Scenario template: C4: Scenario 1		
Scenario: C4 BLS / ALS	**Patient:** 68 year old man	**Simulator** Manikin (any)
Case Summary: Setting: ED waiting room, The ED registrar is assisting with the intubation of another patient in resus with a head injury. Mr Robbie Williams is a 68yo obese retired truck driver who self-presented to ED with 'indigestion', has been triaged as a category 4, and was in the waiting room awaiting review. 50 pack year smoking history; nil other PMHx on the triage form as Mr Abrahams has avoided medical attention for the past 45 years. Onlookers then noticed him clutching his chest immediately prior to collapsing to the floor. He is found to be in VF when monitoring is applied. BLS algorithms should be commenced.		**Participant Briefing:** Mr Robbie Williams 68 year old retired truck driver, presents with indigestion after eating a hamburger, has been triaged category 4. He has not seen a doctor in 45 years. He has collapsed in the waiting room.
Clinical Issues		**Human factors / Non technical issues**
BLS algorithm ALS algorithm Defibrillation		Communication in a team Task delegation when more 'help' arrives Leadership
Learning Objectives: **Recognise** a patient with cardiac arrest Correctly **apply** current BLS & ALS guidelines **Demonstrate** a competent CPR technique		
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
Laminated ECG showing AF and VT
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 and Digoxin
Crystalloid (0.9% NaCl or Hartmann's 1000ml)
Giving sets
Local chest pain protocols
Triage Sheet available – Category 4, Indigestion, improved with Mylanta. 50 pack year smoking history & obesity; nil other past medical history as patient has avoided seeing doctors for the past 45 years

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Monitor: ECG SPO2 CO2 ready NIBP	**Investigations:** Nil	
Patient presentation	**Expected response by participants**	**Faculty /Actors Notes**

Initial Presentation
Rhythm: VT
HR: n/a
BP: not recordable; impalpable pulse
RR: nil
SPO2: nil
Temp: 37°C
Conscious level: unconscious
EtCO2 (if in-line capnograph attached): nil initially, 20 if good CPR, less if poor CPR
	Initial assessment: DRSABCD
	Commence CPR at 30:2 ratio
	Allocate roles to team members present
		Triage nurse (confederate):
		- Shouts for help (draws participants to patient)
		- Gives what handover is known, ie alerted to collapsed patient in ED waiting room by other patients
		- Informs participants that (sole) ED registrar is currently assisting the intubation of another patient in ED with a drug overdose
		- Shows participants (or reads from) triage sheet: (this) patient, Mr Robbie Williams, was:
		  ○ Triaged category 4 with 'indigestion'
		  ○ 50 pack year smoking history
		  ○ No other PMHx as has avoided seeing doctors for past 45 years
		  ○ Noted in triage to be obese (BMI 31)
		- Brings the arrest trolley over and stays to assist in resuscitation

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Progression Rhythm still VT.	Attach defibrillator Rhythm assessed: shock delivered (200J biphasic) → still VT → 2nd shock & adrenaline administered on 2nd loop of CPR	Triage nurse (confederate): - Assist with drug administration / localisation of equipment. - If participants suggest advanced airway management (eg intubation or LMA insertion, confederate nurse to state "the anaesthetic registrar is on their way down, they've asked if you could just bag-mask ventilate the patient for the time being".
Deterioration Rhythm still VT	Continue CPR for 2 minutes then re-check rhythm 3rd shock and give amiodarone	Faculty nurse to assist participants: - locate amiodarone ampoule, and guide its preparation and administration. - Simulate sending off blood tests if given tubes by participants - To field requests not otherwise specified, eg CXR, by making phone calls and feeding back 'they're on their way'
Recovery Return of spontaneous circulation (ROSC): - rapid spike in EtCO2; - sinus rhythm seen on monitor when CPR paused for rhythm check; - palpable central pulse	Continue CPR for 2 minutes then re-check rhythm	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 reconsider task delegation when 'help' / a new team member arrives - suggest being mindful of time-keeping (2min loops) - prompt adherence to BLS algorithm if required - give real-time feedback re: adequacy of CPR - prompt consideration of reversible causes if required, and which ones can be excluded / are felt to be most likely (ie coronary thrombus causing myocardial ischaemia) - intubate / insert LMA if time permits (to facilitate viewing of ETCO2) - notice ROSC if this is missed by participants

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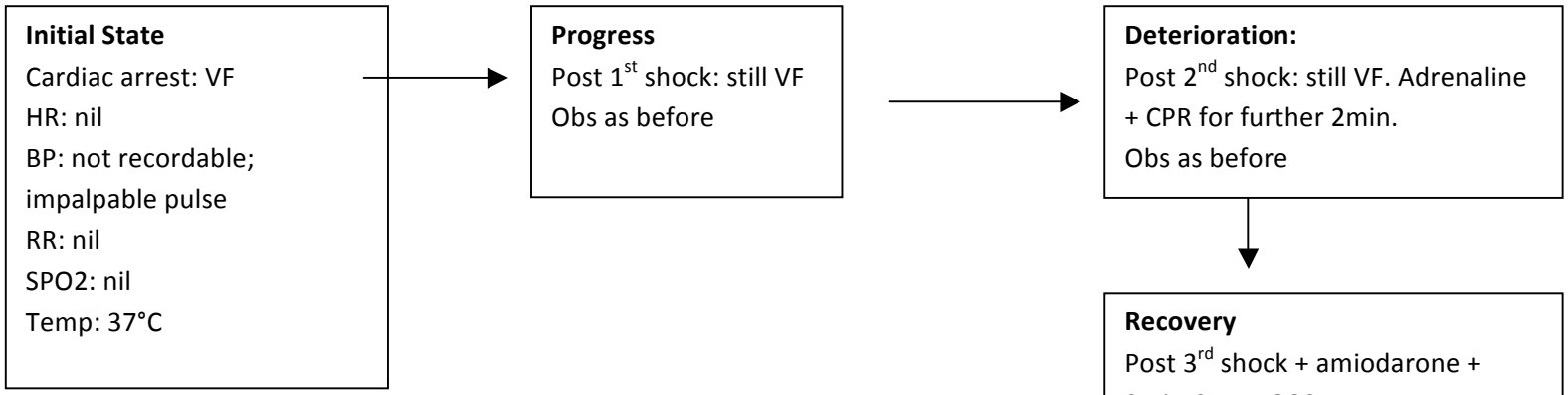

Debrief Guide

Key clinical issues	Key non technical issues
1. Recognition of a patient with cardiac arrest 2. Initiation of correct BLS & ALS algorithms 3. Initiation of defibrillation and drug therapy as appropriate	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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