

12 LEAD ECG EDUCATION

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12 LEAD ECG EDUCATION

Rolling it out over multiple months
through 2014

12 LEAD ECG EDUCATION

20-30 Minute Sessions

12 LEAD ECG EDUCATION

Session One

“The Starting Point”

Quick History of 12 Lead



Would you buy this car based on this picture alone?

Quick History of 12 Lead

- Nothing new in the hospital
- Very new to EMS (varying definitions of “ECG Competent.”)
- Commonly neglected in Paramedic programs
- Some smart people got involved
- Eventually led to “Cardiac Triage” here at Medic

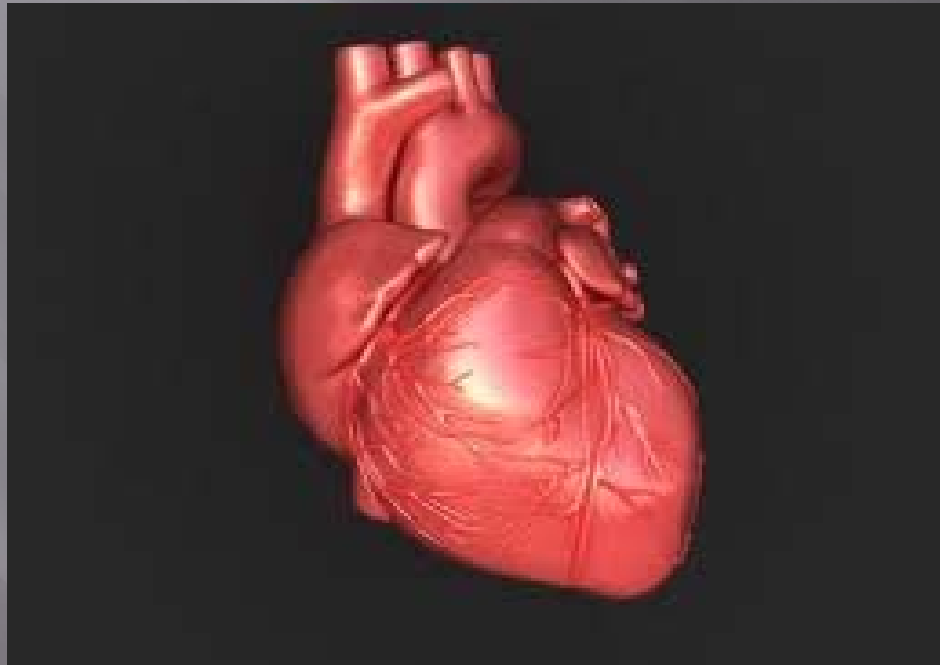
Quick History of 12 Lead

What have we learned?

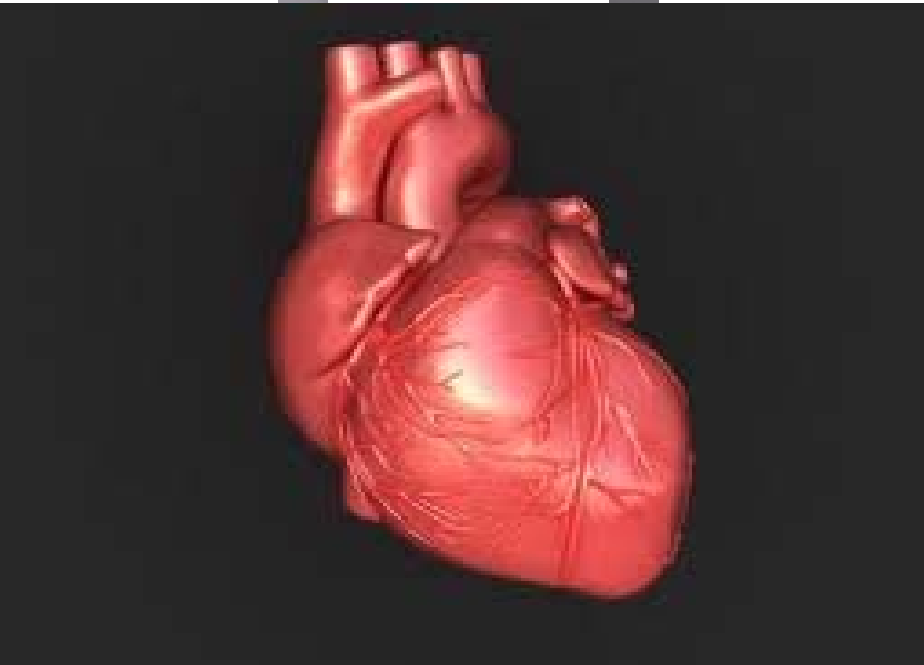
- STEMI vs. non-STEMI
- Helps us develop a treatment plan to best suits the patient's needs
- Getting the patient to the proper hospital
“Cardiac Triage”
- Other benefits (identifying select rhythms)

Quick History of 12 Lead

The “Old School Way”



Quick History of 12 Lead



Which Patients Should Get a 12 Lead?

We will never tell you not
to get a 12 lead!!!

