

Mission: Lifeline Montana STEMI Inter-Hospital Transfer Guideline

Benefis – Great Falls

Phone: 1-800-972-4000 or 406-455-4320 Fax: 406-455-4584

Billings Clinic - Billings

Phone: 1-800-325-1774 Fax: appropriate # given at time of phone call

Bozeman Deaconess - Bozeman

Phone: 406-414-1000 Fax: 406-414-5001

Community Medical Center - Missoula

Phone: 406-327-4171 Fax: 406-327-4504

Kalispell Regional Medical Center - Kalispell

Phone: 406-752-1733 Fax: 406-756-4717

St. James Healthcare - Butte

Phone: 1-844-202-2495 Fax: 406-723-2517

St. Patrick's Hospital - Missoula

Phone: 1-888-878-7287 Fax: 406-329-5639

St. Peter's Hospital - Helena

Phone: 406-444-2150 Fax: 406-447-2695

St. Vincent's Hospital - Billings

Phone: 1-800-331-0222 Fax: 406-237-4125

AHA Mission: Lifeline Ideal STEMI Treatment Goals (for all eligible patients receiving any reperfusion (PCI or fibrinolysis) therapy):

- **First Medical Contact-to-First ECG** time \leq 10 minutes
- Fibrinolytic-eligible patients with **Door-to-Needle** time \leq 30 minutes
- Patients transferred for Primary PCI to a Receiving Center with referring center **Door in-Door out** time (*Length of Stay*) \leq 45 minutes (guideline recommendation is \leq 30 minutes)
- Patients transferred for Primary PCI to a Receiving Center with referring center ED **Door-to-PCI device time** \leq 120 minutes (*includes transport time*)
- All STEMI patients without a contraindication receiving **aspirin** before ED discharge

For those patients with a contraindication to transfer for PCI, ensure the following are completed during their hospitalization:

- Aspirin within 24 hours of hospital arrival, and aspirin at discharge
- Beta blocker at discharge
- LDL $>$ 100 who receive statins or lipid lowering drugs
- STEMI patients with left ventricular systolic dysfunction on ACEI/ARB at discharge
- STEMI patients who smoke receive smoking cessation counseling at discharge

Upon Transfer Fax the following documents to the accepting facility: 12 Lead ECG, ED Record, Lab Results, Current Medication Record, MT M:L STEMI transfer documentation

Mission: Lifeline MT STEMI (ST-Segment Elevation Myocardial Infarction) Guideline



STEMI Inter-Hospital Transfer **PHYSICIAN ORDERS** (Page 1 of 2)

Diagnostic Criteria for STEMI

- ST elevation at the J point in at least 2 contiguous leads of ≥ 2 mm (0.2 mV) in men or ≥ 1.5 mm (0.15 mV) in women in leads V2–V3 and/or of ≥ 1 mm (0.1mV) in other contiguous chest leads or the limb leads.
- New or presumably new LBBB at presentation occurs infrequently, may interfere with ST-elevation analysis, and should not be considered diagnostic of acute myocardial infarction (MI) in isolation. If doubt persists, immediate referral for invasive angiography may be necessary. Consult with PCI receiving center.
- ECG demonstrates evidence of ST depression suspect of a Posterior MI consult with PCI receiving center
- (If initial ECG is not diagnostic but suspicion is high for STEMI, obtain serial ECG at 5-10 minute intervals)

ACTIVATE TRANSPORT and Estimate Time to STEMI Receiving Center

Notify STEMI Receiving Hospital and Activate STEMI Alert

_____ Hospital

Call: _____ - _____ - _____
Request Activation of **STEMI** Alert

Fax records after transfer

Allergies:

