

# Riverside University Health System - IV Alteplase Checklist

Written and approved by LLU Neurology Department whom provide treatment recommendations for acute ischemic stroke

## IV-Alteplase Treatment within 3 hours of clear onset or last known well

### Indications:

Age  $\geq$ 18 years

Diagnosis of ischemic stroke causing measureable neurological deficit

Onset of symptoms or last known well, clearly defined, less than 3 hours before beginning of alteplase treatment

### Contraindications:

SBP  $>$ 185 or DBP  $>$ 110 mmHg (*despite medical intervention to lower it*)

Intracranial or spinal surgery in previous 3 months

Significant head trauma or prior stroke in previous 3 months

History of previous intracranial hemorrhage (*May consider IV alteplase treatment if cerebral microbleeds on MRI head*)

Active internal bleeding

Arterial puncture at noncompressible site in previous 7 days.

Symptoms and signs suggest subarachnoid hemorrhage

CT findings (ICH, SAH, or major acute infarct signs: hypodensity  $>$ 1/3 of cerebral hemisphere)

Platelets  $<$  100,000

Low molecular weight heparin received within 24 hours

Low molecular weight Heparin received within 48 hours with aPTT  $>$  upper limit of normal.

Use of anticoagulant with INR  $>$  1.7 or PT  $>$  15

Current use of direct factor Xa inhibitors (Rivaroxaban, Apixaban, Edoxaban) or direct thrombin inhibitor (Dabigatran)  
(*May consider IV alteplase in patients with clearly confirmed last dose of these agents  $>$  48 hours, creatinine clearance  $>$ 50ml/min, and normal coagulation panel*)

Intra-axial brain tumors or vascular malformation

Unruptured intra-cranial aneurysm  $\geq$  10mm in size

Post-partum period (within 14 days after delivery)

Infective endocarditis

Known or suspected aortic arch dissection or intracranial arterial dissection.

Current systemic malignancy

Structural GI malignancy or recent bleeding event within 21 days

### Relative Contraindications:

Careful consideration and weighting of risk to benefit, patients may receive IV alteplase despite 1 or more relative contraindications

Acute pericarditis

Subacute bacterial endocarditis (SBE)

Pregnancy

Diabetic hemorrhagic retinopathy, or other hemorrhagic ophthalmic conditions

Only minor or rapidly improving of stroke symptoms

Lumbar puncture in previous 7 days

Major surgery or serious trauma within previous 14 days

Recent gastrointestinal or urinary track hemorrhage within previous 21 days

Recent acute myocardial infarction (within previous 3 months)

Life expectancy less than 6 months

Seizure at onset (*If rapid diagnosis of stroke can be made, IV alteplase treatment can be given*)

Glucose  $<$  50 or  $>$  400 mg/dl (*If rapid diagnosis of stroke can be made, Aalteplase treatment can be given while correcting serum glucose to normoglycemia*)

## IV-Alteplase Treatment within 3-4.5 hours of clear onset or last known well

All indications, contraindications, and relative contraindications for IV Alteplase treatment within 3 hour-window from clear onset or last known well applied.

### Additional Contraindications:

Current use of direct thrombin inhibitor (Dabigatran) or factor Xa inhibitors (Rivaroxaban, Apixaban, and Edoxaban) regardless of time of the last dose.

NIHSS  $>$ 25