

PAEDIATRIC SCENARIO BRONCHIOLITS

BAT call from ambulance bringing in a 6 monther with respiratory distress. Has been unwell for last 24 hours with cough and poor feeding.

RR 80 sats 90% on 6L oxygen Hr 185 pale

5mins away, weight approximately 6 kg

Facilitators:

- 1 Runs scenario and plays with ALSI
- 2 Observes scenario and acts as necessary

Actors:

- 1 Ambulance staff to hand over
- 2 2x nursing staff if available
- 3 Parents

Room set up/Equipment:

In addition to standard resus equipment, Hiflo AIRVO machine

Scenario detail:

Expected actions pre arrival of child include allocation of roles in team, calling for appropriate staff, AIRVO to be brought into room, IV set up, getting out calculation book to work out fluid/ adrenaline dosing and setting up intubation equipment .

Child transferred on to resus bed with oxygen mask on at 6L, RR 80 mod/severe inc WOB (subcostal recession, tracheal tug, intercostal recession)

Primary survey to be performed including assessment of airway patency (child crying) , severity of resp distress, application of oxygen and initiating cardiorespiratory monitoring.

Chest auscultation: wheezes/creps bilaterally, (may request a CXR which is attached)

Discussion re setting up of hiflo (2l/kg flow, Fio2 can start at 50% or 100% but titrating to sats > or equal to 92%, and improvement in pulse rate and WOB) (can be helped with this specific information)

HR if monitor applied is 185-190 and regular. Pulses are palpable but child is pale and unwell looking. BP if obtained with appropriate cuff is 90/45, cap refill 3 secs.

Iv access to be obtained, and blood gas if requested is given (see below)

Fluid bolus to be given for tachycardia and cap refill 3 secs with story of poor feeding/urine output if parents asked regarding this.

Unresponsive to treatment with episode of apnoea, bradycardia down to 65 and desaturation to 75
(expected action: stimulation of child with recovery to hr 190 and sats 94% in 3 mins)

Further desaturations can occur till team decide child needs intubation.

Intubation plan:

- Call for help (anaesthetics/ICU) as potentially difficult
- Suitable airway plan including correct tube sizes, blades and LMA
- Drugs: fentanyl 2mcg/kg/midaz 0.1mg/kg or ketamine 1-2mg/kg and suxamethnium 2mg/kg
- Draw up atropine preferably
- Verbalize airway plan with team prior
- Starting ventilator settings (RR 30-40, FIO2 1.0, Tinsp 1s, peep 5, PIPS 15-20, aim for sats 92% and ph > 7.3)

Learning points:

1 Team work: closed loop communication, allocation of roles and identification of team members

2 Use of HIFLO equipment and principles

3 Intubation of 6 month old infant

4 Ventilation in bronchiolitis

Blood gas:

pH 7.18

pCo2 69

pO2 56

Bic 26

Be +3

SaO2 84%

On 6L oxygen