Which Patients Should Get a 12 Lead?

Ask yourself this questions:

- Will a 12 lead ECG influence how I manage my patient?

Which Patients Should Get a 12 Lead?

- * Abnormal rhythm noted on 4-lead ECG
- * Electrical injuries
- * Suspected tricyclic antidepressant overdose
- * Symptoms suspected of cardiac etiology
- * Syncope

Which Patients Should Get a 12 Lead?

Acute Coronary Syndrome (ACS):

Chest
Pain?

Pale?

Diaphoresis?

Back Pain?

Abdominal
Pain?

Nausea/Vomiting?

Syncope?

Dyspnea?

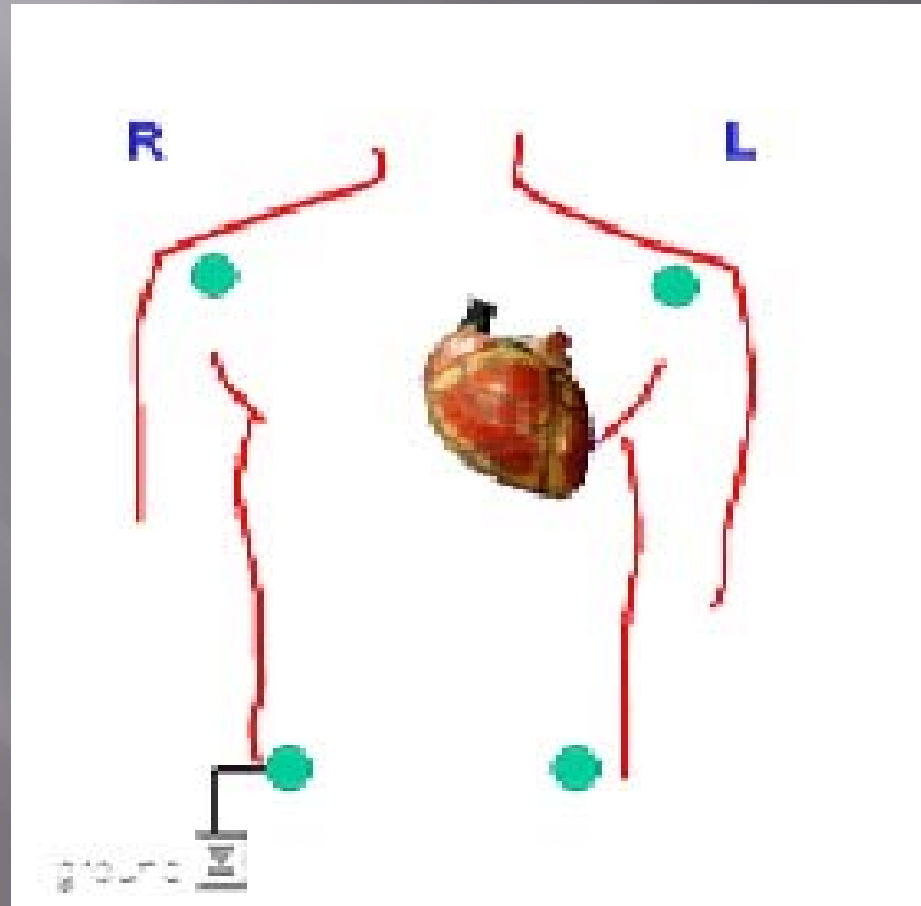
Arm/Neck/
Jaw Pain?

I have decided to get a 12 Lead

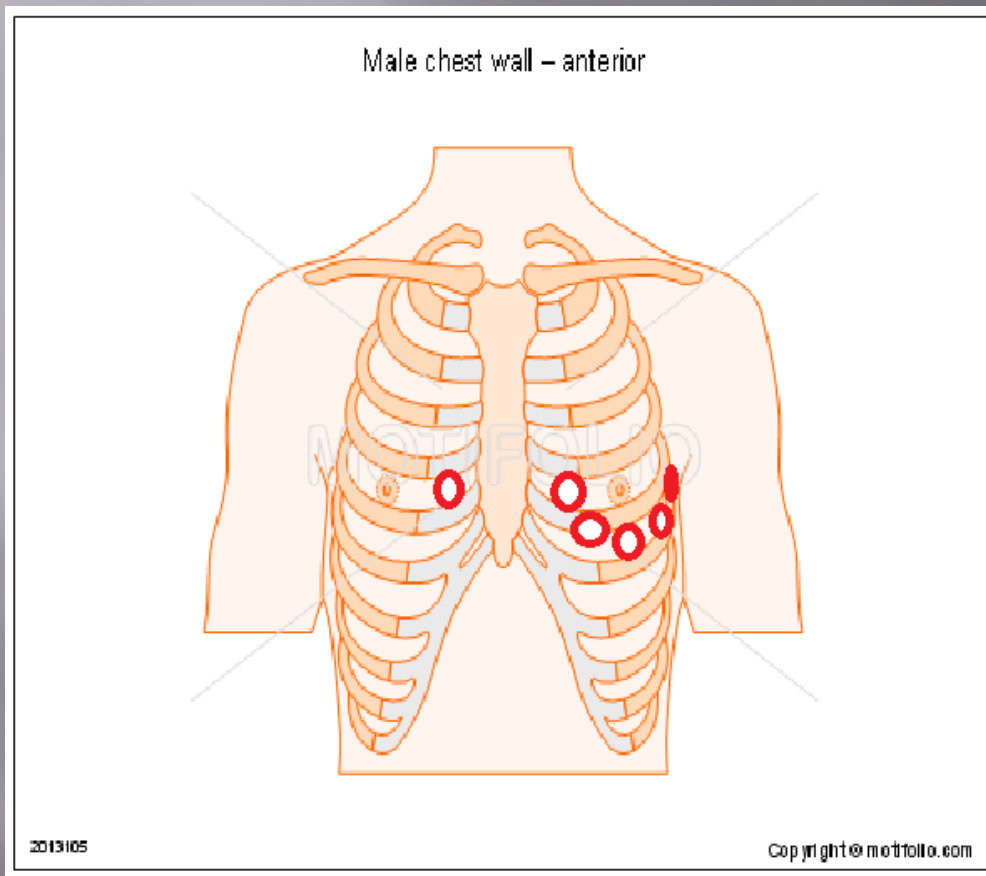
Per Dr. Swanson, if a 12 lead ECG is obtained on a patient for any reason, a Paramedic must accompany that patient to the hospital.

