Using clinical guidelines

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Guidelines are statements which help people to decide what to do. Familiar examples include the *Highway Code*, or the 'How to Prepare' instructions on a jar of coffee. Traditionally, clinicians have sought knowledge from their senior colleagues, tutors and mentors, textbooks and published articles. They will continue to do so. However, there has been a recent surge of interest in guidelines on specific clinical topics. This has been driven by interest in unexplained variation in patterns of care, concern that some care is inappropriate, and the growing demand for routine, clinically effective practice. Because clinicians have limited time and resources, it can be helpful to summarise evidence for effectiveness where it is available and provide it in a concise format (see Box 1).

However, there is considerable evidence that guidelines can fail in their primary aim of enhancing the effectiveness of practice unless adequate attention is paid to the quality of the guidelines and the strategies employed to embed their recommendations into routine practice.

to evaluating research evidence are usually termed 'clinical practice guidelines'. These are defined as "systematically developed statements to assist patient and practitioner decisions about appropriate health care in specific clinical circumstances" (Institute of Medicine, 1992). The cornerstone of their development is a carefully planned and conducted search for relevant, well-designed research, which is then summarised to produce evidence-based recommendations. Preset criteria can be used to rank the quality of this evidence. Guidelines developed in this way can then be presented with a statement about the weight of each recommendation made, reflecting the development group's judgment about the clinical (as well as statistical) significance of the evidence they have considered (e.g. Wadell *et al*, 1996).

As well as being scientifically valid, those guidelines which are most likely to result in such improvements must also be sensible and useful. For instance, a rigorously developed guideline

Improvements in care using well-designed guidelines

Statements about appropriate health care may be termed practice policies, practice parameters, clinical protocols, good practice statements, consensus statements, or clinical guidelines. Before any such statement is encouraged for widespread use its single most important quality must be that its routine use will result in improvement in patients' care – clinical guidelines must, therefore, be based on evidence of effectiveness.

There are many ways to develop guidelines but those which use a systematic and explicit approach

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Box 1. Purposes of guidelines

Promote effective practice by informing clinical decision-making

Inform and educate people about the care they receive

Aid in undergraduate and postgraduate training and continuing professional development

Promote continuity and consistency in multi-disciplinary practice

Provide a basis for 'evidence-based' audit standards

Inform purchasing decisions based on quality of care

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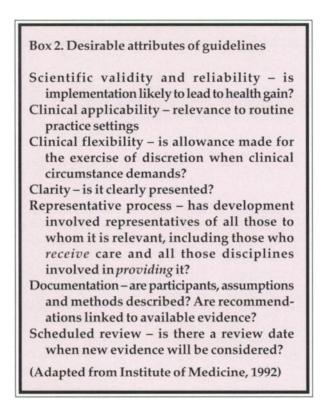
recommending an innovative intervention three times the cost of 'standard care' but resulting in minimal health gain may be of great interest but its widespread use defies common sense. One which is rigid or inflexible so that it does not allow for the exercise of clinical judgment is unlikely to be useful in the diverse and unpredictable world of routine practice. The overall quality of guidelines can be judged by applying a series of criteria describing their desirable attributes (Box 2). It is unusual for any guidelines to fulfill all of these, but such a systematic appraisal enables a judgment to be made about whether or not the guideline is likely to be 'good enough'.

There is a small but increasing number of well-designed mental health guidelines which fulfill most, if not all of these criteria. While much of the work published to date has been conducted by groups in the USA, a number of UK-based projects are also nearing completion. Together, these initiatives cover a very wide range of clinical topics including eating disorders, treatment of depression in primary care, prescription of antidepressants in primary care, assessment and management of dementia, and assessment of people with psychiatric disorders (Clinical Practice Guideline Programme, 1997).

Ensuring use of guidelines

To change routine practice through the use of guidelines requires considerable time and energy,

and is therefore feasible only for a clinical topic that is considered a priority. Criteria to be considered in this regard are listed in Box 3. If none of these criteria is met, careful thought should be given as to whether implementation of guidelines is justified.

