

Developing and using evidence based guidelines

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Interest in clinical guidelines

- ◆ rising health care costs
- ◆ variations in service delivery
 - inappropriate care, either over- or under-use of services
- ◆ the intrinsic desire of health care professionals to offer, and patients to receive, the best care possible

Is there a problem?

There is considerable evidence of a lag between evidence and practice:

» despite the publication of ISIS-2 in 1988 which demonstrated a substantial benefit for thrombolysis, the European Secondary Prevention Study group observed that the eligible proportion of patients receiving thrombolysis in 11 European countries varied between 13% and 52% with a median of 36%.

- ◆ Second ISIS Collaborative Group (1988). *Lancet*.
- ◆ European Secondary Prevention Study Group (1996). *Lancet*.

Guidelines can improve care

- ◆ systematic review of rigorous evaluations of guideline implementation
- ◆ improvements in both process and outcome of care
- ◆ variety of implementation methods



The
policy
context
in the
UK?

NICE Organisation

- Special Health Authority
- Launched 1st April 1999
- England and Wales only
- Compact organisation (30/35 staff)
- Funded on existing budgets
- Virtual organisation to work with existing networks

Role of NICE

Provide guidance to the NHS
based on:-

- ◆ clinical effectiveness
- ◆ cost effectiveness



***“The drug itself
has no side
effects -
but the number
of health
economists
needed to prove
its value may
cause dizziness
and nausea”***

“NICE clinical guidelines will be based on the best available evidence. They will take into account both the clinical and cost effectiveness of the measures that are recommended.

They will aim to be both practical and affordable and will cover all aspects clinical care; from self-care by the patient, through to care provided by health professionals in hospital and community settings”.

Professor Sir Michael Rawlins – Nov 99

Clinical Guidelines

- ◆ International consensus (AGREE)
- ◆ Characteristics:
 - underpinning systematic review
 - transparent link from assessment to guidelines
 - multi-disciplinary approach
 - cost effectiveness assessments
 - tests for implementability

Collaborating Centres

.... will develop:

- ◆ clinical guidelines on the NICE work programme
- ◆ clinical audit tools for practice guidelines
- ◆ audit advice for technology appraisal guidance
- ◆ national clinical audits
- ◆ clinical audit datasets

Clinical Guidelines:

- Routine pre-operative investigations Winter 01
- Schizophrenia Winter 01
- Hypertension Spring 02
- Multiple sclerosis Summer 02
- Peptic ulcer Autumn 02
- Management of Depression in the community Autumn 02

New commissions – 2nd Wave

- ◆ Guideline and Audit Package for Heart Failure
- ◆ Eating Disorders
- ◆ Treatment of Depression
- ◆ Management of Type 1 Diabetes
- ◆ Caesarean Section Guideline
- ◆ Head Injury Clinical Guideline – Initial Assessment, Management and Referral.
- ◆ Asthma Care
- ◆ Infection control (primary and community care) and Hospital Acquired Infection
- ◆ Management of common medical emergencies in Primary Care

Welcome to NICE → Publications → Corporate

SECTIONS

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- Clinical Audit
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MY ROLE

- Health Professional
- Industry
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REFERENCES

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31 October 2000

Article

SEARCH

[Advanced»](#)

Annual Report 1999-2000

Combined Annual Report and Accounts

1999/2000

National Institute for Clinical Excellence

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[1999/2000 Accounts](#)

Notes:

- Section 1 of this document has been designed for web publication.

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Clinical practice guidelines

- ◆ 'systematically developed statements to inform both clinician and patient decisions in specific clinical circumstances'
- ◆ Field, M.J., Lohr, K.N. and (eds) (1992) *Guidelines for clinical practice: from development to use*, Washington DC: National Academy Press.

Methods of guideline development: I

- Identifying and refining the subject area
- Convening and running guideline development groups
- Assessing the evidence about the clinical question or condition
- Translating the evidence into a clinical practice guideline
- External review of the guideline

Methods of guideline development: II

- ◆ Appropriately skilled and multidisciplinary development groups
- ◆ Systematic review as method of evidence identification
- ◆ Explicit evidence grading
- ◆ Explicit recommendation grading

Scope of the guideline

- ◆ Define scope
 - diagnosis, management
- ◆ Define or map the relevant processes of care
- ◆ Should define the evidence you need to look for

What sort of evidence?

- ◆ What is your question?
 - effectiveness of a drug
 - » randomised controlled trial
 - appropriateness of a test
 - » sensitivity and specificity
 - natural history of a condition
 - » inception cohort

What end points are you interested in?

