

Out of breath (answers on page 33)

Part one

Daniel is a perfectly healthy and active child passing all his developmental milestones at the usual age. So it was a surprise to his doctors that his mum, who is doing her best on her own to bring him up along with his 3-year-old sister, brought him to see them because of sudden onset of shortness of breath and cough. There was no history of foreign object inhalation, and with a lack of obvious wheeze the clear diagnosis was made of bronchiolitis. Daniel was admitted, his symptoms eased rapidly with oxygen and observation only for three days, and he was discharged home apparently happy.

- Q1 Which of the following possible diagnoses in an apparently otherwise healthy child with these symptoms is the most likely?**
- Bronchiolitis was the correct diagnosis to make in the circumstances.
 - Asthma may present for the first time in this way in a child of Daniel's age.
 - Inhalation of a foreign object is still at the top of the list, even without a history of it from mum.
 - Tuberculosis is always to be considered in unexplained dyspnoea, despite there being no obvious contact with other cases.

Part two

- Q2 Eight days later, Daniel returned to the clinic with the same symptoms. This time he had a chest X-ray, which was reported as normal. This was considered to be a recurrence of the bronchiolitis, from which again he made a fast recovery with rest and oxygen alone. Which of the following statements are true?**
- You should now rule out bronchiolitis – it is very rarely a repeat illness.
 - The normal X-ray rules out an inhaled foreign body.
 - The resolution of symptoms with oxygen and rest alone also rules out foreign body inhalation, the signs and symptoms of which would gradually worsen.
 - Asthma is the most probable diagnosis even without obvious wheeze.

Part three

- Q3 Daniel went home after three days apparently back to normal, and on no medication. He remained well for a month before being re-admitted, this time with a history for the previous three days of increasing cough, respiratory distress, and stridor. Now for the first time he had bilateral wheeze and rough upper airway sounds with each inhalation and exhalation. He was given nebulised salbutamol and adrenaline and he improved substantially, but the stridor remained. A repeat chest X-ray was normal, but he was still ill enough to be admitted. Which of the following was the next step in his treatment?**
- The appropriate antibiotic for his severe bacterial upper respiratory tract infection.
 - Steroids for his repeated asthma.
 - Naso-endoscopic inspection of his epiglottis and larynx.
 - Full examination of the respiratory tract in theatre by a paediatric ENT specialist.
 - Rest and oxygen therapy as before to allow the repeated viral infection to resolve.

Part four

- Q4 What are the risks for Daniel if this condition were to be left without intrusive investigation and treatment?**
- Very few. His chest will slowly recover on rest and inhalers.
 - Sudden asphyxia and death.
 - Pneumonia.
 - Atelectasis.
 - Haemoptysis.
 - Bouts of high fever.