

Subject Topic	EdWISE PROGRAM - OUTLINE OF INTEGRATED CASE MANAGEMENT – HEAD INJURY SIMULATION MODULE
Framework Profile	Programme: EdWISE T7: Integrated Case Management – Head Injury Simulation Module
Associated E-Learning tutorials	<ul style="list-style-type: none"> • Webinar – Management of the patient with moderate to severe head injury
Simulation learning objectives	<ul style="list-style-type: none"> • Case management – Moderate to severe head injury • Teamwork • Non-Technical skills
Target Group	Medical and nursing students (mainly observing and learning as part of the team)/ Postgraduate level nurses and doctors (leading scenario and main team members)
Delivery method	Short PowerPoint presentation followed by a fully immersive simulation requiring inter-professional interaction and teamwork.
Timeframe	60 mins

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

<p>Resources for session</p>	<p>Projector screen & computer Video conference unit SIMMAN Essential mannequin – preferred. 1x IV access already in place (Faculty nurse will site the other when asked by the team) “Make-up/blood” for the back of the head and the sheets/long board/collar Clothing to put on the mannequin (trousers and a t-shirt/blouse) Wig to make her female Female genitals Stethoscope x2 Oxygen masks – nasal prongs/Hudson mask/ non-rebreathing mask and a bag-valve-mask should all be available. Oxygen supply – cylinders or piped wall oxygen Intubation/difficult airway trolley with appropriate equipment for an adult intubation, as present on host site’s trolley C-spine collar Saturation probe Saline/Hartmann – 1000ml bags x4 Blood – O negative 4 units (made up prior to scenario and given to the team when asked for) 3-lead ECG leads NIBP cuff Arterial Line equipment (Art. line pressure transducer and line should already be run through to save time whilst in the scenario) Blood giving sets Rapid infuser/warmer – Ranger or level 1 Pen torch</p>
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<p>Resources for Session Continued</p>	<p> Glucometer or calculator Sheet and blankets and pillows as per the host site’s ED Infusion pump Prefilled syringes – Saline, morphine, propofol, ketamine, thiopentone, suxamethonium, adrenaline, metaraminol, rocuronium (or which ever muscle relaxant is used in the host ED), Syringe drug labels ECG stickers for a 12 lead-ECG Laminated ECG showing sinus tachycardia Laminated ABG results (2 different results – pre and post intubation) X-ray plate/or simulate one Laminated normal CXR Laminated normal lateral C-spine X-ray Laminated normal Skull X-ray Gloves/gowns/lead gowns/masks – as per host site PPE for trauma Transfer monitor Telephone for calling other specialities/colleagues/etc. </p>
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Session Structure - EdWISE PROGRAM – TRAUMA SIMULATION MODULE – T7		
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 trauma patients • EdWISE staff to make a diagram of where faculty and participants are sitting and their names and roles <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 Enough seats for the participants and arranged in a horseshoe facing the VC unit and camera. 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>PowerPoint presentation giving a brief overview on the assessment, management and investigation of patients with moderate to severe head injuries. The presentation also gives an introduction to teamwork and non-technical tasks/skills.</p>	<p>PowerPoint presentation</p>

Timing	Familiarisation to Mannequin & equipment	
5 mins	Host site facilitators to familiarise participants to mannequin and to the environment. EdWISE 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 – Scenario	
15 mins	<p>Participant Briefing BAT CALL 33 year old woman Alleged assault, head injury Sats 95%, RR16, HR 110, BP 125/75, GCS 14 Collar, Oxygen, IVF ETA 2 mins</p> <p>Scenario outline Jessica Rabbit is a 33 year-old woman who has been allegedly assaulted on her way home from work. She has been hit on the back of the head with a baseball bat. She has an expanding extra-dural haematoma. She has no other injury. Her GCS deteriorates from 12 to 3 rapidly. She requires intubation, ventilation, sedation and good closed head injury management. Her Cushing’s response will improve with appropriate management of her closed head injury.</p>	

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Timing	Debrief - Scenario	
15 mins	<p>Key clinical issues: (Pick 2 max! Suggested with *)</p> <p>Structured approach to the assessment and management of a trauma patient</p> <p>Appropriate investigations in a patient with severe closed head injury – especially if the Skull X-ray is ordered. This may vary as per site protocols!</p> <p>Reassessment</p> <p>Detection of deterioration</p> <p>RSI in closed head injury *</p> <p>Management of severe closed head injury *</p>	<p>Key non-technical issues: (Pick 2 max! Will depend on the team. Pick at least one positive topic!)</p> <p>Role allocation</p> <p>Plan and Prepare (for the trauma, for RSI, for transfer?)</p> <p>Management of resources (available at host site) and people</p> <p>Support of team members and support of team leader</p> <p>Communication within team and with appropriate specialities</p> <p>Situational awareness – deterioration and communication of this, facilities and help available at host site, early organisation of resources</p> <p>Monitor and evaluate – patient, team, and progress.</p> <p>Guidelines of host site on treatment/imaging/transfer of head injury patients</p>
Timing	Summary	
5 mins	<p>A quick summary of the main learning points</p> <ul style="list-style-type: none"> • Structured approach to the trauma patient • Management and investigation of patients with severe closed head injuries • Importance of Non-technical skills with the trauma team setting and also day-to-day work. <p>Thank you to participants</p> <p>Thank you to the host site staff</p> <p>Thank you to the EdWISE staff</p>	