

Medication: Tenecteplase (TNKase)	PDN: 6982.03	Last Updated: August 10 2023	PMD: Andrew Travers*	PDC: Tanya Fraser*	Page 1 of 2
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TENECTEPLASE (TNKase)

1.0 Classification

- Fibrinolytic

2.0 Mechanism of Action

- Binds to fibrin and converts plasminogen to plasmin.

3.0 Indications

- For the treatment of ST segment elevation myocardial infarction (STEMI) of less than twelve (12) hours duration and more than twenty (20) minutes duration.
- Suspected pulmonary embolism as reversible cause of cardiac arrest (with MCCP consult)

4.0 Contraindications (for pre-hospital administration)

- Active bleeding or known bleeding/clotting disorder or on anticoagulants [e.g., warfarin (Coumadin), dabigatran (Pradaxa), rivaroxaban (Xarelto)].
- Recent (within 6 weeks) major trauma, surgery (including eye surgery), GI/GU bleed.
- History of stroke, TIA, severe dementia, or structural CNS damage (e.g., tumour, AV malformation, aneurysm).
- Significant closed head/ facial trauma within last 3 months.
- Significant hypertension (SBP > 180 or DsBP > 110) at any time from presentation (relative).
- Right arm versus left arm SBP difference of 15 mmHg.
- Prolonged (greater than 10 minutes) CPR (relative).
- Cardiogenic shock (relative - would do best with PCI; consult with MD)

5.0 Precautions

- Bleeding risk is increased with combined use of fibrinolytics and anticoagulants.
- Monitor any IV insertion sites for bleeding post-administration.

6.0 Route

- May be given IV

7.0 Dosage

To Reconstitute TNK:

- Withdraw 10 mL sterile water into 10 mL syringe.
- Inject all 10 mL into TNKase gently.
- Gently swirl the contents until completely dissolved (DO NOT SHAKE); solution should be colourless or pale yellow and transparent.

Patient weight		TNK (mg)	mL of reconstituted TNK to be administered
kg	lbs		
Less than 60	Less than 130	30	6
60 to 69	130 to 154	35	7
70 to 79	155 to 174	40	8

80 to 89	175 to 199	45	9
90 or greater	200 or greater	50	10

To Administer TNK:

- Withdraw the appropriate volume of solution based on the patient's ideal body weight (see chart above).
- Flush the line with normal saline prior to TNK administration.
- Administer the appropriate dose of TNK over 5 seconds.
- Flush the line with normal saline after administration.
- Remaining solution in vial should be taken to the hospital with the patient and given to hospital staff.

8.0 Supplied

- 50 mg TNKase (freeze-dried) vial (10 mL sterile water as diluent)

9.0 May Be Given By

- ACP/CCP (after consultation with regional facility ED physician)

10.0 Adverse Effects

- Major and/or minor external/internal bleeding
- Nausea/vomiting
- Hypotension
- Pulmonary edema
- Cardiac failure
- Embolism
- Arrhythmias (during reperfusion)

11.0 Special Notes

- TNKase is to be given concurrently with clopidogrel and enoxaparin as an entire reperfusion strategy and should not be given unless all reperfusion medications are being administered. If clopidogrel is contraindicated (e.g., the patient is allergic or unable to take PO medications), tenecteplase and enoxaparin should still be administered.
- Standard ischemic chest pain management (ASA, nitroglycerin and opioids for severe pain unresponsive to nitrates) should be continued as well.
- If consulting for prehospital fibrinolysis post-ROSC with less than 10 minutes of CPR, contact the ED physician (MCCP consult not required).
- Pregnancy category C [if the patient will benefit from a Category C drug, it is generally used]

12.0 References

- Chest Pain Clinical Practice Guideline
- EHS STEMI Reperfusion Worksheet
- Adult Cardiac Arrest Clinical Practice Guideline
- Compendium of Pharmaceuticals and Specialties (CPS)

*Electronically Signed

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