



## High blood pressure advice given by natural health food stores

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### Abstract

**Aim** Complimentary and alternative medicines are widely used but are not registered medicines. The aim of the study was to compare advice given by health food stores and pharmacists for hypertension.

**Methods** Twenty-six health food stores and 26 pharmacies were visited by an individual for advice on a hypothetical problem of hypertension.

**Results** Staff in 25 out of 26 health food stores did not refer the researcher to a medical practitioner; instead they recommended and sold a wide variety of compounds of unproven efficacy.

**Conclusions** We recommend the implementation of a formal training programme for health food stores staff and that complimentary and alternative medicines-use in New Zealand is regulated.

Complimentary and alternative medicines (CAM) are frequently used for prevention: as definitive treatments or as adjuvant therapies in disease states.<sup>1-3</sup> These agents are increasingly being used and it has been estimated that CAM attracted sales worth US\$4 billion in the USA in 1998.<sup>4</sup>

CAM-use has proved equally popular in the UK and Australia with one recent survey showing that 1 in 5 respondents had purchased a homeopathic or herbal medicine in the previous year.<sup>5-7</sup> The number of New Zealand CAM users is unknown, but the proliferation of health food stores suggests that these agents are equally popular with the New Zealand public.

In New Zealand, CAM are available in health food stores, pharmacies, and supermarkets. These products are not registered medicines, therefore they do not undergo the rigorous scrutiny that registered pharmaceuticals are subjected to prior to registration and marketing. Furthermore, unlike pharmacists, staff in health food stores are not required to undergo any formal training in regard to the physiological or pharmacological effects of the products that they sell. Nor are they required to have training in the disease states that some of these products might be used for. This may place customers at risk of being given ineffective, harmful, or indirect advice.<sup>8</sup>

In an earlier study, we showed that advice provided by health food store staff to a researcher presenting with symptoms of unstable asthma was inadequate and could have proved harmful. There were major concerns about the recommendations made to the use of ineffectual products that were sold and only one-third of the staff referred the researcher to a doctor when that was clearly the appropriate course of action.<sup>9</sup>

As individuals seeking advice from health food stores present with a wide variety of chronic conditions, we were interested to see if our previous findings would be

replicated with a chronic medical condition other than asthma. We chose a hypothetical scenario of an individual with newly diagnosed hypertension, a disorder where various treatments (both pharmacological and non-pharmacological) have been suggested and where CAM use is high.<sup>10</sup>

## Methods

A 53-year-old male individual visited 26 health food stores and 26 pharmacies in two cities and two suburban areas in New Zealand. The health food stores were randomly chosen from the telephone directory and were matched with pharmacies in the same street or one street away.

The individual presented himself with the scenario of having recently joined a fitness centre where a routine medical check had found his blood pressure to be raised. If specifically asked, he responded that the measured blood pressure was 160/120. He asked staff for recommendations to lower his blood pressure. The individual purchased any product that was recommended.

All details of the consultation including information of the purchased products were immediately recorded after the visit. A search of Amed, Medline, and Embase databases was performed to find evidence of the efficacy of the products sold.

The study was approved by the Wellington Regional Ethics Committee.

## Results

In all 26 pharmacies, the individual was referred directly to a pharmacist if the first contact was with an assistant.

Twenty-five of the 26 *pharmacists* recommended an immediate visit to a medical practitioner. One pharmacist recommended antioxidants and multivitamins and suggested that these together with stress reduction, regular exercise, and a fish meal once a week would reduce blood pressure within 2 weeks.

In the *health food stores*, 25 of 26 staff did not refer the individual to a medical practitioner, rather they recommended and sold a wide variety of products, the most frequent being garlic (Table 1) which accounted for 16 of the 25 preparations sold.

**Table 1. Products recommended and sold by health food stores**

| Products                              | Number of stores |
|---------------------------------------|------------------|
| Garlicin                              | 4                |
| Multi-vitamins                        | 1                |
| Hawthorne herbal capsules             | 2                |
| Anti-oxidants                         | 1                |
| Co-enzyme Q 10                        | 1                |
| Cayene pepper dietary supplement      | 1                |
| Natural sea weed elixir               | 1                |
| HS II containing garlic and hawthorne | 10               |
| Kyolic garlic                         | 2                |
| Homeopathic liquid                    | 1                |
| Natural calcium/magnesium tablets     | 1                |

One health food store assistant recommended consultation with an iridologist as she could see “a white ring of salt round his iris”. She went on to inform the individual that she was qualified in iridology and suggested a consultancy appointment with her.

Only 1 assistant out of 26 advised the individual on diet and lifestyle and recommended that his blood pressure be checked, preferably by a general practitioner. This health food store assistant did not recommend any products.

## Discussion

There are several strategies recommended for the management of hypertension with the usual first step confirming that the patient has a truly elevated blood pressure. This was the first major difference in the advice by the pharmacists and staff from the health food stores with only one of the latter recommending that the blood pressure be checked by a medical practitioner.

Dietary advice and lifestyle changes, such as exercise and weight loss, are appropriate areas to target in these patients and maybe all that is required in those with mild hypertension.<sup>11</sup> Such advice was provided by one pharmacist and one health food store assistant, but it was mainly health food store staff who recommended products without first establishing a diagnosis.

The second major difference was that health food store staff sold products that were unlikely to be effective in the management of severe hypertension.

The majority of compounds contained garlic at varying doses. Its efficacy in hypertension is dubious at best with one meta-analysis showing modest benefit,<sup>12</sup> whereas a subsequent systematic review was unable to confirm these findings.<sup>13</sup>

Of the other CAMS sold, only coenzyme Q has been shown to decrease systolic blood pressure in a randomised double-blind study in hypertensive patients, there being no effect on diastolic pressure.<sup>14</sup> Lastly, hawthorn may have benefits in patients with mild cardiac failure, but we are unaware of any studies demonstrating a benefit in hypertension.<sup>15</sup>

The fact that the majority of health food store staff recommended ineffective products and no further blood pressure checks amounts to potentially harmful advice.<sup>8</sup> Inadequate advice has also been demonstrated in our previous study.<sup>9</sup> In that study a 21-year-old female presenting with symptoms suggestive of moderate to severe asthma was referred to a doctor by 92% of pharmacy staff, but by only 35% of health food staff. Although a number of remedies were suggested by health food staff, in none was there good evidence of efficacy in asthma.

In another study, similar poor advice was given to pregnant women presenting with nausea in pregnancy.<sup>16</sup> These researchers found that the majority of health food stores failed to supply the correct dosage or duration of the anti nausea treatment that was recommended. Of more serious concern was the fact that 5% of the recommended products contained potentially teratogenic compounds. Other researchers have also raised concerns regarding the advice and use of CAM in pregnant women.<sup>17,18</sup>

Therefore concerns relate not only to advice provided to customers, but also to quality control of the products sold. An attempt to introduce a superior Australian regulatory processes for CAM in New Zealand failed in 2007.<sup>19</sup> It is crucial that this issue is revisited to allow for the much needed regulation of CAM in New Zealand.

To provide quality advice to customers, staff working in health food stores need to give accurate and safe information on a variety of medical ailments. We recommend

the implementation of a formal training programme for health food store staff, and to improve the quality of health care advice including referral to a medical practitioner where appropriate. We also recommend that complimentary and alternative medicines use in New Zealand is regulated.

**Competing interests:** None known.

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