

Cardiovascular

2.1 Acute Coronary Syndromes

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Date : Jan 2002

Management of acute cardiac pain is the commonest presentation in the Resuscitation Room. It is important that you are able to assess these patients and categorise them appropriately.

Aim: To provide the optimal initial management for patients with acute coronary syndromes In the A&E Department.

Acute myocardial infarction (AMI)

Definition:

1 Chest pain (which may be atypical) with or without radiation which usually lasts for more than 30 mins.

2 Sequential ECG changes which usually follow the pattern of ST elevation, T wave inversion and then Q waves.

3 A rise in cardiac enzymes. **Cardiac enzymes have no part to play in the routine assessment of these patients in the A&E dept.**

Some patients **may not present with the typical picture**, particularly the elderly and diabetics, who may present with LVF, unexplained hypotension, distal embolus, collapse or stroke. Management, (see thrombolysis).

- It is vitally important that you use the **A&E chest pain chart** to assess all patients in the Resus Room. The chart will help you to record vital data and make an appropriate decision.

- The patients have been divided into four broad categories.

Category 1: Cardiac type pain and definite ST elevation or acute LBBB.

a. Aspirin 300 mg O stat.

b. Oxygen

c. Thrombolysis (If fits criteria and no contraindications) – **USE THE CHEST PAIN CHART.**

Make sure to complete it fully.

d. Analgesia and management of nausea and vomiting. (Diamorphine and Metaclopramide or/and cyclizine)

e. Oral Beta blocker if necessary or on CCU.

f. Intravenous nitrates if prolonged or recurrent pain

g. Referral to the cardiology SHO and further management on CCU.

Initial Investigations in the A+E should include :

FBC, U&Es, Random Glucose and CXR. Investigations including fasting cholesterol, triglycerides, LFT's, should be done the next day.

Category 2. Suspected Cardiac Pain with suspected acute ST depression or T inversion:

b. Aspirin 300mg O stat.

c. Sublingual GTN.

d. Oxygen

e. Enoxaparin mg/kg twice daily for 3 days.

f. Oral Beta blocker if necessary.

g. Intravenous nitrates if prolonged or recurrent pain

h. Analgesia as above.

i. Referral to the cardiology SHO and subsequent management on the ward depending on the investigations and serial ECG's.

Category 3. Possible Cardiac Pain with ECG Changes, which may be chronic:

As per Category 2.

Category 4. Possible cardiac pain and a normal or non diagnostic ECG.

This group of patients have a low risk (1%-10%) for having had an acute coronary syndrome (ACS). The chest pain may be typically cardiac or have a number of atypical features (often dyspepsia). Discuss with a SENIOR. These patients should ideally be managed on the CDU according to the protocol.

Refer the patient to the CDU Clinical Fellow.

Delivering rapid safe thrombolysis for patients with AMI.

The “door to needle” times (door = arrival of ambulance at A&E, needle = started thrombolysis) for patients with acute MI are becoming a **major issue** for us in terms of standards to attain in Leeds. The National Service framework for Coronary Artery Disease has set tough standards. This year, the target set is 75% of eligible patients within 30 minutes. In December 2002 this will be **75% within 20 mins**. We are presently about 50-60% within 30 mins. We want to start aiming for next year’s target now! In order to help us achieve this, it is very important that you adhere to the following:

- a) An ECG is performed on patients with cardiac sounding pain **as soon as possible** after presentation to A&E.
- b) Patients with obvious MIs are evaluated for thrombolysis and this is instituted as an absolute priority for the department.
- c) Patients with a good history for MI, and for “evolving” changes on their ECG, or LBBB, **are assessed by a senior doctor ASAP**.
- d) The chest pain form is completed properly and fully on all these patients. This aspect is **particularly important** now and failure to document your name (doctor co-ordinating thrombolysis) and if it falls outside 30 mins **WHY** this happened is particularly important. In future, these cases may end up as being **classified as a critical incident**. PLEASE make sure you **complete the first AND second page of the form** and pay particular heed to state **WHY** it was not possible to thrombolysed in 30 mins. This is valuable information which will allow us to improve weaknesses in the system. Please be honest. **If the form is not filled in fully we will seek to give you individual feedback.**
- e) We are also fortunate to have a senior nurse (Acute Coronary Syndromes nurse-Carol Hague) who will help in terms of education and quality assurance on these issues as well as help in the thrombolysis procedure (available on bleep) .

KEY MESSAGES

- **Get an ECG ASAP.**
- **Thrombolysed (if appropriate) ASAP.**
- **Get a senior to assess the patient if you are uncertain ASAP.**
- **Fill in the chest pain form FULLY detailing why the target was not met if that was the case.**