Canadian Stroke Best Practices

Acute Ischemic Stroke Intravenous Thrombolysis Protocol Checklist

(Applies to Tenecteplase or Alteplase)

Adapted from Acute Stroke Management, 7th Edition Update 2022 Box 5B

Refer to Acute Stroke Management, 7th edition Section 4.2 and Box 4A for detailed recommendations on neuroimaging-based selection criteria

Inclusion Criteria (Inclusion requires all criteria to be present)

□ Diagnosed with an acute ischemic stroke.

□ The stroke is disabling (i.e., significantly impacting function), usually defined as National Institutes of Health Stroke Scale (NIHSS) >4.

□The risks and benefits of thrombolysis are within the patient's goals of care and take into consideration their functional status prior to stroke.

□ Life expectancy of 3 months or more.

□ Age ≥18 years.

a. For adolescents, a decision to administer intravenous thrombolysis should be based on clinical judgment; presenting symptoms; patient age; and, if possible, consultation with a pediatric stroke specialist.

□ Time from last known well (onset of stroke symptoms) is <4.5 hours before thrombolysis administration. **For patients >4.5 hours refer to Acute Stroke Management 7th edition, Section 5.1 for additional information.*

Absolute Exclusion Criteria (Either criteria present qualifies as exclusion to intravenous thrombolysis)

□ Any active hemorrhage or any condition that could increase the risk of major hemorrhage after intravenous thrombolysis administration.

□ Any evidence of recent hemorrhage on brain imaging.

Relative Exclusion Criteria (Requiring clinical judgement based upon the specific situation. Consult Stroke Specialist at Comprehensive Stroke Centre if there are any questions or concerns about these criteria)

Historical

□ History of intracranial hemorrhage.

□ Stroke or serious head or spinal trauma in the preceding 3 months.

□ Major surgery (e.g., cardiac, thoracic, abdominal, or orthopedic) in the preceding 14 days. Risk varies according to the procedure.

□ Arterial puncture at a non-compressible site in the previous 7 days.

Clinical

□ Stroke symptoms due to another non-ischemic acute neurological condition such as seizure with post-ictal Todd's paralysis or focal neurological signs due to severe hypo- or hyperglycemia.

□ Hypertension refractory to aggressive hyperacute antihypertensive treatment such that target blood pressure <180/105 cannot be both achieved and maintained.

□ Currently prescribed and taking a direct non-vitamin K oral anticoagulant. (*Refer to Acute Stroke Management 7th edition, Section 5.2 Clinical Considerations for additional information).*

CT or MRI Findings

□ CT showing early signs of extensive infarction (e.g., >1/3 of middle cerebral artery [MCA] territory, or ASPECTS score <6).

Laboratory

□ Blood glucose concentration <2.7 mmol/L or >22.2 mmol/L may indicate a higher likelihood that the diagnosis is not stroke, but that neurological findings are due to metabolic changes

□ Elevated activated partial-thromboplastin time

□ International Normalized Ratio >1.7

□ Platelet count <100,000 per cubic millimetre may indicate a higher likelihood of serious bleeding if bleeding were to occur (see absolute contraindication #1)