

Developing NICE Clinical Guidelines with an eye on the audience

Nicole Elliott
Associate Director
Centre for Clinical Practice
NICE

**Evidence
assessment
and
interpretation**

**Economic
evaluation
and resource
impact
assessment**

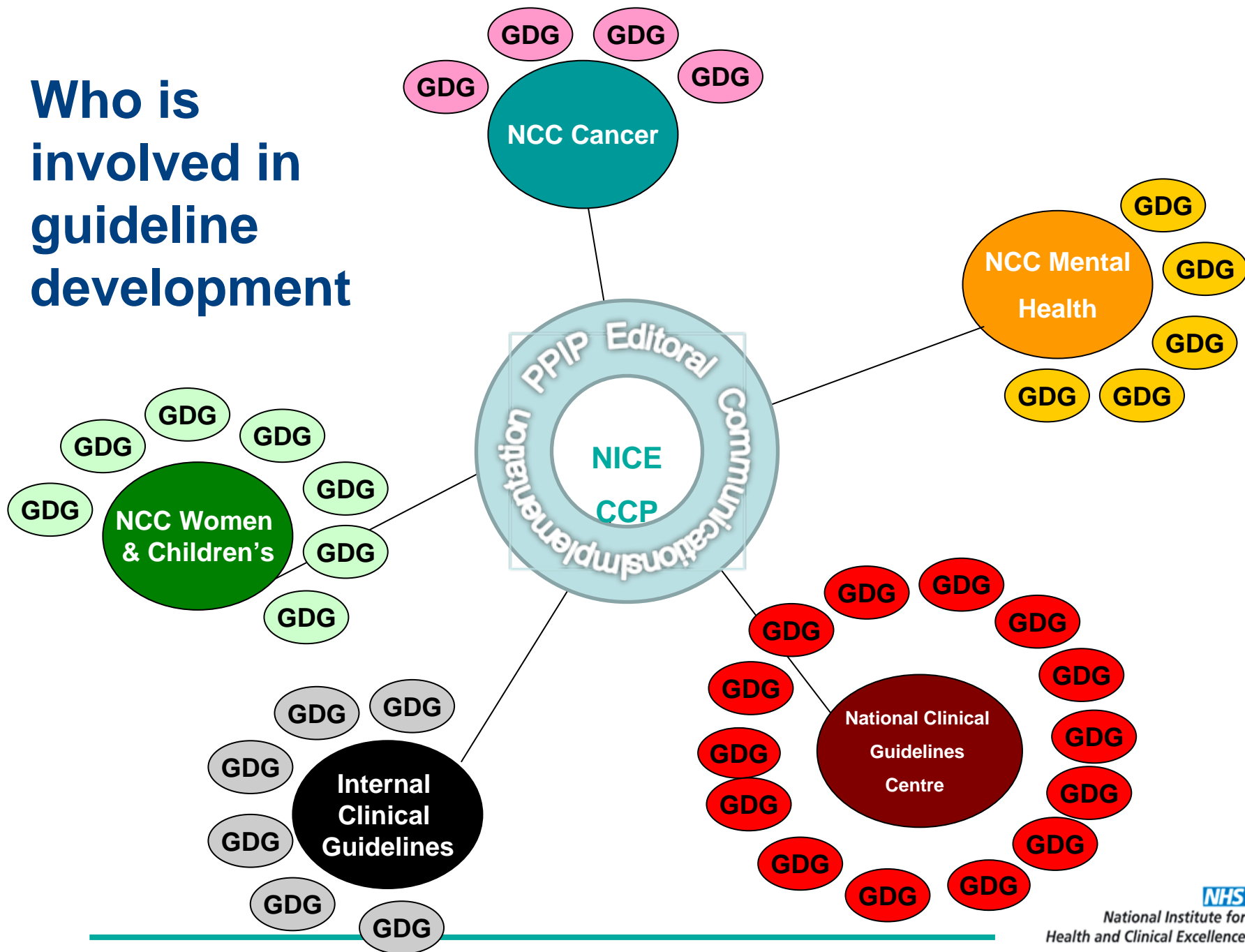
What NICE does

