

SESSION 3 – A SICK CHILD – STUDENT HANDOUT

Aims of session

1. Be able to recognise when a child is critically ill.
2. Be able to formulate a differential for a child who is critically ill.
3. Know the basic investigations and management for a child who is critically ill.

PLEASE COMPLETE THE APPROPRIATE FEEDBACK FORM BEFORE THE TEACHING SESSION!



Case 1

Case study

Charlie is a 9-year-old boy who was brought into hospital by ambulance with a 1-day history of severe vomiting and abdominal pain. When you talk to Charlie's mum, she tells you that over the last week Charlie has been complaining of tiredness and he has been passing urine more frequently, although she isn't surprised because he is also drinking much more than usual. He has been unable to keep down any food since last night and was difficult to rouse for the last hour which is when she called the ambulance.

He is up to date with his immunisations and has no other past medical history of note.

On arrival to A+E, Charlie's observations are as follows:

RR = 35 breaths per minute and laboured

O2 sats = 95% on air

HR = 153 bpm

BP = 95/70mmHg

Temp = 36.8°C

GCS = 13, unable to form meaningful sentences and will only open eyes briefly when asked

Discussion

What are the red flags seen in this case? What are the top 3 differentials and what is the most likely diagnosis in this case? What examinations/investigations are important in this child? How would you manage the child acutely? What complications would you be worried about in this child?

Case 2

Case study

Penelope is a 3-year-old girl who presents to ED with a fever and vomiting. Her mum reports that she has been feeling unwell since yesterday and was not as active as she usually is, and has deteriorated rapidly during the morning. She has not drunk at all since this morning, and has also not had any wet nappies since this morning.

She was born at term via a normal vaginal delivery. She has no other past medical history of note.

On examination, Penelope is alert but very agitated, and the mum appears very worried. You notice a petechial rash. The nurse provides you with the following observations:

Temp = 39.7°C

BP = 92/65mmHg

HR = 168 bpm

RR = 28 breaths per minute

O2 sats = 95% on air

Discussion

What are the red flags seen in this case? What are the top 3 differentials and what is the most likely diagnosis in this case? What further examinations/investigations are important in this child? How would you manage the child acutely?

Case 3

Case study

Katie is a 9-month-old infant who is brought to ED by her father following a seizure. The seizure happened at noon and lasted 5 minutes. The father reports that all her limbs were shaking and was unresponsive during the seizure. She has been ill for the last 2 days with a runny nose and cough. She has been eating and drinking well. She has had only 1 wet nappy in the morning. Her dad gave her calpol yesterday because she felt warm.

She was born at term via a spontaneous vaginal delivery. There is no past medical history or family history of any neurological disease. She is developing and growing well.

On examination, she was active and alert, but crying. The nurse provides with the following observations:

Temp = 38.9°C

BP = 86/57mmHg

HR = 152 bpm

RR = 32 breaths per minute

O2 sats = 99% on air

Discussion

What are the red flags seen in this case? What are the top 3 differentials and what is the most likely diagnosis in this case? What further examinations/investigations are important in this child? How would you manage the child acutely? How should the father be counselled about how to manage the child if this re-occurs?

PLEASE COMPLETE THE APPROPRIATE FEEDBACK FORM AFTER THE TEACHING SESSION!



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