Assessment task 5: My lesson plan for a simulation-based teaching session

PAEDIATRIC AIRWAY MANAGEMENT IN HOLDING BAY

Table of Contents

1. Session outline:

Perioperative Team Training (PTT) session	
Overview	Information
Multidisciplinary in-situ scenario in Holding Bay involving a paediatric patient with deep sedation and loss of airway after a midazolam premedication	• 4 year old female in holding bay for elective tonsillectomy • 21kg, history of snoring but otherwise well • She has received a 10mg midazolam PO pre-med as charted • Subsequent airway obstruction; emergency bell pressed • Airway obstruction unable to be relieved by standard manoeuvres • Anaesthetic registrar arrives and intubates patient with assistance from holding bay nurses
Timing (1 hour)	• 10 minute pre-brief • 10-15 minute scenario • 30 minute debrief • 5 minute pack up and close
Setting: Pre-operative holding bay 1400hrs on a week day	Any bay; to be arranged during set up of scenario in discussion with in-charge nurse as to least disruptive location for other patients and staff Allows for minimal impact on patient care as this is handover time and extra staff are available Scenario is also set at this time and location and participants are briefed accordingly

Active participants	4 Holding Bay nurses	Any seniority level; preferably a mix of experiences reflecting usual staffing – participants would be expected to have familiarity with each other from their normal work environment
	1 Anaesthetics registrar	Any registrar who has passed their Initial Assessment of Anaesthetic Competence as outlined by the ANZCA Handbook for Training (1)
Observers	0-4 observers (no more than 1 anaesthetist)	Provided with observer guide (Appendix 4) and each allocated a learning objective section Given time to read the scenario and briefed to provide constructive feedback during the debrief on their specific learning objective section
Faculty	2 Anaesthetics Sim Faculty	1 performs pre-brief, facilitates scenario and secondary debrief 1 runs simulation technology, performs primary debrief
	1 Perioperative Team Training Nurse	Initial role play as parent Provides nursing perspective at all stages of debrief

Set Up	Paediatric manikin lying on trolley	• 20º head up • Covered with blanket from shoulders down • No IV access in situ • Low to moderate fidelity • Full body Capable of basic and advanced airway management (ie. can be bag-masked, have adjuncts inserted, LMA inserted, realistic larynx for intubation)
	Realiti360 staging monitor	Attached to front of existing patient monitor
	Patient paperwork (see Appendix 11)	Surgical consent for elective tonsillectomy Preoperative checklist filled out by holding bay nurse, no issues Anaesthetic assessment showing weight, no history of previous anaesthetic, no comorbidities but history of snoring Drug chart with documented midazolam dose charted as given

2. Purpose of the learning activity

Holding bay is a key area of the perioperative journey as the portal to the operating theatre for almost all elective patients and emergency patients. Almost all of their patients will not require any specific medical care during their time in holding bay, however as with any area of healthcare, the potential is always there. Some holding bay nurses will have broad experience in other areas of nursing, including anaesthetics nursing, however some may have only ever worked in holding bay. Given the relative scarcity of serious events in holding bay, yet the critical importance of early recognition and appropriate action, performing simulation training for serious patient deterioration has considerable merit. This important ability of simulation in improvement of crisis performance through scenario training focused on human factors is discussed in a 2008 paper by Anderson and Leflore, with specific mention of using realistic multidisciplinary team training (2).

In my experience, nurses in the perioperative sphere who are in areas with less regular exposure to advanced airway management are aware of their lower familiarity levels with airway techniques. They are often the most enthusiastic in engaging in learning opportunities but also have trepidation regarding self-perceptions of inadequacy to meet the challenges of the learning opportunities. The concept of this very feeling of inadequacy is described as a driver for reflective learning by Miettinen in his discussion on Dewey's theory of reflective thought and action (3). It is critical for faculty when engaging with this learner subset to foster their enthusiasm and minimise the psychological risks by thorough and empathetic pre-briefs and debriefs. Accordingly, faculty involved in these sessions must consistently display a high level of emotional intelligence and strong communication skills, as well as possessing established knowledge and skills in structured pre-briefing and debriefing. Turner et al. state that the psychological safety of nursing participants in simulation is most highly associated with a positive relationship with the simulation faculty (4). If this can be successfully achieved, then there are numerous benefits at all levels. The individuals involved benefit through increased knowledge, skills and confidence in managing deteriorating patients in both procedural and behavioural domains. The holding bay area benefits through possession of staff with these abilities, which can flow on to other staff when they observe the abilities in action as per Bandura's theory of social learning (5). The anaesthetic department benefits via an increase in staff who can effectively assist in perioperative crisis management. Finally, the organisation benefits through the synergistic nature of all these improvements across perioperative craft groups.

