

**Protocol Title: RESCUE PERCUTANEOUS CORONARY INTERVENTION (PCI) FOR ACUTE MYOCARDIAL INFARCTION**

**Department: CARDIOLOGY**

**Code:**

**Protocol Status:**      **New Issue**      **Part Revision**      **Complete revision**

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**Protocol:**

**1. Definition:**

- a) PCI within 12 hours after failed fibrinolysis for patient with continuing or recurrent myocardial ischemia. (N.B: The major problem is the limitation of accurate identification of patients for when fibrinolytics has NOT restored antegrade coronary flow)
- b) Non invasive finding suggestive of reperfusion include
  - It can be difficult to determine clinically whether the patient has successful reperfusion because chest pain may be blunted by narcotic ANALGESICS or the partial denervation that is known to occur in some patients with myocardial infarction.
  - Serial assessment of 12-lead ECG is more reliable indicator. Although, is suboptimal.
  - Accelerated idioventricular rhythm is fairly specific for reperfusion, but other arrhythmias are not reliable indicators.
  - So complete resolution of chest pain and >50% regression of ST segment elevation accompanied by runs of AIVR is highly specific but occur in only 10% of cases.
  - ST resolution is correlated with effective tissue level reperfusion and is correlated with better angiographic reperfusion and better clinical outcome.
- c) Indicators for unsuccessful fibrinolysis
  - 1. Persistence of ischemic chest pain.
  - 2. Absence of resolution of the ST segment elevation.
  - 3. Hemodynamic and/or electrical instability(ventricular arrhythmias)

**2. Clinical Selection Criteria for diagnosing myocardial infarction**

The following criteria must be met for the selection of patients for fibrinolytic therapy.

- a) The patient is 18 years or more with no terminal illness.
- b) The patient presents with:
  - i) > 30 minute ongoing ischemic cardiac pain
  - And
  - ii) > 0.1 mv ST- segment elevation in 2 or more contiguous ECG leads
  - Or
  - New or suspected new LBBB
  - Or
  - >0.1 mv ST segment depression in V and V2 consistent with true posterior infarction
  - And
  - iii) Who arrive in the ER < 12 hours after symptom onset

**3. Indications for Rescue PCI.**

Class I

1. Rescue PCI should be performed in patients less than 75 years old with ST elevation or LBBB who develop shock within 36 hours of MI and are suitable for revascularization that can be performed within 18 hours of shock, unless further support is futile because of the patient's wishes or contraindications/ unsuitability for further invasive care (Level of evidence: B).
2. Rescue PCI should be performed in patient with severe CHF and/or pulmonary edema (Killip class 3) and onset of symptoms within 12 hours (Level of evidence: B)

Class IIa

1. Resuce PCI is reasonable for selected patients 75 years or older with ST elevation or LBBB or who develop shock within 36 hours of shock and who is suitable for revascularization that can be performed within 18 hours of the shock. Patients with good prior functional status who are suitable for revascularization and agree to invasive care may be selected for such an invasive strategy (Level of Evidence: B)
- 2.

**It is reasonable to perform rescue PCI for patients with 1 or more of the following (for moderate or high risk patient).**

- **Hemodynamicly compromising ventricular arrythmia) (Level of evidence: C)**
- **Persistent S-T segment elevation and ongoing ischemic chest pain (Level of Evidence: C)**

**NB:**

**1. Moderate and high risk include, anterior MI, Inferior MI with RV infarction, Inferior MI with posterior infarction**

**2.Low risk patient (inferior MI) can be treated medically**