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Pharmacist's Letter
Canada

Be Familiar With Tenecteplase for Acute Ischemic Stroke

Top Takeaways

-Tenecteplase is now approved by Health Canada for acute ischemic stroke.
-Alteplase remains the standard of care for now, but tenecteplase use is expected to grow.
-Long-term secondary stroke prevention follows the ABCs: antithrombotics, blood pressure, cholesterol.

You'll hear buzz about the **thrombolytic tenecteplase (TNKase) now that it's approved by Health Canada for treating acute ischemic stroke**.

This adds to the uses for tenecteplase, since it's already approved for patients with a heart attack caused by an occlusive clot.

Tenecteplase is a modified version of alteplase...made by altering 3 sites on the tPA enzyme giving it a longer half-life and more specificity.

Patients with an acute ischemic stroke usually receive alteplase to restore blood flow...as long as it's within 4.5 hours of symptom onset and there are no contraindications, such as an intracranial bleed.

But now tenecteplase is another option for these patients.

It has comparable efficacy to alteplase for restoring blood flow and improving survival after a stroke...with similar risks and safety.

And it's easier to give. Tenecteplase has a longer half-life than alteplase, so it can be given as a single IV bolus injection over 5 seconds...instead of a 60-min infusion with alteplase.

But it still has the same time constraint of needing to be given within 4.5 hours of symptom onset.

Expect to still see alteplase for acute ischemic stroke, since it has more overall evidence. But don't be surprised to see more of tenecteplase due to its easier administration.

In fact, the new 2026 acute ischemic stroke guidelines from the Am Heart Assn/Am Stroke Assn now endorse either alteplase or tenecteplase first-line.

Continue to play a key role in helping patients reduce the risk of recurrent ischemic stroke by focusing on the ABCs...antithrombotics, blood pressure, and cholesterol.

For example, expect to see patients discharged on one or two antithrombotics after an acute stroke. But ensure only ONE med is continued long-term...usually aspirin.

Generally suggest a long-term systolic blood pressure goal of less than 130 mm Hg as soon as it's practical and safe after a stroke.

In most cases, recommend starting with two first-line BP meds...combining lower doses of drugs from different classes provides additive BP control while minimizing side effects.

For example, recommend an ACEI or ARB plus a long-acting CCB or thiazide diuretic...to lower BP and reduce CV risk. Avoid beta-blockers unless the patient has another strong indication, such as atrial fib.

Also advise starting a statin for patients with an atherosclerotic stroke...and checking LDL in about 4 to 12 weeks. Typically target an LDL of 1.8 mmol/L or lower.

Cite this document as follows: Article, Be Familiar With Tenecteplase for Acute Ischemic Stroke, Pharmacist's Letter Canada, February 2026

Emphasize adherence...and help patients stick to their statin.

Review our resource, *Antiplatelets for Recurrent Ischemic Stroke*, for more on preferred meds and dosing...and evidence to support them.

Key References:

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Pharmacist's Letter Canada. February 2026, No. 420225

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