3. Learning objectives

At the conclusion of the session, participants will be able to:

1. Describe the following key components and connections of Salas' 'Big 5' teamwork domains (6).
    a. Shared mental model
    b. Closed-loop communication
    c. Leadership
    d. Followership
2. Evaluate the use of the selected domains of Salas' 'Big 5' in crisis situations.
3. Identify the expectations of their own role in basic and advanced airway management in the holding bay environment.
4. Identify the correct equipment required for basic and advanced airway management in paediatric patients including its location and preparation.
5. Describe the actions involved in basic airway management including simple airway manoeuvres and use of adjuncts.
6. Describe the actions involved in advanced airway management including the steps of endotracheal intubation.

Please see Appendix 1. Theory informing the choice of Learning Objectives for further information.

4. Teaching strategies and learning activities (including simulation modalities)

Before the scenario	
2 weeks prior	Participants and relevant management staff are emailed an introductory notification of the session (see Appendix 3)
On the day	Team leaders/theatre coordinators are consulted to ensure staffing is adequate and it is appropriate to proceed These staff are also informed that there will be a very brief emergency bell in Holding Bay at approximately 10 minutes after the session commencement time and not to attend the bell unless it is prolonged (to preserve safety for other patients)
30 minutes prior to the session until session commencement	Faculty arrive and set up the physical environment (see Session Outline for details). Lead faculty member confirms understanding of scenario with other faculty. Team leader/area management are consulted as a final point of approval to proceed and to confirm staff numbers attending including any observers. Observers are identified, briefed separately and provided with the observer guide (see Appendix 4).
Anaesthetic registrar is separately briefed with the following information	You will be waiting at the Theatre Central Desk for a brief emergency bell in Holding Bay Please have a two-minute timer ready to start at this point At the conclusion of the timer, please attend Holding Bay

PRE-BRIEF	**Participants and observers receive standardised Perioperative Team Training pre-brief (see Appendix 5)** Participants and observers then receive the scenario specific pre-brief outlining the situation, setting and their roles (see below)

Briefing script for participants:

- (All participants receive general PTT pre-briefing)
- Thank you again for participating in today's scenario
- You are all holding bay nurses in your normal roles with your usual level of responsibility
- It is 2pm on a weekday
- Billie Corgan is a 4 year old female for elective tonsillectomy
- She is 21kg, has a history of snoring but otherwise well
- She has received a 10mg midazolam PO pre-med as charted
- The nurse who checked her in has gone on lunch break
- You are otherwise going about your normal business, and one of you is going by to check on Billie and her mum
- Can we please have a volunteer to be the nurse checking on Billie? Thank you 🙂
- All other nursing participants, can you please wait at the nursing station?
- Anaesthetic registrar, can you please wait at the Theatre Central Desk?

<table>
<tr><th colspan="2">Scenario
(10-15 minutes; see Appendix 6 for simulated vitals changes and transition events)</th></tr>
<tr><td>EVENT</td><td>INFORMATION/EXPECTED INTERVENTIONS</td></tr>
<tr><td>Billie’s parent calls out for help</td><td>Billie’s parent is played by a faculty member who steps out of the scene after staff arrive. <u>They then place their faculty banner on to demonstrate that they are now not participating in the scenario</u>. While they are playing the parent, the faculty member is to act concerned with urgency in their voice, but not upset, angry or overly scared. The aim is to get the nurse’s attention and concern, not to introduce too much emotion.</td></tr>
<tr><td rowspan="5">Staff member arrives, finds unconscious child with obstructed airway</td><td>Call for help (brief emergency button press)</td></tr>
<tr><td>Expected to perform</td></tr>
<tr><td>● Apply oxygen
● Head tilt, chin lift, jaw thrust
● Retrieval of emergency trolley</td></tr>
<tr><td>May perform</td></tr>
<tr><td>● Manual bag-mask ventilation
● Insertion of oropharyngeal airway
● Insertion of nasopharyngeal airway
● Retrieval of airway rescue trolley from Post-Anaesthetic Recovery Unit</td></tr>
<tr><td rowspan="2">Anaesthetist arrives 2 minutes after emergency bell</td><td>Expected to perform</td></tr>
<tr><td>Receive brief handover from nursing staff