Lead Placement

Limb Leads



Lead Placement



V1 – 4th Intercostal Space (R)

Sternum

V2 – 4th Intercostal Space (L)

Sternum

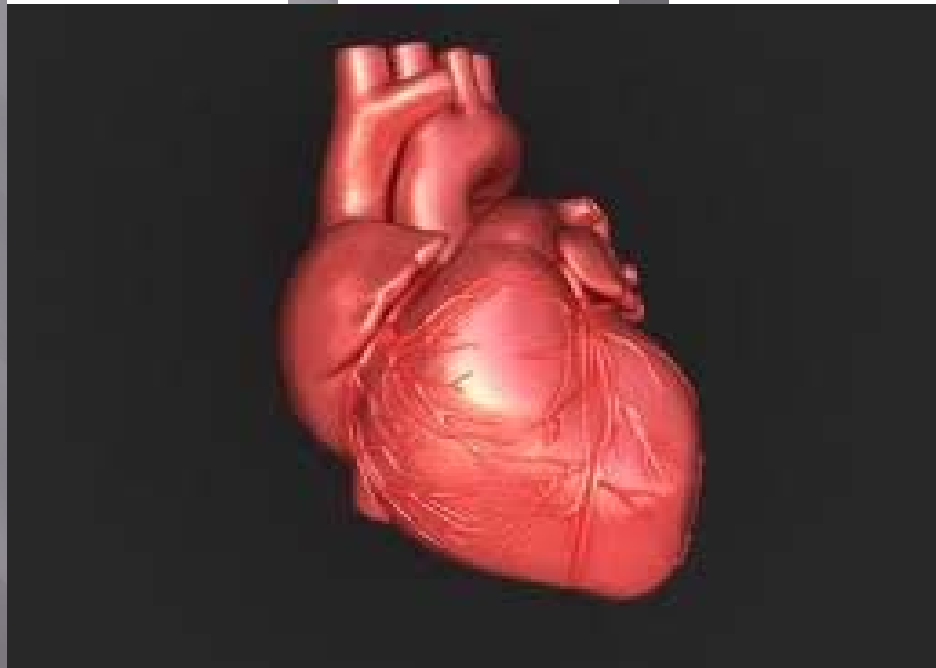
V4 – 5th IC Space Mid Clavicular

V3 – In between V2 and V4

