Lack of hard evidence gives soft targets

Sir,

'There's more evidence to come yet, please your majesty,' said the White Rabbit, jumping up in a great hurry: 'this paper has just been picked up.' (Carroll, 2001).

Upper respiratory tract and middle ear problems are exceptionally common in childhood and the efficacy of both medical and surgical treatments is notoriously difficult to determine. There is both uncertainty and error in all evidence, and enthusiasm for it needs to be tempered (Goldenberg, 2005).

Pain, sore throat, otoscopy findings, temperature and deafness are widely reported in papers on children (Del Mar et al, 1997; Danoiseaux et al, 2000) including the trials that Mathew and McCombe (vol 73(4), 2012, p. 184) quote. At best pain and sore throat can only be surrogate symptoms in studies of very young children. Validating otoscopists is difficult and is rarely tackled (Kaleida and Stool, 1992). Infrared ear thermometers have a large number of potential errors (Drake-Lee et al, 2002). Measuring hearing has its pitfalls too. In surgical trials intention to treat analysis is used inappropriately as data are often missing, and many children in the no treatment arm have surgery (Hollis and Campbell, 1999). Despite these dubious building blocks, the government will always be able to find and fund a March Hare, Mad Hatter and Dormouse having an academic tea party to construct evidence for their agenda.

A different approach is required if doctors wish to challenge political decisions. When GP fundholding occurred locally, some parents and children had to travel miles using public transport for treatment whereas others were treated nearby. Knowing which patients and GPs to fire up, politicians got involved after the local press was contacted. These are the only papers the government is really interested in.

Adrian Drake-Lee
Retired Ear Nose and Throat Surgeon
Birmingham

Carroll L (2001) Alice's Evidence. In: Gardener M, ed. *The annotated Alice.* Penguin Books, London: 125

Danoiseaux R, van Balen F, Hoes A et al (2000) Primary care based randomised, double blind trial of amoxicillin versus placebo for acute otitis media in children aged under 2 years. *BMJ* **320**: 350–4

Del Mar C, Claszious P, Haymen M (1997) Are antibiotics indicated as initial treatment for children with acute otitis media? A meta-analysis. *BMJ* **314**: 1526–9

Drake-Lee A, Mantella I, Bridle A (2002) Infrared ear versus rectal thermometers. *Lancet* **360**: 1883

Goldenberg M (2005) On evidence and evidence-based medicine: Lessons from the philosophy of Science. *Soc Sci Med* **62**: 2621–32

Hollis S, Campbell F (1999) What is meant by intention to treat analysis? Survey of published randomised controlled trials. *BMJ* **319**: 670–4

Kaleida P, Stool S (1992) Assessment of otoscopists' accuracy regarding middle-ear effusion. Otoscopy validation. *Am J Dis Child* **146**: 433–5

Sir,

The limitations of surgical trials are well rehearsed – patients are understandably less keen to be randomized where one of the options is an irreversible surgical intervention under general anaesthesia. The North of England and Scotland Study of Tonsillectomy and Adenoidectomy in Children study showed very clearly that parents of children least affected by sore throats were likely to opt for conservative management (Wilson et al, 2012). Most affected were likely to opt for surgery. Only those in the middle ground opted for randomization – and of those, 26% switched arms from medical to surgical therapy. While it is true we were able, by following up randomized and non-randomized children, to estimate an average of eight sore throats saved in 2 years, this was a very different inference than could be drawn from an intention to treat analysis of the randomized cohorts. In other words well-recognized barriers to demonstration of efficacy include both participant factors and the conventions of clinical statistical analysis (Tomkinson et al, 2007).

It could reasonably be said that there are very few interventions in medicine of limitless benefit. That the smart money will always back prevention, not intervention. UK society is not very warmly disposed to prevention, however. Journalists complain endlessly about nanny state, cash cow speed cameras, minimum alcohol prices. We import black market cigarette and pass our young people staggering around our inner cities – in the middle of the afternoon – with hardly a backwards glance.

Personal choices. Only for a nationalized health service – who chooses and how? Offering the lure of the laser, the romance of the robot, the 'cure for cancer' – new device and pharma lobbyists still pull the funds. 'Little people' seeking operations – for sore throat, childhood deafness, hernia, blocked nose, gynaecological symptoms, varicose veins – look sadly on from the sidelines as our ever bigger boozy society plays on.

Janet A Wilson
Professor of Otolaryngology, Head and Neck Surgery
Department of Otolaryngology Head and Neck Surgery
Newcastle University
Freeman Hospital
Newcastle upon Tyne NE7 7DN

Tomkinson A, Fox R, Temple M (2007) Recurrent pharyngo-tonsillitis: More advice to clinicians. *BMJ* **334**: 1019

Wilson JA, Steen IN, Lock CA et al (2012) Tonsillectomy: a cost-effective option for childhood sore throat? Further analysis of a randomized controlled trial. *Otolaryngol Head Neck Surg* **146**(1): 122–8