Scenario: C4-Scenario 2 C4 BLS / ALS	**Patient:** 27yo man	**Simulator** Manikin (any)
Case Summary: Mike Tyson is a 27yo male brought to ED by friends, who say he'd become unresponsive shortly after taking some heroin. No PMHx recorded or offered by his friends. He is in cardiac arrest from hypoxia with		**Participant Briefing:** Mike Tyson 27 year old male, dropped off by friends not breathing. The friends have left rapidly. He need urgent assistance
Clinical Issues		**Human factors / Non technical issues**
Recognition of rhythm category (shockable vs non-shockable) BLS algorithm ALS algorithm		Communication in a team Role allocation Leadership
Learning Objectives: **Recognise** a patient with cardiac arrest Correctly **apply** current BLS & ALS guidelines **Demonstrate** a competent CPR technique		
Faculty Actors: Confederate ED nurse		
Patient Moulage: Street clothes, unkempt. Track marks to left cubital fossa		

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Equipment & Props:
Oxygen – piped or cylinder
Oxygen masks – Nasal prongs, Hudson mask and Non re-breath masks should be available, Bag Valve Mask. Intubation equipment
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
Resuscitation drugs including adrenalin, amiodarone, atropine, naloxone
Crystalloid (0.9% NaCl or Hartmann's 1000ml)
Giving sets
Local chest pain protocols

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

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Initial Presentation Rhythm: Asystole HR: n/a BP: not recordable; impalpable pulse RR: nil SPO2: nil Temp: 37°C Conscious level: unconscious EtCO2: nil (20 if good CPR and capnograph attached; 10-15 if poor CPR)	Initial assessment: DRSABCD A: open & clear airway B: Provide assisted ventilation via self-inflating bag, use adjuncts C: commence CPR at 30:2 ratio Team allocations: assign one person to document	Confederate ED nurse: - Alerts participants to arrested patient - Brings the arrest and airway trolleys over - Assists with resuscitation as directed

Progression
Rhythm asystole
	- Think about reversible causes
	  ○ hypoxia
	  ○ naloxone
	- continue to give adrenaline every second loop
	- Effective BVM required
		Confederate ED nurse:
		- Prompts re track marks if not noticed
		- Assist with drug administration / localisation of equipment
		- Prompt participants to think about proposed route of administration of naloxone ("IV or IM?")
		- Prompt if BVM ineffective

Recovery Return of spontaneous circulation (ROSC)	Continue CPR for 2 minutes then re-check rhythm	

Debrief Guide

Key clinical issues	**Key non technical issues**
1. Shockable vs non-shockable rhythms 2. Airway management in cardiac arrest 3. Naloxone IV vs IM: duration of action; may 'wake up and run' if given short acting IV that has shorter duration of action than opioid. Naloxone use in cardiac arrest. 4. Steps taken to confirm if really asystole on monitor (not fine VF) 5. Was due consideration given to all reversible causes (4Hs & 4Ts)?	1. Role allocation 2. Communication 3. Decision-making under stress (?availability and utilisation of written resources i.e. ALS algorithm)

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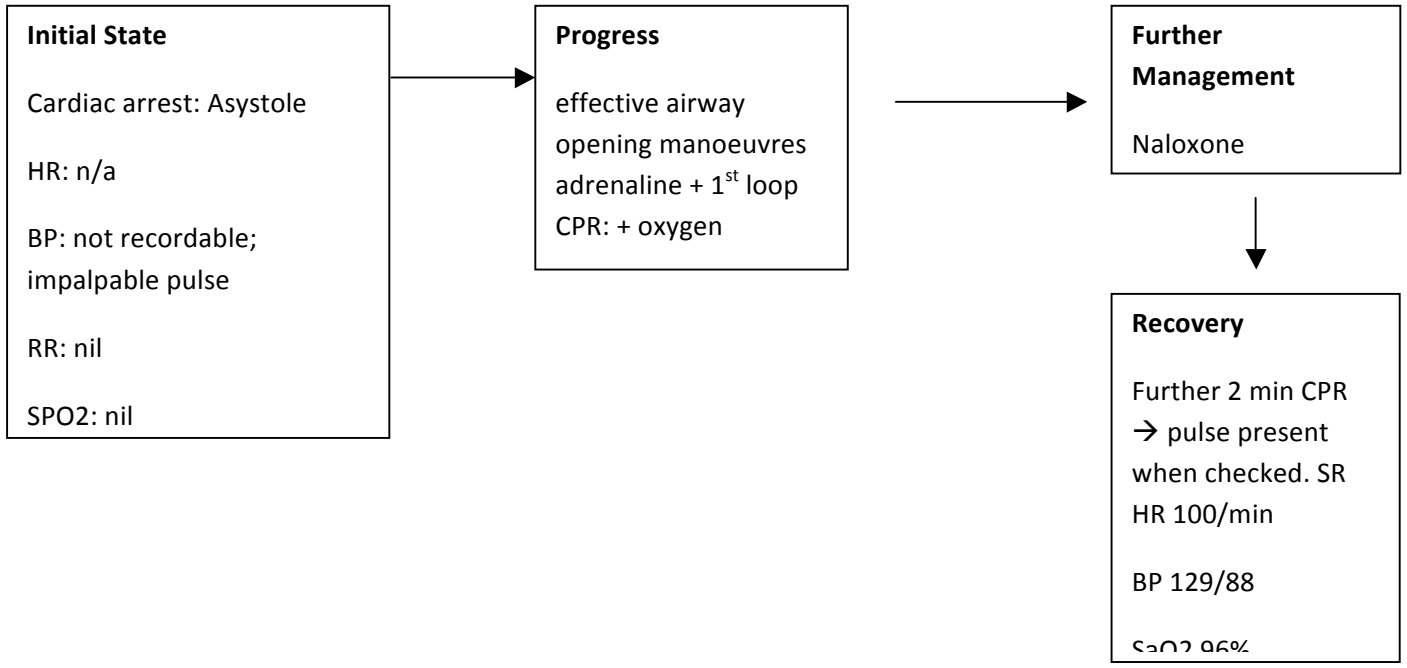

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