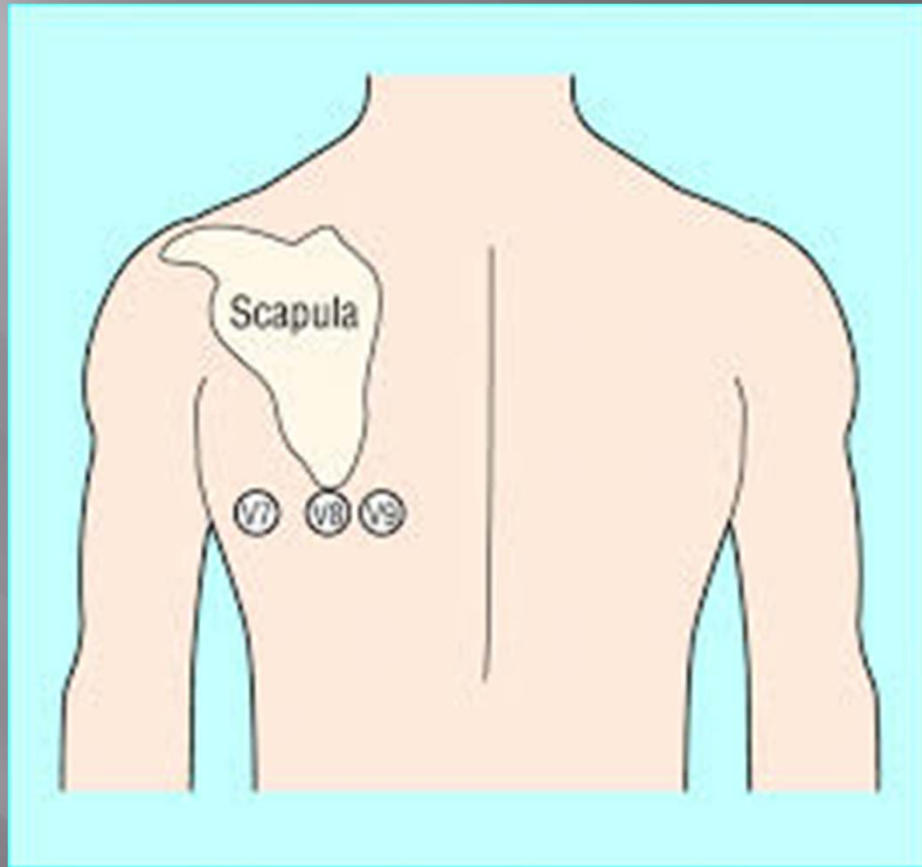
V6 – 5th IC Space Mid Axillary

V5 – In between V4 and V6

Lead Placement

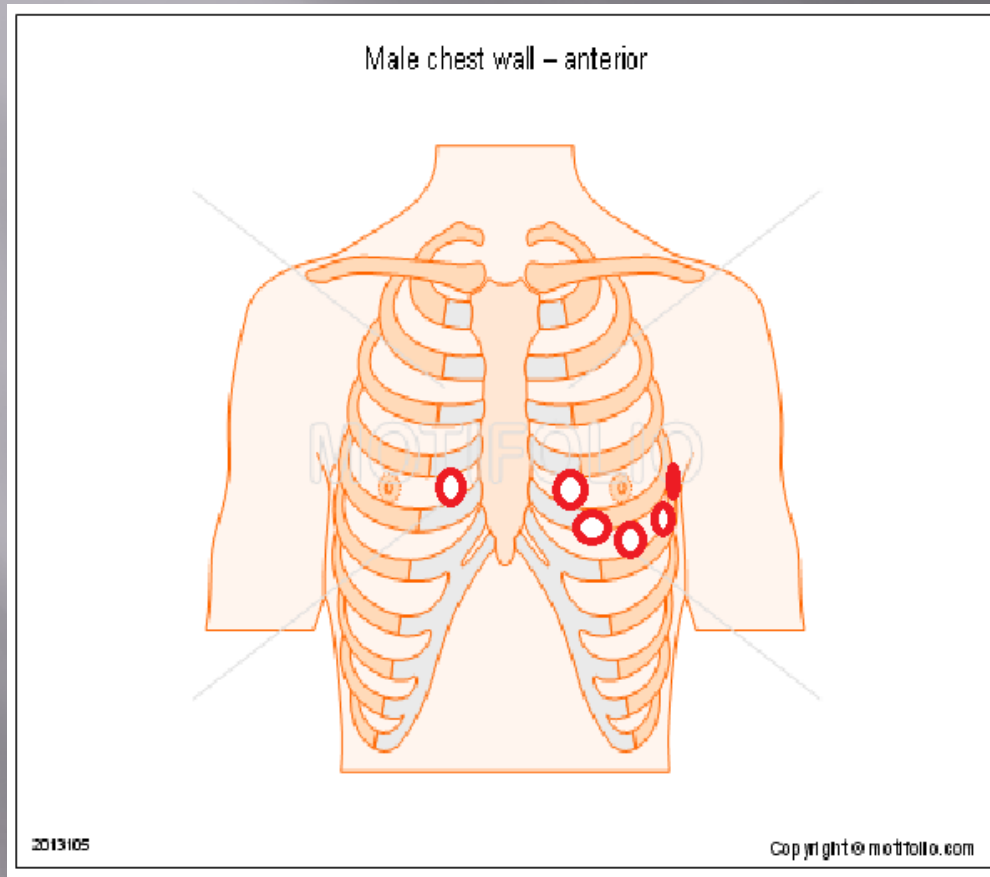


Lead Placement



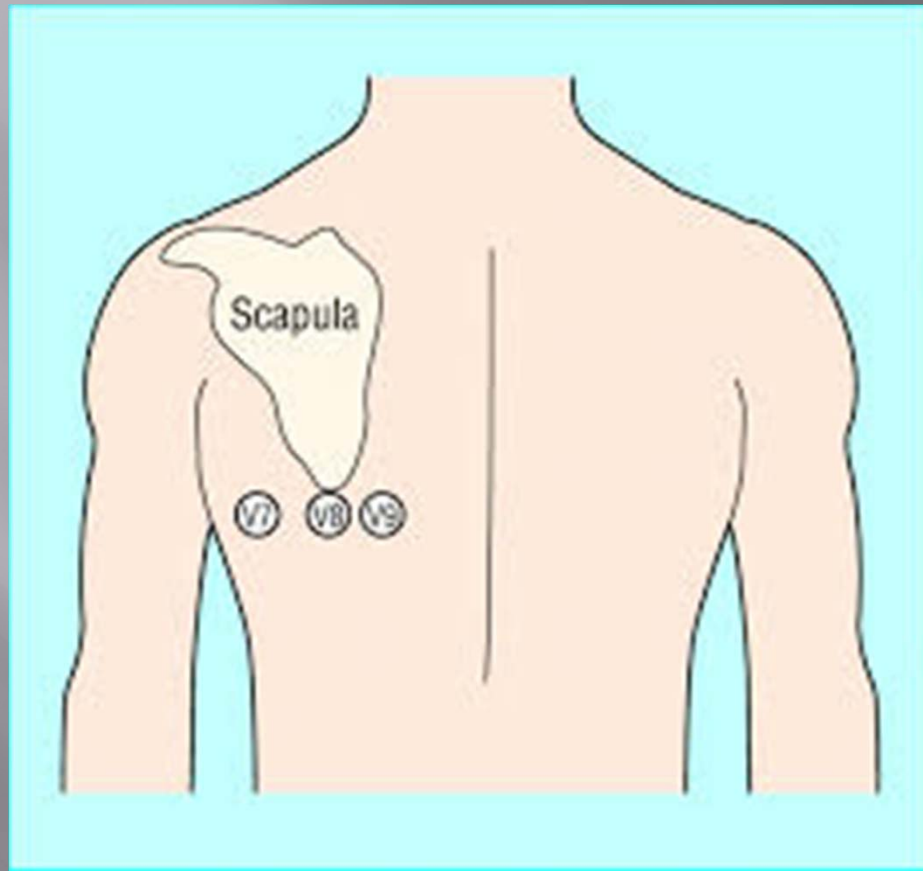
