

Hospital pharmacy in New Zealand

— By S.DUA, CLIN DIP PHARM, MRPHARMS

New Zealand rugby players are reputedly the best in the world, but what about the pharmacists? The author describes her role as a pharmacist in an Auckland teaching hospital and contrasts it with the equivalent position in the UK

New Zealand consists of two main islands (North and South) plus a number of smaller islands, and is separated from Australia by the Tasman Sea. It is similar in size to the British Isles. North and South Islands have a joint population of only three million with approximately one third living in the Auckland region.

Auckland Hospital, in addition to providing a service to its own geographical area, also provides tertiary care for patients from around the country and the New Zealand-dependent islands, for example, the Cook

Islands. Other South Pacific islanders, such as those from Fiji and Tonga, are frequently admitted as “private patients”, funded by their own governments. As well as the Pacific islanders, a large proportion of hospital inpatients are Maoris. Almost 20 per cent of the population of New Zealand is of Maori origin.

The issues surrounding Maori health are specifically recognised as part of Auckland Hospital’s care plan. Consequently, there are special positions within the hospital for Maori personnel.

— MAORI HEALTH

In the 1800s, a treaty was signed between Queen Victoria and the Maori people at

Waitangi. This treaty is recognised within Maori society as an affirmation of their rights and is highly valued as a sacred pact. In 1975, in order to assure its implementation, the Waitangi Tribunal investigated complaints by Maoris who considered they were prejudiced by legislation, policy or practice inconsistent with the treaty. In 1988, the government released a paper documenting changes needed within the public sector to enable a more rapid response to Maori health needs. Subsequently, in Auckland hospital, the Arahī Whanaungatanga (the director of relationships) was developed to focus on the particular issues relating to Maori health. Their health care needs have been shown to be vastly different to non-Maori/European New Zealanders. For

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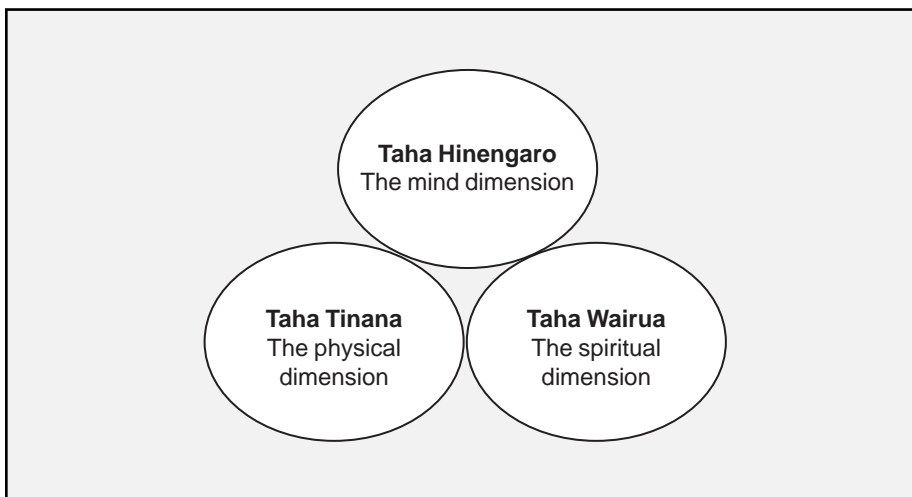


Figure: The traditional Maori principles relating to Taha Wairua, Taha Tinana and Taha Hinengaro are necessary to maintain good health

example, the number of diabetic patients and those with heart disease is significantly higher among Maoris.

