CONTRAINDICATIONS
TNK therapy in patients with acute myocardial infarction is contraindicated in the following situations because of an increased risk of bleeding:

• Active internal bleeding
• History of cerebrovascular accident
• Intracranial or intraspinal surgery or trauma within 2 months
• Intracranial neoplasm, arteriovenous malformation, or aneurysm
• Known bleeding diathesis
• Severe uncontrolled hypertension

PRECAUTIONS
Each patient being considered for therapy with TNK should be carefully evaluated and anticipated benefits weighed against potential risks associated with therapy. In the following conditions, the risk of TNK therapy may be increased and should be weighed against the anticipated benefits:

• Recent major surgery, coronary artery bypass graft (14 days), obstetrical delivery (10 days), organ biopsy (10 days)
• Cerebrovascular disease
• Recent gastrointestinal or genitourinary bleeding (within past 21 days)
• Recent trauma
• Hypertension: systolic BP greater than or equal to 180 mmHg and/or diastolic BP greater than or equal to 110 mmHg
• High likelihood of left heart thrombus – mitral stenosis with atrial fibrillation
• Acute pericarditis
• Subacute bacterial endocarditis
• Hemostatic defects, including those secondary to severe hepatic or renal disease (platelets less than 100,000; PTT greater than 40 sec)
• Severe hepatic dysfunction
• Pregnancy
• Diabetic hemorrhagic retinopathy or other hemorrhagic ophthalmic conditions
• Septic thrombophlebitis or occluded AV cannula at seriously infected site
• Advanced age
• Patients currently receiving oral anticoagulants, e.g., warfarin sodium (INR greater than 1.7 or PT greater than 15 if INR not available)
• Recent administration of GP IIb/IIIa inhibitors
• Any other condition in which bleeding constitutes a significant hazard or would be particularly difficult to manage because of its location

COMPLICATIONS
The most common complication encountered during TNK therapy is bleeding. The type of bleeding associated with thrombolytic therapy can be divided into two broad categories:

• Internal bleeding, involving intracranial and retroperitoneal sites, or the gastrointestinal, genitourinary, or respiratory tracts.
• Superficial or surface bleeding, observed mainly at vascular puncture and access sites (venous cutdowns, arterial punctures) or sites of recent surgical intervention.

Reviewed 1-08
THROMBOLYTIC ORDER MODULE – ACUTE MYOCARDIAL INFARCTION

A. Pre-thrombolytic:
- EKG STAT and repeat every 30 minutes until chest pain or ST segment resolves. Contact a Cardiologist.
- Nitroglycerin 0.4 mg sublingually every 5 minutes x 3 PRN chest pain.
- STAT labs: Type and Screen, Hemogram, BMP, Magnesium, Chest Pain Biomarker Protocol, Fibrinogen, PT / INR, PTT, Post PCI / Suspected Reinfarction Protocol
- Start two IV lines, at least one 18 gauge or larger. Saline locks with routine flushes per policy.
- Aspirin 324 mg (81 mg x 4) PO STAT and have patient chew tablets.
- Clopidogrel (Plavix) 300 mg PO STAT and then Clopidogrel (Plavix) 75 mg PO every day.
- Metoprolol (Lopressor) 5 mg IV every 5 minutes x 3 doses to achieve heart rate less than 70 or SBP less than 100 mmHg. 
  Administer only with cardiac monitoring per policy.
- NO nasogastric tube.

TNK (Tenecteplase)

Note: Obtain TNK kit from Pyxis (TNK 50 mg vial and dilute with 10 mL sterile water to equal 5 mg/mL TNK)
Discard any remaining volume of TNK after administration.

| Patient Weight  | TNK Dose | Administer mL of TNK
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 60 kg</td>
<td>30 mg IV</td>
<td>6 mL</td>
</tr>
<tr>
<td>60 to 69.9 kg</td>
<td>35 mg IV</td>
<td>7 mL</td>
</tr>
<tr>
<td>70 to 79.9 kg</td>
<td>40 mg IV</td>
<td>8 mL</td>
</tr>
<tr>
<td>80 to 89.9 kg</td>
<td>45 mg IV</td>
<td>9 mL</td>
</tr>
<tr>
<td>Greater than 89.9 kg</td>
<td>50 mg IV</td>
<td>10 mL</td>
</tr>
</tbody>
</table>

B. Heparin Titration – To be used in conjunction with TNK for 48 hours only.
See Heparin Infusion Orders – Cardiac Indications
- Discontinue Heparin infusion on ________ (date) at ________ (time)
- If Bleeding Occurs: Discontinue TNK and Heparin infusions. Obtain a STAT Hemogram and notify provider.

C. Post-Thrombolytic:
Medications
- Aspirin 81 mg PO daily. Start tomorrow.
- Aspirin 325 mg PO daily. Start tomorrow.
- Nitroglycerin 100 mg/250 mL D5W IV. Start at 40 mcg/min, Titrate to 300 mcg/min to maintain systolic BP less than 150 mmHg.

Note: IV Nitroglycerin is contraindicated for right ventricular infarcts.
- Potassium Protocol – PO or IV (Central or Peripheral).
- Pantoprazole (Protonix) 40 mg PO Twice Daily.

Labs
- Fasting HDL 2 Profile in AM.
- Hemoccult all body fluids while on thrombolitics and anticoagulation.

Diagnostics
- EKG 6, 12, and 24 hours after TNK started, then daily for 2 days.

Provider Signature: _________________________ Print Name: _________________________

PROVIDERS MUST EXERCISE INDEPENDENT CLINICAL JUDGMENT WHEN USING ORDERSETS
Revised November 2008
ACUTE MI with ST-elevation\(^{(1)}\) (STEMI)

_For hospitals outside the Bangor area_

Algorithm for Fibrinolytic-Eligible Patients (if patient ineligible, call NECA 947-4940)

**HIGH RISK**

Having any one of these criteria:
- Anterior MI
- Previous MI
- Atrial Fibrillation
- Age 75 years and older
- CHF / Pulmonary Edema
- Hypotension or Shock

- Thrombolytic therapy (TNK or Retevase)
- ASA (chew 4 baby aspirin)
- Plavix 300 mg PO
- Heparin \(^{(2)}\)
- Beta-Blocker \(^{(3)}\)
- NTG IV infusion PRN \(^{(4)}\)

Call NECA 947-4940
Transfer Emergently to EMMC
Consider LifeFlight helicopter 1-888-421-4228

**LOW RISK**

Having none of the high risk criteria

- Thrombolytic therapy (TNK or Retevase)
- ASA (chew 4 baby aspirin)
- Plavix 300 mg PO
- Heparin bolus & infusion
- Beta-Blocker \(^{(3)}\)
- IV NTG infusion PRN \(^{(4)}\)

Call NECA 1 hour after starting lytic therapy if patient still has persistent chest pain with ST-elevation
Transfer Emergently to EMMC
Consider LifeFlight helicopter 1-888-421-4228

**Footnotes**

\(^{(1)}\) ST elevation 1 mm or greater in 2 or more contiguous leads, or new LBBB
\(^{(2)}\) Heparin initial bolus = 60 units/kg (max 4,000 units)
Heparin infusion 12 units/kg/hr (max 1,000 units/hr)
\(^{(3)}\) Beta-Blocker: Lopressor 5 mg IV q 5 min x 3 doses or Atenolol 5 mg IV once
\(^{(4)}\) Consider IV NTG infusion if BP greater than 150 systolic, or CHF. IV NTG is contraindicated for right ventricular infarcts (RVMI).