Known Allergy to Shellfish, Iodine or IV Contrast? Yes No

Reaction: _____

STANDARD ORDERS & LABS

- Apply Continuous Cardiac Monitor
- Vitals q 5 min x3, then q 10 min (with automatic BP and pulse oximetry)
- Insert (2) peripheral large bore IVs (0.9% NaCl @100mL/hr or Saline lock)
- Portable CXR STAT
- Labs: BMP, CBC, Troponin, Lipid profile, PT/INR, aPTT, all labs STAT, do not delay transfer for results – fax when available

Choose a STEMI treatment strategy of **PRIMARY PCI** or **FIBRINOLYSIS** pathway, considering:

- Estimated transport time from First Medical Contact to PCI facility minutes by:
Air: _____ or Ground: _____
- Persistent Symptom onset to Presentation Time: _____ hours ago
- Contraindications or Precautions to Lytics:
 Y N (see next page for contraindications)

Optional Medications

- Nitroglycerin IV** or 0.4 mg SL
- Morphine Sulfate** 1 - 5 mg IV
- Ondansetron** (Zofran) 4 mg PO or IV
- Metoprolol** 25 mg PO
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 100, second or third degree heart block, severe asthma or reactive airway disease

Code Status: Full Code DNR

If DNR, consult with accepting physician prior to transfer

Choose One Pathway

PRIMARY PCI – Direct to CATH LAB for PCI

Goal: First Medical Contact to PCI LESS THAN \leq 120 minutes

- Aspirin** 324 mg chewed
- Ticagrelor (Brilinta)** 180 mg PO **OR**
- Clopidogrel (Plavix)** 600 mg PO (*do not give both Plavix & Brilinta)
- Anticoagulant:** choose one:
 - Heparin:** IV bolus of 70-100 units/kg
 - enoxaparin (Lovenox)** pts < age 75: 30 mg IV push NOW, then 1 mg/kg SubQ 15 min later and q 12 hrs
 - enoxaparin (Lovenox)** Pts \geq age 75: 0.75 mg/kg SubQ q 12 hrs
- Transport patient directly** to Cath Lab for PCI
Do not give Fibrinolytics (TNKase, rPA, or TPA)
- Administer Oxygen as needed** to keep SpO2 > 94%

FIBRINOLYSIS

Goal: When First Medical Contact to PCI anticipated \geq 120 min, Door to lytic administration goal LESS THAN \leq 30 minutes

- Aspirin** 324 mg chewed
- Tenecteplase IV (TNKase)** per attached protocol
- Plavix 300 mg PO** (If patient > 75 yrs, consider reducing dosage to 75 mg PO)
- Heparin IV Bolus** (60 Units/kg, max 4,000 Units)
- Heparin IV Drip** (12 Units/kg/hr, max 1,000 Units/hr)
- Transport patient directly** to PCI capable hospital
- Administer Oxygen as needed** to keep SpO2 > 94%

MD Signature: _____

Date: _____ Time: _____

PHYSICIAN'S ORDERS

Regional Hospital: _____
Regional Hospital City: _____
Regional ED Phone: _____ Fax: _____
ED Physician (print name): _____

Patient Name: _____

Mission: Lifeline MT STEMI (ST-Segment Elevation Myocardial Infarction) Guideline

STEMI Inter-Hospital Transfer NURSING DOCUMENTATION Tool (Page 2 of 2)

Tenecteplase (TNKase) Dosing

Patient weight (kg)	TNK (mg)	TNK (mL)
Less than 60 kg	30 mg	6 mL
60 or more but less than 70	35 mg	7 mL
70 or more but less than 80	40 mg	8 mL
80 or more but less than 90	45 mg	9 mL
90 or more kg	50 mg	10 mL

Weight: lb. kg

Height: in.