Assume primary airway management role

Confirm lack of efficacy of basic airway management when they are the primary operator</td></tr>
</table>

Anaesthetist… (continued)	Request intubation equipment from nursing staff • Appropriate laryngoscope (Mac blade size 2) • Appropriate endotracheal tube (cuffed 5.0 ETT; 4.5 and 5.5 also acceptable, as would be an uncuffed ETT)
	May perform
	Request and insert a laryngeal mask airway (size 2) but this will be unsuccessful regardless
Airway management progresses	Nursing staff prepare and provide equipment to anaesthetist Syringe for cuff inflation and tape or tie for ETT securement should also be sourced and used
Intubation succeeds	Tube is secured, patient is ventilated and vitals return to safe and normal parameters Team recognise the improvement and discuss next steps Scenario end

After the scenario	
Debrief	Please see Assessment section on Page 12
Faculty Debrief	Structured process to guide improvement and quality control (see Appendix 8) Occurs immediately after packing up and returning equipment to anaesthetics department Also contains identification of key factors for reporting process
Scenario report drafted	Written by lead faculty member based on outcomes of faculty debrief Includes feedback from participants
Participation certificates sent to participants	Occurs within the week following the session Certificates can be used for CPD purposes, including ANZCA Category 1 Activity: 'Team training scenario within own work environment, with usual work team'
Finalised scenario report	See Evaluation section (page 15) for more details Sent to relevant executive staff for review and actioning Participants also receive a copy of the report (BCC to preserve confidentiality)

Please see Appendix 2. Theory informing the teaching strategies and learning activities for further information

5. Assessment including feedback to participants

The assessment and feedback for participants in this learning session occur primarily during the analysis phase of the PEARLS debriefing format (14). As introduced in the purpose section of this lesson plan, participants are positioned in this scenario to be brought to the edges of their ability of practice in a safe environment, and then the potential feelings of inadequacy generated are used to produce deep reflection and learning as per Dewey's theory of reflective thought and action (3). Faculty are provided with paper copies of the PEARLS format (see Appendix 7) where the analysis section includes the following areas of assessment and feedback explicitly:

1. Learner Self-Assessment
    a. Promote reflection by asking learners to assess their own performance.
2. Focused Facilitation
    a. Probe deeper on key aspects of performance
3. Provide Information
    a. Teach to close clear knowledge gaps as they emerge and provide directive feedback as needed

This combined approach aims to meet the goal of 'debriefing with good judgement' as per Rudolph et al. (15) where learners are supported to offer their own views on their areas for improvements and pathways forward while being guided with genuine curiosity towards the correct actions as judged by the debriefing faculty. It is outlined in 'Healthcare Simulation Standards of Best Practice™ The Debriefing Process', that achieving this quality of debrief requires qualified, deliberate and considerate faculty (16). It would be expected therefore that any faculty with active involvement in the debrief can meet the following objectives:

- Describe the phases of the PEARLS format including examples of phrases to use in each stage
- Define psychological safety and explain how it applies in a simulation debrief
- Describe common phrases used in Plus/Delta and Advocacy/Inquiry debriefing models
- Evaluate debriefing models (including Plus/Delta and Advocacy/Inquiry) including strengths and weaknesses of each models
- Demonstrate deep understanding of each of the session's learning objectives in order to provide correct education to participants where necessary

In the first phase of the analysis, learners are invited to self-assess in a Plus/Delta framework (17) where they examine what went well individually and overall. This helps faculty understand the internal perspectives of learners; if themes generated by the learners are reflected in the intended areas for faculty then introduction of teaching points is often better accepted. It is in this phase of crossover between learner perspective and faculty teaching that learning objectives can often be specifically referenced to guide discussion and learning.