Posterior View

Lead Placement



Remove Leads V4, V5, and V6 wires

Lead Placement

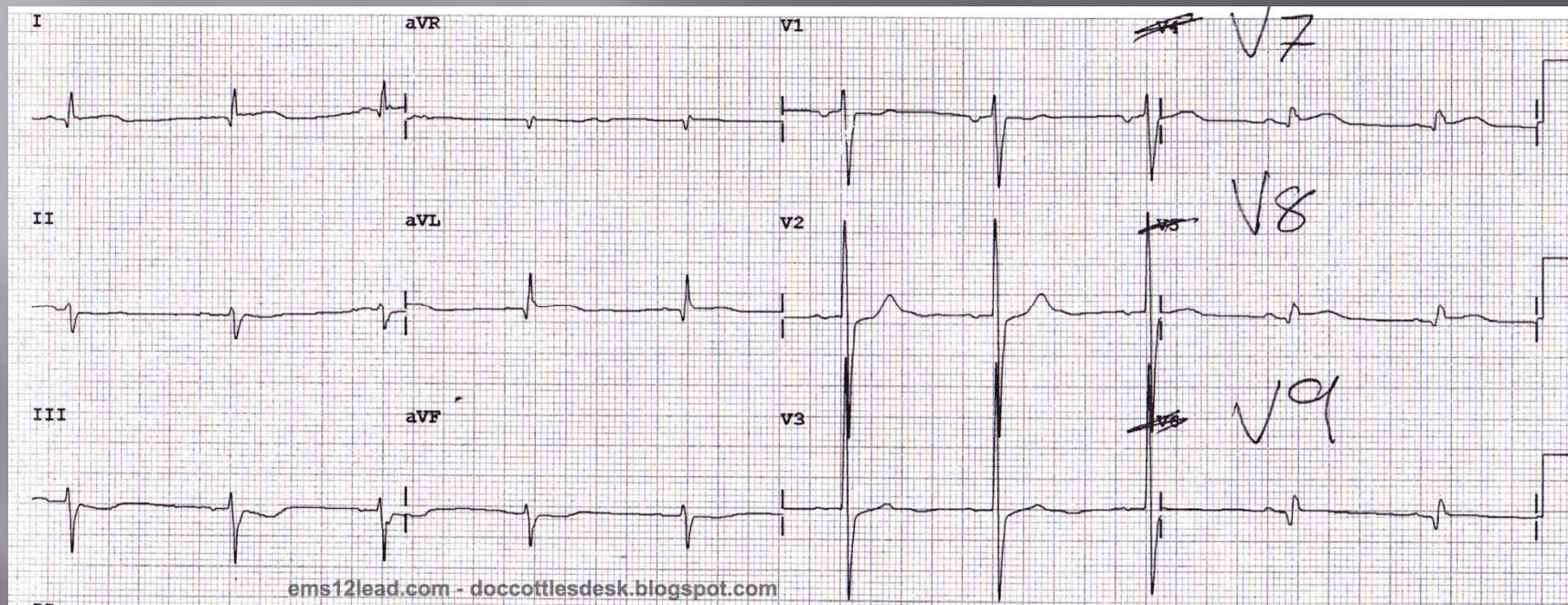


V4 = V7
V5 = V8
V6 = V9

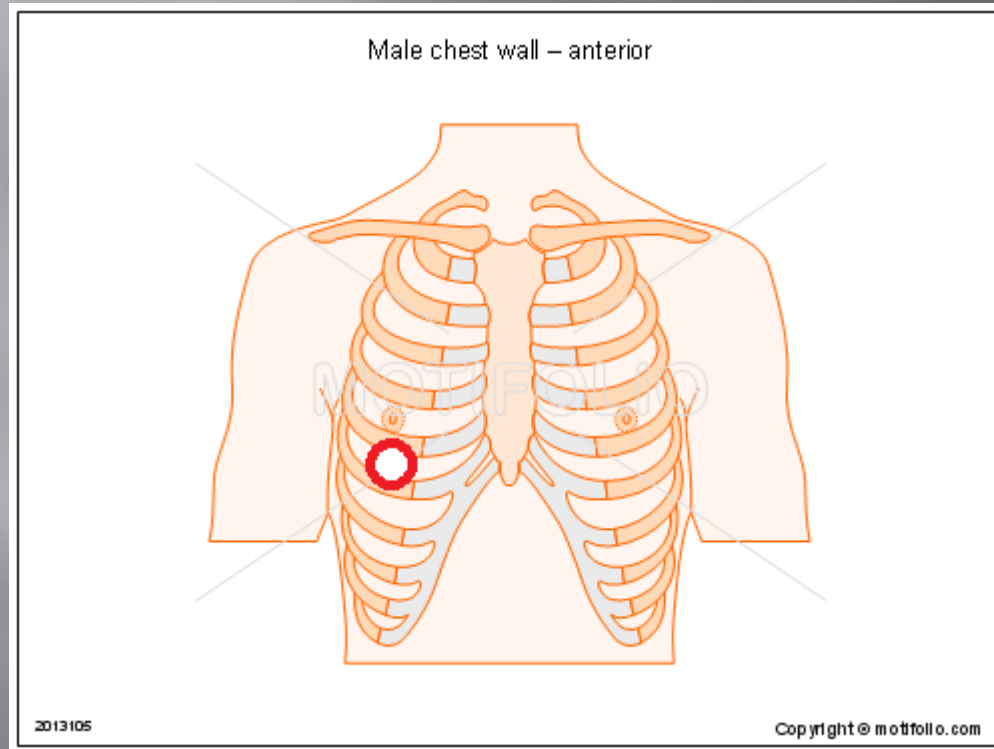
Posterior View

