Randomised controlled trials and systematic reviews are all very well, but in medical practice we are often trying to modify ingrained patient behaviours over a series of encounters, and you might think that is an impossibly complex process to analyse and measure. Well, it certainly is possible to do randomised trials of specific techniques and come up with measurable endpoints: motivational interviewing is a technique developed for helping to change lifestyle, and a meta-analysis of studies (Br J Gen Pract 2005;55:305–12) shows that it can lower measures of blood alcohol, cholesterol, body mass index, and blood pressure. Some trials also show that it can be done in 15 minute sessions, and not necessarily by a doctor. A meta-analysis of psychotherapy for post-traumatic stress disorder (PTSD) in Am J Psych 2005;162:214–27 is less easy to interpret: the comparator was not an untreated group but a group receiving the same type of treatment for another condition, or a different kind of psychological treatment for PTSD. Two thirds of patients got better with any of the treatments, and it was difficult to tease out which elements contributed to success, or which caused failure in the other third.

Some would argue that even acupuncture is really a form of interactive psychotherapy, and that the needles may well be irrelevant (see commentary in Lancet 2005;366:100–1). But conventional doctors will go on sticking needles in osteoarthritic knees in the hope of introducing pain relieving substances. Does hyaluronic acid count among these? No, according to a systematic review from Austria in CMAJ 2005;172:1039–43, it may even do harm. Corticosteroid injections on the other hand have some benefits, according to Cochrane Database Syst Rev 2005:CD005328, though they tend to wear off within a week or two. Lasting pain relief and functional improvement in both knee and hip osteoarthritis are more likely to result from a patient self management programme, according to a trial conducted in primary care, with 297 patients randomised to the intervention or usual care (J Rheumatol 2005;32:543–9).

How long is a course of antibiotics? A Cochrane Review of uncomplicated urinary tract infection in women (CD004682) answers this piece-of-string question: 3 days to clear symptoms, 5–10 days if it is important to clear all bacteria. In whooping cough (pertussis), the aim is not to improve the symptoms, which will go on for 3 months regardless, but to kill Bordetella pertussis, the highly infectious pathogen. The Cochrane review for this (CD0004404) recommends 3 days of azithromycin or 7 days of clarithromycin: in cases of macrolide allergy, a week of co-trimoxazole will do the job. If you are worried that this might cause antibiotic associated diarrhoea in the children you treat, Saccharomyces boulardii given as a probiotic reduces the risk by two thirds, according to a double blind RCT from Poland (Aliment Pharmacol Ther 2005;21:583–90).

Severe generalised rheumatoid arthritis of rapid onset carries a bad prognosis, so there seems good logic in treating it aggressively. Infliximab is a monoclonal antibody directed against tumour necrosis factor alpha, and given with methotrexate, it can arrest or reverse the disease process, according to a small blinded placebo controlled trial from the UK (Arthritis Rheum 2005;52:27–35). This used MRI to assess synovitis, and the benefit of infliximab could still be seen 18 months after discontinuation. In chronic gouty arthritis, we have to balance the urge to start allopurinol against the risk that it may cause a flare up in the first 3 months: low dose colchicine is effective at preventing this (RCT, n=43, J Rheumatol 2004;31:2429–32), which makes it a valuable alternative in those who cannot take non-steroidal anti-inflammatory drugs.

Watching films like One Flew Over the Cuckoo’s Nest or Angel at my Table, you could be forgiven for believing that electroconvulsive therapy was simply a form of torture given to pacify troublesome people who had been labelled mad. Nowadays, it is mainly used as a last resort in agitated depression, but the evidence base for its use in schizophrenia is surprisingly robust, according to a Cochrane review (CD000076). It can lead to rapid resolution of symptoms, in combination with antipsychotic medication, or when medication fails.

Time was when botulinum toxin was just a footnote in texts about poisons: now it is rarely out of the popular press. Amongst its many non-cosmetic uses is the abolition of cervical dystonia, for which it is generally very effective, and remains so with further cycles, according to a Cochrane review of 13 trials (CD003633).

Some interventions are so simple and widely used that you would think a single trial, or maybe none, would suffice to validate them, but the Cochrane reviewers (CD002911) found 55 trials of alarm interventions for bedwetting (nocturnal enuresis in children). They work. But I could not find any RCTs of dandelion avoidance.

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