Ensuring guidelines are understood

Selecting well-designed guidelines in a priority area for practice improvement is the first step. Well-designed guidelines have been shown to lead to improvements in care, if accompanied by specific strategies to put them into practice (Grimshaw & Russell, 1993). These are often referred to as either dissemination or implementation strategies. Dissemination refers to making the intended user aware of the guideline (Box 4).

Strategies designed to anchor changes into routine decision-making are called implementation strategies (Box 5). Their aim is to ensure the guidelines' recommendations are put into practice. Their value lies in making limited information available at the time of decision-making, where access to printed sources is usually impractical
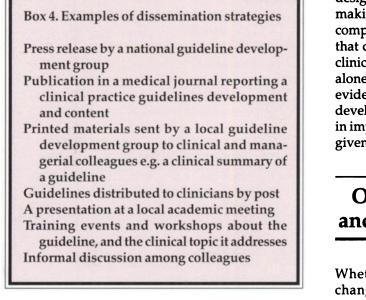
Evaluating implementation of guidelines

A systematic review of 91 studies covering a wide range of clinical tasks and settings (Effective Health Care Bulletin, 1994) and employing a grading system to rank strength of evidence showed guidelines to be effective in changing clinical practice, and this effect was retained when all but the most rigorously designed studies were excluded. It was shown that guidelines and strategies for their implementation are most effective when they exert

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Box 2. Desirable attributes of guidelines

Scientific validity and reliability – is implementation likely to lead to health gain?
Clinical applicability – relevance to routine practice settings
Clinical flexibility – is allowance made for the exercise of discretion when clinical circumstance demands?
Clarity – is it clearly presented?
Representative process – has development involved representatives of all those to whom it is relevant, including those who *receive* care and all those disciplines involved in *providing* it?
Documentation – are participants, assumptions and methods described? Are recommendations linked to available evidence?
Scheduled review – is there a review date when new evidence will be considered?

(Adapted from Institute of Medicine, 1992)

Box 3. Factors to consider when developing or implementing a guideline

Is the condition a common one?
Is there established variation in practice?
Is there potential to change health outcomes?
Is there potential to change cost outcomes?
Is there potential to change legal, ethical issues?
Do the likely benefits of using the guideline outweigh the likely costs of developing and/or implementing it?

Box 4. Examples of dissemination strategies

Press release by a national guideline development group

Publication in a medical journal reporting a clinical practice guidelines development and content

Printed materials sent by a local guideline development group to clinical and managerial colleagues e.g. a clinical summary of a guideline

Guidelines distributed to clinicians by post

A presentation at a local academic meeting

Training events and workshops about the guideline, and the clinical topic it addresses

Informal discussion among colleagues

their effect close to the time and place that the clinician or the patient is making decisions. For instance, a clinical decision prompt provided during the consultation is more likely to exert an effect than one before or afterwards. Individualised audit feedback about compliance with practice standards derived from guidelines is more likely to influence a practitioner's behaviour than feedback which aggregates the performance of a number of practitioners. An information sheet given to a person at their clinical appointment is more likely to have an effect than an article published in a trust newsletter circulated widely to local patient groups. A review of 102 controlled trials of such interventions showed most to be effective, but no one strategy was clearly better than any other (Oxman, 1994). Another review of 75 trials of strategies

Box 5. Examples of implementation strategies

Specific educational programme targeted at practitioners

Structured hospital record incorporating guideline recommendations

Audit and aggregated feedback about compliance with guideline recommendations

Audit and individualised feedback about compliance with guideline recommendations

Computer-generated reminder during the consultation

Reminder letter to the clinician

Reminder letter to the patient

designed to effect change in practitioners' decision-making, conducted in general practice settings, compared single and multiple strategies and found that combined strategies exerted greater effect on clinicians' behaviour than a single strategy used alone (Wensing & Grol, 1994). Taken together, the evidence suggests that well-designed guidelines developed from a robust evidence base can result in improvement in the quality of care if attention is given to their effective implementation.