Evidence – guidance – setting standards - sharing learning

**Pathways,
guidance and
standards**

**Web access
for decision
support and
e-learning**

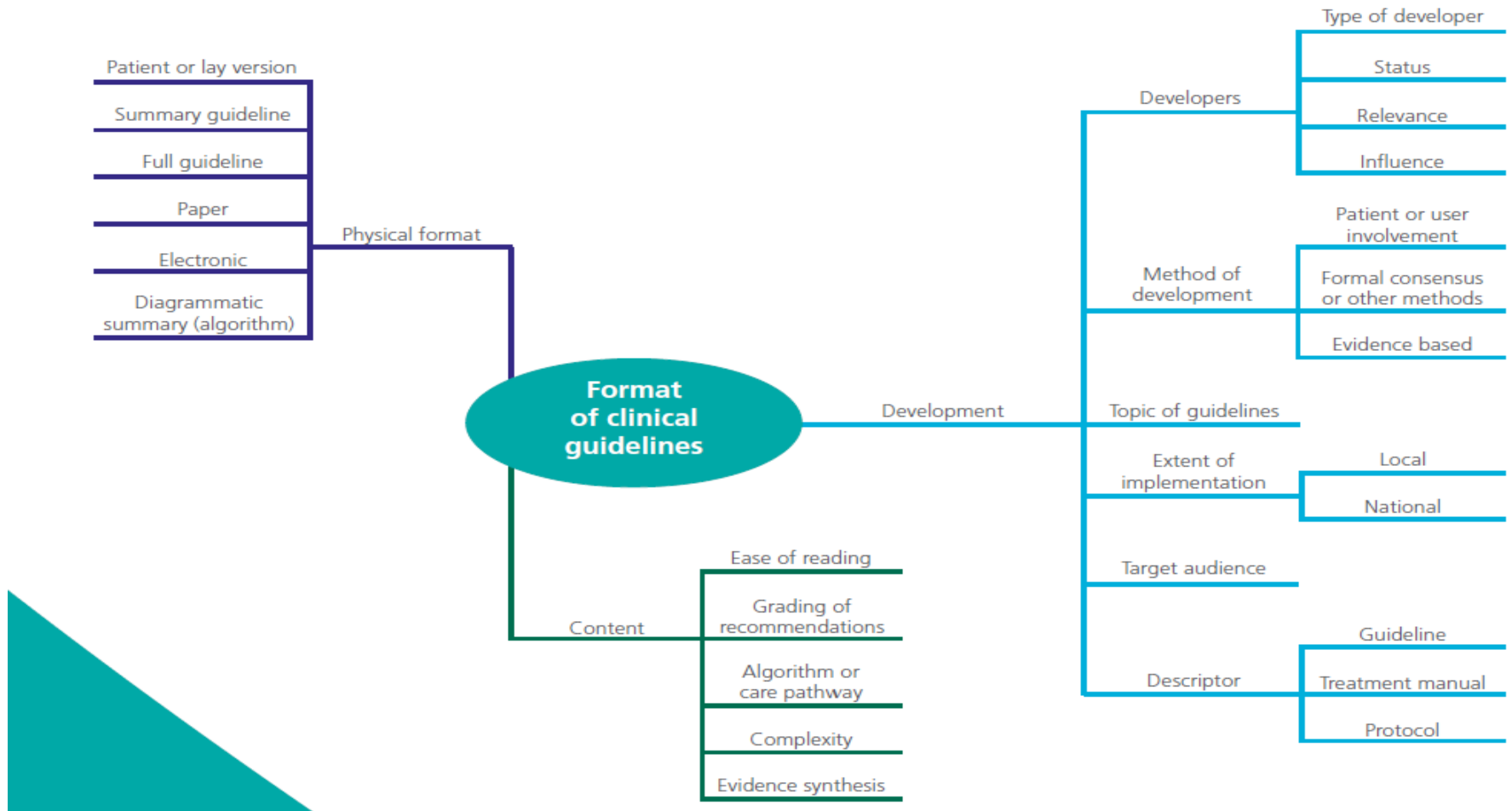
Who is involved in guideline development



Does the format of clinical guidelines influence acceptability/uptake? (Shaw, Thornton, Chamberlain, Ayiku - 2010)

