



An unusual cause of myocardial infarction
Try the picture quiz in ENDGAMES, p 873

Automated microscopy is increasingly used to screen for suspected urinary tract infection and it has a 98.8% negative predictive value in adults. But does it work as well in a purely paediatric practice? Automated microscopy did as well as dipstick testing to rule out urinary tract infection in children, and it offered improved specificity and slightly reduced sensitivity. The process is cost cutting, since it can be performed out-of-hours in a similar way to biochemical and haematology sample processing (*Archives of Disease in Childhood* 2010;95:193-7, doi:10.1136/adc.2009.166835).

Vitamin D deficiency is easy to tackle and, in patients undergoing hip replacement for osteoarthritis, appears to be a risk factor for suboptimal outcome. A study found that the vitamin D deficient group had lower preoperative Harris hip scores and were less likely to walk away with an excellent outcome after hip replacement than the vitamin D sufficient group, being otherwise matched for age, sex, and anaesthetic risk (*Journal of Bone and Joint Surgery* 2010;92-B:362-6, doi:10.1302/0301-620X.92B3.23535). Vitamin D levels positively correlated with preoperative and postoperative hip scores.

Japanese people carry gut bacteria that help them to digest seaweed, and this ability may have been borrowed from marine life. Researchers identified enzymes that allow a marine bacterium to obtain energy from algae, and found that the genes encoding these enzymes were also present in gut bacteria from Japanese volunteers—but not in those from North Americans. Early sushi eating probably mediated the transfer of genes from ocean to human gut bacteria; tax records from the 8th century list seaweed as a form of payment to the Japanese government (*Nature* 2010;464:908-12, doi:10.1038/nature08937).

The epidemiology of the simple ankle sprain was explored in cadets at the United States Military Academy. Men with ankle sprains were taller, heavier, and had a higher mean body mass index than uninjured men. They were also fitter, performing better on push-ups, sit-ups, and running time than the uninjured. Most sprains were sustained during athletics, and the sports that produced the most sprains



An infected pacing system had to be extracted from a patient who was dependent on pacing. Usually such patients are supported by a transvenous temporary pacing wire, which immobilises the patient, carries a risk of displacement and perforation, and is especially problematic when prolonged antibiotic treatment is needed before insertion of a new system. Semipermanent pacemakers can be used to facilitate adequate antimicrobial therapy (two to four weeks). An active permanent lead is screwed into the heart and connected to an external standard single chamber pacemaker as shown. They improve stability, allow patients to remain mobile, and can remain in situ for longer than temporary wires.

Julia D Jones (julia81@hotmail.co.uk), CMT2, Archana Rao, consultant cardiologist, Liverpool Heart and Chest NHS Foundation Trust, Liverpool L14 3PE Patient consent obtained.

Cite this as: *BMJ* 2010;340:c2000

were men's rugby, women's cheerleading, basketball, soccer, and lacrosse (*American Journal of Sports Medicine* 2010;38:797-803, doi:10.1177/0363546509350757).

Future treatments for cancer may involve blasting tumours with sound (*Proceedings of the National Academy of Science* 2010; published April 5, doi:10.1073/pnas.1001514107). A non-invasive biomedical device called an acoustic lens that produces concentrated sound pulses—"sound bullets"—by focusing a high amplitude sound source was designed by scientists in California. The result is a transfer of energy to the target, which could be incorporated into a "sonic scalpel" to heat and excise tumours.

For those with fond memories of the Royal Army Medical College (now the Chelsea College of Art and Design), a new group called The Friends of Millbank may be of interest. It's an accredited

organisation supported by the Army Medical Services, and enjoying the goodwill of the Chelsea Art College, holding regular meetings and lectures for Regular and Territorial medical and nursing staff from all over Britain. For more information go to www.friendsofmillbank.org.

People receiving mental health services in an English county have rebelled against the now popular tendency to call them "clients," with the majority saying that they would rather be called "patients." A writer in *The Psychiatrist* suggests there's no difference between mental health patients and those with other illnesses—they all go to health professionals in the hope that they will be helped to feel better (2010;34:164, doi:10.1192/pb.34.4.164). The word client, or customer, denotes a different kind of relationship—one that involves a financial transaction and where the client calls the shots.

Survival after cardiac surgery is linked to race, sex, and socioeconomic position—but of these three factors, which is the main driver? A large study of over 23 000 patients who underwent coronary artery bypass grafting from 1995 to 2005 showed that health outcomes (especially postoperative mortality) were significantly related to disparities in socioeconomic position, and that patients of low socioeconomic position were predominantly represented by black people and women. The authors say that targeted interventions should focus on these patients, and specifically on their health behaviours and secondary prevention (*Circulation: Cardiovascular Quality and Outcomes* 2010; published April 6, doi:10.1161/circoutcomes.109.880377).

Children cry in the post-anaesthesia care unit whether their parents are present or not, reports a prospective, randomised, controlled study of healthy children undergoing outpatient surgery. The factors associated with tears in the unit were age under 5 years and being in greater pain on arrival in the unit, but not parental presence, socioeconomic status, or intraoperative opioid analgesia. Absence of parents in the unit was, however, associated with negative behaviour of children two weeks postoperatively, as was being under the age of 5 (*Anesth Analg* 2010;110:1102-8, doi:10.1213/ANE.0b013e3181ccba8).

Cite this as: *BMJ* 2010;340:c1949