

SIMULATION CASE PC-6

Learning outcomes:

By the end of this simulation the candidates will:

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

Simulation focus: Cardiorespiratory arrest - asystole. Anoxia following respiratory arrest due to electric shock, leading to cardiac 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*

You have received a pre-alert from the non-paramedic crew bringing in an 18 month old boy found lying on the carpet not breathing.

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 a Non-Paramedic SBAR to Team Leader}*

Situation	An 18-month-old boy found lying on the carpet not breathing.	
Background	An 18-month-old boy found lying on the carpet not breathing. His mother states that he had been playing with his father's keys, and that no one had seen him collapse. He was blue, pulseless and not breathing when the non-paramedic crew arrived. BLS has been carried out during transportation.	
Assessment	A	Apnoeic
	B	Not breathing
	C	Pulseless
	D	
	E	Small burn on one hand
Recommendation	Needs resuscitation	

Clinical course *{to be given as the simulation progresses}*

The child remains in asystole until ventilation with oxygen and effective chest compressions are in place and adrenaline (epinephrine) has been given. A slow sinus rhythm with no central pulse then develops. This becomes a sinus tachycardia with good output once a further dose of adrenaline (epinephrine) is given.

Key treatment points



Airway	Establish airway patency		
	Oral tracheal intubation		
Breathing	Bag and mask with added oxygen		
	Bag via tracheal tube with added oxygen		
Circulation	Asystole protocol		
	PEA protocol		
	IV/IO access		
Specific therapy	Uninterrupted BLS		
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

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.