

## SAQ 15

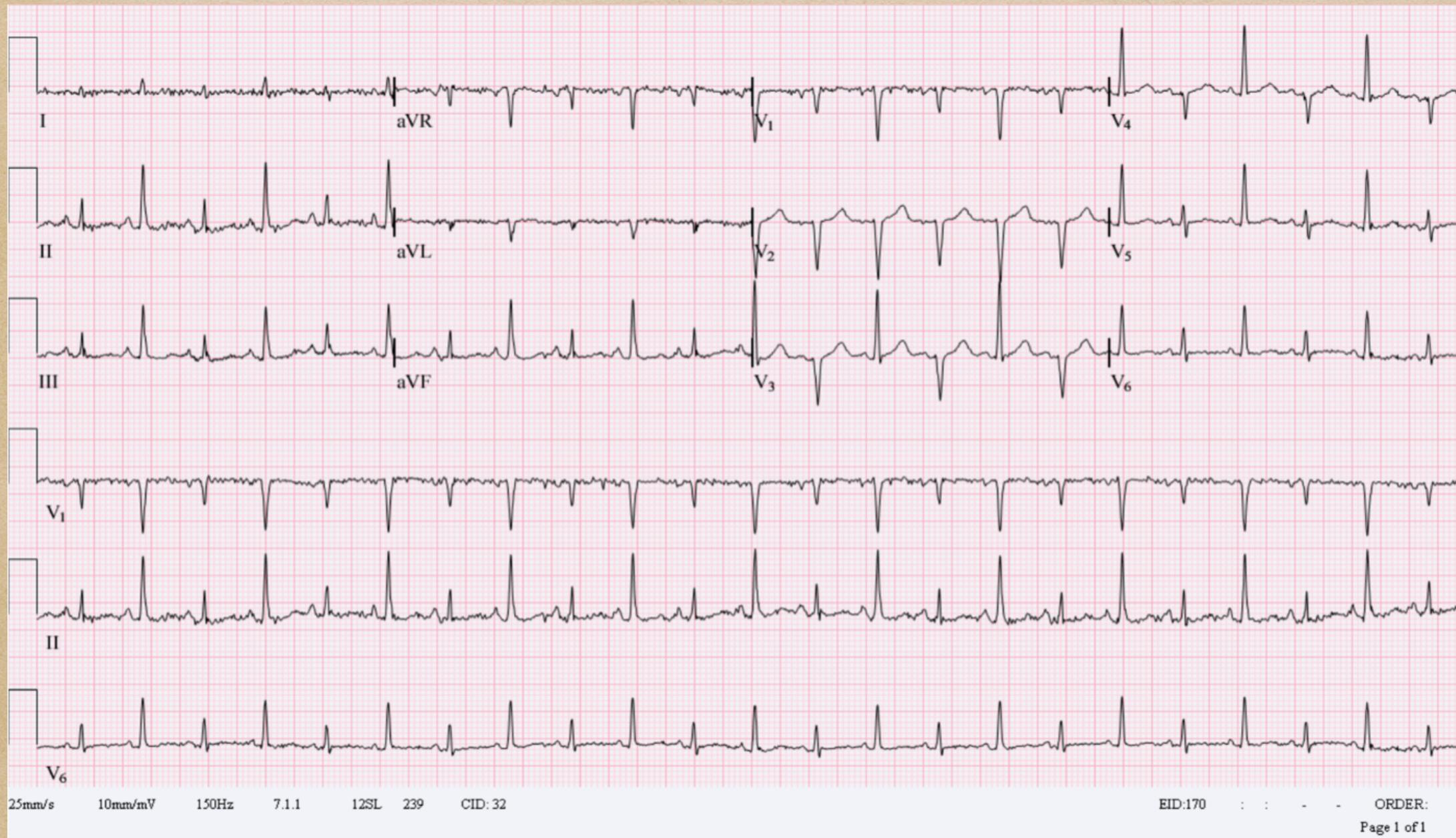
A 45 year old man presents with vague symptoms of central dull chest pain and mild shortness of breath on exertion for the past 3 days.

