

Subject Topic	EdWISE PROGRAM - OUTLINE OF C6 SIMULATION MODULE (Unstable Myocardial Infarction and Cardiogenic Shock)	
Framework Profile	Programme: EdWISE	
Associated E-Learning of Webinar tutorials	Nil	
Simulation learning objectives	<ul style="list-style-type: none"> • Systematic approach to patients with cardiogenic shock and unstable myocardial infarction • Resource management in an emergent situation • Team management, teamwork, communication and situational awareness • Interprofessional learning 	
Target Group	Postgraduate nurses and doctors – preferably middle and senior grade trainees and nurses	
Delivery method	PowerPoint presentation on the systematic approach and management of patients in cardiogenic shock, with a focus on non-technical skills. An interprofessional, fully immersive simulation scenario follows this. After the scenario the participants will receive facilitated feedback focusing on both clinical and non-technical aspects of the simulation.	
Timeframe	60 mins	
Resources for session	<p>Provided by EdWISE</p> <p>Video Conference unit with computer and screen SIMMAN 2x cannulae in situ EdWISE Airway Box EdWISE Cardiac Box Defibrillator</p>	<p>Provided by Facility</p> <p>Oxygen – piped or cylinder Local Airway trolley (optional) Local Resus Trolley (optional) NIV (BiPAP) if available or mask & headstrap without machine Oxylog or local transport ventilator (optional) Whiteboard</p>

<p>Resources for session continued Used during scenario</p>	<p><u>Airway & Breathing</u> Oxygen masks – Nasal prongs, Hudson mask, Non re-breath and nebuliser masks should be available 2 x Laryngoscopes – size 3 and 4 MAC blades Endotracheal tubes sizes 6.0-6.5-7.0-7.5-8.0-8.5- all cuffed Gum elastic bougie or blue bougie as per host site Tape to tie the ETT in place Bag-valve-mask with size 4+5 masks PEEP valve for the Bag-Valve-Mask Oropharyngeal airways sizes 3, 4 and 5 Nasopharyngeal airways size 7 Laryngeal Mask Airways size 3-4-5</p> <p><u>Drugs</u> (facsimile or real) Cardiac arrest minijets. Aspirin in a tablet cup Clopidogrel in a tablet cup GTN spray for below the tongue Fentanyl, Morphine, Thiopentone, Suxamethonium, Propofol, Ketamine, Metaraminol, Morphine / Midazolam GTN infusion</p>	<p><u>Circulation</u> Assorted syringes Giving sets IV fluids (Saline or Hartmanns) Infusion sets for 50 ml syringes Three-way taps x 4 Blood test tubes and ABG syringe</p> <p><u>Other</u> Syringe pump X-Ray plate (real or facsimile) Laminated 12 lead ECG – AF with lateral ST elevation (2mm in 2 or more consecutive leads – just 2mm!) Laminated 12 lead ECG – AF with lateral ST elevation (obvious) CXR showing pulmonary oedema – printed on paper and laminated Blood results – Serial ABGs - laminated End tidal CO₂ measurement device (as per host site) Saturation probe ECG cable NIBP cuff Stethoscope x 2 Gloves and appropriate PPE</p>
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Session Structure - EdWISE PROGRAM - CARDIAC SIMULATION MODULE – C8		
Timing	Welcome and Introduction	Resource
5 mins	<p><i>Welcome and Introduction</i></p> <ul style="list-style-type: none"> • Provide Housekeeping – Fire Exits, mobile phones on vibrate • Provide a summary of what the workshop will involve and the expectations from the participants • Introduce yourselves - facilitation team, host team and participants. Include experience of cardiac patients • Stick to the 5 min • RNS team to write down names of participants on a seating plan <p>If this is not the first module run on that day, the participants are the same and this has been covered previously, then this section can be missed out.</p>	<p>Video conferencing unit</p> <p>Enough seats for the participants and arranged in a horseshoe facing the VC unit and camera.</p> <p>Led by the team over VC but with host team supplying information on the fire exits/toilets/etc.</p>
Timing	Main Topic Presentation	
15 mins	<p>Introduce learning objectives for C8 sub-module: Deliver C8 Session overview presentation</p> <ul style="list-style-type: none"> • Assessment and management of patients with cardiogenic shock • Utilisation of resources • Teamwork – Leadership and Followership • Situational Awareness • Communication 	<p>PowerPoint presentation</p>

Timing	Familiarisation to Mannequin & equipment	
5 mins	Host site facilitators to familiarise participants to mannequin and to the environment. RNS staff should emphasise that the scenario will be stopped after 15 minutes no matter where they are in the scenario. This is to decrease anxiety if the scenario is stopped at a critical point in the patient’s therapy. It should also be noted that different teams will accomplish different tasks within the 15 minutes and that it is not a test.	Local faculty to familiarise the students to the environment/ mannequin/actors. Can use the familiarisation video, to guide the local faculty, if needed.
Timing	Simulation	
15 mins	<p>Participant Briefing</p> <p>Alf Stewart is a 75-year-old man who is being brought into hospital by ambulance with sudden onset breathlessness. He has received some salbutamol and aspirin en route. Alf has a history of cardiac disease. He is being brought into your ED resus in the next few minutes. It is 0430 in the morning.</p> <p>Alf is heading into cardiogenic shock due to a large myocardial infarction. He will deteriorate quite rapidly at the start of the scenario and then stabilise. It is not possible for the team to restore Alf to his previous health at this time. The scenario will end after 15 minutes or just as the team is about to intubate Alf (which ever is reached first).</p>	

This project was possible due to funding made available by Health Workforce Australia

Timing	Debrief
15 mins	<p>This will depend upon what the team accomplishes during the 15 minutes of the scenario</p> <p>Clinical – The initial assessment and diagnosis of cardiogenic shock Treatment of pulmonary oedema and cardiogenic shock The use of CPAP in these patients (in general and in their department specifically) Inotropes – Any hospital guidelines that they have Knowledge of what support is available in their department (during the night) and how to escalate to obtain the specialist help that the patient may need.</p> <p>Non-technical – This will also depend upon the team participating in the task. Things that will likely be covered are: Role allocation Clear communication pathways Team leadership and followership Situational awareness – deterioration of the patient with communication of this to the rest of the team. Need for and involvement of specialist teams and help early.</p>
Timing	Summary
5 mins	<p>The assessment and management of patients with cardiogenic shock Uses immersive simulation to put what we learned and know into practice. This also allowed us to look at how we functioned as a team and the use of non-technical skills to facilitate difficult and stressful situations in the ED resus. Thank you to all the participants and the staff both at the host site and at RNS.</p>