

Demonstration - serious illness simulation

Key Teaching Objectives

To demonstrate a serious illness simulation and emphasise the following:

- The ABC/primary assessment/key features approach to illness
- Teamwork and the format of simulations throughout the course
- Supportive critiquing
- Non-technical skills (NTS) feedback

ENVIRONMENT FOR DEMONSTRATION

Equipment required

See generic equipment list

Environment

The room should be large enough to accommodate the instructors and equipment and ensure that all the candidates have a good view.

The equipment should be placed at an angle to the audience to facilitate their view. The instructors should not obstruct the view.

Personnel required

6 x instructors to carry out the demonstrations in the following roles:

- Instructor to lead simulation
- Instructor to lead human factors feedback
- Team leader
- Team members x 3

SET FOR DEMONSTRATION

Course Director brief to candidates on responsibilities in simulations:

Instructor	Candidate
<ul style="list-style-type: none"> • Correct and working manikin • Continuous assessment of good BLS, airway management and safe defibrillation 	<ul style="list-style-type: none"> • Room and equipment • Establishing and maintaining role (self in familiar situation or, if confident, self in more challenging situation) • Four simulations as team leader • Handover after Initial Assessment (A to E) • To role play: <ul style="list-style-type: none"> ○ initial team member ○ handover team member ○ observer

When playing the initial team member, if they are more senior to the initial team leader, then they should assist under direction from the team leader until a full APLS initial assessment and resuscitation has been achieved. This allows faculty to assess that the initial team leader is a safe APLS provider and can achieve the key treatment points autonomously. Once the additional team members arrive, then the team can work together under the direction of the team leader to complete the simulation

1. Instructor

Introduces the format (including roles) and objectives of the demonstration then plays the role of the instructor.

2. Instructor describes the simulation to the instructor who is the team leader

SIMULATION DEMONSTRATION

Learning outcomes:

By the end of this simulation the candidates will:

- Recognise life-threatening meningococcal septicaemia
- Implement resuscitation of the child with meningococcal septicaemia

Simulation focus: Meningococcal septicaemia

Timing: 0-3 minutes: introduction; remaining time: split equally between simulation and debrief

Introduction [Environment and Set]

Prior to the start of the simulation: one instructor to:

1. [Environment] Brief candidate group to *check the Environment*:

Room	Candidates to set up the room appropriately	
Equipment	Candidates to check required equipment present and accessible	

Equipment list:

In addition to generic equipment list:

- Appropriate size manikin to be ready for simulation in room and covered until simulation commences

2. [Set] Give *History*

A 7 year old child presents with a 6 hour history of sore throat, fever and headache. The general practitioner has attended, noted "delirium", and called for an ambulance. The child has been previously well.

Then leave the room for candidate group to prepare and after 2 minutes, return with instructor team and commence simulation

[Dialogue] Simulation

Initial handover {to tell candidate on your arrival with the child as Paramedic SBAR to Team Leader}

Situation	An unwell, febrile 7 y old child is being brought in by a paramedic crew	
Background	For 6 hours, this child has had a sore throat, fever, and headache. The general practitioner has attended, noted "delirium", and called for an ambulance. The child has been previously well.	
Assessment	A	Groaning
	B	RR 48/min
	C	Pulse 180 bpm; prolonged capillary refill; BP 90/60mmHg
	D	Only responding to pain
	E	Temperature 38.6°C; some petechiae are noted on the trunk
Recommendation	Needs emergency management	

Clinical course {to be given as the simulation progresses}

There is no improvement in the clinical condition of this patient until the third fluid bolus. The patient starts to convulse unless the candidate has identified and treated hypoglycaemia. Respiratory parameters deteriorate until intubation is performed and ventilation commenced. The child then stabilises.

Key treatment points



Airway	Establish airway patency		
Breathing	High flow O ₂ via face mask/High flow nasal oxygen		
	Tracheal intubation & ventilation		
Circulation	IV/IO access		
	Check blood glucose		
	Fluid boluses		
	Commence inotropes		
Specific Therapy	Treat hypoglycaemia with 2 ml/kg of glucose 10% and ongoing infusion		
	IV antibiotics		
Handover	S		
	B		
	A		
	R		

3. Instructor terminates demonstration and ...

[Closure] Debrief

Using the learning conversation, carry out the debrief of both the technical and non-technical elements of the simulation.

The debrief will be for the team as a whole and should focus on some or all of the following:

- Technical skills in an A, B, C, D, E format and guided by the KTPs; in particular the safe and effective demonstration of all continuously assessed skills:
 - BLS
 - Defibrillation
 - Airway management
- Non-technical skills, including qualities of team membership and leadership:

Team members	<ul style="list-style-type: none"> • Clear communication • Respect • Flexibility • Assertiveness • Ability to listen
Team leaders	All of the above, plus <ul style="list-style-type: none"> • Full overview of all aspects associated with child, parents and team • Prioritises according to KTPs • Summarises and re-evaluates

- Feedback on Environment, where required

At the end of the debrief, give the opportunity for candidates to ask questions, answer these and then summarise the key points

CLOSURE OF DEMONSTRATION

4. Instructor then invites the course participants to ask questions, answer these and then summarise the key points