

National Stroke Clot Retrieval Key Performance Indicators

A. Hospital Services:

(1) Stroke Clot Retrieval Intervention Rate (SCR rate):

- a. Rationale: appropriate interventions improve patient outcome
- b. Target: 8% or more
- c. Denominator= all patients discharged with ischaemic or unspecified stroke during the period of interest.
- d. Numerator = patients who underwent an endovascular angiographic procedure for the treatment of an acute intracranial thrombotic stroke. In the registry these patients will be identified by having a documented 'groin puncture' time. Patients in whom a procedure is started, but did not result in actual clot retrieval (e.g. clot moved too far distally, could not be reached, or has fully resolved) will also be included.
- e. Reported by stroke (CT capable) hospitals and monitored at hospital, regional, and national level.

(2) Door-in-door-out time (DIDO):

- a. Rationale: pre-SCR assessment/decision making and timely access to inter-hospital transport currently represent the largest avoidable barriers to timely treatment and delays in treatment result in less favourable outcomes; this contributes to health inequities.
- b. Target: 75% of patients depart within 120 minutes of ED arrival
- c. Start time: patient arrival in regional hospital ED (as per triage documentation)
- d. Stop time: patient departure from regional ED either by road or helicopter (as per ED documentation)
- e. Reported by non-SCR hospitals and monitored at hospital, regional, and national level.

(3) Consumer feedback:

- a. Rationale: The experience of the person with stroke and their whānau is important. Feeling well- and expertly cared for, in a culturally appropriate and respectful environment, and receiving adequate, appropriate, and well-delivered education all contribute to optimal patient outcomes.
- b. Target: 100% of stroke services demonstrate consumer feedback is obtained and used to inform service development. Where not achieved this should be explained.
- c. Time frame: while feedback activity should occur continuously; services summarize findings annually to inform service provision, with first report created within 2 years of this document.
- d. Reported by all stroke hospitals using the questions developed by the SCR consumer panel.

Secondary for Hospital Services:

(1) Door-to-CT-Time (DTCTT):

- a. Rationale: CT is a key rate limiting step in SCR decision making and faster CT acquisition reduces overall treatment delays. In addition, in contrast to DIDO time this metric is also relevant for SCR centres.

- b. Target: 75% patients undergo CT within 20 minutes of ED arrival at all stroke hospitals
 - c. Start time: time of ED arrival as per ED triage documentation.
 - d. Stop time: time stamp on initial non-contrast head CT
 - e. Reported by stroke (CT capable) hospitals and monitored at hospital, regional, and national level.
- (2) Door-to-groin-time (DTGT):
- a. Rationale: provides an all of hospital pathway measure.
 - b. Target: none set
 - c. Start time: time of ED arrival as per ED triage documentation.
 - d. Stop time: groin puncture time as documented by angiography team.
 - e. Reported by non-SCR hospitals and monitored at hospital, regional, and national level.
 - f. Reported separately by all SCR centres and measured at hospital and national level.
- (3) Onset to groin time (OTGT)
- a. Rationale: provides an all of patient pathway measure including pre-hospital phase.
 - b. Target: none set.
 - c. Start time: Patient last known well (either by self-reported or witness if patient cannot communicate or cannot remember). For wake-up strokes this is also the time patient was last known well, typically when they went to sleep or last woke up normal during the night.
 - d. Stop time: groin puncture time as documented by angiography team.
- B. Optional additional metrics for SCR centres (at own discretion):
- (1) Door to angio time (ED arrival to angio arrival time - as recorded by angiography team)
 - (2) Angio to groin time (Angio arrival to puncture time - as reported by angiography team)
 - (3) Groin to reperfusion time (Puncture time to reperfusion time - as per time stamp of first reperfused images)
- C. Interhospital Transport Services:
- a. Metric: SCR acceptance to interhospital transport team (IHT) departure
 - b. Rationale: mobilisation of the transport team can be time consuming and represents a potentially avoidable delay.
 - c. Target: <15 minutes
 - d. Start time: time acceptance of SCR patient has been communicated to relevant IHT team as documented by IHT team.
 - e. Stop time: time of departure of IHT documented by IHT team. NB: if the patient has to be retrieved this is the time *team* leaves their base not the time, they leave regional centre with the patient.
- D. Pre-Hospital Services:
- a. 111 Call to dispatch \leq 8 minutes
 - b. On scene time \leq 15 minutes
 - c. 111 Call to Hospital \leq 60 minutes

