

APLS: Scenario Illness 9

History {initial candidate briefing prior to arrival of child}

18 month old boy is brought into emergency at 2am. He went to bed well and then developed a barking cough at 9pm. He has now developed noisy breathing and shortness of breath. A barking cough can be heard in waiting room.

Estimated weight: 10kg

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

Child is sitting on his mother's lap upright. Obvious inspiratory stridor. Tracheal tug. Tachypnoea. Hoarse cry.

Additional History & Observations

Previously well child. Saturations 94% room air. RR 50. HR 150.
Temperature 37.8°C.

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

Initial improvement with nebulised adrenaline, then symptoms return after 20 minutes. Oxygen via face mask.

If the child is laid down for IV catheter insertion whilst acutely distressed, he has a respiratory arrest.

He improves with steroids and after two doses of nebulised adrenaline.

If steroids not given there is increasing respiratory distress.

INSTRUCTORS INFORMATION

Key Treatment Points



| | | |
|-------------------------------|---|--|
| Airway & Breathing | Maintain comfortable position. Do not cause distress. Oxygen administered OR Conscious decision not to give oxygen Titrate O ₂ therapy to SpO ₂ 94-98% when stable | |
| Circulation | No intravenous catheter insertion while distressed. | |
| Specific Therapy | Nebulised adrenaline for acute stridor. Steroids | |
| General therapy | ICU/anaesthesia, ENT consult | |

Diagnosis: Acute severe croup

Learning objectives

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

- Apply the structured approach to assessment, management, and diagnosis of severe croup
- Recall and apply the principles of management of severe croup in their own practice

Potential Issues to be Discussed

- Airway management
- Use of steroids, adrenaline
- Intubation

***Notes**

Second instructor to role play parent holding the manikin upright, mimicking severe stridor or use mannikins as below.
(stridor sound available on ALSi)



APLS: Scenario Illness 10

History {initial candidate briefing prior to arrival of child}

A 15 month old boy is still asleep in his cot at 10am. He is difficult to wake and hypotonic. His mother rang the hospital and was told to call an ambulance. She said, "No that will take too long, I'll bring him." On arrival at the hospital the triage nurse rushes him to the resuscitation bay and reports: "slow shallow breathing and he was cyanosed until O₂ was applied. Jaw thrust needed to keep airway clear. Unresponsive even to painful stimuli"

Estimated weight 10 kg.

Additional History & Observations

If additional history is requested indicate that mother appears drowsy, erratic behaviour and evasive to answering questions.

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

He is cyanosed in face mask oxygen, not breathing and unresponsive to stimulation.

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

The child is in PEA. If the PEA algorithm is followed the child develops ROSC after effective ventilation in oxygen and one dose of adrenaline.
HR rises to 110. BP 80/50. CRT 2.

But he remains unresponsive to pain and has no spontaneous ventilation. He has pinpoint pupils. BSL 4.2. Temp 35.5

Differential diagnosis of coma to be considered including CNS trauma, NAI, drugs/opioids and metabolic causes.

If opioid poisoning suspected a trial of naloxone could be considered.

INSTRUCTORS INFORMATION

Key Treatment Points



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|------------------------|--|--|
| Airway | Establish airway patency High flow O ₂ via face mask commenced early Titrate O ₂ therapy to SpO ₂ 94-98% when stable Consider LMA/intubation or arrange for intubation | |
| Breathing | BVM ventilation with 100% O ₂ | |
| Circulation | IV/IO access Uninterrupted BLS, PEA protocol | |
| General Therapy | BSL Consider naloxone Consider CT brain | |

Diagnosis: Opioid ingestion, hypoxic PEA

Learning objectives

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

- Apply the structured approach to management and diagnosis during cardiac arrest
- Apply the structured approach to assessment, management and diagnosis of coma
- Recall and classify the potential causes of decreased conscious state
- Perform BLS/ALS effectively and safely
- Recall and apply the PEA ALS algorithm in their own practice
- Recall and apply the 4 Hs/Ts in their own practice

Potential Issues to be Discussed

- Neglect / NAI
- Review ALS, PEA algorithm
- Need to consider all potential causes for coma and not assume drug ingestion is sole cause
- Potential for and need to consider additional drug ingestion – seek advice from Poisons / Toxicologist
- Implications for naloxone use.