

Why are guidelines not used and what can be done to change that?

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There is some evidence that guidelines are effective in changing clinical practice and improving patient outcome.¹ There is limited evidence on their uptake in New Zealand with only two studies evaluating this. One of these studies was undertaken by our group in Auckland. We compared the 1995 National Heart Foundation blood pressure guidelines with the 1996 lipid and depression guidelines and the 1997 heavy menstrual bleeding guidelines.² The survey was carried out from November 1999 to February 2000 and found that the highest ranking for both use and usefulness was the dyslipidaemia then hypertension then heavy menstrual bleeding and then depression guidelines.

We speculated on the possible reasons for this. First of all the lipid and blood pressure guidelines (or at least the absolute risk tables) are contained in the back of the *New Ethicals* prescribing catalogue. There was also implementation of these two guidelines with numerous small group sessions conducted around the country. Medication for controlling blood pressure was available and, to a lesser extent, lipid control. On the other hand the heavy menstrual bleeding guideline contained some very important new information such as the need to give progesterones for longer than ten days to control menorrhagia.

The key recommended medication at that time was (Tranexamic

acid) a specialist-only medication, which limited access for GPs. There was also no implementation process. The depression guideline was considered the least useful and was the least used. It suffered from containing some impractical advice such as using the Centre for Epidemiology study – depression (CES-D) screening tool for screening for depression. The CES-D contains 16 questions and takes three to five minutes to be administered which is too long for most GP consultations. The guideline also recommended cognitive therapy, which is not readily available to GPs and there was no implementation process.

The barriers we thought were operating included poor content (depression guidelines) external barriers

in the form of limited access to resources (depression guidelines and heavy menstrual bleeding guidelines) and implementation barriers in the form of lack of training sessions (depression guidelines and heavy menstrual bleeding guidelines). These are just some of the barriers that we identified. An enormous review conducted by Cabana et al. (1999) was published in *JAMA*.³ This review identified 293 potential barriers to doctor guideline adherence. They divided them into seven categories. These included: lack of awareness, lack of familiarity, lack of agreement, lack of self efficacy, lack of outcome expectancy, inertia of previous practice and external barriers. These barriers affected physician knowledge, attitudes and awareness (see Table 1).

Table 1. Summarising categories from Cabana 1999 Barriers to using guidelines

Physician attribute	Barriers
Knowledge	Lack of awareness Lack of familiarity
Attitudes	Lack of agreement Lack of self efficacy* Lack of outcome expectancy** Inertia of previous practice
Behaviour	External barriers Patient related barriers Environmental related barriers Guideline related barriers

* Lack of self efficacy: Self efficacy is the belief that one can perform a task.

** Lack of outcome expectancy: Outcome expectancy is the belief that if one carries out a task it will make a difference to patient outcomes.

Potential barriers to doctor guideline adherence

Lack of awareness

Cabana et al. found there were always at least 10% of physicians who were not familiar with a particular guideline. They felt that with the expanding body of research it would be difficult to keep up with guidelines. A paper from the UK assessed how many guidelines UK general practitioners were given.⁴ Although 38% of them were undated, a pile 68cm high weighing 28kg was acquired.

Lack of familiarity

Cabana et al. reported that casual awareness of a guideline does not guarantee the ability to apply them correctly. They found that lack of familiarity was more common than lack of awareness.

Lack of agreement

While lack of agreement with guidelines in general, or specific guidelines in particular, was often quoted as a reason for not using guidelines, when asked about specific guidelines lack of agreement was less common. Cabana et al. recommended caution in interpreting this aspect.

Lack of self efficacy

Lack of preparation was thought to be an issue in adhering to preventive health education guidelines. A quote from Kenealy 2003 was *'It is interesting to reflect on the diversity even within a single 'barrier'. For example, lack of self-efficacy was substantial for nutrition advice and advising on alcohol abuse, but minor for exercise advice and performing a clinical breast examination. One suspects that GPs felt they lacked knowledge about nutrition but their reluctance to offer alcohol advice arose from frequently observing their advice fail. In contrast, it is relatively easy to give exercise advice and it is uncommon to observe failure to detect breast cancer. Because few stud-*

*ies examined multiple barriers at the same time - 70/120 (58%) examined only one type of barrier - it was difficult to draw conclusions about which barriers were the most important.'*⁵

Lack of outcome expectancy

If a physician believes that a recommendation will not lead to an improved outcome, the physician is less likely to adhere. The example given by Cabana et al. was of smoking. Counselling can increase a population quit rate from 3% to 5% which is significant at a population level. Overlooking population level success can negatively influence outcome expectancy and lead to non-adherence.