This scenario is designed as a learning experience rather than an assessment. It is intended that faculty-led examination of the learners during the debriefing process will provide adequate information to guide faculty in bridging knowledge gaps between that observed in the scenario and discussed in the debrief in order to assist learners in attaining the requisite level of knowledge by the session's conclusion. If that aim is not judged as met by faculty present then it is an opportunity for future education sessions in any areas not assessed as meeting the expected standards.

If present, observers will be identified within the thirty minutes prior to the session in order to pre-brief them on their role and to give them time to read the observer guide (Appendix 4). The aim is to provide peer-based constructive feedback during the debrief from a non-participant perspective. As per the review by O'Regan et al. (19), providing specific learning guides to observers increases their engagement, satisfaction and can provide equivalent learning outcomes to participants. This is an effective way to increase the number of staff benefiting from the session without having an inaccurately large or unwieldly number of active participants.

6. Evaluation of the learning activity

The learning activity is evaluated in several ways:

- Faculty debrief
- Anonymous feedback from participants
- Formal report sent to the Surgical and Perioperative Services executive

Assessment of the scenario and of faculty themselves occurs during the faculty debrief (see Appendix 8). The aim of this stage is to provide quality assurance through self-assessment and reflection, as well as by inviting constructive feedback from other faculty members. It is often clear when and where aspects of the simulation have not met the expected standard, though it may be less clear when faculty themselves are not meeting the expected standard. In recognition of this, the faculty assessment is to be informed by the Debriefing Assessment for Simulation in Healthcare (DASH) (18) to provide clarity of evaluation and give defined areas for improvement if applicable. The DASH form is to be filled out by each faculty member present to provide feedback to each faculty member actively participating in the debrief. Regarding identified shortfalls of the scenario and equipment, these are to be discussed by faculty and recorded for correction in the documentation in that scenario and any other relevant scenarios so as to improve future sessions.

At the conclusion of the debrief, an A4 printed QR code linked to an anonymous survey on Microsoft Forms is provided to participants. It is requested that participants complete this survey before returning to work to generate high percentages of respondents and accurate feedback due to the contemporary relation to the exercise. For an example of the survey and previous results, please see Appendix 9. Receiving the feedback immediately enables the results to be used in the Faculty debrief, better informing perceptions of scenario and faculty performance.

The summation of the scenario performance, faculty debrief and participant feedback is compiled in a report written by the lead faculty member to be provided to faculty members, participants (via blank carbon copy email to preserve anonymity), relevant managerial staff and the Surgical and Perioperative Services executive. This provides accountability and transparency regarding the Perioperative Team Training faculty and their performance, while outlining areas for improvement in staff education, physical environments and hospital systems. Please see Appendix 10 for an example of a previous report.

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APPENDICES

Appendix 1. Theory informing the choice of Learning Objectives

These learning objectives have been written with guidance from the excellent article by Chatterjee and Corral (7) to be SMART - Specific, Measurable, Attainable, Relevant, and Time-bound. The intention of this is to provide learners, observers and faculty with clear expectations at all stages of the scenario from its design and conception through to debrief and evaluation. The learning objectives for this activity are designed to address content, process and context across technical and behavioural domains, with specific direction as to teamwork behaviours and airway management performance. I would consider that the aim of the scenario itself is to act as a catalyst for reflection and discussion in the debrief, and hence there is application here of Mezirow's Transformative Learning Theory (8) in the use of reflection to produce deep and consequential learning. His domains of perspective (psychological: how people view themselves, sociolinguistic: related to the use of language in social settings and epistemic: related to the acquisition and use of knowledge [9]) are echoed across the learning objectives for this session.

Salas' 'Big 5' (6) is introduced specifically and deliberately in the pre-brief, where participants are shown an infographic demonstrating what they are along with their attendant connecting themes. Participants are then invited to reflect upon their previous experience of crisis situations and how the influence of these human factors may have had a greater impact than certain technical aspects of emergency management. The intention is that they are primed to use these principles in their performance and to focus on their efficacy in the debrief. The learning objectives give scope for participants to both know and apply their understanding of teamwork behaviours.

