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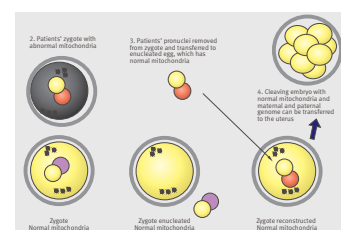
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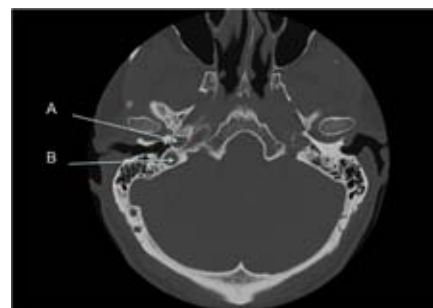
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## PICTURE OF THE WEEK

Doctors in Northern Ireland have warned of a public health emergency as people wait in long queues for water. As many as 40 000 people have had no running water for more than a week. Homes and businesses in Scotland and Wales have also been affected after the unusually cold weather froze supplies and cracked pipes

## THE WEEK IN NUMBERS

**75%** Proportion of adnexal masses for which simple rules yielded conclusive results (benign or malignant); when conclusive, or if used in triage, the rules performed as well as subjective assessment by an experienced ultrasound examiner (*Research*, p 94)

**0.07-4.01** Number of children per 1000 worldwide affected by juvenile idiopathic arthritis (*Clinical Review*, p 95)

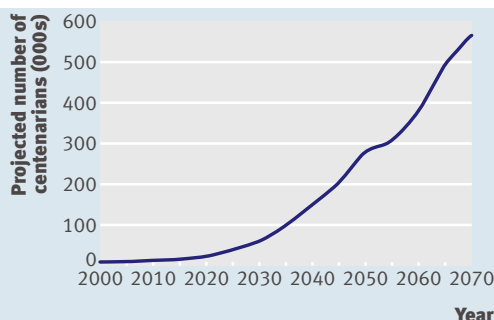
**5%** Mortality rate of people who develop febrile neutropenia (*Practice*, p 103)

## QUOTE OF THE WEEK

“Every shred of evidence suggests that price competition in healthcare makes things worse, not better”

Zack Cooper, from the London School of Economics, in an open letter by Clive Peedell, co-chair, NHS Consultants' Association, and consultant clinical oncologist, James Cook University Hospital, Middlesbrough, and more than 100 cosignatories to ask why the BMA has acted as though the proposed reforms are a done deal

**bmj.com** Observations: Open letter to the BMA about the health white paper (*BMJ* 2011;342:d7)



## GRAPHIC OF THE WEEK

More than 10 million people in the United Kingdom today can expect to live to see their 100th birthday—17% of the population—according to projections from the Department for Work and Pension (<http://bit.ly/gNcr0g>). In 2066 at least half a million people will be aged 100 or older. The centenarians of 2066 will include almost 8000 supercentenarians, aged 110 or more.



## EDITOR'S CHOICE

## The fraud behind the MMR scare

**The paper has been retracted and the two main authors discredited, but the true extent of the scam behind the scare has not been told**

This week we begin a special series of articles by the journalist Brian Deer. It focuses on what may seem a familiar story—the scare linking the MMR vaccine with autism, launched at a press conference in 1998 after the *Lancet* published a paper by Andrew Wakefield and colleagues describing 12 children with brain and bowel disease.

Deer's investigation into Wakefield's work has taken seven years. It led to the UK General Medical Council's longest ever fitness to practise hearing, after which Wakefield and his senior co-author, John Walker-Smith, were struck off and the paper was retracted. That surely should be the end of the story.

It turns out not to be. In a conversation with Deer last year, I was surprised to hear how much more there was to tell. The paper may have been retracted and the two main authors discredited, but the true extent of the scam behind the scare has not been told. We thought it should be, so we asked Deer to write three articles. The first is published this week (p 77).

As Deer explains, the GMC set out to unpick the ethics of Wakefield's research, including whether the *Lancet* study had been properly authorised and whether Wakefield had been paid by a lawyer to find a link between MMR and autism. It hadn't, and he had. But while the GMC panel pored over the children's anonymised case records, Deer compared these with what was published in the *Lancet*. He found that their data had been substantially misrepresented in order to give the result Wakefield needed.

Thanks to the recent publication of the GMC's six million word transcript, the *BMJ* was able to check

Deer's findings and confirm extensive falsification. As my colleagues and I write in an editorial this week, in no single case can the medical records be fully reconciled with what was published. This means that the MMR scare was based not on bad science but on a deliberate fraud (p 77).

The original paper has received so much media attention, with such potential damage to public health, that it is hard to find a parallel in the history of medical science. Many other medical frauds have been exposed but usually more quickly after publication and on less important health issues. I am struck by Deer's comparison, in an accompanying blog, between Wakefield's fraud and Piltdown man, the paleontological hoax that led people to believe for 40 years that the missing link between man and ape had been found (<http://blogs.bmj.com/bmj/>).

Science is based on trust. Without trust, research cannot function and evidence based medicine becomes a folly. Journal editors, peer reviewers, readers, and critics have all based their responses to Wakefield's small case series on the assumption that the facts had at least been honestly documented. Such a breach of trust is deeply shocking. And even though almost certainly rare on this scale, it raises important questions about how this could happen, what could have been done to uncover it earlier, what further inquiry is now needed, and what can be done to prevent something like this happening again. We will explore these and other questions over the next two weeks.

**Fiona Godlee, editor, *BMJ*, [fgodlee@bmj.com](mailto:fgodlee@bmj.com)**

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Career Focus, jobs, and courses appear after p 112

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