Complementary and alternative medicine:
what the NHS should be funding?

Chronically embedded in the tension between Royal patronage and scientific reasoning, the UK debate about complementary and alternative medicine (CAM) is heating up. Currently the Academy of Medical Sciences is developing a 'CAM policy paper', the King's Fund is trying to reach a 'consensus on appropriate research methods' in CAM, the Arthritis Research Campaign is 'reviewing the role of CAM in the management of rheumatic diseases', and the Prince of Wales Foundation for Integrated Health are about to publish guidelines on the role of CAM in mental health. In November 2007, the *Lancet* (again) published several critical comments on homeopathy and, in December 2007, the government's most senior scientist, Sir David King, warned that homeopathy 'is a risk to the population'.[1] Patients are being systematically misled[2] and remain confused: of the 21 questions most frequently asked by consumers to NHS Direct, six related to CAM.[3] Even GPs are often uncertain how to advise their patients, and decision makers or regulators struggle when forced to decide what the NHS should pay for.

THE CRITERIA

If the NHS's commitment to evidence-based medicine is serious the criteria for NHS funding are clear. Firstly a treatment should be demonstrably effective. Secondly it should be reasonably safe. Thirdly it should be affordable. Fourthly it should compare favourably in the aforementioned domains with other therapeutic options.[4] But this is merely theory; in practice, things can turn out to be a little more complex.

RISK–BENEFIT

My team and I have extensively reviewed the effectiveness and safety of CAM.[5,6] Table 1 is my attempt to compress this work into a nutshell by selectively listing those interventions which are backed by positive and sound evidence. The result is a meagre list of 20 treatments with several notable surprises. For instance, acupuncture, which is often promoted as a panacea, is effective for some conditions but not for others. Many popular CAM treatments are absent from Table 1, simply because of a lack of compellingly positive evidence. Kava, a herbal anxiolytic, is clearly effective but is probably not safe, and Bach Flower remedies might be safe but are not effective.[5,6] Other excluded treatments are homeopathy, craniosacral therapy, spiritual healing, and dozens of herbal medicines. Perhaps the most remarkable 'absentee' is spinal manipulation; it has been shown to be as effective (or

Table 1. Treatments[a] which demonstrably generate more good than harm.

Treatment	Condition	Cost	Conventional options
Acupuncture	Nausea/vomiting	Cbc	Pme
	Osteoarthritis	Cbc	Pme
African plum (*Pygeum africanum*)	Benign prostatic hyperplasia	Moderate	Pse
Aromatherapy/massage	Cancer palliation	Cbc	Pse
Co-enzyme Q10	Hypertension	Low	Pme
Ginkgo biloba	Alzheimer's disease	Low	Pme
	Peripheral arterial disease	Low	Pme
Guar gum	Diabetes	Low	Pme
	Hypercholesterolaemia	Low	Pme
Hawthorn (*Crataegus* spp.)	Congestive heart failure	Low	Pse
Horse chestnut (*Aesculus hippocastanum*)	Chronic venous insufficiency	Low	Pse
Hypnosis	Labour pain	Moderate	Pme
Massage	Anxiety	Cbc	Pme
Melatonin	Insomnia	Low	Pme
Music therapy	Anxiety	Low	Pme
Padma 28[b]	Peripheral arterial disease	Moderate	Pme
Phytodolor[b]	Osteoarthritis	Moderate	Pme
	Rheumatoid arthritis	Moderate	Pme
Red clover (*Trifolium pratense*)	Menopause	Moderate	Pme
Relaxation	Anxiety	Low	Pme
	Insomnia	Low	Pme
S-Adenosylmethionine	Osteoarthritis	Low	Pme
Saw palmetto (*Sereona repens*)	Benign prostatic hyperplasia	Moderate	Pse
Soy	Hypercholesterolaemia	Moderate	Pme
St John's wort (*Hypericum perforatum*)	Depression	Moderate	Pse

[a]excludes diet, vitamins, biofeedback, and preventative interventions. Cbc = can be considerable. Pme = probably more effective. Pse = probably similarly effective. [b]propriety preparation of several herbs. Included are the treatments which are rated as being backed up by a maximum weight of evidence demonstrating effectiveness for the condition in question.[5]

ineffective) as standard care for alleviating back pain,[7] but it is associated with frequent, moderately severe adverse effects and less frequent, serious risks.[8]

Ironically, those treatments that do demonstrably generate more good than harm are not commonly prescribed in the UK. Fourteen of the 20 therapies listed in Table 1, are supplements of natural (mostly herbal) substances which British GPs usually know little about. Herbalists prefer to prescribe individualised herbal mixtures for which there is no evidence of effectiveness at all.[9]

COST

Putting cost into the equation complicates matters even further. Sound cost-effectiveness data for CAM are extremely scarce.[5] The intuitive assumption of enthusiasts that CAM is value for money turns out to be pure wishful thinking.[10] Interventions that involve a prolonged series of treatments at £50–100 each are clearly not cheap. A recent undercover investigation showed that the average cost for a cancer patient seeking treatment from six different London-based CAM practitioners amounted to £6107 per therapist.[11]

COMPARISON WITH CONVENTIONAL OPTIONS

Finally, we have to ask how the risk–benefit profiles of the CAM options in Table 1 compare to conventional treatments. This is where things change from complicated to nebulous. There is little else than conjecture to reply on; comparative studies of high quality are not available. Table 1 includes my best shot at reasonable guesstimates.

EVALUATION BY NICE?

So what should the NHS be paying for? The best way towards answering this question may well be a proper, systematic assessment by NICE.[12] So far, the government has resisted the mounting pressure to instruct NICE accordingly. Instead, the Department of Health recently issued a statement that NICE already 'consider complementary therapies alongside conventional treatments when developing clinical guidelines'.[13] This must be the reddest herring in the alternative pond! True, the NHS guidelines on multiple sclerosis, for example, do mention complementary therapies 64 times in total).[14] However, the key sentence reads as follows:

> *'A person with MS who wishes to consider or try an alternative therapy should be recommended to evaluate any alternative therapy themselves, including the risk and the cost (financial and convenience)'.*[14]

CONCLUSION

The evidence summarised in Table 1 and in more detail elsewhere[5,6] gives valuable pointers as to where future systematic evaluations (by NICE or other institutions) might reasonably focus. It also reveals where further primary research is likely to be most fruitful. For clinicians, it provides a practical guide as to which treatments they might want to recommend to their patients who are often all too keen to learn more about CAM. However, most of all this remains woefully tentative — the only certainty in CAM, it seems, is that uncertainty abounds.

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