

r-PA



September 23, 1997
CARDIOVASCULAR CLINICAL PROGRAM



IHC Acute MI & Thrombolytic Guidelines

GOAL: 100% of Eligible Patients Treated With Appropriate Thrombolytic Door to Thrombolytic = 30 Minutes

Indications And Contraindications For Thrombolytics

INDICATIONS

- 1) EKG showing either:
 - a) Ischemic ST elevation (>1mm) in 2 or more contiguous leads
 - b) Hyperacute T-waves
 - c) Signs of acute posterior MI or BBB obscuring ST segment analysis with MI History
- AND
- 2) History of acute coronary syndrome pain/symptoms within the past 24 hours, with or without ongoing symptoms.

CONTRAINDICATIONS

- 1) Previous hemorrhagic stroke at any time; other strokes or cerebrovascular events within 1 yr
- 2) Known intracranial neoplasm
- 3) Active internal bleeding (does not include menses)
- 4) Suspected aortic dissection

CAUTIONS AND RELATIVE CONTRAINDICATIONS

- 1) Severe, uncontrolled hypertension on presentation (>180/110 mm/Hg)
- 2) History prior CVA or known intracerebral pathology
- 3) Current anticoagulant therapy (INR \geq 2-3); known bleeding diathesis
- 4) Recent trauma, prolonged CPR (>10 min) or major surgery (< 3 wks)
- 5) Noncompressible vascular punctures
- 6) Recent (within 2-4 weeks) internal bleeding
- 7) For SK/anistreplase: prior exposure (5 days - 2yr) or prior allergic reaction
- 8) Pregnancy
- 9) Active peptic ulcer
- 10) History of chronic severe hypertension

Thrombolytic Selection For Acute MI Patient

r-PA (Retepase) is the preferred thrombolytic EXCEPT for patients over 75 years with uncomplicated inferior MI where Streptokinase is recommended

Thrombolytic Dosage

r-PA (Retepase) - 10 mg (1 vial) IV bolus over 1-2 minutes* followed by 10 mg (1 vial) IV bolus over 1-2 minutes, 30 minutes after 1st bolus
*With initial r-PA bolus, begin IV Heparin 70 U/kg IV bolus (~5000 U) followed by 15 U/kg/hr (~1000 U/hr). Titrate to maintain aPTT @ 50-75 sec for 48 hrs.

Streptokinase - 1.5 million units IV over 60 minutes**

**Within 4 hrs after SK admin or when aPTT is < 75 sec, begin heparin 15 U/kg/hr (~1000 U/hr) without a bolus. Maintain aPTT @ 50-75 sec for 48 hrs. May continue longer if patient is at risk for thromboembolism.

Questions, Assistance, or Referrals:

LDSH: 321-1100 MCKAY-DEE: 627-2800 UTAH VALLEY: 373-7850
LifeFlight: 321-1234 or 1-800-321-1911



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Acute MI: Acute Pharmacotherapy Guidelines

Medicine	Clinical Condition	Dose	Goal
ASA	All	325 mg chewed acutely then po qd	Inhibit Plts
Heparin post r-PA	All	At time of r-PA: 70 units/kg IV bolus then 15 U/ kg / hr for 48 hours (longer if large MI) then \pm 7500 U SQ BID until ambulatory	aPTT 50-75 secs
Heparin post SK	Embolic Risk No Emb.Risk	IV 4 hrs p. SK, then 1000 U/hr x 48 hrs 10,000 SQ bid until ambulatory	aPTT 50-75
\exists - Blocker	All except when contra-indicated	Metoprolol 5mg IV X 3 (q 5 min) ASAP, then in 4 hours titrate 25-50 mg p.o. q 6 hours	Pulse 60
NTG	Continued Ischemia, HBP, CHF	0.4 mg sl if SBP > 90 then IV x 48 hours	Titrate to mean B/P 80
ACE Inhibitor	Ant MI, CHF, or EF<40% w/o hypotension	Start within 24 hrs, low initial p.o. dose (Capoten or Vasotec initially)	SBP 110-130
Oxygen	All	Nasal for 3-6 hours	SaO ₂ > 90%

Acute MI: Lab Evaluation and Management Strategies

LABORATORY EVALUATION

EKG in ER, 90 min post thrombolytic, q am x2, and recurrent chest pain
Baseline serum cardiac markers (CK, CK-MB, Troponin I), CBC, CMP and Fasting Lipid Profile on admission. Repeat CK, CK-MB @ 6hrs & 12 hrs after admission. Troponin I @ 12 hrs after admission. Repeat markers @ 24 hrs if still rising.

DIAGNOSTIC MANAGEMENT STRATEGIES

LOW RISK PATIENTS

Stress EKG +/- imaging before discharge or early post discharge; Stress or pharmacologic echocardiography or nuclear scintigraphy @ 14-21 days is recommended

MEDIUM TO HIGH RISK PATIENTS

Early or pre-discharge coronary angiography is recommended

Medical Conditions include:

Recurrent ischemia, cardiogenic shock, hemodynamic instability, significant arrhythmias, large or anterior infarct, previous MI, evidence for significant myocardium in jeopardy, or other med/high risk conditions.

DISCHARGE PHARMACOTHERAPY FOR ALL PATIENTS

Aspirin, Beta blocker, ACE inhibitor, HMG Co-A (target to LDL < 100), NTG sl prn. Coumadin if large MI, thrombus, or a-fib; smoking cessation, aggressive diabetic management; if female, consider estrogen replacement therapy.