### STEMI (ST-Segment Elevation Myocardial Infarction) Protocol

**D.A.S.H. (Duluth Area STEMI Hospitals) Inter-Hospital Transfer**

**PHYSICIAN ORDERS**  
(Page 1 of 2)

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#### DEFINITION FOR STEMI

- ECG demonstrates ST elevation greater than 0.1 MV in at least 2 contiguous precordial leads (V1-V6) or at least 2 adjacent limb leads
- ECG demonstrates new LBBB

*(If initial ECG is not diagnostic but suspicion is high for STEMI, obtain serial ECG at 5-10 minute intervals)*

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<table>
<thead>
<tr>
<th>AIR TRANSPORT:</th>
<th>□ Life Link III HELICOPTER 1-800-328-1377</th>
<th>□ North Air Dispatch 1-800-247-0229</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Transport:</td>
<td>□ ___________________________________________</td>
<td></td>
</tr>
</tbody>
</table>

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| □ ST. MARY’S (STAT DOC) Call: 1-877-786-4944 | □ ST. LUKE’S Call: 1-800-306-2939 |

Request Activation of STEM Protocol

Fax records to Cath Lab: 1-218-786-4248

Request Activation of Primary PCI for STEM

Fax records to: 1-218-249-5180

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#### STANDARD ORDERS & LABS

| □ Apply Cardiac Monitor. |
| □ Start (2) peripheral IV’s (0.9% NaCl TKO or Saline lock) |
| □ CK-MB and Troponin |
| □ Glucose |
| □ INR |
| □ (Standard) Panel |
| □ Magnesium |
| □ aPTT |
| Other: |

Known Allergy to Iodine or IV Contrast? (Circle) Yes / No

Other Allergies, or other pertinent info:

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#### STANDARD MEDICATIONS

- Aspirin 324 mg chewed x 1
- Heparin IV Bolus  
  - (60 Units/kg, max 4,000 Units)
- Heparin IV Drip*  
  - (12 Units/kg/hr, max 1,000 Units/hr)
  - *(If convenient, and does not delay transport)
- Other:

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#### IF NEEDED MEDICATIONS

- Nitroglycerin IV or 0.4 mg SL
- Morphine Sulfate 1 - 5 mg IV
- Diazepam (Valium) 5 – 10 mg oral or IV
- Ondansetron (Zofran) 4 mg oral or IV
- Metoprolol (□ 25 mg or □ 50 mg) oral x 1
- Metoprolol (□ 2.5 mg or □ 5 mg) IV x 1
- Eptifibatide (Integrilin) per standard  
  - *(Consult with Cardiologist before starting Integrilin)*

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#### IF NEEDED MEDICATIONS

| □ PRIMARY PCI |
| Goal: Medical Contact to Balloon LESS THAN 90 minutes |
| □ Give Plavix 600 mg PO |

Transport patient directly to Cath Lab for Percutaneous Coronary Intervention

Do not give Fibrinolytics (TNKase, tPA, or TPA)

Other Orders:

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| □ FIBRINOLYSIS |
| Goal: Medical Contact to Needle LESS THAN 30 minutes |
| □ Give Tenecteplase IV (TNKase) per attached protocol |
| □ Give Plavix 300 mg PO |
  - *(if patient over 75 years old, consult with cardiologist before giving Plavix)*

Transport patient directly to CCU

If patient fails to reperfuse, activate Cath Lab for PCI

Do not give Integrilin

Other Orders:

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Regional ED Phone: ED Fax:

ED Physician (print name):

MD Signature: ________________________________

Date: ________________________________

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### PHYSICIAN’S ORDERS

Regional Hospital Name:  
Regional Hospital City:  
Draft Current 10.11.11

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Patient Name:
**STEMI (ST-Segment Elevation Myocardial Infarction) Protocol**  
**D.A.S.H. (Duluth Area STEMI Hospitals) Inter-Hospital Transfer**

**NURSING DOCUMENTATION**

<table>
<thead>
<tr>
<th>Patient weight (kg)</th>
<th>TNK (mg)</th>
<th>TNK (mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 60 kg</td>
<td>30 mg</td>
<td>6 mL</td>
</tr>
<tr>
<td>60 or more but less than 70</td>
<td>35 mg</td>
<td>7 mL</td>
</tr>
<tr>
<td>70 or more but less than 80</td>
<td>40 mg</td>
<td>8 mL</td>
</tr>
<tr>
<td>80 or more but less than 90</td>
<td>45 mg</td>
<td>9 mL</td>
</tr>
<tr>
<td>90 or more kg</td>
<td>50 mg</td>
<td>10 mL</td>
</tr>
</tbody>
</table>