His observations are:

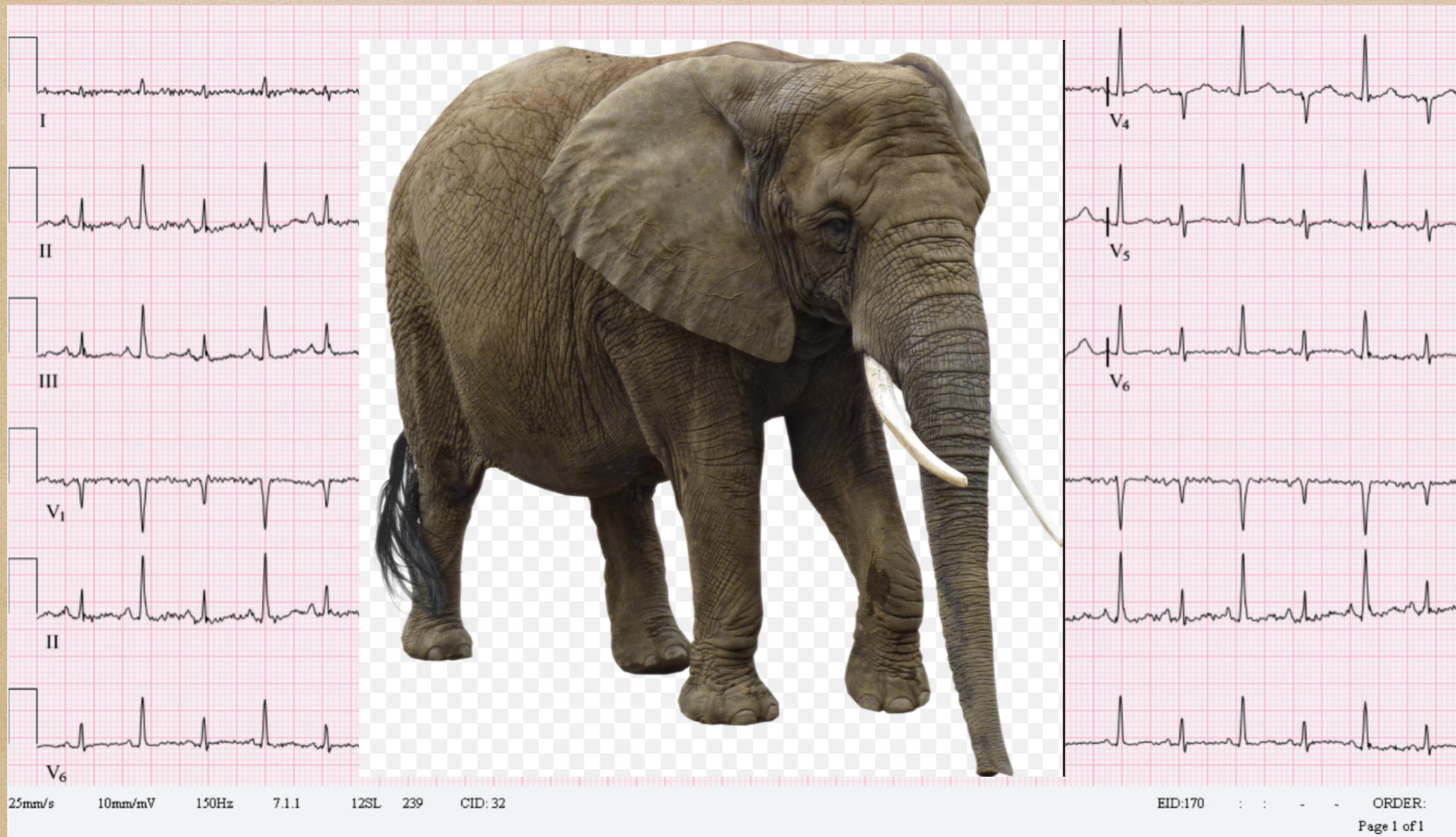
Temperature	37	°C
BP	120/70	mmHg
RR	18	/min
O <sub>2</sub> saturations	99%	on room air

