Wheezing child

Q1

A previously well 6 month old boy presents to the ED with cough and wheeze. He has been unwell for two days, and appears to be getting worse.

1. What is your differential diagnosis?
2. How do you assess the severity of his respiratory distress?
3. Are there any particular risk factors for severe disease?
4. What are the criteria for admission?
5. What treatment options are available?
6. What are the indications for high flow nasal cannuale?

Q2

A 3 year-old girl presents with her third episode of cough and wheeze. She has been admitted once previously, but not to ICU. Both parents smoke. Other past history includes eczema. Her only medication is inhaled salbutamol.

1. What are the markers of severity of an acute asthma attack?
2. Assuming this is a moderate attack of asthma, what is your initial treatment?
3. After two hours of treatment in the emergency department, she is becoming more tired, with worsening respiratory distress. Outline your further management.
4. What are the potential complications of parental smoking?

Q3

A 12 year-old boy presents via ambulance with acute severe asthma. He has been treated with nebulised salbutamol (20mg total) and intravenous hydrocortisone prior to arrival.

In the ED he is cyanosed (on oxygen), lethargic, and has severe respiratory distress.

1. What is your immediate management?
2. How would you prepare for intubation?
3. Once intubated, outline your initial ventilator settings.