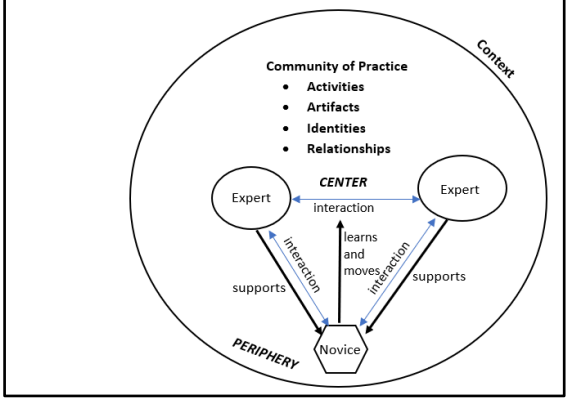
Learning outcomes 3 to 6 position learners to understand what is needed for airway management, how it is done and which aspects of airway management are in their scope of practice.

The outcomes are applicable across all levels of seniority for the nursing and anaesthetic participants; the amount to which each learner meets the separate objectives prior to the session and their relative ability gain from the session will be dependent on the individual.

Appendix 2. Theory informing the teaching strategies and learning activities

This lesson plan is designed to deliver a safe, realistic, achievable and worthwhile session for participants and faculty alike, while delivering value to the perioperative system at multiple levels. The early notification email provides participants with information designed to decrease their anxiety regarding participation; this approach has been recognised in the literature as a successful technique (10). The session is consistent with the goals of scenario-based learning as described by Herrera in Theoretical Models for Teaching and Research; “it works by simulating real-world practice, [providing] safe opportunities to engage in situations that may be otherwise difficult for students to experience in their studies” (11). This builds upon the principles of situated learning theory, whereby novices (the participants) are brought closer into the centre of the community of practice by interactions (the scenario and debrief) with experts (the faculty) (see Figure 1; [12]).

Figure 1
Model of Situated Learning Theory



The simplicity of the scenario, deliberately avoiding any tricks or traps for learners, is consistent with Cognitive Load Theory; it is recognised that excess complexity or stress interfere with scenario engagement and post-scenario learning (13). The overarching structure of the simulation experience is well described by the phases of Kolb’s experiential learning theory as outlined in Figure 2 (5). All these theories are frequently referenced throughout the simulation literature, and as such it is no surprise to see their involvement and interplay when examining the scenario as described above.

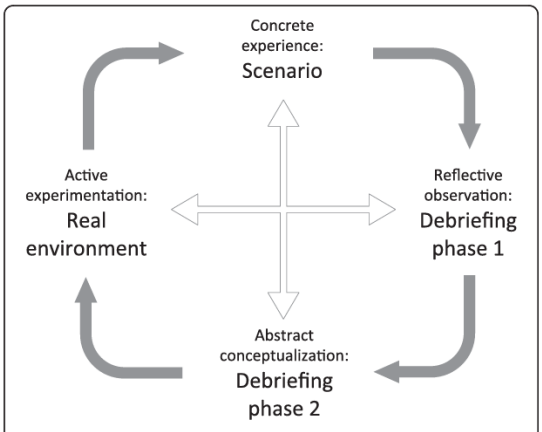


Figure 2 Simulated team training in the conceptual framework of Kolb’s experiential learning theory.

Appendix 3: Notification Email

Good afternoon all,

I am contacting you about the Perioperative Team Training simulation session taking place at **XXXXhrs** on Tuesday afternoon on (Date) of (Month) 20XX in Holding Bay, as you are either participating, assisting in its delivery or involved in running the floor that day – if you are not sure of your role, please ask me.

Please forward this to any relevant parties to read prior to the session.

As an overview:

- Perioperative Team Training is a multidisciplinary in situ scenario-based simulation program aimed at improving crisis management in the perioperative environment – it involves all members of the theatre team
- Basically, the team manages a simulated crisis in their normal roles, then we discuss how it went!
- It is meant to be an enjoyable and constructive learning experience with your colleagues; it is not an assessment or test of any form
- PTT includes a special focus on behavioural skills that teams need to function effectively in crisis situations, improving interpersonal and interdisciplinary communication to facilitate enhanced performance from a team-centric perspective
- In situ simulation education allows simultaneous assessment of the physical crisis management aspects in the perioperative precinct, allowing ongoing refinement of the environment and processes
- You will get a certificate for CPD for taking part

The format is designed to take place with 1 hour:

- 5 minute set up
- 5 minute pre-brief
- 10-15 minute scenario performance
- 20-25 minute debrief
- 5 minute pack up and close

Please let me know if you have any questions or comments.