An ECG is taken and is shown on the opposite page

1. Interpret his ECG giving three (3) positive findings.
2. List four (4) differential diagnoses for this appearance on the ECG.
3. List three (3) features on assessment that would determine disposition.



**READ** the question first then **START** with the elephant on the ECG:



## Things to consider before answering this question:

1. READ the Question and answer THE QUESTION
2. try to guess the sense (Flavour if you wish) of the question (what is it asking???—Ischemia/dysrhythmia/anything specific that I should know,...)
3. Consider it as a real patient in front of you or in this case a nurse showing you an ECG in a busy shift —> what's your immediate response ? —> **I hope it is "Where is this patient ??"**
4. Have a systematic approach, don't just look for findings (Always check calibration)
5. for higher Marks give appropriate informations (Extras) ie instead of Sinus tachycardia you can easily calculate rate and write ST ~138bpm

a) ELEPHANT here : Electrical alternans ,Low Voltage,Sinus Tachycardia 138 bpm  
less important :prolong QTc ,poor R wave progression ,maybe non specific PR/ST-T changes

\*\*\* most candidate didn't notice "interpret" in part (a)

\*\*\* don't make up signs (bigeminy/ashman phenomenon,...)

\*\*\*answer the question and don't waste your time

ie:

just positive findings are asked here,don't write negatives

instead of : regular narrow complex tachycardia ,sinus wave with rate 138 bpm you can simply  
write: **Sinus tachycardia Rate ~138 bp**

\*\*\*DDX for ECG appearance not Sinus tachycardia or cause of effusion; you can start from simple i.e. Obesity or more important ones for higher marks (here :pericardial effusion,...)

version A:

- 1 Pericardial effusion, Pleural Effusion
- 2 Emphysema
- 3 Pneumothorax or Pneumopericardium
- 4 Subcutaneous emphysema
- 5 Severe hypothyroidism (myxoedema)
- 6 End-stage dilated cardiomyopathy
- 7 Old large MI
- 8 Infiltrative/restrictive diseases such as amyloidosis or hemochromatosis.
- 9 Obesity

Version B:

- "Low Power/Weak Battery"
- Infiltrative diseases (Amyloid, Sarcoid, etc.)
- End stage cardiomyopathy
- Myxedema (severe hypothyroidism)
- Conduction blockage
- Fluid/Effusion (pericardial or pleural)
- Fat (obesity)
- Air (COPD, PTX)

for higher mark use scoring system, validated criteria etc as a frame work and list according to priority, also give disposition options (ICU/HDU/Ward with telemetry/Home,...); for example in this question :

disposition according to haemodynamic situation and **Pericardial effusion scoring index** based on :

1. Echocardiographic assessment of **haemodynamics**

2. effusion **Size** on echo

3. **aetiology** of effusion (not all relevant in this case)

a) infective - **viral most common** (coxsackie, CMV, Echo, HIV) - other: bacterial/ fungal /TB

b) Uremia

c) autoimmune (SLE, RA,...)

