



## Do natural health food stores require regulation?

Bridget Healy, Carl Burgess, Robert Siebers, Richard Beasley, Mark Weatherall and Shaun Holt

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### Abstract

**Aim** To compare advice provided by health food stores (HFS) and pharmacies in relation to medical conditions and assess the need for regulation of HFS.

**Methods** We assessed the advice provided by 26 health food stores (HFS) and 26 pharmacies to an individual presenting with symptoms suggestive of moderate to severe asthma who had not seen a general practitioner.

**Results** The advice provided by the two stores differed markedly. 22/26 pharmacy staff diagnosed asthma/probable asthma, whereas only 15/26 HFS staff reached the same conclusion. 92.3% of pharmacy staff compared to 34.6% of HFS staff referred the investigator to a doctor; 5 HFS advised the investigator against seeing a doctor. A wide variety of remedies were recommended by the HFS, none of which are known to be beneficial in the treatment of asthma.

**Conclusion** HFS promoting herbal products for medical conditions should be regulated in a similar fashion to shops that dispense pharmaceutical products.

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Herbal and other complementary medicines are increasingly being used to treat a variety of medical conditions.<sup>1,2</sup> In New Zealand, these compounds are available through health food stores (HFS) and pharmacies. Staff in HFS have the potential to provide valuable advice and offer treatment for minor medical conditions. However, they also have the potential to cause harm if their advice is incorrect, inappropriate, or delays treatment of proven benefit.<sup>3</sup> In contrast to pharmacies, where at least one qualified pharmacist is present at all times, staff in HFS are not required to hold any qualifications in pharmacology or nutrition, nor are there any regulations regarding their practice. Herbal remedies are not without risk; therefore advice regarding their use is important.<sup>4</sup>

The few studies that have investigated advice from HFS have been conflicting, both in regard to consistency in advice between stores and as to whether the advice was beneficial or harmful.<sup>5-8</sup> In general, however, the advice given has been found wanting, with poor recognition of the severity of an illness.<sup>7</sup>

This study compared the advice from HFS assistants with that of pharmacy assistants given to an individual presenting with symptoms suggestive of moderate to severe asthma who should be referred to a medical practitioner.

### Methods

26 HFS and 26 pharmacies were visited by a 21-year-old researcher. She gave a two-month history of wheezing following a chest infection. She had developed a night-time cough and recurrent wheezing,

which was relieved with the use of her friend's blue asthma inhaler (salbutamol). The inhaler was shown to the assistants. Additional information was provided if requested: she was using the inhaler up to 20 times a day; she had not visited a doctor; the cough was dry and associated with chest tightness; she was becoming breathless and wheezy on exercise.

All details of the consultation, including products recommended or purchased, were recorded. The Medline, Embase and Amed databases were searched for evidence of the efficacy of these recommended products. The study was approved by the Wellington Ethics Committee.

## Results

The additional information requested in the two types of shops differed in some respects. Although both groups asked about a previous history of asthma and other respiratory symptoms, HFS staff enquired more about diet and other allergies (Table 1). The diagnosis and advice proffered by the staff in the different stores is shown in Table 2. Pharmacy staff made a diagnosis of asthma/probable asthma more frequently than HFS staff (22 vs 15). Pharmacy assistants referred the researcher to the pharmacist on 11 occasions, who in turn recommended referral to a general practitioner. Immediate referral to a doctor, or referral if symptoms persisted, was recommended by 92.3% of pharmacies, compared with only 34.6% of HFS ( $p = 0.0015$ , McNemar's test). An unexpected finding was that five HFS assistants advised against seeing a doctor.

**Table 1: Information requested by assistants**

Information requested	Health food stores		Pharmacies	
	n	%	n	%
History of asthma	19	73.1	25	96.2
Cough with/out mucus	19	73.1	22	84.6
Prior medical advice obtained	13	50	23	88.5
Allergy	13	50	7	26.9
Food tolerance/dietary questions	10	38.5	0	0
Shortness of breath	9	34.6	10	38.5
Chest tightness	6	23.1	10	38.5
Smoking status	2	7.7	4	15.4

A wide variety of products were sold from the HFS (Table 3). Many of these were products containing a number of ingredients. Overall, echinacea was the most frequently recommended, either alone or as a combination product. Review of the literature failed to discover evidence to support the use of these agents in asthma. Five HFS did not recommend any compound to the researcher. Nine pharmacies sold a choline theophyllinate preparation (Broncelix), one salbutamol tablets, one bromhexine and one a cough mixture.

**Table 2. Diagnosis and advice from health food stores and pharmacies**

	Health food stores		Pharmacies	
	n	%	n	%
<b>Diagnosis</b>				
Asthma/probable asthma	15	57.7	22	84.6
Other diagnoses*	6	23.1	0	0
No diagnosis	5	19.2	4	15.4
<b>Advice</b>				
Immediate referral to doctor	6	23.1	18	69.2
Referral to doctor if symptoms persist	2	7.7	6	23.1
Referral to herbalist/naturopath	3	11.5	0	0
Referral to doctor/naturopath	1	3.8	0	0
Advised against seeing doctor	5	19.2	0	0
No onward referral	12	46.2	2	7.7

\*Lung infection, food allergy, hay fever

**Table 3. Products sold/recommended by HFS**

Products	Ingredients
Adults Cough	Thyme, horehound, lavender, echinacea, peppermint
Convita Fortacold	Manuka and tawari honey, apple cider vinegar, vitamin C, propolis, echinacea, Irish moss, peppermint oil, eucalyptus, clover leaf oil, tea tree oil, fennel, fenugreek
Olive-leaf extract	Oleuropein
Breathe-eeze	Elecampane, grindelia, thyme
Air Power	Glycerol gualacolate, fenugreek, marshmallow root, para-amino benzoic acid, mullein leaf
Horseradish, garlic and histidine tablets	Includes betacarotene, ascorbic acid, thyme, fenugreek and horseradish, garlic and histidine
Propolis plus	Echinacea and garlic
Echinacea and vitamin C tablets	
Garlic, echinacea and vitamin C	
Lung Elixir Syrup	Unknown
Emphysemol	Unknown

## Discussion

The difference in advice provided by the HFS staff and the pharmacy staff was marked, with the pharmacy staff recognising the severity of our researcher's asthma. This was not the case with the majority of HFS staff. These findings are similar to those of Vickers et al,<sup>7</sup> who, using the scenario of a client presenting to HFS with frequent severe headaches, demonstrated that only 24% of the 29 shops visited recommended referral to a medical practitioner. Provision of inadequate advice from HFS, with consequent delay in the use of appropriate therapy, has been eluded to previously<sup>3</sup> and continues to be of concern both in New Zealand and elsewhere.<sup>4-7</sup> At present, the New Zealand Medicines and Medical Devices Safety Authority is seeking submissions on the future regulation of therapeutic products in New Zealand and Australia. This could lead to HFS being better regulated, particularly in relation to compounds for which therapeutic claims have been made. It is also likely that such regulation would require HFS staff to undergo some form of training, which should improve advice given.

Of major concern in the present study was that five HFS assistants positively discouraged our researcher from seeking medical advice. Reasons given included avoiding the prescription of antibiotics or corticosteroids, both of which may have numerous side effects. This advice was offered despite the fact that inhaled corticosteroids are the cornerstone of treatment for all but the mildest forms of asthma.<sup>9</sup>

A number of herbal products were recommended, however we were unable to find any references supporting their use in asthma. Of more concern was the frequency of recommendation to use echinacea. A recent report from Australia has documented that this substance is associated with asthma and other allergic responses, such as anaphylaxis and angio-oedema.<sup>10</sup> One can understand the difficulty that asthmatic patients would have in differentiating symptoms due to their underlying disease from those caused by substances containing echinacea, if this product were recommended. Plainly, closer regulation of this substance and other herbal products is required.

We recommend that HFS promoting herbal products for medical conditions be regulated in a similar way to medical practitioners and pharmacists that prescribe and/or dispense pharmaceutical products.

**Author information:** Bridget Healy, Medical Student; Carl Burgess, Professor of Medicine; Robert Siebers, Senior Technical Officer; Richard Beasley, Professor of Medicine; Mark Weatherall, Senior Lecturer in Medicine; Shaun Holt, Research Fellow, Wellington Asthma Research Group, Department of Medicine, Wellington School of Medicine and Health Sciences, Wellington

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**Corresponding author:** Professor Carl Burgess, Department of Medicine, Wellington School of Medicine and Health Sciences, P O Box 7343, Wellington. Fax: (04) 389 5427; email: [carlb@wnmeds.ac.nz](mailto:carlb@wnmeds.ac.nz)

## References:

1. MacLennan AH, Wilson DH, Taylor AW. Prevalence and cost of alternative medicine in Australia. *Lancet* 1996;347:569-73.

2. Eisenberg DM, Kessler RC, Foster C, et al. Unconventional medicine in the United States. Prevalence, costs, and patterns of use. *N Engl J Med* 1993;328:246–52.
3. Ernst E. Risks associated with complementary therapies. In: Dukes MN, Aronson JK, editors. *Meyler's side effects of drugs*. 14th ed. Amsterdam: Elsevier; 2000. p. 1649–81.
4. Shaw D. Risks or remedies? Safety aspects of herbal remedies in the UK. *J R Soc Med* 1998;91:294–6.
5. Gotay CC, Dumitriu D. Health food store recommendations for breast cancer patients. *Arch Fam Med* 2000;9:692–9.
6. Calder J, Issenman R, Cawdron R. Health information provided by retail health food outlets. *Can J Gastroenterology* 2000;14:767–71.
7. Vickers AJ, Rees RW, Robin A. Advice given by health food shops: is it clinically safe? *J R Coll Physicians Lond* 1998;32:426–8.
8. Hilsden RJ, Scott CM, Verhoef MJ. Complementary medicine use by patients with inflammatory bowel disease. *Am J Gastroenterol* 1998;93:697–701.
9. Guidelines on the management of asthma. *Thorax* 1993;48 (Suppl 2):1–24.
10. Mullins RJ, Heddle R. Adverse reactions associated with echinacea: the Australian experience. *Ann Allergy Asthma Immunol* 2002;88:42–51.