

## Demonstration: Cardiac Scenario

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### Key Teaching Objective

To demonstrate a cardiac scenario and emphasise the following:

- ABC protocol for cardiac arrest in asystole and/or other causes of cardiac arrest
- Teamwork
- Supportive learning conversation

### Equipment Required

Resusci junior x 1  
Manikin for IO access x 1  
Monitor-defibrillator with paediatric pads x 1  
ALSi unit x 1  
Paediatric emergency medication book

### Airway & Breathing

Oropharyngeal airway sizes 50mm, 60mm, 70mm, 80mm.  
Endotracheal Tubes 2.5 uncuffed, 3- 6 mm (un)cuffed (in 0.5mm steps)  
Laryngoscope: adult curved blade  
Laryngoscope: straight paed blades  
Paediatric Magill Forceps  
Yankauer Sucker  
Soft Suction Catheters  
Oxygen Masks with reservoir  
Self inflating bags & reservoir: 500ml; 1,600ml  
Face Masks circular 01,1,2; anatomical 2,3,4  
Bougies and introducers  
SpO<sub>2</sub> probe  
Capnometry  
Stethoscope

### Circulation

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

### Disability

Glucose stick bottle	Pen Torch
Sharps Bin	Blanket

## **Environment**

The room should be large enough to accommodate the instructors and equipment and ensure that all the candidates have a good view. Place equipment at an angle to facilitate the audience's ability to view the demonstration; with the instructors facing the audience.

Plan for use of white board & use of **A B C D** etc to guide preparation

## **Personnel required:**

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

Instructor

Team leader

Assistant

Assistant to carry out continuous BLS

## **Instructor:**

Introduces the format of the demonstration then plays the role of the instructor.

As this demonstration is before the scenarios, in the set, emphasise that the demonstration is what will be expected of candidates during the cardiac simulations.

*"The cardiac scenarios provide an opportunity to use the information and skills from the pre course online learning and the provider course in a clinical context. Each candidate will take on the role of "hands-on team leader" which differs to the usual "hands off team leader" familiar to you clinically and in other simulation formats. The "hands on team leader" teaching model is used by APLS to optimize individual learning and to simulate potential practice models in resource challenged areas. We encourage you to take an active role in assessing and managing the patient. A learning conversation will follow where the candidate and the group can reflect on the scenario and implications for clinical practice."*

Allow time for a learning conversation and give the candidates an opportunity to ask questions.

**Please see next page for Demonstration Dialogue** (laminated copy will be in face to face course kits)

## **Please Turn Over for Demonstration Dialogue**

## **At the end of the scenario:**

Lead feedback - model learning conversation to guide candidate's preparation for reflective and group participation model of feedback.

Terminate demonstration

## **Closure**

Invite questions

Summarise and close

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### Set, Instructor:

Instructor reads the case to the person who is a hands-on team leader  
Candidate repeats scenario back to assistants. Whiteboard calculations with support from team and use of medication book.

### History *{initial candidate briefing prior to arrival of child}*

You are called to the medical ward to attend a 6 week old infant. They have bronchiolitis and had suffered an apnoeic episode. During suction they became pale and floppy. Guide weight 5 kg.

### Initial Impression *{provide information as candidate assesses child and applies monitoring}*

Nursing staff are carrying out bag-valve ventilation and cardiac compressions. There is an IVC in situ in the dorsum of the hand.

### Clinical Course *{to be given to candidate as they progress}*

They remain in asystole until satisfactory ventilation with oxygen, chest compressions and one cycle of the asystole protocol (i.e. one dose of adrenaline) has been completed. A sinus rhythm with good output then develops. Spontaneous respiratory effort resumes soon afterwards.

### INSTRUCTORS INFORMATION

#### Key Treatment Points



<b>Airway &amp; Breathing</b>	Establish airway patency	
	BVM ventilation with 100% O <sub>2</sub>	
	Consider LMA/intubation or arrange for intubation	
<b>Circulation</b>	Asystole protocol	
	IV/IO access if not in situ	
<b>General Therapy</b>	Uninterrupted BLS	

**Diagnosis:** Cardiorespiratory arrest - asystole. Apnoeic attack followed by cardiac arrest secondary to vagal stimulation during suction