

Resusc, cardiac, shock - part 2 – QUESTIONS

SAQ 1

A 55 year-old man has just undergone RSI with ETT for acute severe asthma. Immediately post intubation, his SBP falls to 80mmHg.

- a. List four possible causes for post-intubation hypotension in THIS patient. (4 marks)

- b. List four other causes of post-intubation hypotension in any patient. (4 marks)

- c. Outline the steps you will immediately take in this situation. (5 marks)

- d. His BP improves with your measures and you prepare to transfer him to ICU. Complete the following table regarding his ventilator settings.

Parameter	Ventilator setting
Mode	
Tidal volume (TV)	
Respiratory rate (RR)	
PEEP	
Peak inspiratory pressure (mmHg)	
Plateau pressure (mmHg)	
Sats (%)	
Inspiration:expiration ratio (I:E)	
ET CO ₂	

SAQ 2

A 46 year old alcoholic presents to your tertiary ED with a large haematemesis. His BP is 85/60, HR 134bpm, afebrile, Sats 99% RA. He is taken to the resuscitation room immediately upon arrival and sectioned due to current intoxication.

- a. What are the components of the Blatchford Score? (5 marks)

- b. What is the utility of the Blatchford score?

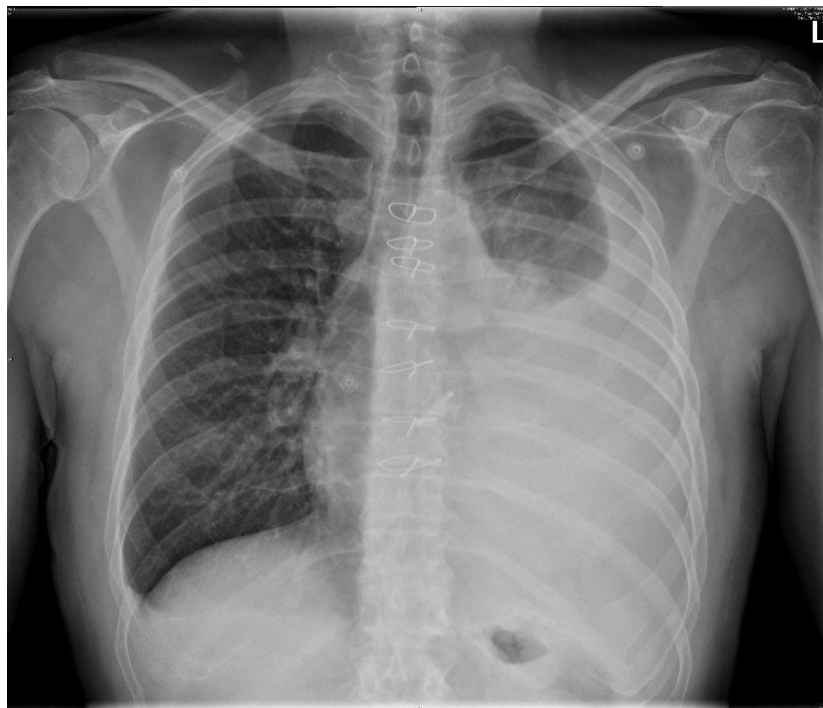
- c. List your management steps in order of priority. (5 marks)

- d. List four medications that are likely to be needed in this patient, including dose and route of administration. (8 marks)

SAQ 3

A 67 year-old male presents to your tertiary ED with one hour of chest pain. ECG shows 3mm STE in V3/V4/V5. He is given 300mg aspirin, reteplase 20units, and heparin 5000unit bolus and 1000unit/hr infusion.

Sixty minutes after thrombolysis, he complains of increased left-sided chest pain and dyspnoea. His BP is 85/55, HR 100, RR 26, Sats 92% on 6L Hudson mask. An urgent CXR is ordered.



