

Preface to the scenarios

Scenario teaching is intended to allow the candidates to synthesise their knowledge into the situation that they will face clinically. It therefore represents the culmination of the teaching on each part of the course. The scenario cases are listed at the end of this preface.

There are 31 teaching scenarios and 4 testing scenarios in the course package. Teaching scenarios include 8 cardiac, 12 illness and 8 trauma. There is also one of each type allocated for the whole group demonstration.

Each scenario is set out in the same way. First a general introductory piece of history is given, including an estimated weight. A calculation sheet is provided and the candidate can undertake the calculations with assistance from their team and drug book resources. This is followed by the initial impression that should be given to the candidate as the child arrives.

Following this there is the clinical course that can be given to the candidate, as appropriate, as they progress through the assessment and treatment of the child. This is not intended to cover all eventualities, but rather to ensure that the scenario teaches or tests appropriate skills.

During teaching sessions instructors need to balance the intended course of the scenario against the actions of the candidate, and may alter the clinical course if this seems appropriate. This is more difficult during testing as Key Treatment Points need to be met.

The Key Treatment Points are given next. They represent the essential actions that are required from an APLS provider. They often provide useful discussion points during the learning conversation.

The underlying diagnosis appears in the box at the bottom of the scenario page.

Scenario teaching requires a great deal of preparation from the instructors who are running the station. They must be familiar with the scenarios that they have been allocated, and are responsible for the layout of their station, which should be as close as possible to a real resuscitation area. The equipment required is set out below

Equipment Required

Child manikin
Infant manikin
Manikin for IO access x 1
ALSi, iSimulate, Monitor-defibrillator with paediatric pads x 1

Airway & Breathing

Oropharyngeal airway sizes 000, 00, 1, 2, 3.
Endotracheal Tubes 2.5 uncuffed, 3-7.5mm (un)cuffed (in 0.5mm steps)
Laryngoscope: adult curved blade
Laryngoscope: straight paediatric blades
Paediatric Magill Forceps
Yankauer Sucker, Soft Suction Catheters
Oxygen Masks with reservoir, O₂ tubing
Self inflating bags & reservoir: 500ml; 1,600ml
Face Masks circular 01,1,2; anatomical 2,3,4
SpO₂ probe, Capnometry/Airway filters
Stethoscope

Circulation

Intravenous cannula 14-25g	EZ-IO drills
Syringes 5ml x 2, 20ml & 50ml x 1	Graduated burette
IO needle	IV solution 0.9% Normal Saline
Intraosseous infusion needles 14 & 18g	Intravenous giving sets
Tape	BP Cuff

Disability

Glucose stick bottle	Pen Torch
Sharps Bin	Blanket

General

Manikin face shields	Set of C-spine collars
Alcohol wipes	Intercostal catheter
Medication infusion label stickers	

Other

Laminated calculation sheet	Extension power cord
Medication resource manual	White board and markers

Preparation

As Instructors, become familiar with the operation of any manikins used during this session. Ensure your manikin enables the candidate to simulate effective airway management and or ventilation.

Scenario teaching is a powerful educational tool. It can be stressful for candidates because it mimics real life and is performed under the scrutiny of colleagues. It is critical to provide a safe educational environment. While the instructor can vary the complexity of the scenario to suit the educational needs of individual candidates, make sure the key treatment points and objectives can be covered.

Please note:

1. The candidate is expected to assess ABCD initially, after each intervention and in the event of any clinical change.
2. The Key Treatment Point "Establish airway patency" allows the instructor to vary patient need according to teaching requirements
3. Where pain relief is concerned, discuss the appropriate modalities and timing

During the learning conversation give the candidate and group the opportunity to reflect on their experiences. Acknowledge any issues they raise and facilitate the discussion. Involve the group in the key points for each case and use group discussion to build on candidates' pre-course knowledge & online learning modules. Allow time for questions and summarize with key "take home messages" that are preferably provided by the candidates.

SCENARIO KEY:

Scenario	Scenario Number	Diagnosis	Infant / Child	Notes/Group discussion
Cardiac	Demonstration	Apnoea 2° vagal stimulation - asystole	Child	
Cardiac A	1	Congenital Heart Disease - VF	Infant	
	2	NAI – haemorrhagic shock Asystole - PEA	Child	
Cardiac B	3	Anoxia - Asystole	Child	
	4	Haemolytic Uraemic Syndrome - VF	Child	
Cardiac C	5	Cardiac Surgery - VF	Infant	
	6	Bronchiolitis - Asystole	Infant	
Cardiac D	7	Pulseless VT, VF, local anaesthetic toxicity	Child	VT/VF algorithm, LA toxicity
	8	Sepsis - PEA	Infant	
Illness	Demonstration	Severe dehydration 2° to gastroenteritis		Calculate fluid deficit
Illness A	1	Sepsis with p/hx neuroblastoma	Child	Blood gases/inotropes
	2	Anaphylaxis	Child	Anaphylaxis algorithm
Illness B	3	Asthma	Child	Severity of asthma, treatment
	4	Febrile convulsion	Child	Seizure algorithm

Scenario	Scenario Number	Diagnosis	Infant / Child	Notes/Group discussion
Illness C	5	Bronchiolitis	Infant	Risk factors/minimal stimulation
	6	Shock 2° to co-arctation of aorta	Infant 5/7	Presentation/Mx
Illness D	7	Septic Shock 2° perforated appendix/PEA	Child	Possible NAI, Review PEA
	8	Diabetes mellitus in keto-acidotic coma	Child	Fluid bolus & insulin infusions
Illness E	9	Croup	Infant	Airway Management/Medications
	10	Opiate ingestion, hypoxia/PEA	Infant	NAI/Naloxone use
Illness F	11	Meningitis	Child	Raised ICP, C/I for LP, Fluid Mx
	12	Encephalopathy	Child	Differential Dx, Mx hyponatraemia

Scenario	Scenario Number	Diagnosis	Infant / Child	Notes/Group discussion
Trauma	Demonstration	# base of skull, closed # left shaft of femur	Child	
Trauma A	1	Haemothorax, # skull, haemothorax, #humerus, # tib/fib	Child	
	2	HI, Lung contusion	Child	
Trauma B	3	Gunshot wound Lt chest, Open pneumothorax, Hypovolemic shock	Child	
	4	Facial burns, ruptured spleen	Child	
Trauma C	5	Head injury, # C-spine, # tibia and fibula	Child	
	6	Hypovolemic shock, aspiration, penetrating abdominal injury	Child 7	
Trauma D	7	Pneumothorax, # femur, HI	Child 8	
	8	Degloved thigh, #ankle, liver lac, pulmonary contusion	Child 6	