**Tenecteplase (TNKase) Dosing**

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dose</th>
<th>Administered By: (Initials)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspirin (81 mg chew x 4)</td>
<td>324 mg</td>
<td></td>
</tr>
<tr>
<td>Clopidogrel (Plavix) Oral</td>
<td>mg</td>
<td></td>
</tr>
<tr>
<td>Heparin IV Bolus</td>
<td>Units</td>
<td></td>
</tr>
<tr>
<td>60 Units/kg, max 4000 Units</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heparin IV Infusion</td>
<td>Units/hr</td>
<td></td>
</tr>
<tr>
<td>12 Units/kg/hr, max 1000 Units/hr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenecteplase (TNKase) IV</td>
<td>mg (= mL)</td>
<td></td>
</tr>
<tr>
<td>Nitroglycerin Sublingual</td>
<td>0.4 mg</td>
<td></td>
</tr>
<tr>
<td>Nitroglycerin IV</td>
<td>mcg/min</td>
<td></td>
</tr>
<tr>
<td>Morphine Sulfate IV</td>
<td>mg</td>
<td></td>
</tr>
<tr>
<td>Diazepam (Valium) Oral</td>
<td>mg</td>
<td></td>
</tr>
<tr>
<td>Diazepam (Valium) IV</td>
<td>mg</td>
<td></td>
</tr>
<tr>
<td>Ondansetron (Zofran) Oral</td>
<td>4 mg</td>
<td></td>
</tr>
<tr>
<td>Ondansetron (Zofran) IV</td>
<td>4 mg</td>
<td></td>
</tr>
<tr>
<td>Metoprol 25 mg or 50 mg Oral</td>
<td>mg</td>
<td></td>
</tr>
<tr>
<td>Metoprol 2.5 mg or 5 mg IV</td>
<td>mg</td>
<td></td>
</tr>
<tr>
<td>Eptifibatide (Integrilin) IV Bolus</td>
<td>mL</td>
<td>180 mcg/kg from 2 mg/mL vial</td>
</tr>
<tr>
<td>Eptifibatide (Integrilin) IV Infusion</td>
<td>mL/hr</td>
<td>0.75 mg/mL bottle</td>
</tr>
</tbody>
</table>

**ABSOLUTE CONTRAINDICATIONS FOR FIBRINOLYSIS (TNK) IN STEMI**

1. Any prior intracranial hemorrhage
2. Known structural cerebral vascular lesion (e.g., arteriovenous malformation)
3. Known malignant intracranial neoplasm (primary or metastatic)
4. Ischemic stroke within 3 months except acute ischemic stroke within 3 hours
5. Suspected aortic dissection
6. Active bleeding or bleeding diathesis (excluding menses)
7. Significant closed-head or facial trauma within 3 months

**RELATIVE CONTRAINDICATIONS FOR FIBRINOLYSIS (TNK) IN STEMI**

1. History of chronic, severe, poorly controlled hypertension
2. Severe uncontrolled hypertension on presentation (SBP more than 180 or DBP more than 110 mmHg)
3. History of prior ischemic stroke more than 3 months, dementia, or known intracranial pathology not covered in contraindications
4. Traumatic or prolonged CPR (over 10 minutes) or major surgery (within last 3 weeks)
5. Recent internal bleeding (within last 2-4 weeks)
6. Noncompressible vascular punctures
7. For streptokinase/tissueplasmin: prior exposure (more than 5 days ago) or prior allergic reaction to these agents
8. Pregnancy
9. Active peptic ulcer
10. Current use of anticoagulants: the higher the NR, the higher the risk of bleeding

**CONTRAINDICATION FOR METOPROLOL**

Do not give if any of the following: Signs of heart failure or shock, heart rate less than 60 or more than 110, systolic blood pressure less than 120, second or third degree heart block, asthma, or reactive airway disease.

**ST. MARY’S Hospital**

1. **Call:** [877-768-4944](tel:8777684944) Request Activation of STEMI Protocol
2. **Fax** records to Cath Lab: [218-786-4248](tel:2187864248)
3. **Call:** [877-768-4944](tel:8777684944) again, when patient leaves your hospital to update ETA, then have call transfer to CCU to give Nursing report  
   (If needed - CCU phone #: [218-786-4631](tel:2187864631))

**ST. LUKE’S Hospital**

1. **Call:** [800-306-2399](tel:8003062399) Request Activation of Primary PCI for STEMI
2. **Fax** records to: [218-249-5180](tel:2182495180)
3. **Call** Nursing report to SLH ED: [218-249-5616](tel:2182495616)

**Please Document Times:**

1. _________ Chest Pain Onset
2. _________ Pre-Hospital ECG time (if available)
3. _________ Regional Hospital Arrival
4. _________ Regional Hospital 1<sup>st</sup> ECG Time
   _________ 2<sup>nd</sup> ECG Time (if 1<sup>st</sup> is negative)
5. _________ Time Transport Called
6. _________ STEMI Protocol Activation (STEMI Hospital 1<sup>st</sup> Called)
7. _________ Time Transport Arrives
8. _________ Regional Hospital Departure

**Copy** All paperwork and send with patient  
(ECG, Labs, Orders, etc.)

**NURSE DOCUMENTATION**

Regional Hospital Name:  
Regional Hospital City:  
Draft Current 10.11.11

**RN to:**

1.) Apply Cardiac Monitor
2.) Start (2) peripheral IV’s (TKO/saline lock)
3.) Verify routine Labs ordered

**Other documentation, labs, allergies, or information:**

<table>
<thead>
<tr>
<th>RN Name(s):</th>
<th>RN Initials:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

**Patient Name:**