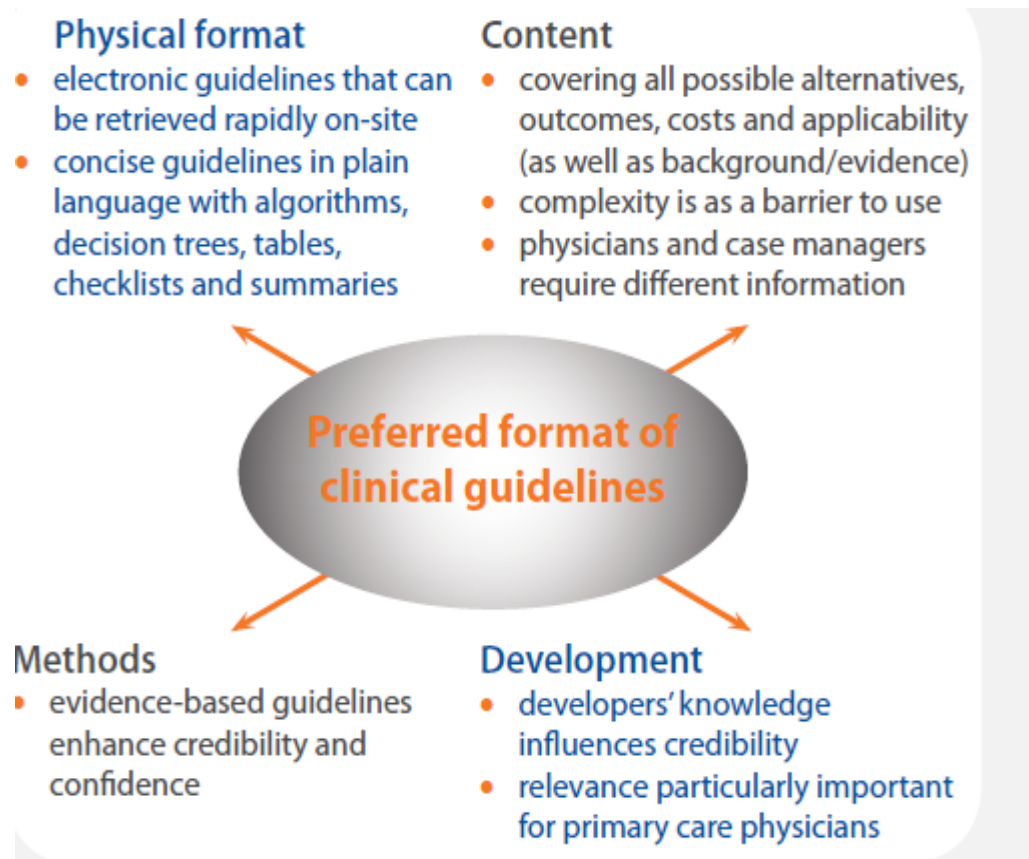
- Systematic review of the impact of format and/or content
- 511 possible studies, only two were included
- Limited evidence.....
- Therefore the team conducted an exploratory review of the barriers or facilitators to implementation related to format and/or content

Exploratory review of the barriers or facilitators to implementation related to format or content (Shaw, Thornton, Chamberlain, Ayiku - 2010)



Key features of clinical guidelines that impact on implementation

(Shaw, Thornton, Chamberlain, Ayiku 2011)



Features that influence implementation

(Shaw, Thornton, Chamberlain, Ayiku - 2011)

Content	Ease of reading	Users reported that language must be easily understandable by both physicians and patients. Guidelines need to be short and simple enough to be read and understood in a short time, but comprehensive enough to be convincing.
	Grading of recommendations	Guidelines need to include clear grading on the levels of evidence; those with up-to-date and graded recommendations were more likely to be trusted.
	Algorithm or care pathway	Most studies reported a preference for information to be presented as algorithms and diagrams, but 1 study commented that algorithms and prescriptive recommendations made it difficult for physicians to adapt interventions to a patient's individual circumstances.
	Complexity	Guidelines that are easy to understand, easy to try out and do not require specific resources have a greater chance of being used. Clear, strong, simple, non-ambiguous recommendations are more likely to be followed. A systematic presentation helps logical thinking.
	Evidence synthesis	The evidence base underpinning recommendations is important in influencing the use of guidelines; reliable guidelines were considered to be based on scientific evidence. A short synthesis of the literature assists decision making but some guideline users thought it may lead to a lack of key elements for decision making.
	References	While references allow a user to judge the credibility of the guideline, they may be of limited use when applying these to patient care directly (for example, in consultations).