Operation of dissemination and implementation strategies

Whether designed to promote knowledge or change behaviour, interventions may operate directly on practitioners or indirectly through the environment in which they work. While all are primarily involved with the transfer of information (Lomas, 1994) a number of theoretical approaches have been used to explain how this aim is achieved (Box 6). Adult learning theory (Kanouse *et al*, 1995) suggests people are naturally predisposed to acquire knowledge, and emphasises the role of personal motivation in seeking new information. Many practitioners, therefore, respond enthusiastically to educational initiatives, and these can be used effectively to promote guidelines. Social influence theory (Rogers, 1983) proposes that clinicians' evaluation of new information is influenced by the beliefs and values of their peers. This may be particularly true in clinical practice, which often deals as much with issues of uncertainty as with scientific fact. Models developed in commercial marketing fields are increasingly influential, and suggest that the likelihood of a guideline's adoption into practice is in part the result of how it is presented, the authority which endorses it, and the extent to which its is targeted at those it is intended for (Longman & Duncan,

Box 6. Theoretical models which help explain successful implementation

Transfer of information
Adult learning theory
Social influences theory
Diffusion of innovations
Organisational culture
Marketing approaches

1977). A large body of literature about the 'diffusion of innovations' suggests the extent to which novel ideas or practices are adopted is also dependent on some additional factors including the extent to which they are resonant with, have been demonstrated to offer advantages over, or are perceived as likely to have advantages over existing ones. Finally, clinicians' central role within larger health care delivery systems has led to growing interest in 'organisational culture' (Dietrich, 1994), which argues that practitioners' behaviour cannot be adequately understood in isolation from the professional and managerial infrastructure within which they work.

While none of these models has yet been adequately evaluated, they are given considerable credence in the commercial sector. For instance, pharmaceutical companies justify substantial investments in drug promotions, such as sponsorship of educational meetings, educational presentation by drug company representatives to individuals and to groups of practitioners, distribution of printed materials, and desk-top decision prompts such as pens and 'post-it' notes, targeted carefully at members of the medical profession.

Appreciating practitioners' concerns

Although a number of recent, well-designed surveys indicate a wide acceptance of guidelines among clinicians (Mansfield, 1995; Newton *et al*, 1996), it is important to understand the factors commonly viewed as disincentives to adopting them if guidelines are to be used successfully (Box 7).

Regulation

Concern that guidelines might be implemented to undermine clinical autonomy or personal choice, or be accompanied by sanctions are significant concerns of the clinical professions. However, there is evidence that organisational models of 'top–down' control, in which clinical practice is dominated by external edicts, are ineffective. Well-designed guidelines developed externally to those groups who will use them are less likely to be taken up than those developed with the active participation of user groups (Anonymous, 1992*a,b*). Well-designed guidelines are therefore regarded as those which provide broad statements of principal, which local users adopt as a framework within which more specific statements reflecting acceptable local

> **Box 7. Perceived disincentives to implementation of guidelines**
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> Practical obstacles, e.g. lack of time, skills, resources
> Inappropriate regulation of clinical freedom
> Unnecessary substitute for clinical judgment
> Medico-legal concerns
> Guidelines misunderstood
> Guidelines mistrusted
> Opportunities for practice improvement perceived as unlikely or unnecessary

practice are developed (Scottish Clinical Resource and Audit Group, 1993).

Medico-legal issues

Guidelines provide a standard of care and therefore can be used to bring or to defend an action for negligence. There are fears that the existence of guidelines will fuel litigation. However, in law, departure from a standard of care is acceptable given good medical justification. Guidelines are unlikely to prove conclusive in such circumstances, unless the standard of care defined in the guidelines is so widely accepted that no doctor acting with reasonable skill and judgment could justify departure from it (Hurwitz, 1994).

Practitioner attitudes

At the heart of professional practice lies the assumption of a life-long commitment to learning and practice development. In spite of this, individuals may lack the incentive to use well-designed guidelines for a wide range of reasons. They may misunderstand them, challenge their validity, disregard them because they are perceived as produced from a disreputable source, be unwilling or unable to acknowledge deficiencies in their current practice, or lack the necessary practice skills demanded by them.

It is important to recognise the diversity of such barriers to guideline implementation, so that a relevant strategy can be found to overcome them (Robertson *et al*, 1996). For instance, a persuasive approach to a group of clinicians who consider a guideline's recommendations scientifically invalid is as unlikely to be effective as a confrontational approach to a doctor who does not understand the purpose or meaning of it.

