

ALS/Illness Scenario 5 Refresher Course

This is a Teaching Scenario. Some flexibility in how it progresses is possible according to individual learner needs.

History {initial candidate briefing prior to arrival of child}

A 4 year old boy is brought to the Emergency Department by his parents. He has been unwell for 3 days with abdominal pain, and overnight he has had some bile stained vomiting. His father tried to give him a drink but was unable to wake him.
 Estimated weight 15 kg.

Initial impression {provide information as candidate assesses child and applies monitoring}

Unrousable. Pale child. Shallow breathing. Cold, mottled peripheries.

Additional History and Observations

RR 45, barely fogging the mask. HR 170 and CRT 7. Initial BP 61/42. O₂ sat 85% with poor trace. Moans to painful stimulus. The abdomen is rigid on palpation.

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

Fluid resuscitation needs to be implemented promptly. Transient response to fluid bolus with improving haemodynamics (BP 76/49, HR 145, CRT 5) and conscious state (GCS 13, eyes closed) then secondary deterioration with drop of BP to 40/31.

The child becomes unresponsive, apnoeic and goes into PEA.

ROSC after CPR and PEA protocol including adrenaline are implemented. Circulation requires further fluid boluses and inotrope infusion.

VBG; pH 7.12, pCO₂ 48 mmHg, pO₂ 36 mmHg, HCO₃ 16 mmol/L, Lactate 7.2 mmol/L

An urgent surgical opinion should be sought. Triple antibiotics should be given if retrieval is required.

INSTRUCTORS INFORMATION

Key Treatment Points



Airway	Establish airway patency High flow O ₂ via face mask commenced early Arrange for intubation or intubate	
Breathing	BVM with high flow O ₂ Suction and consider gastric drainage	
Circulation	IV/IO access 10 ml/kg fluid bolus x2 Inotrope infusion after 20-40 ml/kg fluid PEA protocol and uninterrupted BLS	
Specific Therapy	IV antibiotics Urgent surgical opinion ICU / Retrieval service consultation	

Diagnosis; Septic Shock secondary to perforated appendix, PEA Arrest

Learning objectives

At the end of this session participants should be able to:

- Apply the structured approach to management and diagnosis during cardiac arrest
- Perform BLS/ALS effectively and safely
- Recall and apply the ALS PEA algorithm in their own practice
- Recall and apply the acute management of severe sepsis in their own practice

Potential Issues to be Discussed/Instructor resources

- PEA protocol, 4 Hs/Ts
- Septic shock management
- Sepsis assessment and management. Used with permission and endorsed by the Paediatric Improvement Collaborative

https://www.rch.org.au/clinicalguide/guideline_index/SEPSIS_assessment_and_management/