Editorial

Turning knowledge into action

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Studies of healthcare provision show that many patients do not get care that is consistent with the best available evidence. A study of the care provided to several thousand people in the United States using telephone interviews and chart audit showed that, for a wide range of conditions, people received care consistent with best practice recommendations only 55% of the time. While prescribing showed higher rates of adherence to recommended care than interventions requiring counselling and education (69% vs 18%), substantial numbers of people were not receiving drugs that would be of benefit to them.[1] Similar results have been found when auditing care provided by primary care physicians in the Netherlands.[2] In Australia, more limited studies show that there is widespread underuse of many drugs, such as oral anticoagulants in people with atrial fibrillation, and ACE inhibitors and beta blockers in patients with heart failure. Conversely, there is also overuse of drugs in Australia, such as antibiotics for the common cold and acute bronchitis.[3]

Poor uptake of research findings is not confined to areas where discoveries are recent. It took on average over 15 years for research findings on a number of clinical interventions (such as influenza vaccination, thrombolytic therapy, use of beta blockers after myocardial infarction, and diabetic foot care) to reach a rate of use of 50% in eligible patients seen in clinical practice.[4]

How can the gaps between best evidence and current practice be closed more quickly and more effectively? Traditional approaches aim to improve the knowledge and skills of clinicians through continuing education and training. Over recent years there has also been a focus on making research findings easier for clinicians to access and interpret. Evidence-rating systems, systematic reviews of research, evidence summaries and production of guidelines are all ways of trying to make the enormous research output manageable. However, improved knowledge does not necessarily produce alterations in behaviour or change in long-established habits. This is evidenced by the difficulty that many people have in changing their diet in order to lose weight or attaining recommended levels of exercise despite knowing what they should do and the health advantages that could result.

Barriers other than lack of knowledge that prevent best evidence being applied in practice vary according to the clinical issue, the individual doctor and the environment in which care is delivered. Examples of barriers include a lack of recognition that a gap exists, beliefs or attitudes that research findings are not important or relevant to practice, and established systems of care that make it difficult to change customary processes. In some instances patient beliefs and preferences play an important role in influencing prescribing behaviour. This is one reason for inappropriate prescribing of antibiotics for viral infections.

One approach to improving care is to agree on specific areas where practice should be changed, identify the barriers to change and design interventions to overcome these barriers. For example, one of the aims of a program in Norway was to increase prescribing of thiazides for the treatment of uncomplicated hypertension in general practice.[5] Potential barriers identified were that thiazides were considered old-fashioned, physicians were worried about possible adverse effects and lack of antihypertensive effect, physicians were not familiar with the relevant brand names, and few other clinicians were using these drugs. Established habits of general practitioners and advocacy by pharmaceutical companies were also noted as potential barriers to increased prescribing of thiazides. Interventions designed to overcome these barriers

In this issue …

Patients need information to make the best use of their medicines. While all prescription medicines now have Consumer Medicine Information, Parisa Aslani believes this resource is underused. Sometimes information can be lacking and Anne Sved Williams says the use of antidepressants in pregnancy and lactation has to be largely guided by clinical experience.

Information is also relevant for non-drug therapies. Bronwyn Penny tells us the important components of an exercise prescription for patients with diabetes.

A good example of turning knowledge into action, discussed by Heather Buchan, is the management of jellyfish stings. Geoff Isbister tells us that there have now been prospective trials to guide treatment.

included educational outreach visits, use of opinion leaders, audit and feedback and computerised reminders linked to the medical record system.

Identifying barriers and incentives to change and using this information to tailor implementation strategies seems logical but, at present, while some studies show success using this approach others do not. The interventions used in the Norwegian study significantly increased prescriptions of thiazides for hypertension. However, they were ineffective in improving the risk assessment of patients before prescribing and for achieving treatment goals in patients with hypertension or hypercholesterolaemia.[6]

In some reported studies it is unclear whether the methods used to identify barriers produced accurate information about the most important barriers or whether the implementation strategies were optimally tailored to the identified barriers. An overview of studies of guideline implementation concluded that there was still an imperfect evidence base to make decisions about implementation strategies because of poor reporting of study settings, barriers to change, and the content and rationale of interventions.[7]

The key messages that emerge from experienced researchers running programs to change clinical practice emphasise the importance of:

- using a systematic approach, with careful planning, concrete proposals and targets for change
- ensuring that ongoing practice data are provided to practitioners and used as an integral part of the change process
- providing appropriate leadership and sufficient support for any change program.

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Anaphylaxis wall chart

Accompanying this issue is a new version of the *Australian Prescriber* wall chart on the emergency management of anaphylaxis. This replaces the previous version published in 2001.

The new version has been prepared over many months with the assistance of the Australasian College for Emergency Medicine, the Australian and New Zealand College of Anaesthetists, the Royal Australasian College of Physicians, the Australasian Society of Clinical Immunology and Allergy, the Royal Australian College of General Practitioners, and the Royal Australian and New Zealand College of Radiologists.

The Editorial Executive Committee of *Australian Prescriber* believes that the wall chart will assist health professionals working in the community. While there are other protocols for managing anaphylaxis, the Editorial Executive Committee considers that the *Australian Prescriber* wall chart will be applicable in most situations. As with all protocols, the keystone of drug treatment is to give the patient adrenaline.

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