Features that influence implementation

(Shaw, Thornton, Chamberlain, Ayiku - 2011)

Table 1 Further themes, by key feature, that influence implementation

Physical format	Patient or lay version	Several studies suggested guidelines could be used to help explain treatments to patients by including tear-off sheets or purpose-written leaflets.
	Summary guideline	Studies suggested that a brief summary of the important information is presented (around 1–2 pages and easy to print).
	Full guideline	Although conciseness was preferred, participants in 1 study wanted access to detailed explanations of the guidelines and the evidence supporting recommendations.
	Paper	In several studies, physicians preferred guidelines in an electronic form because this would increase use. Also there were proposals for record forms on screen, guideline-based data collection, and key look-up terms and hypertext links.
	Diagrammatic summary (algorithm)	Physicians wanted a one-sheet algorithm or a summary, or a single screen with knowledge summarised in an algorithmic fashion. It was suggested that forms with algorithm, history and physical examination, diagnosis, treatment, disability and restrictions would increase use.
	Website	Appropriate use of web technologies could improve the speed and ease of access to information.

What do the audience want?

- Research suggests that individual clinicians value an easy-to-use format, evidence clarity and validity, details about competency and training requirements, and guidance on how to blend experience with evidence when applying the recommendations to individual patients and engage patients in shared decision making.
- Managers and policy makers want guidelines to summarise resource or policy implications, and be publicly available in different versions for various purposes

Gagliardi et al. Implementation Science 2011

Gagliardi et al. Implementation Science 2011

- Study on 'How can we improve guideline use? A conceptual framework of implementability'
- Researchers developed a guideline implementability framework
- Final implementability framework included 22 elements organised in the domains of adaptability, usability, validity, applicability, communicability, accommodation, implementation, and evaluation.

Gagliardi et al. Implementation Science 2011

- Data extracted from 20 international guidelines on diabetes, hypertension, leg ulcer, and heart failure
- Most contained large volume of graded, narrative evidence and tables featuring clinical information
- Few included additional features that could improve guideline use, such as alternative versions for different users, summaries of evidence and recommendations, information to facilitate involvement of patients, resource implications or instructions for how to locally promote/monitor guideline use.

NICE guidelines

Are we meeting the needs of
our clinical guideline
audience?

The Guideline Development Group

Recruited via an open and transparent recruitment process.

Consist of:

- Chair
- Healthcare and other professionals
- Patients and/or carers
- Epidemiologist
- Commissioning bodies
- Expert advisors

All have equal status.

Content of the guideline –

The scope – get the question ‘right’!

- The scope defines what the guideline will and will not cover – the population, healthcare setting, clinical management and **outcomes**

In drafting the scope consider:

- Uncertainty or disagreement on best practice
- Potential to improve health outcomes
- Avoid unlawful discrimination and reduce health inequalities
- Likelihood that the guideline could contribute to change
- Other factors (national policy, new medicines, licencing status)

Consult with Stakeholders.

Content of the guideline – Evidence Synthesis

‘The evidence base underpinning recommendations is important in influencing the use of guidelines, reliable guidelines were considered to be those based on scientific evidence. A short synthesis of the literature may assist decision making’

Content of the guideline – Evidence Synthesis at NICE

Intervention questions – GRADE (The Grading of Recommendations Assessment, Development and Evaluation)

Essential differences of GRADE from traditional approaches:

- **HOW the evidence is assessed**
 - Not limited to individual study quality
 - Across studies for each outcome
- **The WAY the evidence is presented**

