

SIMULATION CASE PC-2

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: Asystole - Cardiorespiratory arrest - asystole. Anoxia secondary to oesophageal displacement of the endotracheal tube

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 are called to ICU where a 3 year old post-operative patient has had a cardiac arrest. The patient is intubated and on a ventilator. He is paralysed.

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 ICU nurse SBAR to Team Leader}*

Situation	Asystole	
Background	A 3 year old post-operative patient has had a cardiac arrest. The patient is intubated and on a ventilator.	
Assessment	A	Nursing staff are ventilating the child with a bag-valve-mask
	B	No visible chest movements
	C	Pulseless
	D	
	E	
Recommendation	Needs resuscitation	

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

The child remains in asystole until effective ventilation with oxygen is re-established, chest compressions performed and adrenaline has been given. The rhythm changes to slow PEA after 2 doses of adrenaline and ROSC is achieved after 4 doses of adrenaline if correct management applied. If oxygen is not administered asystole remains despite drug treatment.

Key treatment points



Airway & C-Spine	Remove tracheal tube		
	Re-establish airway patency		
	Oral reintubation		
	Bag and mask with added oxygen		
	Bag via ETT with added oxygen		
Circulation	Asystole protocol		
	IV/IO access		
Specific therapy	Uninterrupted BLS		
Handover	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	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

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.