Kind regards,

Dr Harry Laughlin MBBS FANZCA | Staff Specialist Anaesthetist

ANZCA Supervisor of Training

Anaesthetic Education, Training, and Simulation Program Coordinator

Department of Anaesthesia and Perioperative Medicine (DAPM)

Appendix 4: Observer Guide

Thank you for observing the scenario today!

Your role involves the following:

- Read the scenario information below to gain an understanding of what is about to occur.
- Read the learning objectives: you will be allocated one prior to the scenario to observe.
- Watch the scenario carefully with your learning objective in mind.
- Participate in the debrief – it would be great if you can assist in providing constructive feedback related to what occurred and how it aligned with the expected behaviours.

<table>
<tr><th colspan="2">Scenario</th></tr>
<tr><td>EVENT</td><td>INFORMATION/EXPECTED INTERVENTIONS</td></tr>
<tr><td>Billie’s parent calls out for help</td><td>Billie’s parent is played by a faculty member who steps out of the scene after staff arrive. They then place their faculty banner on to demonstrate that they are now not participating in the scenario</td></tr>
<tr><td rowspan="5">Staff member arrives, finds unconscious child with obstructed airway</td><td>Call for help (brief emergency button press)</td></tr>
<tr><td>Expected to perform</td></tr>
<tr><td>● Apply oxygen
● Head tilt, chin lift, jaw thrust
● Retrieval of emergency trolley</td></tr>
<tr><td>May perform</td></tr>
<tr><td>● Manual bag-mask ventilation
● Insertion of oropharyngeal airway
● Insertion of nasopharyngeal airway
● Retrieval of airway rescue trolley from Post-Anaesthetic Recovery Unit</td></tr>
</table>

<table>
<tr><td rowspan="4">Anaesthetist arrives 2 minutes after emergency bell</td><td>Expected to perform</td></tr>
<tr><td>Receive brief handover from nursing staff

Assume primary airway management role

Confirm lack of efficacy of basic airway management when they are the primary operator

Request intubation equipment from nursing staff
Appropriate laryngoscope (Mac blade size 2)
Appropriate endotracheal tube (cuffed 5.0 ETT; 4.5 and 5.5 also acceptable, as would be an uncuffed ETT)</td></tr>
<tr><td>May perform</td></tr>
<tr><td>Request and insert a laryngeal mask airway (size 2) but this will be unsuccessful regardless</td></tr>
<tr><td>Airway management progresses</td><td>Nursing staff prepare and provide equipment to anaesthetist

Syringe for cuff inflation and tape or tie for ETT securement should also be sourced and used</td></tr>
<tr><td>Intubation succeeds</td><td>Tube is secured, patient is ventilated and vitals return to safe and normal parameters

Team recognise the improvement and discuss next steps

Scenario end</td></tr>
</table>

Learning Objectives		
1. Describe the following key components and connections of Salas' 'Big 5' teamwork domains (6). a. Shared mental model b. Closed-loop communication c. Leadership d. Followership 2. Evaluate the use of the selected domains of Salas' 'Big 5' in crisis situations.		
Component	Expected behaviours	Things to look for
Shared mental model	Team members have the same priorities	Discussion of goals Recapping of stage of progress Coordinated approach to issues
Closed loop communication	Requests are targeted to a specific person and communication occurs both ways	Names are used as much as possible The recipient of a request relays their receipt of the request to its originator Once a task is done, the performer relays the completion to the requesting individual
Leadership	There is a team leader who helps guide the team towards their objectives	A leader who is either nominated or obvious to the group The leader provides helpful and clear instructions to the group The leader listens to the group
Back-up behaviours	Team members work together to achieve their goals and to assist the leader where possible	Team members display initiative in managing issues Team members form mini-teams to carry out tasks Team members make suggestions to the team leader

