

1. Lead examiner

Candidate Number:

2. Co-examiner

Final Mark:

SCENARIO

A 30yo man visiting from interstate presents to your ED with a one hour history of palpitations and dizziness. He is pale and diaphoretic.

Vital signs: BP 80/55 mmHg; GCS 15.

An initial ECG (included in stem) is taken.

Question 1: Describe and interpret the ECG.*(included in stem)***1 min**

Expected Response	Details & Comments	
12 lead ECG	Standard rate calibration, irregular broad complex tachycardia , rate approx 230 /minute, LAD	
Relevant negatives		
Interpretation	Rapid AF with aberrant conduction. In clinical setting, suspect pre-excitation syndrome such as WPW <i>Unstable patient with broad complex tachy</i>	
Implications (can prompt)	Needs urgent cardioversion as haemodynamically compromised	

Question 2: The patient is appropriately sedated. Describe your procedure for cardioversion.**2 min**

Expected Response	Details & Comments	
Pad placement	1. Anteriorly: midaxillary line over 6th left ICS and right parasternal area over 2 nd ICS OR 2: Anterior (-ve) and posterior (+ve) placement (1 to pass)	
Paddles or adhesive pads	If paddles are used application firm pressure; conductive gel pads recommended. No electrical contact between two	
Shock type	Synchronised (but may not work)	
Biphasic vs monophasic	<i>Candidate should demonstrate familiarity with the chosen option.</i>	
Joule selection	50-100J to commence	
Safety Issues	Clear instructions by team leader Responsibility of person doing defibrillation to ensure safety of team Only charge paddles on patients chest Keep paddles/ pads away from ECG leads, medication patches, pacemakers, AICDs No direct contact with pt being defibrillated Keep oxygen away	
Re-assess	For successful reversion Potential complications	
Subsequent	Recovery; observations; documentation	

Question 3: At the first attempt, there is no muscle contraction or other evidence of current delivery; the cardiac rhythm remains unchanged. Outline your response.**2 min**

Expected Response	Details & Comments	
Trouble shooting failed charge delivery: - Machine: power, charge, leads, pad, mode - Patient: impedance - Operator: poor technique, poor contact		
Machine	Check machine power: battery / mains Defibrillator charged? Applied properly? Leads plugged in? Leads/paddle setting Was shock properly delivered? Consider higher energy dose. Synchronised mode may not work- if not, unsync	
Patient	Recheck pad positions and application; remove impedance items; ensure adequate sedation	
Operator	Recheck technique. Firm pad pressure; Discharge at appropriate time	
Repeat attempt	When re-checked and safe to do so.	

Question 4: The patient is successfully reverted. Describe and interpret this post reversion ECG. 1 min

Expected Response	Details & Comments	
12 lead ECG	Standard rate and calibration SR rate 75/minute , LAD, short PR interval , delta wave seen , inverted T wave I & aVL Subtle ST segment depression seen leads V2- V6 (likely related to repolarisation or previous fast rate)	
Relevant negatives		
Interpretation	Consistent with WPW (pre-excitation) syndrome (Type A) Requires cardiology follow up for EP studies	

Question 5: Twelve hours later, the patient is clinically well and stable and wants to go home. He plans to return interstate the following day, by a 3-hour flight. Describe your discharge procedure. 1+min

Expected Response	Details & Comments	
Diagnosis / Prognosis	Presume dx of WPW and underlying cardiac cause Potentially amenable to ablation therapy	
Appropriate follow-up	Needs cardiology follow-up and EP studies, probably echocardiogram Detailed discharge letter of treatment given for GP and cardiology referral Include copies of pre and post reversion ECGs	
Advise regarding future episodes	Present to ED if above fail or symptomatic Bring copy of previous ECG / discharge letter Discharge letter to include drugs to avoid Ca channel blockers, β -blockers and digoxin Comment on fitness to fly if returning interstate by plane	

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?

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