

1. Lead examiner

Candidate Number:

2. Co-examiner

Final Mark:

SCENARIO

You are the consultant taking morning handover of patients in your emergency department observation ward. There is a 54 year old male patient who was admitted with apparent anaphylaxis. His condition stabilised after adrenaline. The plan was for review and likely discharge.

Question 1: Outline the issues you will consider when reviewing this patient**3 mins**

Expected Response	Details & Comments	
Confirm diagnosis of anaphylaxis	History Is there an identifiable precipitant? eg bee/wasp sting, particular food, drugs etc,	
Review past allergy history	Prior episodes of anaphylaxis. Prior use of/ prescription of Epipen. Training in use. Prior visits to immunologist ?allergy testing ?possible role for desensitisation.	
Medical Comorbidities	Ischaemic heart disease (relevant in acute management, increases risk of inappropriate use of Epipen) Beta-blocker use: Reduces effectiveness of adrenaline.	
Social factors	Employment/ social situation. Number of Epipens required. Need for education of others.	
Review treatment received	Why was adrenaline given? How was it given (route, dose(s), response, time)? What else was given? eg steroids, antihistamines (DON'T LET CANDIDATE EXPAND)	
Review suitability for discharge	If has received adrenaline requires minimum 4 hours observation post adrenaline. Follow-up arrangements PROMPT: What are the criteria for discharge?	
Is adrenaline autoinjector indicated?	Anaphylaxis + unidentified or not easily avoidable precipitant. Indicated for most precipitants PROMPT: What are indications for supplying an adrenaline autoinjector?	
PROMPT (if not covered) How do you define anaphylaxis?	1) <i>Acute illness with cutaneous symptoms (urticaria/ erythema/ itch/ swelling lips/tongue/pharynx) and at least 1 of</i> a. <i>Respiratory symptoms (dyspnoea/ stridor/ wheeze/ hypoxia)</i> b. <i>Hypotension or symptoms of hypoperfusion</i> 2) <i>>=2 of after exposure to likely allergen (minutes to several hours)</i> a. <i>Cutaneous symptoms</i> b. <i>Respiratory symptoms (dyspnoea/ stridor/ wheeze/ hypoxia)</i> c. <i>Hypotension or symptoms of hypoperfusion</i> d. <i>Persistent GIT symptoms (crampy pains, vomits etc)</i> 3) <i>Hypotension/hypoperfusion with exposure to known allergen (minutes to hours)</i>	

Question 2: When would you use IV adrenaline in anaphylaxis and how?**1.5 mins**

Expected Response	Details & Comments	
Indications	Failure to respond to IM adrenaline (which may be repeated in doses of 0.3 – 0.5 mg concurrently) Life-threatening or rapidly progressing anaphylaxis (significant airway symptoms/ hypoxia/ bronchospasm/ hypotension) Cardiac arrest in setting of anaphylaxis	

Administration	Arrest: 1mg IV bolus Non-arrest: appropriate description of technique to rapidly give 10-100mcg bolus of adrenaline in a monitored resuscitation environment • 0.1 – 1 ml of 1: 10 000 adrenaline minijet (1 mg in 10ml) • Double dilution technique of 1 in 1000 adrenaline (1 mg in 1ml) • IV infusion: 1 mg in 1 litre crystalloid, run at appropriate rate (eg. 20 ml boluses) Titrate to effect with repeat doses until symptoms improving and patient stabilises. Use of small boluses/ infusion provides rapid effects and minimises risks of side effects (hypertension + tachycardia leading to myocardial ischaemia/CVA) PROMPT: What is the dose in cardiac arrest? What is the dose range in the non-arrested patient?	
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Question 3: I am now the patient. Can you give me instructions on when and how to use this device? 1.5 mins

Expected Response	Details & Comments	
Indications	Cutaneous symptoms + signs of another system (dizziness/ faintness or dyspnoea/ chest tightness or oral swelling/throat lump or tightness/ voice change or nausea/vomits LAY TERMS) Call ambulance. Lie down. Administer EpiPen. PROMPT: If I just get a rash do I use the epiPen?	
Technique	Demonstrate how to open EpiPen Demonstrate how to identify correct end for application Describe appropriate site (lateral thigh, through clothing) Describe appropriate force and duration of holding applicator on (in) <i>Good candidates will refer to using trainers +/- pharmacist to practise</i> PROMPT: Where should it be injected?	

Question 4: Define the role of other medications in the management of anaphylaxis 1 min

Expected Response	Details & Comments	
General comments	Adrenaline is the only 1 st line agent recommended for anaphylaxis and is life saving, no other treatment should delay its administration. There is no good evidence for the role of any other '2 nd line medications' in the management of anaphylaxis.	
Corticosteroids	Commonly used with aim of reducing incidence of protracted or rebound anaphylaxis. No evidence. (eg prednisolone 30-50 mg for adults for 3-5 days)	
H ₁ receptor blockers (antihistamines)	Symptomatic benefit of reducing itch, flushing, urticaria, angioedema. Do not treat airway swelling, hypotension (ie. not life-saving). Slow onset. Parenteral often used in acute setting but caution re sedation. (Non-sedating frequently given on discharge for 3-5 days).	
β ₂ agonists (salbutamol)	May be helpful for wheeze, coughing, dyspnoea but does not treat hypotension, airway oedema etc thus must not be substituted for adrenaline.	
H ₂ receptor blockers (eg ranitidine)	No evidence. Theoretical benefit of increased histamine blockade leading to reduced flushing/ other symptoms.	
Fluids and oxygen	Indicated	

PROMPT: What is the role of steroids or H1 receptor blockers?

Comments: (if you fail the candidate, please state why)

If the candidate fails the exam overall, what feedback would you suggest CIC provide for this SCE?