

SESSION 1 – A CHILD WITH NOISY BREATHING – STUDENT HANDOUT

Aims of session

1. Be able to formulate a differential for a child with noisy breathing.
2. Gain a basic understanding of pathophysiology, aetiology and clinical course of common respiratory illnesses in children.
3. Know the basic investigations and management for a child with noisy breathing.

PLEASE COMPLETE THE APPROPRIATE FEEDBACK FORM BEFORE THE TEACHING SESSION!



Case 1

Case study

Timothy is a 10-week-old boy who presents to A&E as his mother is worried about his noisy breathing. According to his mother, he developed a runny nose with a fever 3 days ago. She thought it was just the “winter cold”, and gave him some calpol. However, she feels Timothy has gotten worse today. She reports that he seems to have difficulty breathing and is off his feeds.

He was born prematurely at 35 weeks, but otherwise there were no complications during pregnancy, labour or delivery. His mother smokes during pregnancy, and continues to do so. There is no family history of any lung diseases or atopy.

On examination, he has a wet cough and you note he has signs of respiratory distress. There are fine inspiratory crackles and expiratory wheeze on auscultation over the precordium. The nurse provides you with the following observations:

Temp = 38.3°C

RR = 42 breaths per minute

O2 sats = 93% on air

Discussion

What are the top 3 differentials and what is the most likely diagnosis in this case? How would you investigate and manage this child?

Case 2

Case study

Lionel is a 2-year-old boy who was brought into A+E in the middle of the night as he is making unusual noises when breathing in. Lionel's father is extremely worried as this has not happened before. He mentions that Lionel has been otherwise well and his vaccinations are up to date.

On examination, you notice that he has a seal-like barking cough, a hoarse voice and is making the 'weird noise'. He is crying and you observe mild retractions. The nurse provides you with the following observations:

Temp = 38.0°C

RR = 40 breaths per minute

O2 sats = 95% on air

Discussion

What are the top 3 differentials and what is the most likely diagnosis in this case? How would you investigate and manage this child?

Case 3

Case study

Charlie is a 6-year-old boy who was BIBA with difficulty in breathing. This is associated with intermittent wheeze and a cough. He is a known asthmatic. His parents have tried 2 puffs of his blue inhaler but this has not helped.

On examination, he is unable to complete sentences in one breath, but is not cyanosed. There is a widespread expiratory wheeze. These are his observations:

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RR = 40 breaths per minute

O2 sats = 87% on air

HR = 150bpm

BP = 90/60mmHg

Temperature = afebrile

Discussion

What are the top 3 differentials and what is the most likely diagnosis in this case? How would you investigate and manage this child?

Consolidation

	Bronchiolitis	Croup	Asthma
Age			
Clinical course			
Clinical features			
Predisposing factors			

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Normal ranges for vitals

Age	HR	RR	SBP
0-1 month	110-180	30-50	65-100
1-12 months	110-160	30-40	70-105
1-2 years	100-150	25-35	75-105
2-5 years	80-140	25-30	80-110
5-12 years	70-120	20-25	80-120
>12 years	60-100	15-20	90-130