

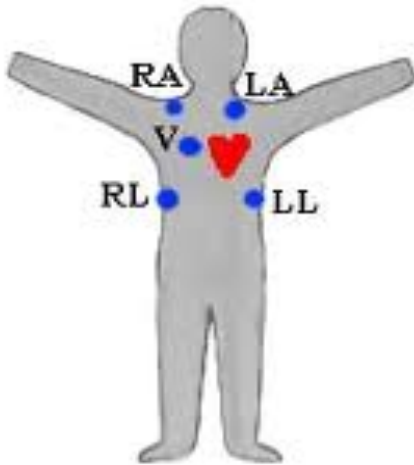
**Topic Overview: Cardiac Module**  
**Sub-Module: C3 - Cardiac Care Skills**  
Last Updated August 7 2012

This handout is designed as pre-reading for the simulation session C3 - Cardiac Care Skills. This session involves a presentation and an immersive simulation scenario. Use this document to jog your memory or to aid in your reflection of the session, and in particular the simulation.

### Session Objectives

- Commence observations and monitoring for people with chest pain
- Perform a 12 lead ECG
- Discuss basic cardiac investigations
- Demonstrate management of symptoms - O<sub>2</sub> therapy; fluids, pain
- Discuss basic interpretation of an ECG
- Escalate care when appropriate

### Monitoring



Each dept will have different protocols. The minimum requirement is for 3 leads RA (white), LA (black) and LL (red). Additional leads are RL (green) and V (brown). Many monitors require a V lead to count respirations.

Recall that the patient had a left sided mastectomy with lymph node removal, blood pressure measurement and phlebotomy should be avoided on this arm, other contraindications for using a particular side for BP measurement include fistula in situ for dialysis (or if planned this is also preferred), pain, fractures or other pathology which is localised to a particular limb.

Consideration of bilateral blood pressures for possible dissection is appropriate in patients with inferior changes, and should be performed in all patients with chest pain who are hypotensive

### Worrying ECG Features

There are many worry features on the ECG, it can take years to even begin to understand these changes. ALL ECG must be performed in all chest pain patients within 10 minutes of their arrival in the emergency department and must reviewed urgently by a senior doctor, with experience interpreting ECGs.

### Essentially the first question to ask is does this look normal?

Worrying features on the initial ECG include -

- Tachycardia or bradycardia
- ST segment changes - elevation or depression
- Widening of the QRS complexes
- T wave inversion
- Q waves
- Heart blocks
- Arrhythmias

### Right Sided ECG

Seeks to confirm a right ventricular infarction

You should consider performing a right-sided ECG

- If inferior ST elevation changes are present
- If the patient is hypotensive
- Known or suspected dextrocardia
- If requested for other reason

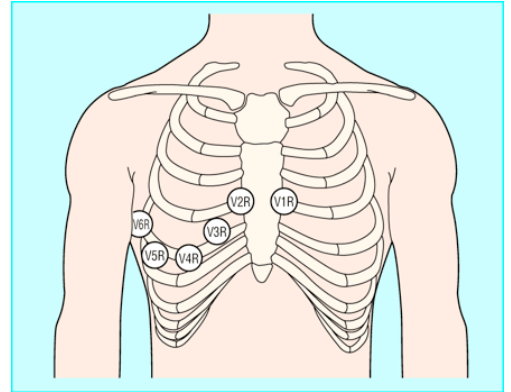


Figure 1: Right sided ECG: reproduced from Morris & Brady, 2002.

### Posterior ECG

Seeks to confirm a posterior infarction

You should consider performing a posterior ECG

- If ST depression in V1-V3
- if there is an inferior or lateral STEMI
- if the patient is hypotensive

Remember that ST depression of subendocardial ischaemia doesn't localise, seek the STEMI.

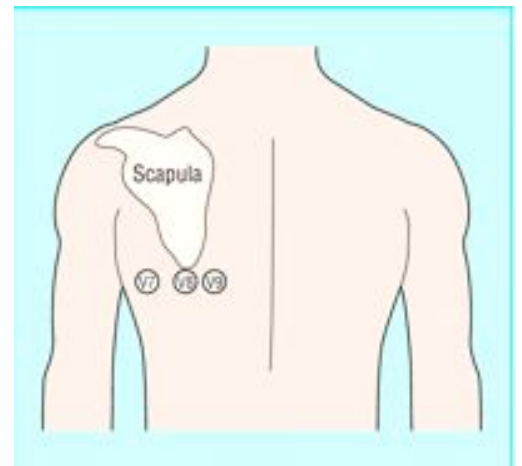


Figure 2: Posterior ECG: reproduced from Morris & Brady, 2002.

In summary it is important to remember that the basic skills in Cardiac Care including blood pressure, ECG and monitoring are required urgently in chest pain patients. If you detect any abnormalities, this requires escalation and further investigations. Clear communication and handovers are important steps in Cardiac Care. Early handover using ISBAR and a coordinated team approach are the appropriate way to access rapid senior input

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