



Axial computed tomography of the abdomen
Try the anatomy quiz in **ENDGAMES**, p 161

History may be being rewritten, or at least reviewed. The conventional wisdom that King George III suffered from acute porphyria has been challenged by the Institute for Archaeology and Antiquity at the University of Birmingham. A review of the king's extensive medical records suggests that originators of the porphyria theory were highly selective in their reporting and analysis of his signs and symptoms, and that the porphyria diagnosis cannot be sustained. Bipolar disorder now seems to be the preferred diagnosis (*Clinical Medicine* 2011;11:261-4).

The theory that poor sleep is associated with cardiovascular function in adults seems not to apply to children, even though earlier research suggested that it did. Healthy 8 year olds without sleep disordered breathing provided data on ambulatory blood pressure and cardiovascular reactivity, and their sleep patterns were recorded. Neither quantity nor quality of sleep was related to the variables measured, after accounting for sex, age, height, body mass index, and parental education (*Hypertension* 2011;58:16-21, doi:10.1161/hypertensionaha.111.172395).

Arsenic is rearing its ugly head as a possible new "magic bullet" in the treatment of leukaemia. It was first used to treat cancer from the 18th to mid-20th century, but has recently been resurrected for its ability to induce complete remission and—in combination with all-trans retinoic acid and chemotherapy—an overall five year survival of 90% in patients with acute promyelocytic leukaemia. Its hugely complex mechanistic molecular effect hinges on the ratio between normal cells and the target (*Blood* 2011;117:6425-37, doi:10.1182/blood-2010-11-283598).

The arguments for and against the importance of the randomisation process in clinical trials continue unabated, but authors writing in *Evidence Based Medicine* suggest that randomised controlled trials "offer unique epistemological advantages that cannot be realised via observational studies" (2011, doi:10.1136/ebm.2011.100061). They're not saying observational studies are unimportant, nor that randomised controlled trials are the best method for answering all questions and in all circumstances. They do say that the design of a clinical study (observational versus randomised controlled trials) should be matched to the question or uncertainties at hand.



A 54 year old runner presented to the emergency department after the 2011 London marathon with severe pain in the right hip. He had had discomfort during training over the two months before the race. At mile 22 of the marathon the pain intensified and he limped to the finishing line. Radiographs showed a complete (bicortical) stress fracture of the femur neck requiring dynamic hip screw fixation. Stress fractures of the neck of the femur are not uncommon in athletes and can, if detected early when they are unicortical, be treated non-operatively by non-weight bearing. However, if neglected they may progress to completion and surgical intervention is needed.

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Patient consent obtained.

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What are the implications of a mother's weight gain during pregnancy for her child? For women who are at normal weight before pregnancy, the body mass index of their offspring at age 18 is largely accounted for by shared familial characteristics—genetic and early environmental factors. In women who are already overweight or obese when they become pregnant, and who gain more weight during pregnancy, the body mass index of their 18 year old children is related to intrauterine mechanisms (*American Journal of Clinical Nutrition* 2011;94:142-8, doi:10.3945/ajcn.110.009324).

Despite the importance of controlling blood pressure after acute ischaemic stroke in reducing the risk of recurrence, evidence suggests we're still not doing a very good job with these patients. In an American study, 43% of patients were discharged from hospital with raised blood pressure, and six months later blood pressure remained uncontrolled in 33% (*Circulation Cardiovascular Quality and Outcomes* 2011, doi:10.1161/circoutcomes.110.959809).

Patients with myelodysplastic syndromes—a group of clonal haematological disorders—usually receive only supportive treatment or surveillance. But they are often confused about what's wrong with them. An internet based survey of more than 350 patients found that over half had no idea about their prognosis, 42% were unaware of the percentage of blast

cells they carried, and 28% were unaware of their cytogenetics. Regarding treatment, 37% believed that it would improve survival and 16% thought that it would be curative (*Oncologist* 2011;16:904-11, doi:10.1634/theoncologist.2010-0199).

During covert observations of staff working in operating theatres at a Dutch medical centre, investigators witnessed an average of 0.14 applications of hand hygiene per staff member per hour over a total of 28 operations (60 hours of watching). Despite frequent interactions between patients, staff, and the operating theatre environment, hand hygiene was used in just 2% of opportunities when entering the theatre and 8% of opportunities when leaving the theatre. Adherence to guidelines was very low (*British Journal of Anaesthesia* 2011, doi:10.1093/bja/aer162).

Does sex have an effect on the outcome of severe infections in mixed intensive care units? A German study of 709 patients in three surgical intensive care units over 180 days reports that men do better than women. Although the quality and quantity of antibiotic treatment did not differ between the sexes, women had significantly higher mortality than men among patients with sepsis—23.1% in women versus 13.7% in men (P=0.523). Urinary tract infections were more common in women than in men (*Critical Care* 2011;15:R151, doi:10.1186/cc10277).

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