- ◆ Mortality/morbidity
- ◆ Tolerability/side effects
- ◆ Symptom control
- ◆ Quality of life
- ◆ Cost effectiveness

Summarising evidence

- ◆ Quantitative summary
 - meta analysis
 - » common end points (apples & oranges)
 - » pre-requisite for cost-effectiveness
- ◆ Narrative
 - when you can't/shouldn't meta analyse
 - » broad areas
 - » evidence from differing study designs
- ◆ Can you use a pre-existing review?

Composition of a guideline development group: roles

- ◆ Member

 - » representative or delegate

- ◆ Specialist resource

 - » small group leader

 - » guideline methodologist

 - » systematic reviewer(s)

 - » health economist

- ◆ Administrative support

Composition of a guideline development group: members

- ◆ all potential stakeholders
 - » health care professionals, policy makers, patients
- ◆ who to involve
 - » the degree to which they are involved
 - » the balance of disciplines required
 - » the size of the group
 - » wide representation versus the need for a cohesive working panel

Recommendations

- the strength of evidence
- the applicability of the evidence to the population of interest
- economic considerations
- guideline developers' and societal values
- guideline developers' awareness of practical issues

- ◆ Shekelle PG, Woolf SH, Eccles M, Grimshaw J. Developing Guidelines. *BMJ* 1999; 318: 593-6.

- ◆ Trying to do this “better”

Towards evidence based implementation

- ◆ Increased policy interest in active implementation strategies
- ◆ However most of the approaches to changing clinical practice are more often based on beliefs than on scientific evidence
- ◆ *‘Evidence based medicine should be complemented by evidence based implementation’*

Grol (1997). British Medical Journal

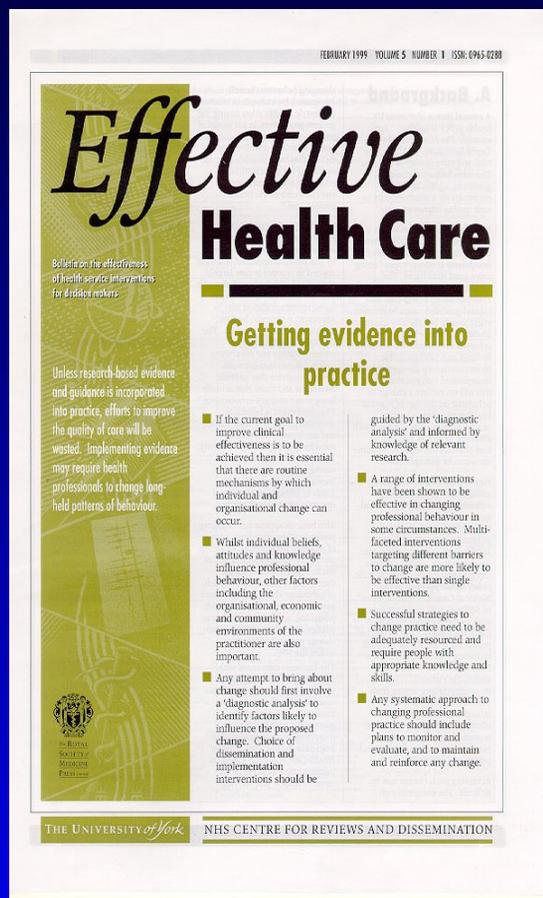
Towards evidence based implementation

- ◆ Pre-requisites for guideline implementation
 - Use of effective and efficient dissemination and implementation strategies to ensure the adoption of effective interventions in practice
 - Adequate resources
 - Supportive culture and structures
- ◆ Implementation is essentially a local activity

Towards evidence based implementation

- ◆ Rigorous evaluations (mainly RCTs) provide the best evidence of effectiveness of different interventions because:
 - Effects of interventions are modest
 - Limited understanding of likely confounders
 - Substantial opportunity costs if ineffective or inefficient dissemination and implementation strategies used

Overview of systematic reviews



Effective Health Care Bulletin (1998). *Getting evidence into practice*. Effective Health Care Bulletin, 5(1). London, Royal Society of Medicine Press.

Also available from:

<http://www.york.ac.uk/inst/crd/ehc51.pdf>

Using guidelines: I

- as an information source for continuing professional educational activities
 - » up to date broad overview of the management of a condition or the use of an intervention
 - » an important source of information for continuing professional education activities
 - » potential advantages over systematic reviews
 - ◆ broader scope
 - ◆ more coherent integrated view on how to manage a condition.

