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Unstable Angina

Guidelines from 2000 publication by eMJA: WARNING! May be out of date…

History of Presenting Illness:

TRIAGE: category 2, requiring attention within 10 minutes

By definition:

CHEST PAIN OF ANGINA AT REST WITHOUT PROVOCATION

Things to ask in the first 60 seconds:

- **How long did the pain last? LONGER THAN 10 minutes? STILL HURTING??** *Recent, lasting, unprovoked pain is of greatest concern*
- **Age?** *The over-65s are at greater risk*
- **Syncope?** *Sinister sign, high risk.*
- **Had a heart attack ever before?** *Places you at intermediate risk of another one*
- **Fat diabetic smoker with a family history?** *Risk factors not really meaningful in this situation; i.e would you rule out an acute MI just because this person is a skinny non-smoker?*

Consider other causes of chest pain
Eg. PE, aortic dissection, pericarditis or pneumothorax.
ALSO CONSIDER THE OTHER CAUSES OF ANGINA
Eg. arrhythmias, anaemia, hyperthyroidism, aortic stenosis and hypertrophic cardiomyopathy.

Examination:

- **LOOK FOR SIGNS OF SHOCK**
- **HEART SOUNDS: gallop or mitral regurgitation are bad signs**
- **CHEST SOUNDS: Pulmonary oedema = no good**
- **Look for other heart failure signs**
  But these may not have had time to develop…

INVESTIGATIONS:

ECG : continuous or at least serial: put them on a monitored bed.

!! THIS IS THE SOLE TEST REQUIRED TO QUALIFY FOR REPERFUSION !!

ST segment elevation or LBBB? → Immediate reperfusion therapy!

Chest Xray …is there a hube bulbous aneurysm of the aorta?

Tropinin T or I :: repeat 6 hours after presentation unless its already positive. Will remain elevated for over a week! Not a good marker of reinfarction.

Serum CK levels : SERIALLY for 48 hours: quick post-MI drop off = will show **REINFARCTION**

And then the EMERGENCY BLOODS COCKTAIL:

EUC, FBC, LFT, and BSL

RISK STRATIFICATION FOR MANAGEMENT DECISIONMAKING

High Risk:

- For longer than 10 minutes
- ST changes
- Serum Markers
- Syncope
- Heart failure, mitral regurg or gallop rhythm
- Signs of shock

Intermediate risk:

- Pain was prolonged but is resolved
- Nocturnal pain
- New onset of pain in prev 2 weeks
- Age over 65
- History of MI
- Q waves on ECG but no ST changes

Low Risk:

- Increased angina frequency or severity
- Lower exercise threshold for angina
- New onset angina longer than 2 weeks ago
- Normal ECG, negative serum markers

4: Simplified risk-assessment algorithm

	Six-month risk of death or myocardial infarction		
	Low risk (<2%)	Intermediate risk (2%–10%)	High risk (>10%)
Any pain	+	+	+
Rest, repetitive or prolonged pain	–	+	+
ECG changes or elevated troponin level	–	–	+

CARDIOGENIC SHOCK TRIAD:
- **Hypotension**
- **Peripheral hypoperfusion**
- **High JVP**

MANAGEMENT:

FIRST, OXYGEN. THEN, ASPIRIN. THEN, SUBLINGUAL NITRATES.

HIGH RISK:

- **watch for acute heart failure eg. cardiogenic shock triad**
- **watch for widespread ST changes: = Left main CA. or triple vessel disease!**
  (qualifies the patient for **IV LMW Heparin and emergency angioplasty**)
- **HEPARIN** should be given AS WELL as aspirin,
  especially if the patient has to be transferred by car or plane to a better hospital
- **BETA BLOCKERS** seem to reduce progression to MI
- **Ca++ blockers** - ! only with beta blockers
- **Still developing an acute STEMI? →thrombolysis or angioplasty is indicated**

INTERMEDIATE RISK:

- **OBSERVE FOR AT LEAST 6-8 hrs**

No further ischaemia? No serum markers, normal ECG and stress test?
→ **DOWNGRADE INTO LOW RISK category**
developing further ischaemia? Serum markers suddenly positive?
→ **UPGRADE INTO HIGH-RISK category**

- If the patient has documented coronary artery disease but no high-risk features, **manage them by increasing the anti-anginal drugs they are already on**, and then observe them, looking for signs of instability. **No heparin** unless they are reclassified as high risk.

LOW RISK:

- **give aspirin**
- **give sublingual nitroglycerine and instruct in its use**
- **Commence Beta-Blockers** unless contraindicated:

If Beta Blockers contraindicated, use heart rate-slowing (negative chronotrope) Ca++ channel blockers

- **refer for cardiac assessment within 2 weeks**
- **educate regarding angina and reversible risk factors.**

LONG TERM:

ACE inhibitors: **especially if diabetic or hypertensive**
Statins: **if their serum cholesterol is above 4.**
Control the REVERSIBLE RISK FACTORS