findings supplement those of Read and Winceslaus (*BMJ* 2003;326:1066-7) who found, when reviewing their genitourinary clinic database, that replacing the usual lengthy oral counselling with a shorter, written explanation of the main points about testing doubled the rate of uptake of HIV testing.

Evidence on stage based approach to smoking cessation is limited

Though services aimed at smoking cessation have made extensive use of the stage based approach, only limited evidence exists for its effectiveness. In a systematic review, Riemsma and colleagues (p 1175) identified 23 randomised controlled trials evaluating a stage based



approach for helping people to quit smoking. They found wide variation in the quality of methods and in the theories justifying the interventions used. Few studies reported that the instruments used to assess participants' stage of change had been validated. As a result, the authors say, more rigorous studies are needed before stage based approaches to smoking cessation are considered credible.

POEM*

Antioxidants don't prevent dementia

Clinical question Are antioxidants associated with a decreased risk of Alzheimer's disease?

Synopsis In this outpatient prospective cohort study, patients completed diaries of diet and vitamin supplementation (vitamin C, vitamin E, carotene). The researchers evaluated the patients at baseline and included only those who were free of dementia. After an average of four years of follow up of 980 patients, they compared antioxidant consumption with subsequent development of dementia using standardised criteria. A total of 242 of these patients developed Alzheimer's disease. After adjusting for educational level and other covariates that might affect cognition, they found no association between use of antioxidants and the development of dementia. Some limitations of this study include the role of recall bias, since patients had to report on their dietary intake from the previous year. For those of us who can't recall what we had for breakfast (or even if we ate breakfast), this would be a major challenge.

Bottom line In this study and in at least one other cohort study (Engelhart MJ. *JAMA* 2002;287:3223-9), antioxidant consumption in the elderly was not associated with protection against developing dementia. At least one randomised controlled trial (Sano M. *N Engl J Med* 1997;336:1216-22) showed that vitamin E may slow the progression of moderately severe Alzheimer's disease.

Level of evidence 2b (see www.infopoems.com/resources/levels.html): individual cohort study or low quality randomised controlled trials (< 80% follow up)

Luchingser JA, Tang MX, Shea S, Mayeaux R. Antioxidant vitamin intake and risk of Alzheimer disease. *Arch Neurol* 2003:60:203-8.

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

Editor's choice

Food, flattery, and friendship

This week's cover has already caused some consternation in the BMI's offices. One or two people had heard that it depicted pigs and reptiles. Yet the verbal description "pigs and reptiles" sounds much harsher than the rather loveable creatures drawn by Malcolm Willett. And that illustrates one of the underlying messages of this week's theme issue on the relationship between doctors and the drug industry. This relationship isn't a Manichean battle between good and evil but the entwinement of individuals from different backgrounds and value sets who get to know, and often to like, each other and therefore want, as humans do, to reciprocate friendships and favours. "Food, flattery, and friendship are all powerful tools of persuasion," quotes Ray Moynihan in his two part article on entanglement.

Moynihan's articles (pp 1189, 1193) set the scene for this theme issue. His first explores the sorts of relationships that exist between doctors and the pharmaceutical industry—ranging from pens and free lunches through education, sponsored supplements in journals, funded research, to support for professional societies and consultancy. He describes the fierce debates going in the University of California in San Francisco about the relationship: some academics want to relax the tight rules of disclosure of competing interests, while the dean of medicine wants to regulate the access of drug company representatives to young doctors on the campus.

These entanglements are old and well known: what of the new and not so well known? Andrew Herxheimer warns that the relation between drug companies and patient organisations is usually unequal (p 1208). Grants from companies can help patients' organisations "grow and be more influential but can also distort and misrepresent their agendas." Relationships, he urges, should therefore be open, "without public relations flummery." The public relations flummery of the moment, according to Bob Burton and Andy Rowell (p 1205), is the third party technique-separating the message from an apparently self interested messenger. Hence the importance of "opinion leaders." Even reprints of studies that don't support a company message can be useful: "the introduction and discussion sections still provide an excellent platform for message delivery."

But perhaps most interesting is how the citadels of evidence based medicine can be undermined by clever companies. Silivio Garattini and others provide a guide to ethics committees on trial protocols that do more to market a drug than to advance understanding (p 1199). Such protocols might explain why the published literature on drugs is biased. In their systematic review Joel Lexchin and colleagues (p 1167) show that research sponsored by companies is more likely to produce results favouring the company's product than that funded by other sources. This is not because the studies are methodologically worse but because of inappropriate comparators and publication bias.

Jane Smith deputy editor

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