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## CASE REPORT

### Tired and anxious

A 55 year old accountant presented to you three weeks ago. He said that he was tired, sad, tense, and had little enjoyment in life. His sleep had worsened and he had little energy.

He reported that he had found some aspects of work difficult during the past 15 years, especially formal presentations and work related social functions. He had been married for 27 years, and his two children were now at university. He did not recall anyone in his family having any serious mental health problems, although his mother was quite anxious, and his wife had been treated for depression three years ago. He could not think of any stressor in his life other than his work. His wife confirmed this and said that he had always avoided social events.

His general health was unremarkable, and he was taking no drugs. He said he drank between two and five glasses of wine a day.

You prescribed him a selective serotonin reuptake inhibitor (SSRI) and referred him to a counsellor, but she has advised him to see you again because he drinks up to five glasses of wine before any social situation.

- 1 What is the most likely diagnosis?
- 2 What questions would you ask when you see him again?
- 3 He tells you that he is not taking the medication. What advice would you give him?

Submitted by Chris Gale, Oliver Davidson

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## PRIZE QUIZ: Lung function and physiology

Each week we offer a prize of a BMJ memory stick to the person who answers correctly, in the quickest time, a set of examination questions taken from OnExamination. To enter the quiz, go to [www.onexamination.com/endgames](http://www.onexamination.com/endgames). The competition closes at midnight on Wednesday, and the winner will be announced in the print *BMJ*.

Here's one question from this week's quiz on lung function and physiology from the FRCA.

Which of the following statements are true?

Alterations in pulmonary function during a moderate asthma attack include:

- Increased arterial  $pO_2$
- Increased arterial  $pCO_2$
- Decreased functional residual capacity
- Increased serum bicarbonate concentration
- Decreased forced expiratory volume in one second ( $FEV_1$ ).

Once the competition closes answers to this question can be viewed at [www.onexamination.com/Endgames/LastEndgame.aspx](http://www.onexamination.com/Endgames/LastEndgame.aspx).

## STATISTICAL QUESTION

### Sample sizes

Which of the following will affect the sample size calculation for a clinical trial?

(There may be more than one correct statement.)

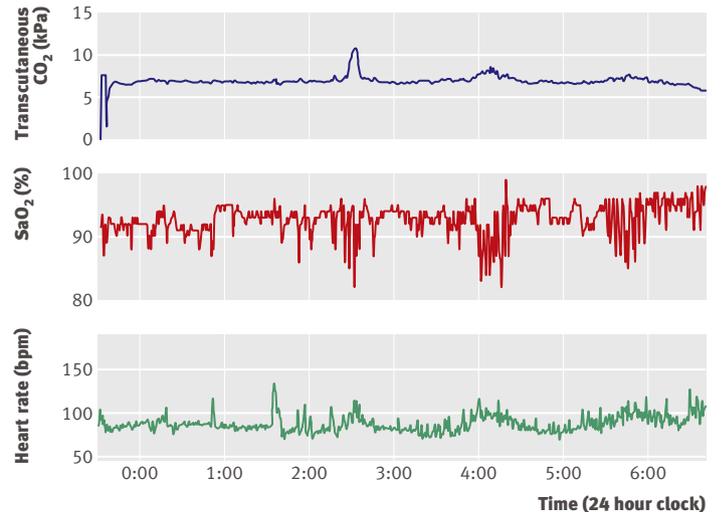
- a) Power
- b) Significance level
- c) Size of effect to detect
- d) Variability of primary outcome

Submitted by John Fletcher

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## PICTURE QUIZ

### Sleep disordered breathing in a 4 year old child with Down's syndrome



Overnight sleep study showing transcutaneous carbon dioxide ( $CO_2$ ), oxygen saturation ( $SaO_2$ ), and heart recordings

A 4 year old boy with Down's syndrome has a long history of sleep disturbance. He snores at night, his sleep is very restless, and he sleeps for long periods during the day while at nursery. He was admitted for an overnight sleep study, a six hour epoch of which is displayed above. A treatment intervention improved sleep quality.

- 1 Describe the abnormalities shown.
- 2 What is the probable explanation for these abnormalities?
- 3 What is the intervention likely to be?

Submitted by D S Urquhart, L Perry, A Gupta, M Rosenthal

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