Lead Placement

Label V7, V8, and V9 as shown below



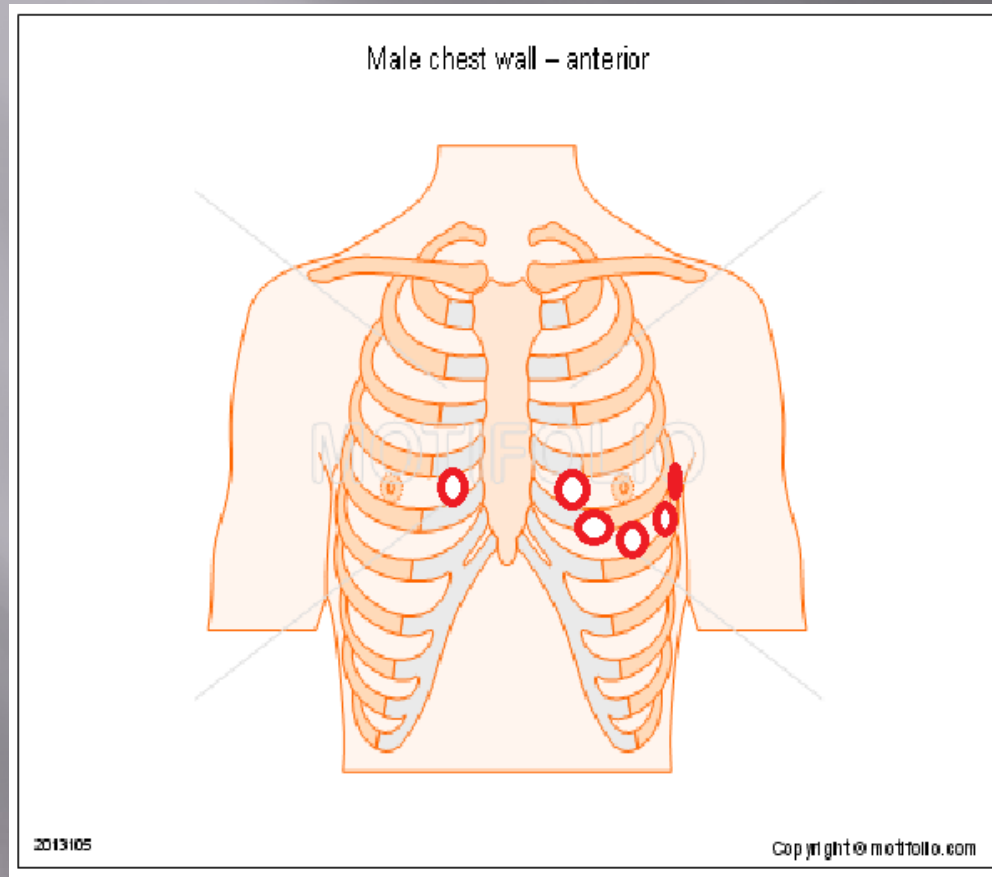
Lead Placement



V4R

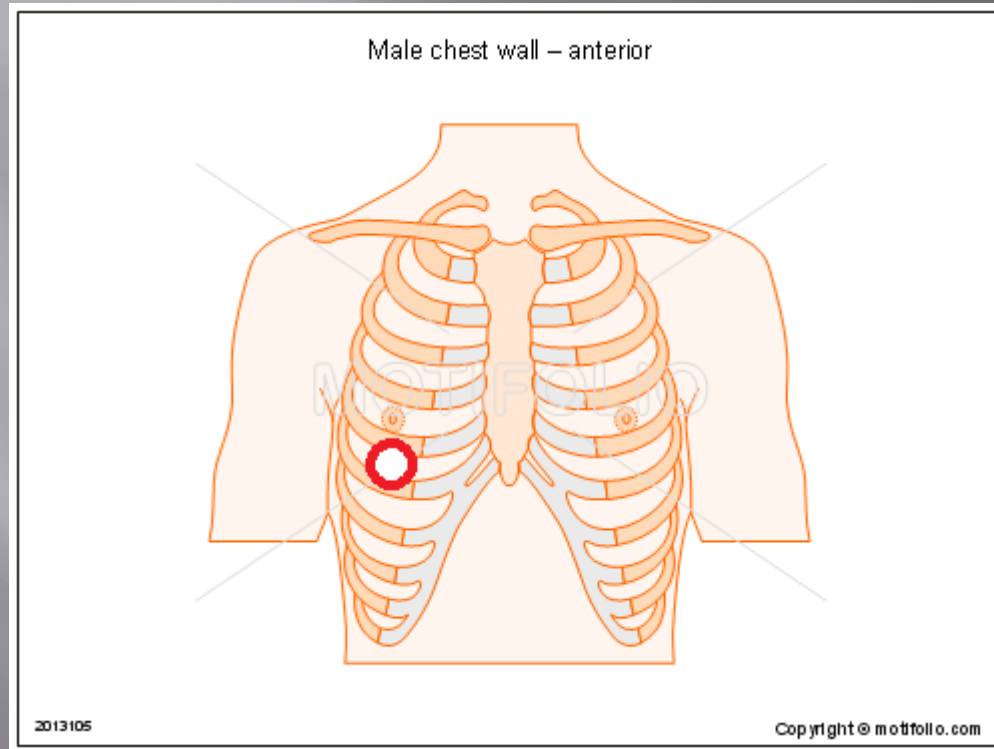
- Gets a better look the right ventricle and inferior wall