Age: yrs

FIBRINOLYSIS CONSIDERATIONS

ABSOLUTE CONTRAINDICATIONS FOR FIBRINOLYSIS (TNK) IN STEMI

- Any prior intracranial hemorrhage
- Known structural cerebral vascular lesion (e.g., arteriovenous malformation)
- Known malignant intracranial neoplasm (primary or metastatic)
- Ischemic stroke within 3 mo except acute ischemic stroke within 4.5 hrs
- Suspected aortic dissection
- Active bleeding or bleeding diathesis (excluding menses)
- Significant closed-head or facial trauma within 3 months
- Intracranial or intraspinal surgery within 2 mo
- Severe uncontrolled hypertension (unresponsive to emergency therapy)
- For streptokinase, prior treatment within the previous 6 mo

RELATIVE CONTRAINDICATIONS FOR FIBRINOLYSIS: (TNK) IN STEMI

- History of chronic, severe, poorly controlled hypertension
- Significant hypertension on presentation (SBP > 180 or DBP > 110 mmHg)
- History of prior ischemic stroke more than 3 months, dementia, or known intracranial pathology not covered in contraindications
- Traumatic or prolonged CPR (> 10 minutes)
- Major surgery (within last 3 weeks)
- Recent internal bleeding (within last 2-4 weeks)
- Noncompressible vascular punctures
- Pregnancy
- Active peptic ulcer
- Current use of anticoagulants

Medication	Dose	Time Start	Time Stop	RN (Initials)
Aspirin (81 mg chew x 4)	324 mg			
Ticagrelor *(Brilinta) Oral (PCI therapy arm only) * Do not give Brilinta and Plavix together	180 mg			
Clopidogrel (Plavix) Oral PCI therapy dose	600 mg			
Clopidogrel (Plavix) Oral Lytic therapy dose	300 mg			
Heparin IV Bolus PCI: 70-100 units/kg Lytics: 60 units/kg, max 4000 units	units			
Heparin IV Infusion 12 units/kg/hr, max 1000 units/hr	units/hr			
Tenecteplase (TNKase) IV * Do not give Ticagrelor with Lytic (TNK)	mg (= mL)			
Nitroglycerin Sublingual *Erectile Dysfunction Medication within past 24 hrs. <input type="checkbox"/> Yes (contraindicated) <input type="checkbox"/> No	0.4mg 0.4mg 0.4mg	_____	_____	_____
Nitroglycerin IV Infusion	mcg/min			
Morphine Sulfate IV	mg			
Ondansetron (Zofran) Oral	4 mg			
Ondansetron (Zofran) IV	4 mg			
Metoprolol 25 mg Oral	mg			
Age < 75 yrs: Enoxaparin (Lovenox) 30 mg IV Push then 1 mg/kg SubQ 15 min later and then q 12 hours	30 mg mg			
Age ≥ 75 yrs: Enoxaparin (Lovenox) 0.75mg/kg SubQ and then q 12 hours	mg			

Notes: _____

- _____ Hospital
- Call:** _____ - _____ - _____
Request Activation of STEMI Protocol
- Call Report, when patient leaves your hospital and confirm update ETA
- Fax** records to _____ - _____ - _____

- Copy ECG, ED physician and Nurses documentation and send with patient – do not delay transport**
- Fax** All paperwork to referring Hospital (ECG, Labs, Orders, Vital Signs, Physician Orders, Notes, Medication administration record)

Please Document Times:

- _____ Initial Chest Pain Onset Pain Scale 0-10 (10 being severe)
- _____ Pre-Hospital ECG time (if available)
- _____ Referring Hospital Arrival (Door – In)
- _____ Referring Hospital 1st ECG Time _____ 2nd ECG Time _____
- _____ Time Transport Activated
- _____ STEMI Alert Activation (STEMI Receiving Hospital contacted)
- _____ EMS Transport Arrival Time
- _____ Referring Hospital Departure (Door-Out)

RN Name (Print): _____
RN Signature: _____
RN Initials: _____ Date: _____ Time: _____

Allergies:

Emergency Contact Name: _____
Phone: _____ - _____ - _____

NURSE DOCUMENTATION

RN phone number _____ - _____ - _____
Hospital: _____
City: _____
Revised 01-15-2015

Patient Name: