Herbal medicine: buy one, get two free

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In recent years, herbal medicine seems to have gone from strength to strength. However, not one but three types of herbal medicine exist—and we are confusing them at our peril.

The first form of herbal medicine is perhaps best called phytotherapy. It is the scientific face of herbalism and the area where reasonably good data are available.¹ In phytotherapy, we accept that one extract of St John's wort (*Hypericum perforatum*), for example, contains a multitude of pharmacologically active ingredients. Thus isolating one of them is often not the way forward. Instead, the whole extract is viewed as a single entity which can be standardised and clinically tested for one defined clinical condition. If all tests turn out to be positive, and the extract (for example, St John's wort) does demonstrably generate more good than harm (for example, alleviates symptoms without unacceptable risks), it can be used for one clearly defined condition (for example, mild to moderate depression). Phytotherapy thus closely follows the principles of pharmacotherapy. Like all drug treatment, phytotherapy requires knowledge and skills—for example, making a diagnosis and identifying the treatment that best suits the patient. Therefore it should be practised by clinicians with adequate experience. In some countries, such as Germany, many doctors have integrated phytotherapy into their practice.¹ In most other countries, very few healthcare professionals use this approach.

THE OTC MARKET

The second form of herbal medicine refers to the hugely popular over-the-counter (OTC) market of plant-based preparations currently sold as dietary supplements. In 2003, Europeans spent US\$5 billion (£2.53 billion, €3.75 billion) on OTC herbal medicines.² This OTC herbalism can be viewed as the offspring of phytotherapy which has outgrown its parent. Inspired by the success of phytotherapy (for example, St John's wort for depression), the popular media relentlessly promote a seemingly endless range of herbal extracts.³ The vast majority are not supported by scientific evidence.⁴ This is the first major contrast to phytotherapy. The second is the absence of patient-clinician interactions. Customers buy OTC

herbal supplements without consulting any healthcare professional; their impetus and "knowledge" usually comes from what the popular media report. Sadly, this is less than reliable.^{3,5} The OTC sector is therefore plagued by uncertainty on several levels: unreliable information, poor quality of the product, lack of evidence of efficacy or safety.⁶ It seems obvious therefore that the OTC sector can put consumers at serious risk.

TRADITIONAL HERBALISM

The third form of herbal medicine is the one practised by traditional herbalists worldwide. In the UK about 1000 herbalists are currently registered.⁷ Worldwide, this figure goes into several hundred thousands.⁸ In Britain these clinicians are largely unregulated, but statutory regulation is on its way.⁹ It was clearly boosted by the scientific evidence that emerged from phytotherapy. But few people appreciate that phytotherapy and traditional herbalism are like chalk and cheese. Traditional herbalism has nothing to do with the fact that St John's wort, for example, has been shown to be effective for depression. Traditional herbalists do not even think in conventional disease categories and hold beliefs abandoned by the rest of medicine 200 years ago—a "damp" and "cold" condition requires a "dry" and "hot" remedy, for example. The medicine prescribed by traditional herbalists would typically not be an extract of a single herb but an individualised mixture of several plant extracts.¹⁰ The composition of this mixture depends on the characteristics of each individual patient. Thus, 10 patients with the same condition could get 10 different prescriptions. Neither the diagnostic validity nor the clinical effectiveness of this approach are well-investigated. Only two randomised controlled trials (RCTs) of individualised herbalism have ever been published—and both of them failed to demonstrate the superiority of this approach over placebo or standardised herbal treatment.^{11,12} As traditional herbalists use mixtures of multiple extract, safety issues are much more critical than

in phytotherapy. The potential for toxicity, herb drug interactions, contamination, or adulteration increases in parallel with the number of plants in the mixture. Today there is not a shred of scientific evidence to demonstrate that traditional herbalists do more good than harm.

