



# Instructions for clinical challenge online

**Clinical challenge is now **ONLY** available as an online activity. Please follow the steps below to log on to and launch the activity.**

## Clinical challenge online means:

- you will receive your 4 QA&CPD points immediately on successful completion of the quiz
- you can view question feedback after you have achieved a score of 12 or more correct answers, and
- you can re-enrol in the activity a number of times in order to achieve a sufficient score.

## To complete clinical challenge online go to:

- [www.racgp.org.au/clinicalchallenge](http://www.racgp.org.au/clinicalchallenge)
- if you are completing the quiz online for the first time, click on '**click here to register**'
- fill out the registration details – remember to choose your own username and password – and click on '**sign up**'
- if you have completed clinical challenge online previously, click on '**login here**'. Use the username and password you selected last time you completed clinical challenge online
- click on '**AFP clinical challenge**'
- click on '**enrol**'
- click on '**launch activity**'
- answer each case question by clicking on the correct answer box.

Clinical challenge online is simple and quick. You can view the articles to which each question relates, and you get immediate feedback on your answers. You can complete the quiz in one 'hit' or over a few days or weeks.

Clinical challenge online must be submitted by the last day of each month of publication.

## AFP clinical challenge online

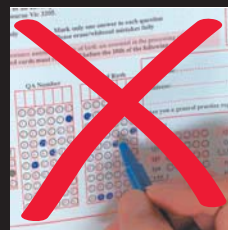
USERNAME \_\_\_\_\_

PASSWORD \_\_\_\_\_

Please record your details here, cut out and keep in a safe place

## PLEASE NOTE:

**CLINICAL CHALLENGE CARDS  
WILL NO LONGER BE ACCEPTED**





# Clinical challenge



Questions for this month's clinical challenge are based on theme articles in this issue. The style and scope of questions is in keeping with the MCQ of the College Fellowship exam. The quiz is endorsed by the RACGP Quality Assurance and Continuing Professional Development Program and has been allocated 4 CPD points per issue. Answers to this clinical challenge will be published next month, and are available immediately following successful completion online at: [www.racgp.org.au/clinicalchallenge](http://www.racgp.org.au/clinicalchallenge).  
Jenni Parsons

## SINGLE COMPLETION ITEMS

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

### Case 1 – Belinda Wyett

Belinda Wyett, aged 27 years, is a single mother of two preschool aged children. She has recently moved to the area and is living with her mother. You saw both the children with viral URTIs last week. Belinda presents with a fever and cough.

#### Question 1

You recently agreed to participate in influenza surveillance and are particularly alert to the possibility of this diagnosis. Features consistent with influenza include all except:

- A. onset within 12 hours
- B. weakness or fatigue
- C. influenza-like illness in a close contact
- D. bronchial breathing on chest examination
- E. myalgia.

#### Question 2

Belinda tells you she woke yesterday with fever, aches and pains, and a dry cough. She feels lethargic and finds it difficult getting out of bed. Respiratory examination is normal except for mild pharyngeal inflammation. Of the following investigations, which is most likely to make a difference to your management:

- A. polymerase chain reaction (PCR) testing of nasal and throat swabs for respiratory viruses

- B. C reactive protein (CRP)
- C. sputum culture
- D. nasopharyngeal aspirate for immunofluorescence
- E. blood cultures.

#### Question 3

You ask Belinda's permission to test to confirm she has influenza. The most appropriate specimen(s) is/are:

- A. a nasopharyngeal aspirate
- B. paired blood samples for serology
- C. a throat swab in viral medium and a nasopharyngeal aspirate
- D. a combined nose and throat swab stored at room temperature in viral medium
- E. a combined nose and throat swab stored at 4°C in viral medium.

#### Question 4

It transpires that Belinda did not have an influenza virus but a rhinovirus. She presents again a week later with a persisting dry cough. She is afebrile and respiratory examination is normal. You make the clinical diagnosis of acute bronchitis. In patients with acute bronchitis:

- A. antibiotics are helpful if sputum is discoloured
- B. use of cough suppressants is supported by evidence
- C. use of bronchodilators has been shown to relieve cough
- D. cough lasts for an average of 2–3 weeks
- E. the aetiology is usually bacterial.

### Case 2 – Sandra Wyett

Belinda's mother, Sandra, 58 years of age, presents 2 weeks later. She has been coughing for 4 days and has some wheeze and shortness of breath. Her cough is now productive. She smokes 35 cigarettes per day and has NIDDM.

#### Question 1

On examination Sandra has a temperature of 38.5°C, a respiratory rate of 26, a red throat but no abnormal chest signs. You:

- A. tell her the cause is likely to be viral
- B. advise a chest X-ray if symptoms don't resolve in 7–10 days
- C. tell her a chest X-ray is not needed because her chest examination is normal
- D. arrange a chest X-ray and full assessment for community acquired pneumonia (CAP)
- E. arrange nose and throat swabs for PCR testing for respiratory virus RNA.

