

SIMULATION CASE PSC-2

Learning outcomes:

By the end of this simulation the candidates will:

- Understand management of asystole and PEA
- Understand the importance of a team approach to cardiac arrest management
- Understand the importance of effective communication during cardiac arrest management

Simulation focus: Non-accidental injury, punched and kicked in abdomen with haemorrhagic shock and vomiting leading to cardiopulmonary arrest

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 5-year-old boy has been brought into the Emergency Department by his parent after being found unconscious in bed.

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 triage practitioner SBAR to Team Leader}

Situation	A 5-year-old boy has been brought into the Emergency Department by his parent after being found unconscious in bed.	
Background	A 5-year-old boy is brought to the Emergency Department in the arms of his distressed parents. They say he was found unconscious in bed this morning having gone to sleep late the previous night with tummy ache.	
Assessment	A	Apnoeic
	B	
	C	Pulseless
	D	
	E	Bruising of different colours on abdomen. Distension of abdomen
Recommendation	Needs resuscitation	

Clinical course {to be given as the simulation progresses}

Initially in asystole: after ventilation with oxygen, chest compressions and one dose of adrenaline, the rhythm on the monitor is noted to be organised but there is still no pulse nor signs of circulation. Ventilation with oxygen and chest compressions continue and with a fluid bolus and a further dose of adrenaline the rate of complexes increases, and a pulse can be felt.

Key treatment points



Airway	Establish airway patency		
	Oro-tracheal intubation		
Breathing	Ventilate with 100% O ₂		
Circulation	Asystole then PEA protocol		
Specific therapy	Uninterrupted BLS		
	Fluid bolus		
Handover to PICU Consultant	S		
	B		
	A		
	R		

[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	<p>All of the above, plus</p> <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

Discussion Points:

- Management of hypovolemic shock including blood products and tranexamic acid.
- Candidates should be encouraged to consider the safety of other family members and the role of the police. This should include preservation of forensic evidence e.g., clothes.

Assessment

Refer to the *Instructor guidance on simulations* document for a guide to the assessment of the simulation station. These assessments should be documented on the paper-based or electronic system for the final faculty meeting. Any scores of *serious concern* should be reported immediately to the course director.