The implications of all this seem obvious. If we want to maximise the benefits of herbal medicine, we should support the approach of phytotherapy and continue to investigate this area with scientific rigour. Unfortunately the Traditional Use Directive, in an attempt to protect consumers of OTC herbal medicines from unsafe products, eliminates all incentives for conducting research on the efficacy of herbal extracts. Under the directive, registration of a herbal medicine does not require proof of efficacy.¹³ This clearly decreases the likelihood of scientific progress and increases the risk: "without evidence of efficacy, it is hard to judge the safety of herbal medicines".¹⁴ In the past, progress in phytotherapy has contributed to a general acceptance of the two other types of herbal medicine. Traditional herbalists will thus be regulated by statute in the UK.⁹ But do the regulators realise that virtually none of the scientific evidence in the realm of phytotherapy is applicable to traditional herbalism? Are they aware of the fact that only two RCTs of this type of herbalism exist and that their results are not supportive of this approach?^{11,12}

MINIMISING THE RISKS OF HERBAL MEDICINE

If we want to minimise the risks of herbal medicine we should think of ways to limit the damage done by those who issue irresponsible advice in this area.^{15,16} In particular, health writers should be reminded that the promotion of nonsense is not entertainment but puts people at risk.¹⁵ In these days of political correctness few doctors or scientists dare to speak out against such abuse—but in the interest of public safety we should. We should challenge false or unsubstantiated health claims whenever we see them—in our daily papers,¹⁶ in windows of the Chinese herbal shops in our high streets, and even in government-supported, semi-official patient guides.¹⁷

Clearer distinction of the three types of herbalism is urgently needed: phytotherapy has considerable potential for benefit, while OTC herbalism and traditional herbalism can harm those who use them. Without these distinctions we will fail to advance our knowledge about the potential benefits of herbal treatments. More crucially, we will also fail in our foremost duty—to protect the public from treatments that cause harm.

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Primary care

A proposal justifying an alternative referral practice from primary care for three common hand surgery diagnoses

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A hand therapy primary care clinic offering advice on task modification at work and in the home and the use of splints was found to almost halve referrals of carpal tunnel syndrome from a single primary care trust. Dorsal ganglion aspiration and steroid injection for trigger digits can also be safely performed in primary care, further reducing the need for hospital care.

Wildin and others¹ compared hand surgery activity from two audits and identified a 36% increase in elective referrals between 1989/90 and 2000 (table 1). In such circumstances there is a need to optimise treatment in a

primary care setting to ensure referral is limited to those patients needing treatments, which require hospital facilities or expertise. Three elective hand surgery conditions are reviewed (carpal tunnel syndrome, ganglia, and triggering of

digits). Referrals with these diagnoses constituted 39% of the total in district referrals to a hand unit at the 2000 audit.

EASE OF DIAGNOSIS

Diagnostic difficulty in primary care is a common reason for referral to hospital. If more comprehensive treatment is to be offered in primary care for the three common hand conditions, diagnosis by a general practitioner (GP) without undue difficulty must be possible in most cases. As part of the 2000 audit, all local GPs were asked: "How difficult was it to diagnose carpal tunnel syndrome, triggering and ganglia?" The results from 201 GPs are shown in table 2. Triggering and ganglia were not considered to present much of a diagnostic dilemma, with carpal tunnel syndrome proving somewhat more difficult for a quarter of respondents. The three conditions are, in the main, readily diagnosable in primary care.

CARPAL TUNNEL SYNDROME

Referrals from primary care with a diagnosis of carpal tunnel syndrome have almost doubled over a decade from 59.7 per 100 000 of population per year in 1989/90 to 112 per 100 000 of population per year in 2000 (an 88% increase). It is the most common diagnosis referred to the unit. Burke and colleagues² in a literature review identified that there are modalities of treatment available in a primary care setting which may be helpful in controlling mild or moderate cases, for the short to middle term at least. These modalities include advice on task modification in the home and at work, posture and exercises, splints, and nerve and tendon gliding exercises. The questionnaire to GPs indicated that only a minority currently employ any of these techniques before referral.

Table 1 Changes in the 10 most common elective hand conditions

	Per 100000 population per year		
	1989/90	2000	% change
Carpal tunnel syndrome	59.7	112	+88
Ganglion (wrist and finger)	43.9	55	+25
Pains, sprains, DeQuervain's and tenosynovitis	25.6	36	+41
Osteoarthritis	12.7	34	+268
Dupuytren disease	32.5	33	+1.5
Trigger finger or thumb	24.2	28	+16
Swellings	14.6	24	+64
Ulnar neuritis	11.9	19	+60
Rheumatoid arthritis	8.8	8	–9
Congenital hand conditions	3.5	6	+71