Content of the guideline – Evidence Synthesis at NICE

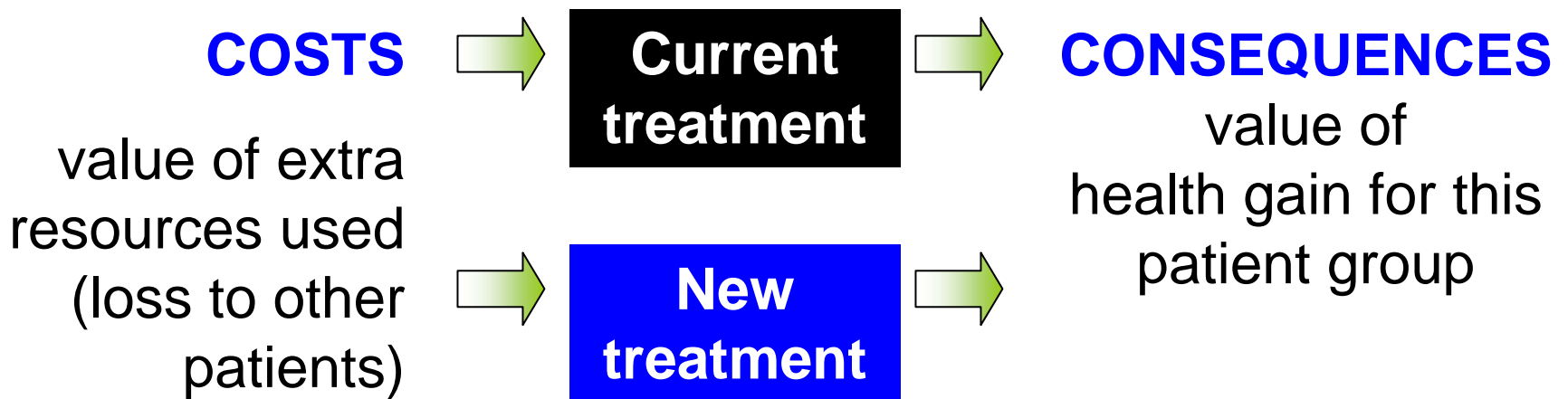
- Diagnostic questions – a narrative summary based on QUADAS-2
- Prognostic questions - a narrative summary based on the quality appraisal criteria.
- Patient experience questions – a narrative summary based on the quality appraisal criteria.
- Published guidelines – AGREE tool

Results presented in tables, as narrative summaries and then in evidence statements.

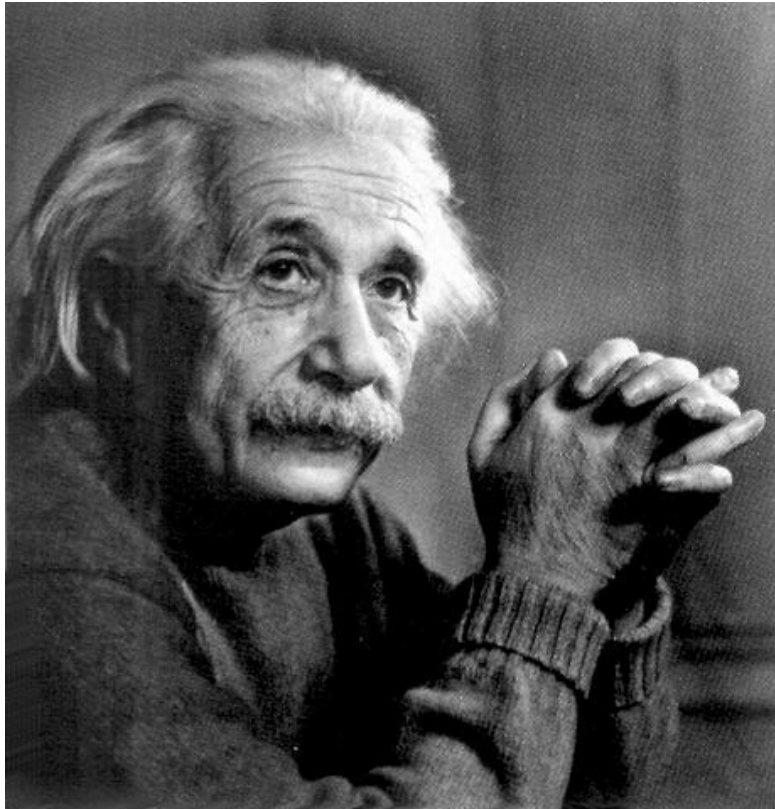
Contents of the guideline – Economic evaluation

- “... the comparative analysis of alternative courses of action in terms of both their costs and consequences.”

