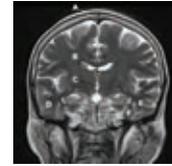


# MINERVA

Send comments or suggest ideas to Minerva: [minerva@bmj.com](mailto:minerva@bmj.com)



## Coronal T2 weighted magnetic resonance image of the brain

Try the anatomy quiz in [ENDGAMES](#), p 36

Philosophers like to argue about how clinical decisions ought to be made, while patients and clinicians have to make them within a few minutes. This was fairly simple in the days of “doctor knows best” but is very difficult within a culture that upholds patient autonomy. The latest issue of the *Journal of Medical Ethics* (2014;40:293-300, doi:10.1136/medethics-2011-100207) features a provocative article by Neil Levy entitled “Forced to be free? Increasing patient autonomy by constraining it.” Minerva is not entirely convinced by Levy’s argument but urges anyone interested in shared decision making to read this article and the responses to it. Clinical decision making, like science and politics, will always be a balancing act informed by values—a practical art of the possible.

Centuries before the rise of Greece and Rome, the young goddess Minerva wandered the land of Iran, learning integrity, compassion, and stewardship of the earth from the followers of Zarathustra. She still has a fondness for that troubled country, where by long tradition older people are cared for by their extended families. But this does not necessarily make it any less burdensome. A recent study of 153 registered patients and their care givers from the Iranian Alzheimer Association (*Journal of Geriatric Psychiatry and Neurology* 2014, doi:10.1177/0891988714524627) found that the burden of care giving was the strongest predictor of self reported ill health among this group.

New diagnostic tests alter the definitions of disease, and the arrival of anti-citrullinated protein (CCP) antibodies for diagnosing rheumatoid arthritis has complicated classification in the field. In an interesting Dutch study (*Rheumatology* 2014, doi:10.1093/rheumatology/keu159), researchers listened attentively to the different words used to describe symptoms by patients with confirmed rheumatoid arthritis versus those with joint symptoms and positive anti-CCP antibodies. Those in the first group described their symptoms as distressing, whereas those in the second were more likely to describe them as annoying. However, symptoms ranged far beyond any simple pattern of joint pain and swelling and often completely dominated people’s lives.



Three dimensional (3D) printing has been heralded as the “second industrial revolution,” and its uses are not restricted to the world outside medicine. This image shows a life size model of a patient’s pelvis with a left sided acetabular fracture, which was created using a 3D printer after computed tomography. It was used in the preoperative planning of what is often highly complex surgery. 3D printers are now widely available and affordable, and the applications within orthopaedic surgery are vast. This technology has huge potential to improve patient outcomes and may play a major role in the future of orthopaedic surgery.

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Chronic obstructive pulmonary disease (COPD) used to be called chronic bronchitis, and patients in chest clinics 40 years ago were often prescribed antibiotics for the whole “bronchitis season.” A recent Dutch randomised controlled trial (*Lancet Respiratory Medicine* 2014, doi:10.1016/S2213-2600(14)70019-0) looked at the effect of giving azithromycin all year round to people with COPD who regularly had three or more infective exacerbations a year. The unadjusted exacerbation rate per patient per year was 1.94 (95% CI 1.50 to 2.52) for the azithromycin group and 3.22 (2.62 to 3.97) for the placebo group. This remained highly significant after adjustment, and the rate of adverse events was similar in the two groups.

Not all news about malaria resistance is bad news. While the greatest concern in the field is the emergence of new strains that are resistant to artemisinins, old drugs may once again be effective in areas where the parasites have never encountered them. Malawi was the first African country to change its treatment policy from resistance compromised chloroquine to more efficacious treatment with sulfadoxine-pyrimethamine in 1993. A new survey (*Journal of Infectious Diseases* 2014, doi:10.1093/infdis/jiu216) of *Plasmodium falciparum* in Malawi sequenced 685 asexual parasites from children with malaria and found only one that was resistant to chloroquine.

Cobalt is the lightest element produced exclusively by supernova explosions, and it lies at the heart of the vitamin B<sub>12</sub> molecule on which humans depend so much. But it is also a potent cause of occupational asthma. Cases pop up in cobalt workers, of course, and also in diamond polishers and glassware manufacturers. The most recent series of 14 cases (*Occupational Medicine* 2014, doi:10.1093/occmed/kqu043) is made up of car engine workers in the West Midlands who were working with stellites. Stellites always contain cobalt, mixed with nickel, iron, aluminium, boron, carbon, chromium, manganese, molybdenum, phosphorus, sulphur, silicon, and titanium, in various proportions.

People who eat fish are brainier and live longer according to urban myth and some observational evidence. If they are young, female, and live in Australia they also tend to be happier. A survey of 1368 Australian adults aged 25-36 years (*American Journal of Epidemiology* 2014, doi:10.1093/aje/kwu050) found that, for women, each additional weekly serving of fish consumed at baseline decreased the risk of having a new depressive episode by 6% (adjusted relative risk 0.94, 95% CI 0.87 to 1.01). Women who ate fish  $\geq 2$  times a week at baseline had a 25% lower risk of depression during follow-up than those who ate fish  $< 2$  times a week (0.75, 0.57 to 0.99). Young Australian males, however, seem resistant to the antidepressant effects of eating fish.

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