (QAS) clinical staff.
Health care setting	Pre-hospital assessment and treatment.
Population	Applies to all ages unless stated otherwise.
Source of funding	Internal – 100%
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Review date	October, 2027
Information security	UNCLASSIFIED – Queensland Government Information Security Classification Framework.
URL	https://ambulance.qld.gov.au/clinical.html

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Suspected large vessel occlusion stroke referral

October, 2024

Endovascular Treatment (EVT) or thrombectomy is the removal of an embolus or thrombus by a retractable mechanical device. ECR and other endovascular clot treatments are indicated for patients with acute ischaemic stroke due to a large vessel occlusion in the anterior circulation (representing approximately 30% of all ischaemic strokes).^[1]

Outside of these indications special circumstances may exist. For these cases, early discussion with the QAS Clinical Consultation and Advice Line must occur.

Approved EVT hospitals (accepting QAS ambulance clinician referrals)

REGION	HOSPITAL
Far Northern	
Northern	The Townsville University Hospital (24/7)
Central	
Darling Downs & South West	
Sunshine Coast & Wide Bay	
Metro North	Royal Brisbane & Women's Hospital (24/7)
Metro South	Princess Alexandra Hospital (24/7)
Gold Coast	Gold Coast University Hospital * (24/7)

Note: * Identifies hospitals facilitating direct QAS to Stroke Team referral during business hours.

Indications

Suspected large vessel occlusion (LVO) stroke referral is mandatory for all patients with symptoms suggestive of stroke who meet the following criteria:

- Onset of stroke symptoms is less than 24 hours;
- NIHSS-8 of eight or greater (≥ 8);
- Pre-morbid mRS of zero to three (0–3); AND
- The patient is located less than 60 minutes transport time (from time of QAS stroke assessment) to an EVT hospital.

Contraindications

- Advanced terminal cancer with a life expectancy of less than 6 months
- Seizure/s at onset of symptoms

Complications

- Nil

Procedure – Suspected large vessel occlusion stroke referral

1. Manage the patient in accordance with CPG: *Neurological / Stroke & Transient Ischaemic Attack*.
2. Confirm suitability for suspected LVO stroke referral:
 - Onset of symptoms is less than 24 hours;
 - NIHSS-8 of eight or greater (≥ 8);
 - Pre-morbid mRS score of zero to three (0–3); AND
 - The patient is located less than 60 minutes transport time (from time of QAS stroke assessment) to an EVT hospital.
3. Contact the appropriate EVT facility using the dedicated **QAS Acute Stroke Referral Line (1300 478 665)**. The following narrative is suggested:

“Can I please confirm I have contacted [hospital]? I am a paramedic with the QAS and would like to make an acute stroke referral. I have a [XX] year old [gender] who has symptoms suggestive of acute [findings of pre-hospital stroke assessment].

The symptoms began at [time]. The VSS is as follows [GCS, BP, HR, RR SpO₂, T & BGL].

The patient has a NIHSS-8 (National Institute of Health Stroke Scale) score of [X] and a pre-morbid mRS (Modified Rankin Scale score of [X].

The patient’s past medical history includes [elaborate as required] and they’re prescribed the following medications [elaborate as required].

Accompanying the patient to hospital is [wife / husband / nil].

Our estimated time of arrival to your facility is [HH:MM]”.
4. Transport the patient ‘Code 1’ to hospital.
5. Complete an eARF in accordance with existing policy – ensure the words ‘suspected large vessel occlusion stroke referral’ are entered in the eARF.

Additional information

- The QAS works collaboratively with the State-wide Stroke Clinical Network to enhance the provision of evidence based stroke care across Queensland.
- For the consideration of EVT therapy, the timing of the onset of symptoms needs to be clearly defined. In particular, if a patient wakes from sleep with symptoms, the timing of onset must be taken as when they were last well – that is, the time they went to sleep.
- If clinically appropriate, EVT referral patients should have an 18 Gauge intravenous cannula inserted in the ACF.
- The patient’s next of kin should ideally be transported with the patient. If this is not possible, the patient’s next of kin contact details must be recorded on the e-ARF.
- Calls made to an EVT centre via the ASR may occasionally be diverted to either a message bank, or back to the hospital switchboard operator, if the receiving facility is temporarily unable to take the call at that point in time.
 - If the call is diverted to a message bank:
 1. Ambulance clinicians are required to leave a brief message regarding an urgent stroke referral and a return contact number.
 2. If a referral call is not answered and a return call is not received after 5 minutes, ambulance clinicians are required to make a second call attempt and if unsuccessful, make a direct call to the relevant hospital’s emergency department.
 - If the call is diverted back to the hospital’s switch: ask the operator to connect you directly to the emergency department triage nurse.

Additional information *(cont.)*

- In some instances, paramedics may be requested by hospital clinicians to transfer the patient directly to the CT scanner to facilitate and expedite imaging. QAS staff should comply whenever possible, provided the CT scanner is ready and immediately available. A hospital staff member should accompany the patient and paramedics to the scanner to avoid any possible delays. Once the patient is transferred to the scanner, paramedics should remove all QAS equipment and provide a patient handover.

Faults

- All faults/difficulties associated with the *QAS Acute Stroke Referral Line* must be reported via the [QAS Portal](#).

Audit

- All calls to the *QAS Acute Stroke Referral Line* are recorded for quality assurance and training purposes.