- a. List three findings on this CXR (positive or negative) and state the main diagnosis of concern. (4 marks)

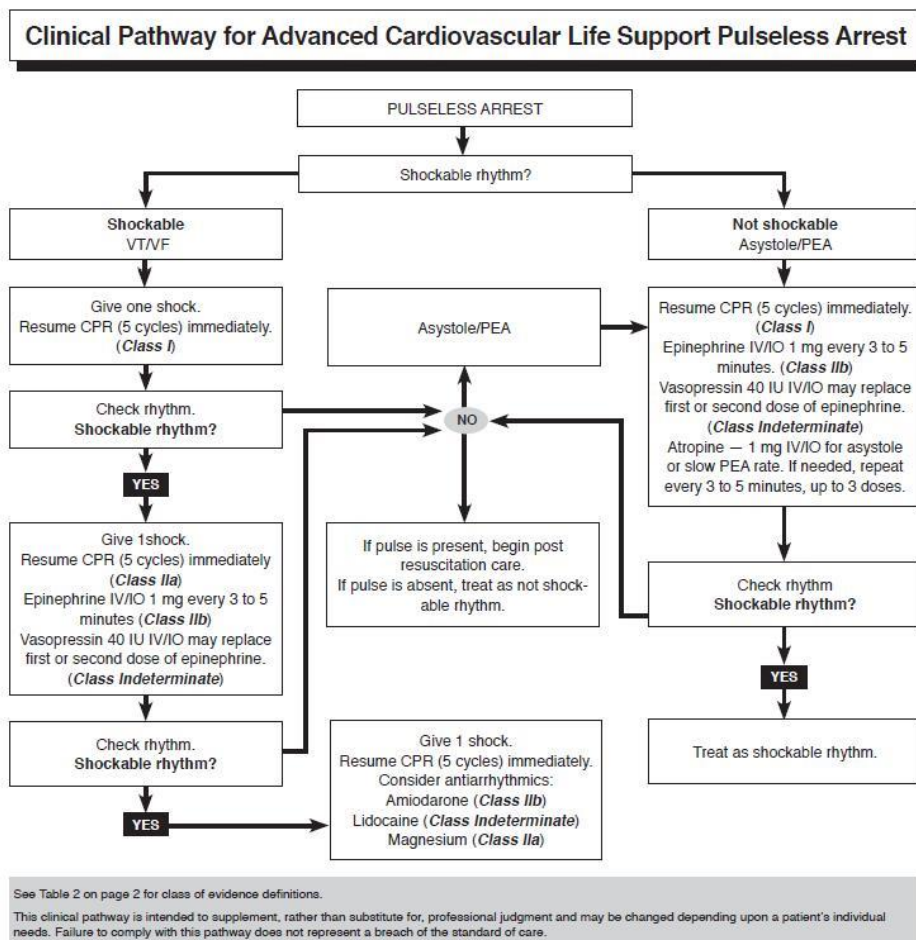
b. Outline your immediate management of this patient, including doses where appropriate. (6 marks)

c. List three consults you will seek immediately, with justification.

SAQ 4

An older version of the ALS algorithm for adults is shown below.

a. Please circle five major changes in the algorithm compared with the current 2016 version.



b. Draw the current ALS algorithm for Adult cardiac arrest in the spaces below. Assume patient is unresponsive with abnormal breathing and CPR is indicated. (10 marks)

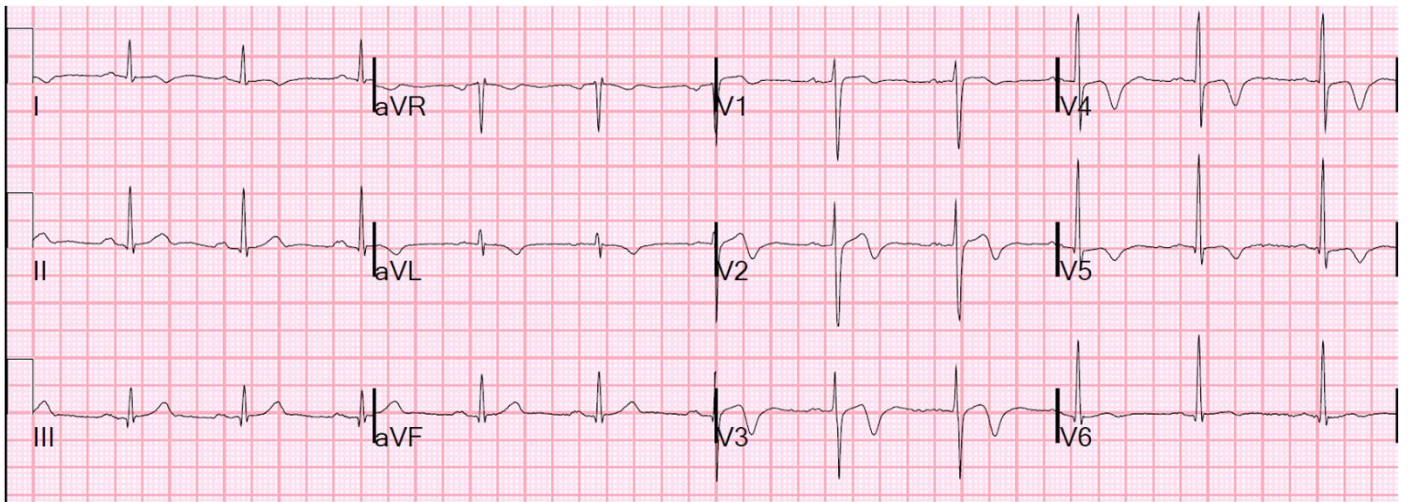
Drug 1: Drug 2:		Drug 1:

