Scenario: C5 Scenario 2 – George Jetson		
Scenario: C5-2 Bradyarrhythmia	**Patient:** 79 year old man	**Simulator** Manikin (any)
Case Summary: George Jetson is a 79 year old man with a history of ischaemic heart disease. He presents with complete heart block. He is haemodynamically unstable and requires intervention for this - pharmacological or non pharmacological.		**Participant Briefing:** 79 year old man presents with dizziness of the past 4 hours. Triage noted his heart rate was slow.
Clinical Issues		**Human factors / Non technical issues**
Management of bradycardia Use of pacing Pharmacological treatment of bradycardia		Communication in a team Task delegation when more 'help' arrives Leadership
Learning Objectives: **Recognise** bradycardia, specifically third degree heart block Determine haemodynamic stability **Demonstrate** a structured approach to bradycardia		
Faculty Actors: Faculty nurse, ED registrar (if faculty available)		
Patient Moulage: Street clothing, SimMan on the floor		

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Equipment & Props:
EQUIPMENT SHOULD BE COVERED OVER WITH SHEET UNTIL REQUESTED BY TEAM
SIMMAN mannequin and monitoring
Oxygen – piped or cylinder
Oxygen masks – Nasal prongs, Hudson mask and Non re-breath masks should be available
Stethoscope x 2
ECG machine and leads
Stickers for 12 lead ECG
Defibrillator and pads specific for mannequin
NIBP cuff
Saturation probe
Gloves and appropriate PPE
Monitor to display observations
White board if needed
IV cannulae – 16+18G
Blood test tubes and ABG syringe
Pretend or actual X-Ray plate
Normal saline bags labelled with Amiodarone, Atropine, Isoprenalin
Crystalloid (0.9% NaCl or Hartmann's 1000ml)
Giving sets
Local chest pain protocols

Monitor:	**Investigations:**	
ECG SPO2 CO2 ready NIBP	Nil	

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Patient presentation	Expected response by participants	Faculty /Actors Notes
Initial Presentation Rhythm – complete hear block HR: 35 BP: 80/40 RR: 18 SPO2: 95% RA, 100% O2 Temp: 37°C Conscious level: drowsy but rousable	Initial assessment: DRSABCD Ask History and Examination as appropriate – clearly demonstrate a structured approach Consider haemodynamic stability for urgency of treatment	Triage nurse (confederate): Hands over initial triage of dizziness for the past 4 hours, no chest pain preceding that he can recall Family aware and en route with medications, note known cardiac history, including CABG noted.
Progression Blood pressure drops to 70/40 if no treatment With Atropine- brief response (minutes) Pacing – effective, but pain if not given analgesia Infusions – delayed effect	Requests 12 lead ECG Takes investigations as appropriate Commence IVF, atropine, infusions, pacing If team unable to perform prompt for senior help if available (or on the phone)	Triage nurse (confederate): - Assist with drug administration / localisation of equipment. Note patient is not fasted Assist with pacing if team not able to perform (or prompt for senior input if junior group)
Recovery Ongoing management of patient Observations HR per pacing settings BP 130/60 RR 15 Sats 100%	Consider underlying cause of arrythmia (ETOH, medications, electrolytes) Consider referral to cardiology/retrieval	ED registrar to arrive (if required for guidance of participants; and faculty member available), and: - receive handover of scenario thus far - prompt participants (by his/her presence) to consider causes and management of this - Prompt handover to cardiology using ISBAR format

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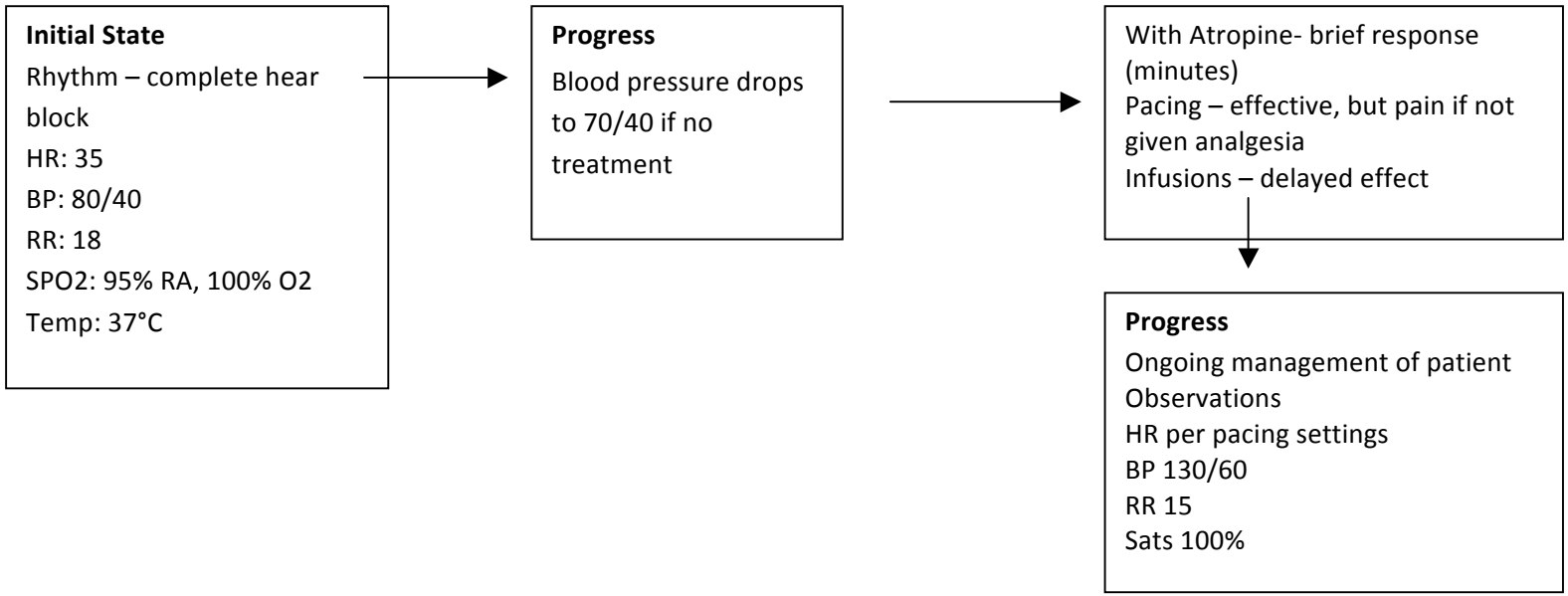

Debrief Guide

Key clinical issues	Key non technical issues
1. Use of the structured approach to manage bradyarrhythmias 2. Consideration of haemodynamic stability 3. Pharmacological options for bradycardia 4. Pacing and need for analgesia/sedation 5. Team approach and consultation with cardiology	1. Role allocation to existing team members 2. Communication 3. Decision-making under stress (?availability and utilisation of written resources i.e. ALS algorithm)

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