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ANATOMY OUIZ 1

Axial contrast enhanced computed tomogram of the thorax

Name the anatomical structures labelled A-E in this axial contrast enhanced computed tomogram of the thorax.

Submitted by A Davis and M A Shah Cite this as: *BMJ* 2013;346:f3312



STATISTICAL QUESTION What is intention to treat analysis?

Researchers investigated the effectiveness of a home based early intervention on children's body mass index at age 2 years. A randomised controlled trial was used. The intervention consisted of eight home visits from specially trained community nurses in the first 24 months after birth. This intervention was in addition to the usual childhood nursing services from community health service nurses. The control group received the usual childhood nursing services alone. Participants were first time mothers and their infants.

The primary outcome was the child's body mass index at age 2. In total, 667 first time mothers and their infants were recruited to the trial; 337 were allocated to intervention and 330 to control. An intention to treat analysis showed that mean

body mass index was significantly lower in the intervention group (16.53) than in the control group (16.82) (mean difference –0.29, 95% confidence interval –0.55 to –0.02; P=0.04).

Which of the following statements, if any, describe intention to treat analysis?

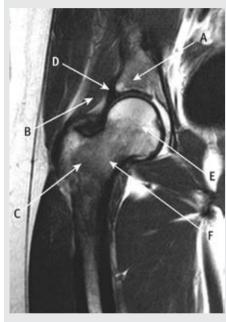
- a) Maintains original group composition achieved after randomisation
- b) Minimises confounding between treatment groups
- c) Provides a pragmatic estimate of the benefit of the intervention
- d) Typically provides a smaller estimate of the true effect of the intervention

Submitted by Philip Sedgwick

Cite this as: BMJ 2013;346:f3662

ANATOMY QUIZ 2

Coronal T2 weighted magnetic resonance imaging of the hip



Identify the structures labelled A-F in this coronal T2 weighted magnetic resonance image of the right hip.

Submitted by Ankit Desai and Alex Trompeter Cite this as: *BMJ* 2013;346:f2835

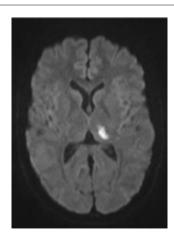
PICTURE QUIZ A young woman presenting with severe headache

A 20 year old woman with a history of migraine with visual aura in the form of both positive (fortification spectrum) and negative features was admitted to hospital because of unilateral pulsatile right sided headache of one day's duration. The headache was associated with photophobia, intense nausea and vomiting, right sided facial and upper arm numbness, and a right sided temporal visual field defect. She described the headache as similar to her habitual migraines in character but "the worst ever." On examination she was normotensive and her Glasgow coma scale was 15. On neurological examination the visual field defect was onfirmed and she reported reduction in light touch over the right side of her face and right upper limb.

With the exception of recurrent migraines at intervals of two to three months her medical history was unremarkable. She was not using any drugs on a regular basis apart from a progesterone contraceptive implant. She had no history of drug or alcohol misuse and did not smoke.

Diffusion weighted magnetic resonance imaging (MRI) of the head was performed (fig 1).

- 1 What abnormality is seen on diffusion weighted MRI?
- 2 What was the differential diagnosis at presentation?
- 3 How would you investigate this patient?
- 4 What is the appropriate strategy for secondary prevention?



Submitted by Maria Stavrou, Solomis Solomou, Oliver Spooner, and Richard Perry Cite this as: *BMJ* 2013;346:f2448