Lead Placement



Remove Leads V4

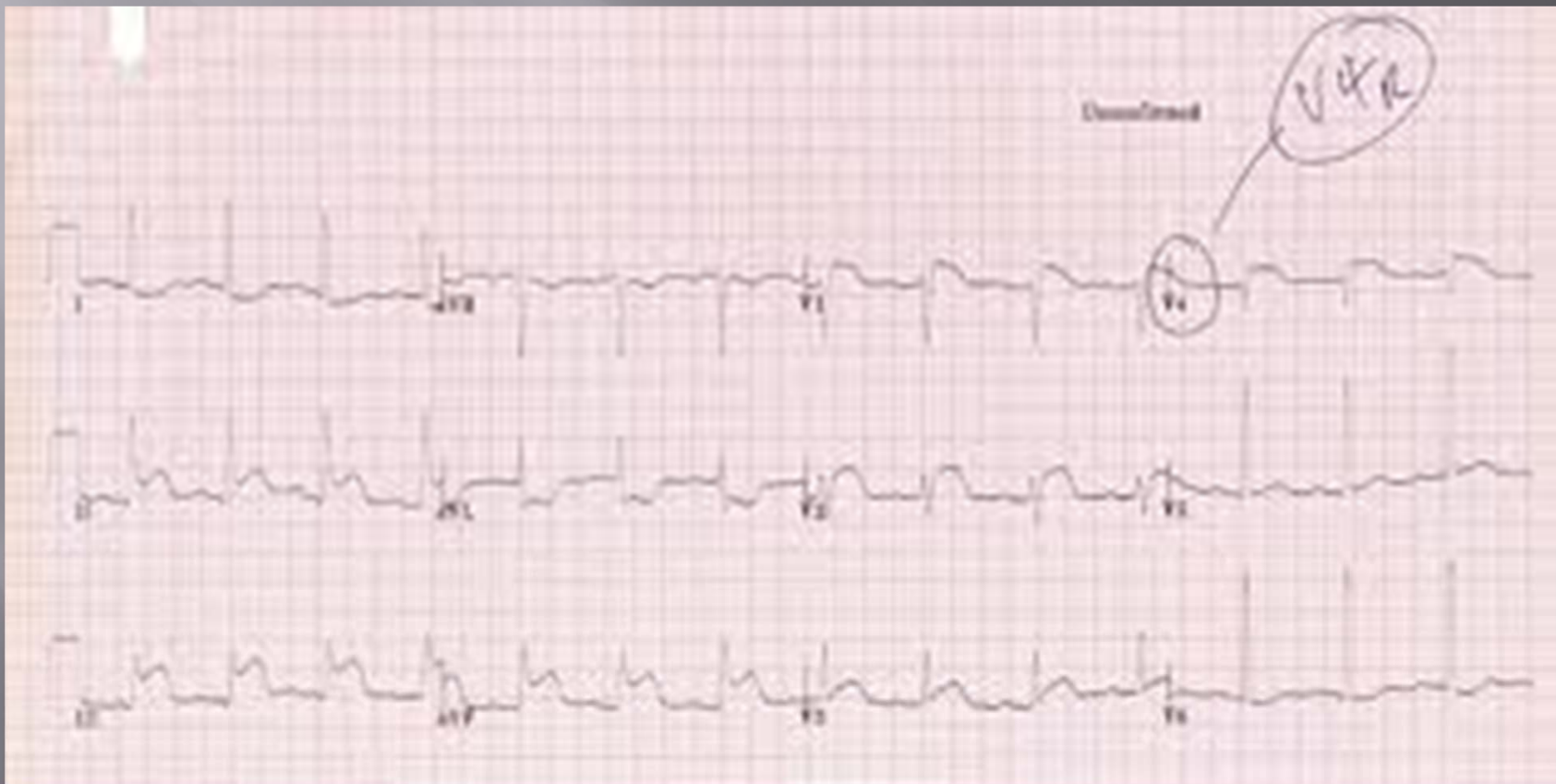
Lead Placement



V4 = V4R

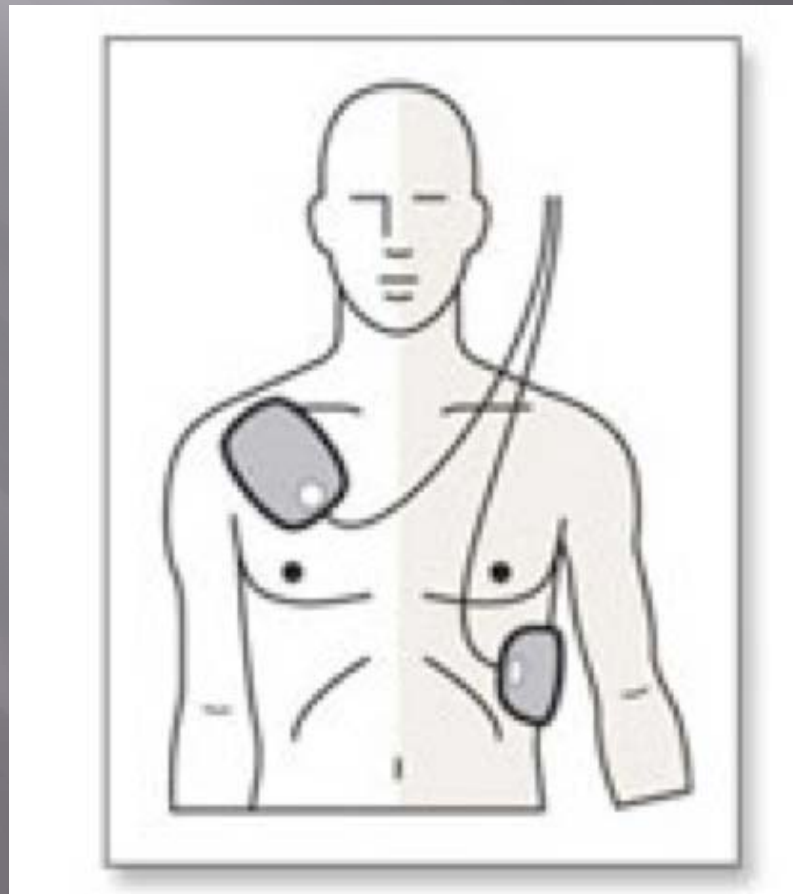
Lead Placement

Label V4R as shown below



Lead Placement

Proactive pad placement



Timelines

Additional Considerations

1. In patient with potential for a STEMI the goal is to obtain a 12-lead ECG within 8 minutes of arrival on scene



Data Entry

What do I need to enter?

- Call number (last three digits)
- Patient's age
- Patient's gender

*Does the age you enter into the monitor influence the computer's interpretation?

Repeat 12 Lead?

Patients with 12-lead ECG performed at the referring facility do not require additional ECG by MEDIC unless there is a significant change in the patient's clinical status

Repeat 12 Lead

For scene calls, a repeat 12 lead should be considered when:

- There is a significant change in the patients physical status
- 12 lead appears normal, but patient is symptomatic of a ACS.

Faxing 12 Leads

When to fax:

- STEMI
- Need to consult with MD



Questions?