c. For each of the following, state a major change between the older version of ALS and the current algorithm. (8 marks)

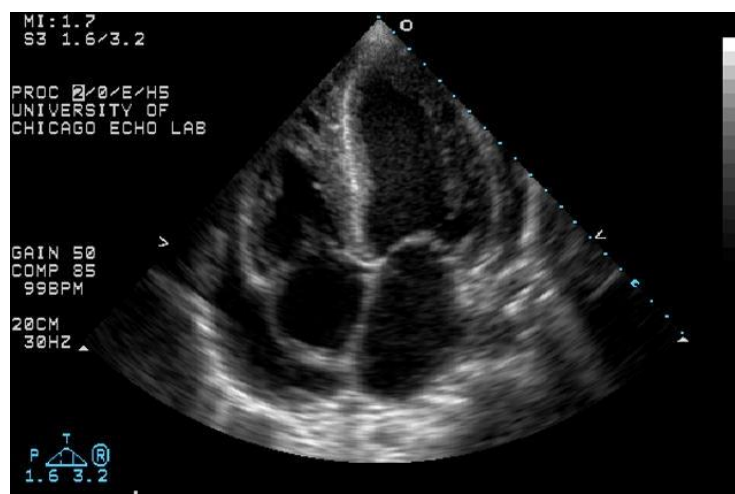
- Compression:ventilation ratio
- Compression or ventilation first?
- Pulse check before/during CPR
- Charging of defibrillator
- Use of stacked shocks
- Use of atropine
- Use of ETT during CPR
- Monophasic defibrillation

SAQ 5

A 48 year-old male presents to your rural ED with three hours of chest pain. His BP is 80/60, HR 75, T 37.4°C, Sats 98% RA. A VBG is taken and shows a lactate of 4.2. Other parameters are normal. His ECG is shown.



- What abnormality does the ECG show? (1 mark)
- Give the likely diagnosis for his presentation and two differential diagnoses. (3 marks)
- List two options for improving his blood pressure in the short term, giving doses and endpoints where appropriate. (4 marks)
- The patient receives thrombolysis pending transfer to a tertiary centre for PCI. You decide to insert an intraaortic balloon pump to improve his blood pressure. Briefly describe the mechanism by which an IABP improves BP in cardiogenic shock. (3 marks)
- His BP remains low after insertion of the IABP. A bedside ultrasound is performed and the following image obtained. List two abnormalities on this image and the likely diagnosis. (bonus points: label the picture and state which ultrasound view it is!). (3 marks)



SAQ 6

An 8 week old male is brought to ED with four hours of increasing breathing difficulty. He has a 4 day history of increased cough and conjunctivitis for 2 days. On arrival, he is triaged to resuscitation and monitored. He is mottled and lethargic. His HR is 180/min, RR 65/min, T 37.9°C, and his saturations unrecordable due to a poor trace. His BGL is 3.4mmol/L.

- a. List your initial resuscitation steps in order of priority for this neonate.

- b. The child is diagnosed with sepsis and deteriorates. Complete the following table regarding this child. Doses may be given in mg/kg or similar if preferred.

Parameter	Estimate
Weight of child	
Fluid bolus	
Dextrose bolus	
ETT size	
ETT depth	
Antibiotic (empirical)	