

## FOR SHORT ANSWERS

See p 85

## FOR LONG ANSWERS

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# ENDGAMES

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## CASE REPORT

### A maths student with psychiatric symptoms

A 19 year old maths student was referred to the early psychosis clinic. Her flatmate, a medical student, feared the patient was hallucinating, paranoid, and suicidal. She had dropped out of lectures, constantly muttered to herself, and avoided standing near windows. She felt urges to throw herself off a high building and described visions of her own body “spread eagled in a pool of blood.” She vehemently refused a general practitioner’s emergency prescription of antipsychotic medication and would not attend the clinic.

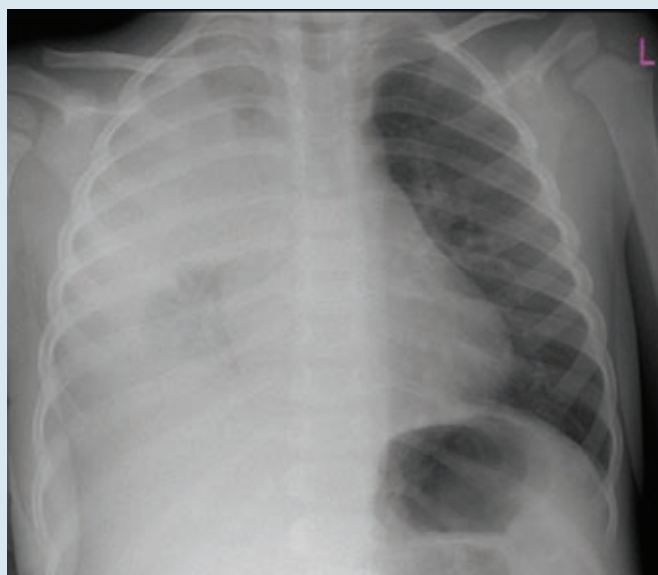
Staff arranged a domiciliary assessment and were surprised when the patient let them in quite cheerfully. She had moved her wardrobe to block the window “as a safeguard.” The university maths department was a tower block, and the patient had horrified herself by thinking “what if I were to jump through a window?” She managed to distract herself by reciting tables and mathematical formulas, and spent her time at home catching up on lecture handouts via the maths department’s intranet. She avoided alcohol and medication in case her vigilance was reduced and avoided anywhere with stairs or drops. “I know it looks crazy but things like this have happened before,” she told the clinicians. “I’m not mad, but I can’t help myself. My parents told me I might have to start taking my medication again, but I don’t want those heavy drugs. If you would give me a prescription for the other stuff I know I can get my life back.”

The patient was provided with the treatment she had received in the past, which included not only medication but also visits from a community psychiatric nurse trained in the therapy recommended for the patient’s condition. Within three weeks the patient was able to return to university, and after a further two months she was functionally back to normal.

- 1 What is the diagnosis?
- 2 What is the approximate prevalence of this condition?
- 3 What is the most appropriate medication to treat this disorder?
- 4 What other treatment is recommended by the National Institute for Health and Clinical Excellence?

Submitted by Jane Morris

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## PICTURE QUIZ

### A 2 year old with fever and cough

A previously well, fully immunised 2 year old boy presented to his general practitioner with a five day history of cough and fever. He was initially prescribed oral amoxicillin, which did not improve his condition. On examination, the patient was febrile, tachycardic, and tachypnoeic; he was also in respiratory distress and had markedly reduced air entry on the right side of the chest with stony dullness on percussion. Cardiovascular and abdominal examinations were unremarkable. Inflammatory markers were raised (white cell count  $28 \times 10^9/l$  and C reactive protein 340 mg/l). A chest radiograph was taken and the posteroanterior view shown here.

- 1 What abnormalities are shown in the chest radiograph?
- 2 What further investigations are indicated in this case?
- 3 What is the likely diagnosis?
- 4 What is the most likely pathogen?
- 5 What specific treatment plan would be most suitable for this patient?

Submitted by A Gupta, D S Urquhart, A Devaraj, and I M Balfour-Lynn

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## STATISTICAL QUESTION

### Choosing a statistic

Which statistical test is best for each outcome measure?

- | Outcome measure   | Statistical test                      |
|---|---------------------------------------|
| a) Comparing improvement in pain scores over four weeks using a visual analogue scale in a trial of 100 people with back pain.            | e) Chi square test ( $\chi^2$ )       |
| b) Comparing the effect of two drugs on time to reduce fever below 38°C in two groups of 100 febrile infants.                             | f) Fisher’s test of exact probability |
| c) Comparing for 100 countries the number of doctors trained per million population with the infant mortality rate of that country.       | g) Cox regression                     |
| d) Comparing death rates at 30 days after discharge from hospital of 100 patients having hip surgery and 100 patients having eye surgery. | h) Correlation coefficient ( $r$ )    |
|   | i) Student’s $t$ test                 |

Submitted by John Fletcher

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## ON EXAMINATION QUIZ

### Cardiothoracic surgery

The answer to this question and more questions on this topic are available from [www.onexamination.com/endgames](http://www.onexamination.com/endgames) until midnight on Wednesday.

This week’s quiz is on cardiothoracic surgery and is taken from the OnExamination revision questions for the MRCS part A papers 1 and 2.

In tension pneumothorax, which of the following signs are not present?

- A Distended neck veins
- B Hyper-resonance to percussion on the affected side
- C Hypoxia
- D Tachycardia
- E Tracheal deviation to the ipsilateral side