Using guidelines: II

- ◆ to answer specific clinical questions arising out of daily practice
 - frame the clinical question in such a way that it can be answered
 - » specifying the patient or problem, the intervention of interest and possible comparison interventions and the outcomes of interest
 - only one of many types of evidence that are potentially relevant

Using guidelines: III

- ◆ tools within quality assurance activities within their health care organisation
 - the broad integrated scope of guidelines have advantages over other evidence sources

Preparing to use guidelines

1. priority setting
2. nature of the health care organisation
3. resources
4. finding and appraising valid guidelines
5. adaptation of valid guidelines
6. presentation
7. dissemination and implementation
8. evaluation

Priority setting

- ◆ only support the implementation of a limited number of clinical guidelines
- ◆ need a process to set and pursue clinical priorities
 - reflect both national and local priorities
 - explicit criteria to guide a rational choice
 - » avoidable morbidity and mortality, inappropriate variation in performance, and health service expenditure.

The nature of the health care organisation

- ◆ size and complexity of the organisation
 - affect the feasibility of different implementation strategies.
 - » For example, a strategy that involves face-to-face contact between a guidelines facilitator and all clinicians may be realistic for general practices but more difficult, if not impossible within a large acute trust
- ◆ the culture of an organisation
 - approach and response to change

Resources: I

- ◆ ideally the organisation needs to make a corporate decision to commit (and protect) the resources
 - appropriately skilled and experienced individuals who will conduct dissemination and implementation

Resources: II

- ◆ the sort of skills required are:
 - knowledge of the theoretical and empirical evidence
 - good interpersonal skills
 - knowledge of guideline development and appraisal methods
 - data processing collection skills
- ◆ time of clinicians to participate in all stages

Identification and appraisal

- ◆ identify previously appraised rigorous guidelines - if organisations cannot
 - amend priorities
 - develop or appraise a guideline *de novo*
 - » NHS Appraisal Centre for Clinical Guidelines
 - » guideline development programmes which use rigorous methods and include formal appraisal within the programmes

Adaptation of guidelines: I

- ◆ appropriately multi-disciplinary group
(parallel the original guideline development group)
- ◆ task
 - adapt the guideline
 - plan the presentation, use and evaluation

Adaptation of guidelines: II

- ◆ reformatting recommendations in terms of measurable criteria and explicit standards
 - strength of recommendation within the guidelines
 - local circumstances

Presentation

- ◆ range of presentations
 - full version of the guideline
 - summary sheets of all/part of the guideline
 - prompts
 - » guideline related logos on mugs, pens or post-it pads
- ◆ strategies overlap with implementation
 - reminder sheets in patient records, re-design of test ordering forms

Theoretical strategies for behaviour change

◆ Theoretical models influencing practical strategies:

- » the social influences model
- » the diffusions of innovations literature
- » adult learning theory
- » marketing approaches

– Lomas J. Teaching old (and not so old) docs new tricks: effective ways to implement research findings. In Dunn EV, Norton PG, Stewart M, Tudiver F, Bass MJ (eds). *Disseminating research/changing practice. Research methods for Primary Care Volume 6*. Sage Publications, Thousand Oaks, 1994.

Effectiveness of professional interventions

◆ *Largely effective*

- Reminders
- Educational outreach (for prescribing)
- Patient mediated interventions
- Interactive educational workshops
- Multi faceted interventions

Effectiveness of professional interventions

◆ *Variable effectiveness*

- Audit and feedback
- Local consensus conferences
- Opinion leaders

◆ *Largely ineffective strategies*

- Dissemination of written educational materials
- Didactic educational sessions

Choosing strategies: I

- ◆ Educational approaches (attendance at seminars and workshops)
 - » if barriers relate to health care professionals' knowledge.
- ◆ Audit and feedback
 - » if lack of awareness of sub optimal practice

Choosing strategies: II

- ◆ Social influence approaches (local consensus processes, educational outreach, opinion leaders, marketing)
 - » if barriers relate to the existing culture, routines and practices
- ◆ Reminders and patient mediated interventions
 - » if problems processing information within consultations

Identifying barriers

- ◆ Information about barriers can be collected by interviews with individual patients or clinicians, group interviews or direct observation
 - » communication
 - » interpretation of evidence
 - » ‘clinical experience’
 - » power hierarchies
 - » IT strategy

Evaluation

- ◆ important to ensure that process of care reflects guideline recommendations
 - » data specified at the outset
 - » linked to areas of strong evidence within the guideline
- reminder/prompt sheets encourage the recording of specific data items
- audit/clinical effectiveness structures have a key role to play in collecting, analysing and feeding back these data

Conclusions: I

- ◆ in the context of clinical effectiveness
 - guidelines can improve the quality of care that patients receive.
 - they are not self implementing

Conclusions: II

- care and attention needs to be paid to all the relevant stages in guideline development dissemination and implementation
- EBM should be paralleled by evidence based implementation