As with the non-Maori/European population, major causes of premature death relate to lifestyle patterns and socio-economic factors. Poor diet and high rates of smoking by Maori people have significant roles in the aetiology of these diseases. In 1994, the proportion of the New Zealand population that smoked fell by 4 per cent below the previous year's level, and has followed this downward trend for over a decade. However, there has been little reduction in smoking within Maori and Pacific islanders. Maoris make up a greater proportion of inpatients than expected within the hospital setting, given the total Maori population. One contributory factor is that they present at a late stage to GPs. In addition, little information is known by healthcare professionals about the traditional Maori medicines which have often been tried before presentation in hospital. However,

what is clearly recognised is that the Maori people view health as a fusion of three energies or dimensions, the mind, spirit and physical dimensions (see the Figure above). Attempts are made to acknowledge these beliefs within western medicine. This is established particularly well in the field of mental health.

— PHARMACY

In New Zealand, the Pharmaceutical Society has existed on an informal basis since 1879. Membership of the Society was voluntary until 1908, when the Pharmacy Act established that all persons registered as chemists should be part of the Society. The Society is governed by the Council, which is elected every three years and is made up of 12 members. In 1995, there were 3,500 registered pharmacists with approximately two-thirds working in community.¹ At present, all of New Zealand's pharmacists are trained at the University of Otago in

Dunedin on South Island where there are scarcely 100 pharmacists graduating each year. An additional course started at Auckland University this year. The four-year degree course is completed with a one-year internship in either the community or hospital sector. At present, Auckland hospital has six interns.

Post-graduate education is less structured than in the UK. There is no formal university-linked post-graduate clinical pharmacy training in New Zealand. A number of hospital pharmacists choose to do distance learning diplomas in clinical pharmacy through the UK or Australia.

— AUCKLAND HOSPITAL

There are 31 pharmacist posts at Auckland Hospital, with a pharmacist-to-bed ratio of one to 40. The dispensary caters for inpatients and clinical trials only. Out-patients and discharge medication are dispensed by a community pharmacy that is also "on-site". There is also a well-equipped drug information department that deals with queries emanating from within the hospital. Manufacturing is performed on a small scale, with the majority of cytotoxic reconstitution and total parenteral nutrition production contracted out.

Clinical pharmacist positions exist for most medical specialties. Daily visits to wards are the norm as in the UK. However, the pharmacist's contribution in selection of the ideal drug for an individual patient are rather constrained within the structure of the systems for healthcare/drug funding.

— DRUG FUNDING

Pharmac, the Pharmaceutical Management Agency is a committee set up to

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manage pharmaceutical subsidies. The board consists of the chief executive of each regional health authority and an independent chairperson. Pharmac works closely with the Pharmacology and Therapeutics Advisory Committee, which independently advises Pharmac on effective drug utilisation. Pharmac then decides, taking into consideration cost issues, which medicines will be "funded" by the government and what special conditions are applied. There are usually one or two funded agents per class of drugs. Over 3,000 medicines are subsidised and they are listed in the Pharmaceutical Schedule (equivalent to the UK Drug Tariff).

Issues surrounding Pharmac and funding of drugs make a vast impact in the choice of drugs within a particular class. In addition, certain drug classes are only available to special groups of patients. For example, a patient with stroke or atherosclerosis must have documented two total cholesterol levels greater than 6mmol/l before they are allowed to have a statin. After a decision by Pharmac in the 1990s to replace simvastatin with fluvastatin as the approved statin for reimbursement, Thomas and Mann investigated the effect of the switch in 126 patients.² They noted that lipid concentrations went up in 94 per cent of patients whose statin was changed. This study demonstrated how arguments based on the class effect concept may be misleading and therefore to assume that all drugs of a class are interchangeable may be dangerous. At the time of writing this article, atorvastatin, fluvastatin and simvastatin were all subsidised.

The flood of "me too drugs" during the last decade again highlights the problem. In addition to the statins, new β -blockers, angiotensin converting enzyme (ACE) inhibitors, calcium antagonists and non-steroidal drugs have all been marketed on the concept of class effect rather than evidence from clinical trials.³ Pharmac currently fund two ACE inhibitors, cilazapril and quinapril. A brief view of the Cochrane database reveals only 192 and 136 clinical trials for these two drugs respectively, whereas a vast number of randomised trials have demonstrated the benefits of captopril and enalapril (1461 and 1411 respectively).

