

ENDGAMES

We welcome contributions that would help doctors with postgraduate examinations

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FOR SHORT ANSWERS

See p 1304

FOR LONG ANSWERS

Use advanced search at bmj.com and enter question details

STATISTICAL QUESTION

Likelihood ratios

In a study of general practice records in the UK, the symptom of dysphagia was found to have a positive likelihood ratio of 300 for oesophageal cancer, which itself had an incidence of one case in every 10 000 persons per year. Which of the following statements, if any, are true?

- Among people with dysphagia, the ratio of those with cancer to those without is 300 to 1
- Cancer is 300 times more likely in patients with dysphagia than in the general population
- More than 95% of people with dysphagia seeing their general practitioner will have cancer
- More than 95% of people with dysphagia seeing their general practitioner will not have cancer

Submitted by John Fletcher

Cite this as: *BMJ* 2009;338:b2077

CASE REPORT

Cough and breathlessness not responding to inhalers

A 29 year old unemployed woman who had never smoked was referred to the outpatient clinic with a 10 month history of non-productive cough, breathlessness, and chest tightness. Her exercise tolerance had reduced dramatically from breathlessness on exertion to symptoms at rest over six months. She had been treated for asthma in the community for six months before attendance, although inhalers had conferred little improvement in symptoms. She lived alone and had kept budgies for several years.

She did not have cyanosis or clubbing. Her pulse rate was 80 beats/min regular, blood pressure was 124/88 mm Hg, and her heart sounds were normal. On auscultation she had vesicular breath sounds with fine inspiratory bilateral basal crackles.

Routine haematological and biochemical parameters were normal. Her urinalysis was negative. Chest radiography showed diffuse bilateral air space consolidation, and electrocardiography was normal. Her forced expiratory volume in 1 second (FEV₁) and forced vital capacity (FVC) were 1.8 l (predicted 3.3 l) and 2.1 l (3.9 l), respectively.

- What do the spirometry results show?
- What is the differential diagnosis?
- What investigations are required?
- What is the likely diagnosis and what treatment is warranted?

Submitted by Ratna Alluri, Mahendran Chetty, and Graeme P Currie

Cite this as: *BMJ* 2009;338:b1862



PICTURE QUIZ

What is the target?

A 44 year old man was brought to the emergency department with a two day history of fever, skin rash, and a rapidly progressive shortness of breath. On examination, notable observations included an extensive rash, cyanosis, a fast respiratory rate (40 breaths/min), bilateral crackles on lung auscultation, and a temperature that reached a maximum of 40.4°C. Arterial blood gas levels showed severe hypoxaemia (PaO₂, 48 mm Hg; fraction of inspired oxygen [FiO₂], 21%). Chest radiography showed bilateral consolidation of the air spaces, mainly in the lower lung fields, which confirmed the clinically suspected diagnosis of community acquired pneumonia.

- What is the clinical diagnosis for the patient's skin rash?
- What is the most likely cause for his community acquired pneumonia?
- How should the diagnosis be confirmed?
- How should this patient be managed?

Submitted by M Lemyze, S Salomon, D Brown, P Detouche, and F Collet

Cite this as: *BMJ* 2009;338:b1604

ON EXAMINATION QUIZ

When routine prescriptions cause trouble

The answer to this question and more questions on this topic are available from www.onexamination.com/endgames until midnight on Wednesday. This week's quiz is on when routine prescriptions cause trouble and is taken from the OnExamination revision questions for the Pharmacy Registration examination.

A 60 year old woman presented with heartburn. She is known to have osteoporosis and has been taking alendronate for a number of years.

Which of the following is the most likely cause of her symptoms?

- Achalasia
- Calcification of lower oesophageal sphincter
- Crush fracture
- Ischaemic heart disease
- Oesophagitis