Ensuring the Safety of Traditional Medicines: Detecting and Reporting Suspected Adverse Effects and Interactions

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During the years 1961–1962, particularly in Europe, there was a sudden and dramatic upsurge in the numbers of babies born with phocomelia. This congenital abnormality is characterised by the poor or absent development of the arms and legs and often there is little limb to see apart from a small portion of a hand or foot protruding from the shoulder or hip, rather like the flipper of a seal. This extremely disabling abnormality was not unknown before, but was very rare. The sudden increase had its cause in the prescription medicine, thalidomide, taken by mothers in early pregnancy when the limb buds of the developing child were forming. The 'thalidomide disaster', as it became known, sparked worldwide concerns and most countries urgently put in place a system for monitoring the safety of prescription medicines in the hope of preventing any similar occurrence. It was not feasible to do this through a compulsory reporting rule and voluntary reporting of suspected adverse effects to a central authority has subsequently become the method of choice in most countries.

In Australia, the regulatory body for all medicines, whether prescription only, over-the-counter preparations or traditional/complementary medicines is the Therapeutic Goods Administration (TGA), a division of the Australian Government Department of Health and Ageing. In order to monitor the occurrence of medicine-related adverse events, an Adverse Drug Reactions Unit (ADRU) was set up within the TGA to receive and review spontaneous reports coming from medical practitioners and pharmacists of suspected adverse events, whether it appeared likely that the medicine was, in fact, the cause or not. The TGA has been advised since 1970 by the Adverse Drug Reactions Advisory Committee (ADRAC), composed of medical practitioners who help make the often difficult judgement as to whether the event reported is likely ('possibly', 'probably' or 'certainly') to have been caused directly by the medicine, by an interaction between two or more medicines or to be unlikely to relate to medicines and have more to do with the disease or condition being treated. As reports come in, a particular medicine may stand out as a possible cause of adverse events, particularly if the pattern of adverse events repeats itself with each new case reported. This may lead the TGA to issue a warning to health professionals on the TGA website (www.tga.gov.au) or directly to all prescribers, pointing out the suspected risk, featuring it in the bi-monthly publication *The Australian Adverse Drug Reactions Bulletin*, or, if sufficiently serious, informing health practitioners and the public immediately and, if necessary, revoking the licence for that particular product. A recent (2001) example of the withdrawal of a prescription medicine from the market because of serious adverse events was that of cerivastatin, a cholesterol-lowering medicine which caused muscle damage in an unacceptably large proportion of patients. Spontaneous reports from health professionals contributed to this regulatory decision.

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Aust J Acupunct Chin Med 2006;1:15–16.

In contrast, traditional (including Chinese) and other complementary medicines are usually regarded as low-risk and commonly have a long history of apparently safe use by traditional practitioners, provided they are prepared according to traditional methods. However, simply because they have a tradition of use does not guarantee their invariable safety and the TGA has a responsibility to monitor any emerging risks associated with these products. For example, aristolochic acids from plants of the genus *Aristolochia* have been found as adulterants in some Chinese medicines. It was only as recently as 2000 that these substances were reported to cause renal impairment and a particular form of renal cancer.[1] The laboratories at TGA have subsequently screened many traditional medicines for the presence of these acids and products containing them have been removed from the market. Other traditional medicines such as kava (*Piper methysticum*) and black cohosh (*Cimicifuga racemosa*) occasionally produce impairment of liver function and remain under regular scrutiny.

Until recently, reporting of suspected adverse events has largely come from those prescribing or using prescription medicines. However, it is estimated that about a half of all Australians take some traditional/complementary medicine in any year, and so it is vital to have as much comprehensive information as possible about the potential risks. The Adverse Drug Reactions Unit and ADRAC have opened the reporting of suspected adverse events beyond medical practitioners and pharmacists. As a result, health practitioners using traditional products as well as members of the public (normally through a health professional) are beginning to add their information to the database. Reporting is done easily on the TGA's Blue Form, a copy of which is inserted in this issue of AJACM. The reporting system also has a facility to accept reports electronically. Most importantly, reporting is not a mechanism for blaming a practitioner, nor is it necessary to be sure that what was observed was directly related to the medicine given. Suspected adverse events and the medicines (all of them) that were being taken at the time of the event are all that need be reported. Reports are acknowledged by the ADRU.

The Complementary Medicines Evaluation Committee of the TGA meets regularly to review all aspects of the regulation of complementary medicines. At each meeting we devote a substantial amount of time to reviewing reports of suspected adverse responses. These have already been seen and passed on to us by ADRAC (on which a member of our Committee sits) and gradually we build up a picture of the risks – small or large – that may be associated with particular products. More recently, we have taken a particular interest in interactions between medicines. The herbal preparation St John's Wort (*Hypericum perforatum*), for example, may alter the way some prescription medicines are handled in the intestine and the liver and in turn may lead to a reduced effect of the prescribed medicine.

There is an urgent need for better education about traditional/complementary medicines for Western-trained medical practitioners and pharmacists, and also for the public, who often do not recognise that there could be a potential for interaction between their prescription medicines and the herbal products they buy or have dispensed for them by traditional practitioners.

To aid that education program (which has been agreed to as part of the Government's response to the Report of the Expert Committee on Complementary Medicines in the Health System[2]) we need the best information about how traditional medicines perform and the risks, whatever they may be, associated with their use in our society. Reporting suspected adverse events is a contribution that all practitioners can make, whether they are from the Western, Chinese or other traditions.

Acknowledgments

I am grateful for helpful comments from Dr David Briggs and Dr Ian Boyd of the Therapeutic Goods Administration.

References

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