Thus, on occasion, the clinical pharmacist can have a tricky job with conflicting issues of whether the patient should have a drug supported by evidence-based medicine or a drug that is funded.

FORMULARY/SUPPLY ISSUES

New Zealand is a relatively isolated country in relation to drug procurement. Issues with funding are often compounded by the lack of available drugs in the country. Problems arise around companies withdrawing a product from New Zealand due

to a lack of market and also the fact that suppliers are situated in Australia, Europe and the US.

Again, problems are encountered when developing a hospital formulary. For example, the only funded and available solid, oral iron preparation is a slow release formulation of ferrous sulphate. Such a preparation by-passes the site of optimal absorption in the gastrointestinal tract and is therefore not the most appropriate.

As the majority of patients wish to have their drugs funded, it is ultimately Pharmac that has the major influence over which drugs are prescribed, and not the hospital pharmacist.

FUTURE CHALLENGES

The Pharmaceutical Society of New Zealand is promoting comprehensive pharmaceutical care (CPC) as the focus of pharmacy practice in New Zealand. CPC revolves around an organised, private consultation that is separate from the dispensing process. It involves medication management, medicines information and lifestyle advice. The critical element differentiating CPC from patient counselling is that of a payment for service.

There is in New Zealand, as in the UK and Australia, a lack of pharmacists. Interestingly, in New Zealand this is seen in a wide spectrum of positions including senior pharmacists' posts. Hospitals in Auckland, Wellington and Christchurch have struggled to find chief pharmacists. In Auckland, there has been a major overseas recruitment drive over the past two years with the majority of pharmacists being employed from the UK and joining the staff on temporary contracts. The process is a relatively costly one as a proportion of the pharmacists' annual salary is paid to the recruitment agency.

In New Zealand, there is a large difference in salary between hospital and community pharmacists. On average, community pharmacists are paid at least \$30,000 more than their hospital counterparts. (This is equivalent to about £9,000.) This, in combination with the small number of pharmacy graduates and the New Zealand pharmacist's desire to gain experience abroad, makes recruitment and retention within the hospital sector difficult.

UK pharmacists considering work in New Zealand should make allowances for the following;

- differences in clinical practice
- diverse opinions of all other healthcare staff towards pharmacists
- salaries for senior clinical pharmacists (D/E Grade equivalent) are on average 40–50 per cent lower than in the UK
- annual leave entitlement is approximately half that in the UK and may be difficult to take⁴

- job descriptions tend to apply loosely across a whole grade of positions and are not specifically written on an individual basis

CONCLUSION

New Zealand is a most beautiful country and working there is a valuable experience. However, anyone contemplating working in New Zealand should contact people who have worked, or are working in New Zealand, and ascertain as much information as possible about the places in which they are considering taking a job. Working life in New Zealand is quite different from the UK and can vary from place to place across the country.

In the UK we constantly take as fact our role as part of the clinical multidisciplinary team. Attendance on consultant wards is the norm, as is participating in considerations regarding a patient's drug therapy. Many of the wheels and levers taken for granted in the UK do not exist in New Zealand. The New Zealand healthcare professionals' opinions regarding the role of pharmacists appear to pivot around the dispensing and supply of drugs.

The bed-to-pharmacist ratio in Auckland Hospital would be envied in many UK teaching hospitals, although this does not necessarily correlate with a superior clinical service. My time in New Zealand has been a constant reminder of how much recognition clinical pharmacists in the UK now have, both in expertise and status, and hence salaries.

Issues with Pharmac make life a constant challenge for pharmacy and medical staff alike with regards to evidence-based medicine and manufacturers' supply. While the basic principle of a limited national formulary governing prescribing is embraced, my experience in Auckland has highlighted the difficulties with such a strict scheme in providing the best possible pharmaceutical care.

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