

Routine EBM staff meetings are popular and useful

Introduced into London's Hospital for Tropical Diseases in 1997, routine evidence based medicine (EBM) meetings are still well attended by staff, have led to

evidence based changes in hospital guidelines, and are generating topics for audit and research. Lockwood and colleagues (p 1020) summarise the effects of their seven years' experience, giving examples of meetings' outcomes, and provide advice for others who may be considering implementing such meetings.

POEM*

Donepezil is ineffective in long term treatment of dementia

Question Does donepezil provide clinically meaningful benefits in typical patients with Alzheimer's disease?

Synopsis This relatively complex randomised controlled trial (double blinded, with concealed allocation) had multiple phases designed to evaluate community dwelling elderly people with mild to moderate Alzheimer's disease (DSM-IV criteria). To start, 565 patients were randomised to receive 12 weeks of donepezil 5 mg daily or placebo. Following this initial treatment, 486 of these patients were re-randomised to receive 48 weeks of donepezil (5 or 10 mg daily) or placebo followed by a six week washout period. In phase 2, the patients continued in their same groups for an additional 48 weeks, followed by a four week washout period. This pattern continued until the completion of four phases. As one might imagine, the number of patients able to go on to the next phase steadily declined along the way; only seven patients entered phase 4. The authors chose this design to minimise long term bias from patients dropping out during the first 12 weeks. The authors evaluated the effect of treatment on the rate of entry to institutional care and progression of disability, defined as loss of either two of four basic, or six of 11 instrumental, activities on the Bristol activities of daily living scale (BADLS; maximum score 60). In addition to analysing several secondary outcomes, the authors also performed an economic evaluation using a societal perspective. They don't state if they analysed the outcomes by intention to treat. Although they had hoped to enrol 3000 patients, the final number (565) had 90% power to detect clinically relevant differences in the main outcomes. The patients taking donepezil achieved no significant reduction in institutionalisation (42% v 44% with placebo) or progression of disability (58% v 59%). At the end of two years, however, those taking donepezil averaged 0.8 points higher on the mini-mental state examination (on a 30 point scale) than those taking placebo (95% confidence interval 0.5 to 1.2; $P < 0.0001$). Patients taking donepezil also scored 1 BADLS point better (0.5 to 1.6; $P < 0.0001$) over the first two years. This study didn't find any meaningful benefits on economic factors, caregiver stress, and so forth.

Bottom line Long term use of donepezil provides minimal improvement in cognition and provides no benefit in preventing institutionalisation. Donepezil also provides no meaningful long term protection against functional decline.

Level of evidence 2b (see www.infoPOEMs.com/levels/html). Individual cohort study or low quality randomised controlled trials with $< 80\%$ follow up.

Courtney C, Farrell D, Gray R, et al for the AD2000 Collaborative Group. Long-term donepezil treatment in 565 patients with Alzheimer's disease (AD2000): randomised double-blind trial. *Lancet* 2004;363:2105-15.

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* Patient-Oriented Evidence that Matters. See editorial (*BMJ* 2002;325:983)

Editor's choice

From optimism to hubris

This theme issue—on whether evidence based medicine makes a difference—makes balanced nods in the direction of both advocates and critics of EBM. It begins with optimism and ends with hubris. Yet among the systematic reviews, randomised controlled trials, anecdotes, and speculation a picture does emerge. There are positive answers to many questions that are asked about EBM: Does it benefit patients? How do you teach it? How do you change practice?

The clearest messages are probably about how to teach it and how to change practice. Arri Coomarasamy and Khalid Khan's systematic review (p 1017) shows that when teaching EBM is integrated into clinical practice it improves skills, attitudes, and behaviour as well as knowledge. The importance of integration with clinical practice fits well with the ethnographic analysis by Gabbay and le May (p 1013) of how general practices handle and integrate evidence. Their answer, through two years of study, is that clinicians rely on "mindlines"—collectively reinforced, internalised, tacit guidelines, formed through interactions with each other and wider networks of "communities of practice." This might sound like jargon—but clinicians will recognise the behaviour.

Gabbay and le May's observations also fit with the results of the analysis of NICE guidelines by Trevor Sheldon and colleagues (p 999). They looked at 12 pieces of "tracer" guidance issued by NICE and tracked changes in practice in UK trusts. Unsurprisingly, they found that implementation was patchy. Guidelines were more likely to be followed when the evidence was strong and stable and clinicians already moving in that direction—and the change was not too expensive or difficult to implement.

Yet it's the sceptics in this issue who have the best quotes. Nick Freemantle wonders about the real return on the substantial resources used to produce NICE guidance (p 1003) and quotes what might serve as an epitaph to many guidelines: "Nothing is impossible for the man who doesn't have to do it himself."

And even when evidence is strong it doesn't move magically from Cochrane review to clinical practice. In his commentary on the patchy adoption of video assisted thoracic surgery (shown in a systematic review to be superior to thoractomy for pneumothorax and minor resections (p 1008)) Peter McCulloch applies G K Chesterton's comment on Christianity to EBM (p 1012): [it has] "not been tried and found wanting; it has been found difficult and left untried."

Unlike the high priests in their ivory towers on our cover tending their magic brew, doing EBM well—like most worthwhile endeavours—is hard. As Hilda Bastian says in her personal view, EBM supporters need to learn from their mistakes. A "diehard evidence based enthusiast," she catalogues the errors: weak information on adverse effects; systematic reviews jumping to conclusions too soon; clinicians adopting changes too soon; enthusiasts being arrogant and snobby; hubris.

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