Educational strategies to promote the use of guidelines

Clinicians are likely to be most motivated to use a guideline when in strong agreement with it. A prerequisite to this is, of course, that they know of its existence, and understand it. Education has always played a central role in promoting professional awareness and development (Box 8). Educational strategies to promote the uptake of research findings have been demonstrated to be both effective and acceptable to clinicians. A critical appraisal of randomised controlled trials evaluating the impact of continuing professional development programmes for doctors, each of which used combinations of audit and specific educational initiatives, identified seven which were rigorously conducted, and from these concluded that education can be effective in improving practitioners' care (Haynes *et al*, 1984). In a well-designed qualitative study, using critical incident technique to assess those factors practitioners perceived as having been most influential in effecting those changes they had made in their practice, professional education or training was most the commonly cited factor (Allery *et al*, 1997).

Clinical apprenticeship and teaching ward rounds are traditional in medical education. Their effectiveness depends both on a personal motivation to acquire and convey knowledge on the part of participants, but they may also influence practitioners' attitudes through the exchange of beliefs and values about accepted and acceptable ways of behaving. Other familiar educational settings in which guidelines may be promoted include conferences, seminars and lectures as part of undergraduate, postgraduate and continuing professional development programmes, as well as their publication in printed materials. Individual and small group instruction and, in particular, educational outreach (a trained person meets with providers in practice settings to promote change in practice by the provision of information), and

the use of 'local opinion leaders' (providers are nominated by colleagues as professionally influential) appear particularly promising (Freemantle *et al*, 1997). Both involve a personalised approach to practitioners, in which social influence is used to promote the transfer of information.

Well-managed environments

The National Health Service reforms have left little doubt that managerial organisation, reorganisation or disorganisation affects the extent to which practitioners can work effectively. Clinical team work is also important, and perhaps nowhere more so than in the provision of mental health care in community settings where 'packages of care' are provided by multi-professional and multi-agency providers. Clinical care depends on participation between clinical disciplines, and between clinical teams and the administrators and managers they work with. Even in highly motivated and competent teams one weak link in the chain of complementary decision-making can result in unhelpful disruption and inefficiency. Although effective care is ultimately provided directly by clinicians, it is greatly enhanced through efficient collaboration with clinical support services such as medical records, information technology and audit departments.

The College Clinical Practice Guideline Programme

The Programme was established in 1994, and is housed in the College Research Unit. It uses systematic methods to develop guidelines, collaborating closely with representatives from other professional bodies representing the range of mental health professionals, service users and carers. The first of these sets of guidelines concern the management of violence in clinical settings and will be published later this year. The Clinical Practice Guideline Office has also recently published a bibliography, *Guidelines in Mental Health* (1997), which references a comprehensive selection of published mental health guidelines and systematic reviews endorsed by national and international organisations. A distance learning pack to support the implementation of guidelines in local settings is under development.

Box 8. Educational strategies

Clinical apprenticeship
Ward round teaching
Educational outreach
Local opinion leaders
Conferences, seminars, workshops
Printed materials

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Multiple choice questions

1. The following are attributes of a well-designed guidelines:
   a inflexible, rigid statements which allow no room for clinical judgement
   b inclusion of a review date when any new research will be considered and incorporated
   c service users and carers involved in their development and implementation
   d recommendations explicitly linked to evidence of effectiveness.

2. Clinical practice guidelines provide oppor-tunities for:
   a developing evidence-based audit standards
   b improving effectiveness of routine practice
   c educating people about the care they receive
   d educating clinicians about good practice.

3. Evidence from evaluations of dissemination and implementation strategies for guidelines suggest:
   a individualised audit feedback is more influential on practitioners' behaviour than aggregated audit feedback of group performance
   b publication in a peer reviewed journal is more likely to be an effective educational strategy than a seminar for a group of local users in which their participation is encouraged
   c a decision prompt at the time of seeing the person is more effective than one a week before the consultation
   d a conference paper is as effective as a conference paper followed up with an educational visit to a group of guideline users.

MCQ answers		
1	2	3
a F	a T	a T
b T	b T	b F
c T	c T	c T
d T	d T	d F