**TENECTEPLASE (TNKase)**

1. **Classification**
   - Fibrinolytic

2. **Mechanism of Action**
   - Binds to fibrin and converts plasminogen to plasmin

3. **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

4. **Contraindications (for pre-hospital administration)**
   - Active bleeding or known bleeding/clotting disorder
   - Patient on blood thinners [warfarin (Coumadin), dabigatran (Pradax), rivarobaxan (Xarelto)]
   - Recent (within 6 weeks) major trauma, surgery (including eye surgery), GI/GU bleed
   - History of stroke, TIA, severe dementia or structural CNS damage
   - Significant closed head/facial trauma with last 3 months
   - Significant hypertension (SBP > 180 or DsBP > 110) at any time from presentation
   - Right arm versus left arm SBP difference of 15mmHg
   - Prolonged (greater than 10 minutes) CPR

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

6. **Route**
   - May be given IV

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

<table>
<thead>
<tr>
<th>Patient weight</th>
<th>TNK (mg)</th>
<th>mL of reconstituted TNK to be administered</th>
</tr>
</thead>
<tbody>
<tr>
<td>kg</td>
<td>lbs</td>
<td></td>
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<tr>
<td>Less than 60</td>
<td>Less than 130</td>
<td>30</td>
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<tr>
<td>60 to 69</td>
<td>130 to 154</td>
<td>35</td>
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<tr>
<td>70 to 79</td>
<td>155 to 174</td>
<td>40</td>
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<tr>
<td>80 to 89</td>
<td>175 to 199</td>
<td>45</td>
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<tr>
<td>90 or greater</td>
<td>200 or greater</td>
<td>50</td>
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</tbody>
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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 (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
- Standard ischemic chest pain management (ASA, nitroglycerin, morphine) should be continued as well
- 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
- Compendium of Pharmaceuticals and Specialties (CPS)

*Electronically Signed
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