

Acute Stroke Protocol Update for In-hospital Stroke TNK Instead of tPA for Patients with Ischemic Stroke at KHSC-KGH Site



Rationale for use of TNK with Ischemic Stroke

The use of recombinant tissue plasminogen activator (tPA) has been the standard thrombolytic therapy for ischemic stroke for many years. KHSC along with other hospitals across Canada participated in the [AcT](#) randomized control trial which compared TNK to tPA for patients with ischemic stroke. The AcT trial combined with evidence to date, demonstrate that tenecteplase (TNK) is a reasonable choice of thrombolytic therapy for ischemic stroke. The use of IV thrombolysis when administered within four and a half hours of onset of an acute ischemic stroke, has been shown to reduce morbidity, mortality and improve functional outcome.

What Does this Mean to Me?

TNK is easier to prepare and administer. Only a bolus is needed. You no longer need to prepare an infusion as you do for tPA. The [Acute Stroke Protocol](#) (ASP) packages are being updated and will include everything you need to know about TNK. The TNK dosage guide (see next page) for ischemic stroke will also be included in the Acute Stroke Protocol packages on pink paper and posted in CT suite where the thrombolytic medication is given.

The stroke physician and the RACE or critical care nurse will work together to prepare & administer the TNK; whomever is free and comfortable can help with this task.

Note that the TNK dosage for a patient with acute ischemic stroke is lower than that for the patient with myocardial infarction (see next page).

Monitoring and care of the patient pre and post TNK administration is exactly the same as tPA.

Reminder: Evidence indicates that **time is brain** - administration of IV thrombolysis as early as possible post stroke is associated with better outcomes.

Start Date: September 1st after 09:00h

TNK for ischemic stroke will be available in the Omnicells (D4ICU, K2ICU, CSU, and CVL) as of September 1st. The RACE team will also have TNK on the RACE cart.

Any questions?

Contact Dr. Al Jin or Heather Wise or Colleen Murphy (ext. 6306 or Colleen.Murphy@kingstonhsc.ca)

Tenecteplase (TNK) Dosing, Reconstitution and Administration Guide for Acute Ischemic Stroke

Reconstitution Procedure:

1. Using a blunt fill needle, draw up 10 mL of Sterile Water for Injection into the TNK vial.
2. Inject all 10 mL into the 50 mg TNK vial directing the water into the powder. Slight foaming is not unusual; any large bubbles will dissipate if the product is allowed to stand undisturbed.
3. GENTLY swirl until contents are completely dissolved. DO NOT SHAKE. Solution should be colourless or pale yellow and transparent.

Dosing Information:

Intravenous tenecteplase (TNK; 0.25 mg/kg, maximum 25 mg) Dosing Information (50 mg Vial diluted with 10 mL Sterile Water)			
Patient Weight (kg)	Patient Weight (lbs)	TNK dose (mg)	Volume TNK to be administered (mL)
Less than 60	Less than 132	15	3
60 to less than 70	132 to less than 154	17.5	3.5
70 to less than 80	154 to less than 176	20	4
80 to less than 90	176 to less than 198	22.5	4.5
90 or more	198 or more	25	5

Administration Procedure:

1. Withdraw the appropriate dosage as per Dosing Table above.
2. Administer TNK as IV direct over 5 seconds.
3. Discard syringe with needle & remaining TNK in vial.