Inertia of previous practice

This was an issue for more than 20% of respondents in the Cabana et al. survey.

External barriers

Patient related barriers

Patient resistance to guidelines was indicated by more than 10% of physicians.

Environmental related barriers

There were many factors reported here. They included lack of a reminder system, lack of materials, insufficient staff or consultant support, poor reimbursement, increased practice costs and increased liability. In the New Zealand setting this could include restrictions on funding for pharmaceuticals and radiological investigations.

Guideline related barriers

This was described as a barrier by more than 10% of respondents. Cabana et al. (1999) suggested that a guideline recommending elimination

of a behaviour was perceived as being more difficult than recommending adding a new behaviour.

What is needed to increase the use of guidelines?

This is essentially the task of changing clinical practice. Grol has proposed a classification of potential approaches to assist in changing behaviour.⁶ They are divided into a focus on internal processes and a focus on external processes. Too little emphasis has been placed on implementation in New Zealand

with the majority of resources going into developing clinical guidelines. Grol describes three internal processes – educational, epidemiological and marketing – and four external processes. The educational relies on the intrinsic motivation of the professional and much of this is achieved through peer review groups and problem-based learning. The epidemiological relies on rational information seeking and uses the traditional channels of dissemination such as mass media and journals. The marketing needs to adapt an attractive product to the needs of a target audience. This should represent the 'gap' between current practice and ideal practice that all guidelines attempt to fill. The marketer could be a primary care 'knowledge officer' or the familiar IPA pharmacy facilitator whose role would need to expand to take in to account non pharmaceutical information.⁷ The New Zealand Guidelines Group currently publishes laminated two-page four-sided guideline summaries. These are suitable for most GPs who are less interested in the enormous amount of literature on a subject than in the correct diagnosis and treatment.

The four external influences described by Grol (1997) are behav-

joural, social interaction, organisational and coercive. Under behavioural he includes audit and feedback, reminder systems and economic incentives. I would like to float the concept of 'RACE' teams (Rapid Audit and Change Evaluation). These teams would visit practices, do a rapid audit, provide any education needed and assist in writing to patients to ask them to come in and discuss their treatment. This could, for example, rapidly improve the uptake of beta-blockers in patients with heart failure or check that most (all?) diabetics were on lipid-lowering medication. Economic incentives could be used to improve the uptake of mammography by providing some financial incentive to GPs to recruit patients for the programme. Computerised reminder systems have enormous potential to change clinical management and to enable consistent application of testing/treating. To some extent this would require our patient management software to be more intelligent. Putting guidelines on to computers will enhance access to them. However there may still be limited use for guidelines to answer clinical questions.⁸

In terms of social interaction the peer review groups provide an excellent vehicle for guideline implementation. Grol also recommends

outreach visits. The peer review group would be an excellent vehicle for the visiting knowledge officer. Knowledge officers are more formally known as academic detailers and there is good evidence about their effectiveness.

The third arm of the Grol 'external' approach is the organisational issue. This includes continuous quality improvement approaches and changing structures. The structures can be physical structures or, more commonly, system structures in clinics. There is a large body of evidence sug-

gesting that changes in systems can bring about improvements in chronic illness care.^{9,10} These include creating practice teams so that acute care can be separated from chronic care. These teams should include non physicians doing routine tasks

and ensuring that there are planned visits by patients for chronic illnesses. The appointment of case managers has been shown to improve the management of depression. Some of this may seem beyond the scope of a small practice but under capitation funding a shared case manager may be a realistic option.

The fourth and final arm of the Grol external influence is that of coercion. This is probably the least desirable for general practitioners as it is both very

powerful and not under their control. A good example of this was the ACE inhibitor reference pricing. Almost every patient in New Zealand changed to the two funded ACE inhibi-

tors. There was considerable professional concern but the changes were implemented successfully.

Guidelines are not always positive documents and badly written guidelines can do harm.¹¹ GPs need to know what constitutes a good guideline and contemplate the potential aspects involved in getting them implemented. We are fortunate in New Zealand to have the New Zealand Guidelines Group (<http://www.nzgg.org.nz>), which guarantees a level of quality. Individual GPs and practices can and should try to implement as many of the Grol approaches as possible. They can encourage problem-based learning in their peer review groups, disseminate research findings through articles and adapt guideline issues for their colleagues and patients. For the external influences they can implement audit procedures and reminder systems, arrange for opinion leaders to attend peer review groups and change work structures in their practices.

There is a large body of evidence suggesting that changes in systems can bring about improvements in chronic illness care

GPs need to know what constitutes a good guideline and contemplate the potential aspects involved in getting them implemented

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