

2. Acute Myocardial Infarction Therapy

I. Reperfusion Therapy Criteria:

A. ECG ST Elevation MI:

- >1 mm ST segment elevation in > 2 limb leads or 2 mm contiguous precordial leads
- New or presumed new LBBB
- ST depression with prominent R wave in V2 & V3 **could** represent Posterior MI do V7 V8

B. Time from Onset of Symptoms:

- < 3 hours--most beneficial, 3-6 hours beneficial, 6-12 hours--less benefit, > 12 hours---little benefit unless "stuttering" course

C. Primary PTCA: Consider during duty hours when cath lab is available, start Integrilin immediately.

D. Thrombolytics: Best if < 80 years old, symptoms < 3 hours

E. Thrombolytics:

1. TNK t-PA (Tenecteplase-TNKase®)

- <60 Kg=30mg, 60-70 Kg=35mg, 70-80 Kg=40mg, 80-90 Kg=45mg, >90 Kg=50mg
- Eptifibatide 180/2/180 (INTEGRITI, JACC 2003)

2. Streptokinase (SK) 1.5 million U IV over 1 hour.

II. Contraindications and Cautions for Thrombolytic Use

A. Contraindications:

1. Hemorrhagic stroke at any time; other stroke or cerebrovascular events within 1 year
2. Known intracranial neoplasm, cerebral aneurysm, AV malformations
3. Intracranial or spinal surgery-2 months, major surgery 10 days.
4. Active internal bleeding (does not include menses)
5. Suspected aortic dissection

B. Cautions/Relative Contraindications:

1. Severe uncontrolled HTN on presentation (Unable to rapidly obtain BP < 180/110 mm Hg)
2. Prior cerebrovascular accident or known intracerebral pathology.
3. Trauma (within 2-4 wks), or traumatic or prolonged (> 10 min) CPR or major surgery (< 3 wks)
4. Non-compressible vascular punctures
5. Recent (within 2-4 weeks) internal bleeding, peptic ulcers
6. Pregnancy
7. AGE: no upper age limit, but much more complication with age > 80
8. Just use caution in those on Coumadin

III. Treatment of all MI's (with and without ST elevation)

A. General Measures:

1. ASA (160-325 mg--chew and swallow)
2. Oxygen (at least first)
3. Beta blockers: Oral and such as Metoprolol 5 mg IV x 3
4. Eptifibatide/INTEGRILIN (For any dynamic EKG changes or Troponin elevations)
5. Heparinoid: Heparin or Fondaparinux.
6. Caution: SL NTG: for Prinzmetal's angina, reversible spasm; anti-ischemic, HYPOTENSION
7. Analgesia: small doses of morphine (2-4 mg), after other therapies. Increased mortality.

IV. RV Infarctions:

1. IWMI with RV infarctions have 30% mortality compared with 6% mortality for pts having IWMI's alone. A high-risk subgroup and "considered high-priority candidates for reperfusion."
2. Treat hypotension with normal saline volume, can require 6 L, only secondarily Dobutamine.
3. Atropine first, avoid pacing for symptomatic bradycardia