Learning Objective	
3. Identify the expectations of their own role in basic and advanced airway management in the holding bay environment.	
Expected behaviours	**Things to look for**
Holding Bay nurses • Call for help • Perform basic airway manoeuvres without prompting • Assist anaesthetist by finding and preparing equipment for intubation • Present appropriate equipment in a correct manner when requested during intubation	Early recognition of severity of situation Early call for help Nurses either self-select to perform basic airway management or communicate within their team to find the most appropriate person Depending on level of previous advanced aireway experience, either pre-prepare intubation equipment or prepare equipment in conjuction with communication from anaesthetist
Anaesthetist • Receive handover • Assume primary airway management role • Recognise failure of basic airway management • Progress to advanced airway management • Intubate patient	Communicate with nursing staff to receive the relevant information Rapid assumption of primary airway management role Performs basic airway management themselves but recognises lack of success and clearly announces to the team the need to intubate the patient Provides clear and accurate instructions about the equipment required for intubation Successfully intubates patient while guiding nursing staff through the assistant role as required

Learning Objective	
4. Identify the correct equipment required for basic and advanced airway management in paediatric patients including its location and preparation.	
Expected behaviours	**Things to look for**
The need for the emergency trolley is recognised early and retrieved Participants may or may not choose to also retrieve the airway rescue trolley	The correct trolleys are retrieved The emergency trolley is retrieved before the anaesthetist arrives Participants locate the correct equipment within the trolleys without undue delay
Basic airway equipment is selected prior to anaesthetist arrival	Basic airway equipment: • Oxygen • Self-inflating bag • Oropharyngeal airway • Nasopharyngeal airway
Advanced airway equipment is selected with input from the anaesthetist All equipment is correctly prepared	Advanced airway equipment • Laryngoscope (Mac size 2, given to anaesthetist's left hand, handle up, blade down) • Endotracheal tubes (cuffed 5.0 ETT; 4.5 and 5.5 also acceptable, as would be an uncuffed ETT) (cuff end directed towards patients chest) • Syringe (5 or 10mL) • Tie • LMA size 2 or 2.5 (only if requested)

Learning Objective	
5. Describe the actions involved in basic airway management including simple airway manoeuvres and use of adjuncts. 6. Describe the actions involved in advanced airway management including the steps of endotracheal intubation.	
Expected behaviours	Things to look for
Participants perform basic airway manoeuvres first Participants progress recognise the lack of success and prepare for advanced airway management Participants perform advanced airway management	Participants apply oxygen, increase oxygen flow and perform simple airway manoeuvres: chin lift, head tilt, jaw thrust Participants recognise the lack of success and use correctly sized and inserted airway adjuncts such as guedel airways and/or nasopharyngeal airways Participants escalate to a self-inflating bag to provide positive pressure ventilation Participants discuss and anticipate next steps at each stage Participants select and prepare an endotracheal tube and laryngoscope, recognising that this patient requires definitive airway management • Laryngoscope given to anaesthetist's left hand • ETT given to anaesthetist's right hand • Anaesthetist inserts ETT through vocal cords to correct depth (age/2 + 12 = 14cm) • Cuff is inflated until no leak with positive pressure ventilation • Chest rise and fall is confirmed • ETT is secured with tape or tie If a laryngeal mask airway is nominated as an interim option, it is appropriately selected and prepared

Appendix 5: General Perioperative Team Training pre-briefing

See link:

https://drive.google.com/file/d/1hunhKHHSpRFTt8wtkAE04kYTTMVDj3q6/view?usp=drive_link

Appendix 6. Vitals

Stage	Vitals							Intended Events
	A	B			C		D	
		SpO_2	RR	E_TCO_2	HR/ECG	BP		
Start	Patent	95% RA	16	N/A	92 SR	94/61	Eyes shut, sleeping	Pre-brief
Transition 1	Once scenario begins							
Deterioration (over 4 minutes)	Obstructed	70%	16	N/A (0 if CO2 connected to BVM)	110 SR	91/59	No response to any stimuli Pupils equal and reactive if checked	Recognition of deterioration Call for help Simple airway manoeuvres Gathering equipment Potential attempted bag mask ventilation Anaesthetist arrives 2 minutes after emergency bell is pressed Any LMA insertion is unsuccessful Intubation is successful
Transition 2	Occurs once endotracheal tube inserted, cuff inflated and ventilation commences via ETT							
Recovery (over 45 seconds)	ETT	93%	20	62	94 SR	102/74	No response to any stimuli Pupils equal and reactive if checked	Team recognition of improvement Discussion of situation and brief consideration of next steps
END	Scenario ends after participants discuss 1. What to do regarding immediate disposition							