#### Question 2

The most common organism causing CAP in Australia is:

- A. *Streptococcus pneumoniae*
- B. *Mycoplasma pneumoniae*
- C. *Chlamydia pneumoniae*
- D. *Legionella pneumophila*
- E. *Haemophilus influenzae*.

#### Question 3

Sandra's chest X-ray reveals left lower lobe consolidation. Which of the following features would indicate you should consider admitting Sandra to hospital for further management:

- A. temperature over 39°C

- B. pulse over 100/minute
- C. respiratory rate over 24/minute
- D. systolic blood pressure less than 90 mmHg
- E. all of the above.

#### Question 4

**You decide Sandra does not require hospital admission. She has no allergies. Appropriate antibiotic therapy would be:**

- A. amoxycillin 1 g orally 8 hourly
- B. doxycycline 200 mg immediately then 100 mg per day
- C. roxithromycin 150 mg per day
- D. a combination of A and B
- E. a combination of A and C.

#### Case 3 – Jim Payne

Jim Payne, 55 years of age, is an electrician. He had a bout of 'flu' 6 weeks ago and isn't able to shake the cough. Over the past week he has been working in a very dusty environment and feels this has made things worse. He stopped smoking 3 months ago and has been 'crook' ever since.

#### Question 1

**Jim has no other respiratory or other symptoms. Examination reveals a wheeze in the right lower lung field. The best course of action is to:**

- A. treat empirically with antibiotics for CAP
- B. diagnose asthma and treat him with bronchodilators
- C. arrange chest X-ray and review him with the result
- D. advise him to wear a mask when working in dusty environments
- E. reassure him that cough often worsens for a short time after smoking cessation.

#### Question 2

**Jim's chest X-ray reveals right lower lobe collapse. You are concerned that Jim may have an underlying lung cancer. The best approach is to:**

- A. refer Jim to a respiratory physician without raising your concerns with him
- B. raise your concerns with Jim and arrange further investigation to confirm or

exclude lung cancer

- C. repeat the chest X-ray in 4 weeks after treatment with antibiotics
- D. order a CT scan of the chest and sputum cytology without alarming Jim with your concerns
- E. treat Jim with antibiotics and ask him to return if symptoms persist.

#### Question 3

**Jim's chest CT reveals mediastinal lymphadenopathy and sputum cytology shows small cell lung cancer (SCLC).**

- A. SCLC accounts for 80% of lung cancers
- B. SCLC spreads early and is often disseminated at diagnosis
- C. nonsmall cell cancer (NSCLC) responds better to chemotherapy than SCLC
- D. mediastinal lymph enlargement is more commonly seen in NSCLC than SCLC
- E. the median survival of SCLC from diagnosis if untreated is 1 year.

#### Question 4

**Jim has normal biochemistry including calcium and serum alkaline phosphatase and no other evidence of spread beyond the right side of the chest. Treatment options include:**

- A. chemotherapy
- B. chest radiotherapy
- C. cranial irradiation
- D. all of the above
- E. palliative care only.

#### Case 4 – Sophie Costas

Sophie, 3 years of age, has an elder brother, Nick, 4 years of age, and a baby sister, Anna, aged 4 weeks. This is the first time the family has attended your practice.

#### Question 1

**Sophie has had a cough for 10 days. She had a runny nose, but now has coughing bouts especially at night or in the cold air. Nick has had an episode of asthma, and Sophie's mother wonders if this could be asthma too. The most useful assessment tools to determine if Sophie has asthma are:**

- A. clinical history
- B. physical examination
- C. spirometry
- D. peak flow measurements
- E. chest X-ray.

#### Question 2

**Sophie has not been wheezing. She has bouts of coughing lasting a few minutes during which she 'runs out of breath'. You suspect pertussis. The most appropriate investigation to confirm this in Sophie is:**

- A. chest X-ray
- B. nasopharyngeal swab for immunofluorescence and culture
- C. nasopharyngeal aspirate for immunofluorescence and culture
- D. pertussis serology
- E. blood cultures.

#### Question 3

**Nick has had all his immunisations but had a febrile reaction with his fourth dose of DTPa when he was 18 months of age. Sophie has only had two DTPa vaccinations as her parents were reluctant to give her the third after her brother's reaction.**

- A. Anna is at increased risk of complications if she contracts pertussis
- B. two doses of DTPa would normally be protective against pertussis
- C. Anna will be still protected by maternal antibody
- D. pertussis in infants less than 6 months of age is easy to diagnose because of the paroxysmal coughing
- E. a fourth dose of DTPa at 18 months is important for immunity to pertussis.

#### Question 4

**You discuss pertussis and its management with Sophie's mother.**

- A. Sophie is no longer infectious
- B. Sophie will not be infectious after 10 days of antibiotic treatment
- C. treatment with erythromycin now will shorten the course of Sophie's illness
- D. prophylactic antibiotics are recommended for all household contacts including Nick
- E. prophylactic antibiotics are only indicated for Anna.