



Questions for this month's clinical challenge are based on articles in this issue. The clinical challenge is endorsed by the RACGP Quality Improvement and Continuing Professional Development (QI&CPD) program and has been allocated 4 Category 2 points (Activity ID:25692). Answers to this clinical challenge are available immediately following successful completion online at <http://gplearning.racgp.org.au>. Clinical challenge quizzes may be completed at any time throughout the 2014–16 triennium; therefore, the previous months answers are not published.

Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the most appropriate statement as your answer.



# Clinical challenge

## Case 1 – Justin

Justin, 8 years of age, presents with a unilateral throbbing headache of 3 days' duration. He has a history of recurrent headaches that are often associated with emotional stress.

### Question 1

Which one of the following features of his headache history would MOST concern you?

- A. Dull quality to headache
- B. Headache during the evening
- C. Variable locations to recurrent headache
- D. Progressive chronic headaches

### Question 2

Red flag features on physical examination include all of the following EXCEPT?

- A. Focal neurology
- B. Palpable ventriculo-peritoneal shunt
- C. Hypertension
- D. Heart rate of 100 beats per minute

On further questioning, Justin describes the headache as recurrent (ie lasting for a few days at a time then resolving).

### Question 3

This pattern is MOST consistent with which one of the following underlying causes?

- A. Somatisation
- B. Anxiety
- C. Benign intracranial hypertension
- D. Brain abscess
- E. Migraine

### Question 4

Regarding the treatment of migraines in children, which one of the following statements is the MOST correct?

- A. There is extensive evidence for the use of prophylactic medications.
- B. Regular use of paracetamol may be associated with the development of analgesia-related headaches.
- C. Sumatriptan works by promoting vasodilation of cerebral blood vessels.
- D. In children <12 years of age, sumatriptan is more effective in the termination of recurrent migraines when compared with adults.

## Case 2 – Matilda

Bruce brings his daughter Matilda, 3 years of age, to see you because of concerns about her snoring. You are Matilda's regular GP in regional Australia. Bruce notes that she has been snoring loudly most nights for the last 3 months. She is otherwise well and does not have a viral or other infection at present. Bruce also comments that recently she has been more irritable than normal.

### Question 5

Which one of the following clinical features observed by the parents would most likely be associated with obstructive sleep apnoea (OSA)?

- A. Cessation of airflow without respiratory effort
- B. Snoring one night per week
- C. Occasional daytime mouth breathing
- D. Witnessed gasping episodes

You diagnosed OSA in Bruce 3 years ago. You explain that OSA often presents differently in children when compared with adults.

### Question 6

When compared with adults, paediatric OSA commonly features:

- A. daytime sleepiness
- B. overweight/obesity
- C. male rather than female gender
- D. failure to thrive
- E. continuous snoring.

You decide it is likely that Matilda has OSA on the basis of the strong history as well as the presence of enlarged tonsils (>50% of pharyngeal diameter). Sleep laboratory studies are not practicable because of the distance from the nearest centre.

### Question 7

**Which one of the following is the most appropriate management option for Matilda at this stage?**

- A. Trial of leukotriene receptor antagonists
- B. Referral for ear, nose and throat surgical opinion
- C. Referral for dental therapy
- D. Trial of nocturnal continuous positive airway pressure
- E. Trial of intranasal steroids

You stress the importance of timely management for OSA. Bruce asks you what might happen to Matilda if there is no intervention.

### Question 8

**Which one of the following is the most common potential serious complication of untreated OSA in a child?**

- A. Impaired cognitive functioning
- B. Excessive weight gain
- C. Primary enuresis
- D. Appearing very sleepy

### Case 3 – James

Philippa brings her son James, 3 years of age, to see you about his wheeze. Close questioning reveals an 8-week history of continuous wet cough and rattly breathing. James has no other significant past history and no family history of asthma. On examination, he appears reasonably well, has no respiratory distress and has normal vital signs. Respiratory examination reveals a diffuse mild wheeze on auscultation but is otherwise normal.

### Question 9

**On the basis of this history, which one of the following is the most likely diagnosis?**

- A. Asthma
- B. Protracted bacterial bronchitis
- C. Tracheomalacia
- D. Foreign body

### Question 10

**What is the most appropriate management option for James?**

- A. Referral for bronchoscopy
- B. 7-day course of amoxicillin
- C. 14-day course of amoxicillin/clavulanic acid
- D. Referral to the emergency department
- E. Salbutamol puffer via spacer dosed according to an asthma action plan

James comes back to see you 6 months later. His wet cough has completely settled. Phillipa is now concerned that he has sounded wheezy in the last few months each time he has had a cold. She asks you if he will outgrow this wheeze.

### Question 11

**On the basis of the Tucson Children's Respiratory Study, those most likely to outgrow the wheeze are aged in years:**

- A. >13
- B. 10–13
- C. 6–9
- D. <6.

### Case 4 – Chloe

Later in the afternoon, Bridget brings in her previously well child Chloe, 16 months of age, who suddenly developed mild respiratory distress while playing. Examination reveals asymmetrical air entry and distinct wheezes on the right.

### Question 12

**The most important diagnosis to consider is:**

- A. asthma
- B. bronchiolitis
- C. tracheomalacia
- D. foreign body aspiration.