Appendix 7. Debrief Structure

DEBRIEF STRUCTURE AND NOTES (PEARLS FORMAT)

(Originally published as Bajaj K, Meguerdichian M, Thoma B, Huang S, Eppich W, Cheng A. The PEARLS Healthcare Debriefing Tool. Acad Med. 2017**):**

Stage	Objective	Task	Sample Phrases	Notes
Setting the scene	Create a safe context for learning	State the goal of debriefing; articulate the basic assumption	"Let's spend X minutes debriefing. Remember, our goal is to improve how we work together and care for our patients."	
Reactions	Explore feelings	Solicit initial reactions & emotions	"Any initial reactions?" "How are you feeling?"	
Description	Clarify facts	Develop shared understanding of case	"Can you please share a short summary of the case?" "What was the working diagnosis? Does everyone agree?"	
Analysis	Explore variety of performance domains	1) Learner Self-Assessment *Promote reflection by asking learners to assess their own performance* 2) Focused Facilitation *Probe deeper on key aspects of performance* 3) Provide Information *Teach to close clear knowledge gaps as they emerge and provide directive feedback as needed*	What aspects were managed well and why? What aspects do you want to change and why? Advocacy: I saw [observation], I think [your point-of-view]. Inquiry: How do you see it? What were your thoughts at the time? I noticed [behaviour]. Next time you may want to consider [suggested behaviour], because [rationale]	
Any Outstanding Issues/Concerns?				
Application/ Summary	Identify take-aways	Learner-centred Instructor-centred	"What are some take-aways from this discussion for our clinical practice?" "The key learning points for the case were [insert learning points here]."	

Appendix 8. Faculty Debrief

FACULTY DEBRIEF STRUCTURE AND NOTES (MODIFIED PEARLS FORMAT)

(Originally published as Bajaj K, Meguerdichian M, Thoma B, Huang S, Eppich W, Cheng A. The PEARLS Healthcare Debriefing Tool. Acad Med. 2017**):**

Stage	Objective	Task	Notes	
DASH completion	Improve debriefing performance	Complete DASH Rater Version, Short form	Performed at this stage to avoid interruption to debrief flow once begun; faculty fill out a paper DASH to use as reference during the analysis phase	
Stage	**Objective**	**Task**	**Sample Phrases**	**Notes**
Setting the scene	Create a safe context for learning	State the goal of debriefing; articulate the basic assumption	"Let's spend X minutes debriefing. Remember, our goal is to improve how we work together and create a learning experience."	
Reactions	Explore feelings	Solicit initial reactions & emotions	"How do we feel that the session went?"	
Analysis	Explore variety of performance domains	1) Faculty Self-Assessment *Promote reflection by asking faculty to assess their own performance* 2) Focused Facilitation *Probe deeper on key aspects of performance* 3) Provide Information *Teach to close clear knowledge gaps as they emerge and provide directive feedback as needed*	What aspects were managed well and why? What aspects do you want to change and why? Advocacy: I saw [observation], I think [your point-of-view]. Inquiry: How do you see it? What were your thoughts at the time? I noticed [behaviour]. Next time you may want to consider [suggested behaviour], because [rationale]	Must specifically consider and address each phase: • Preparation • Pre-brief • Scenario • Debrief (reference DASH results) Review results of participant feedback on Microsoft Forms
Any Outstanding Issues/Concerns?				
Application/ Summary	Quality improvement	Identify key learning points	"What are some take-aways from this discussion for our simulation practice?" "The key learning points for the session were [insert learning points here]."	

Appendix 9. Previous PTT session feedback

See link:

https://drive.google.com/file/d/1y3cDw_I1XSpVN47sJPuOuDWxeSYmKCIq/view?usp=drive_link

Appendix 10. Previous PTT session report

See link:

https://drive.google.com/file/d/1CXAk9YY0XD_M5eQMfYF_pn0CXQiOxRpK/view?usp=drive_link

Appendix 11. Patient paperwork

See link:

https://drive.google.com/file/d/1BUThOX3J3CqqkqV0WTbDlBDpA8e-lRkC/view?usp=drive_link