d) malignancy

Less relevant here but to consider:

e) MI

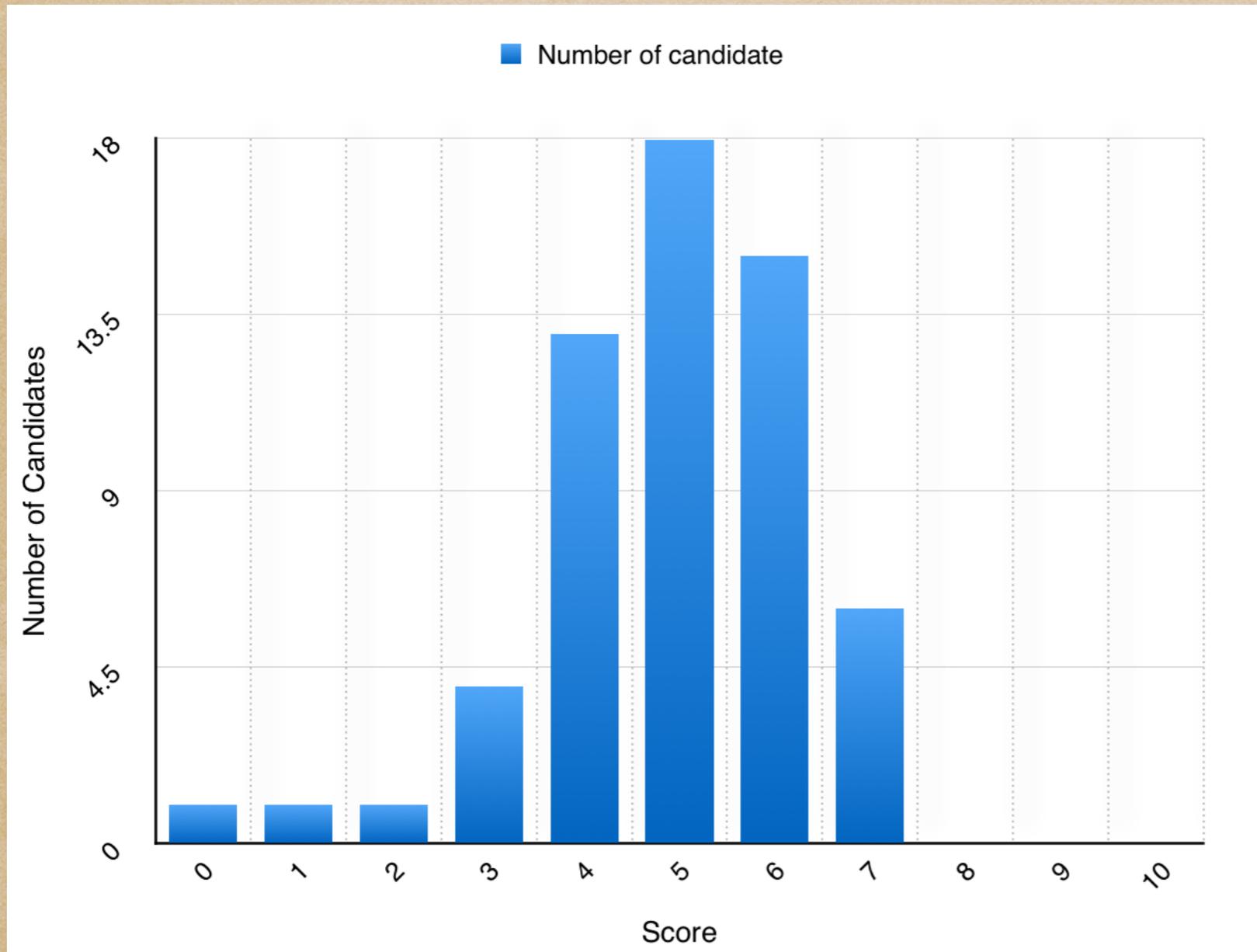
f) Trauma

score >4 → will need pericardiocentesis

\*\*\* consideration of **social** circumstances and follow up

always consider discharge planning at the end, ie in this case if good F/u **AND** LOW Pericardial effusion scoring index <3 at initial presentation without haemodynamic compromise (clinically/radiologically)

not a difficult Q to pass — Minimum to pass : 6



Mark	Number of candidate
0	1
1	1
2	1
3	4
4	13
5	18
6	15
7	6
8	0
9	0
10	0