Drummond, Stoddart & Torrance, 1987



Contents of the guideline – Health economic models



Everything should be made as simple as possible, but not simpler.

Albert Einstein

Contents of the guideline – Ease of reading

‘Users report that the language must be easily understandable by both physicians and patients. Guidelines need to be short and simple enough to be read and understood in a short time but comprehensive enough to be convincing’

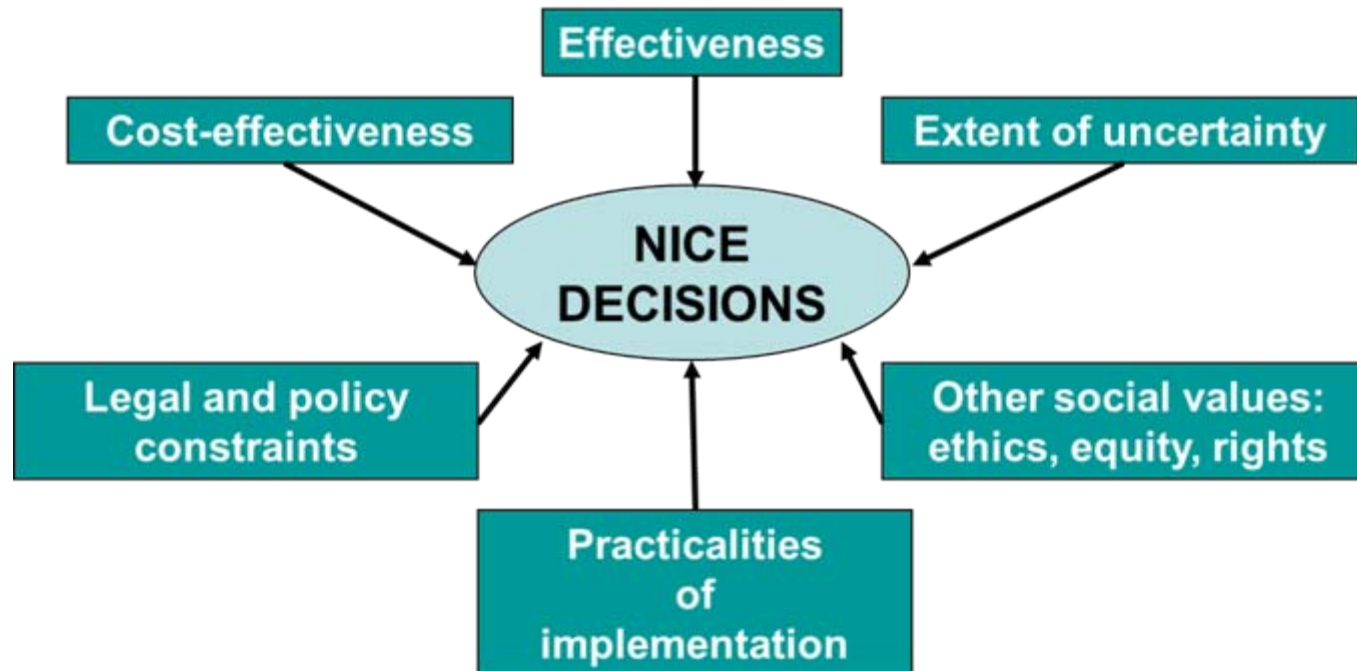
NICE guidelines tend to be long but.....

Contents of the guideline – **Evidence to recommendations**

- A section of the guideline makes clear how the evidence was used to make the final recommendations
- LETR tables (linking evidence to recommendations)
 - Relative values of different outcomes
 - Quality of evidence
 - Trade offs
 - Economic considerations
 - Other considerations

Contents of the guideline – Recommendations

- Recommendations are then made
 - based on the evidence (clinical and cost effectiveness)
 - using the group expertise and consensus
 - recognising the strengths and limitations of the evidence



Contents of the guideline – **Wording of recommendations**

- “Psychological research shows that the more precisely behaviours are specified, the more they are likely to be carried out
- Rewriting guidelines to increase behavioural specificity may be the simplest, most effective method of increasing implementation
- Specifying what, who, when, where, and how will assist implementation”

Changing clinical behaviour by making guidelines specific

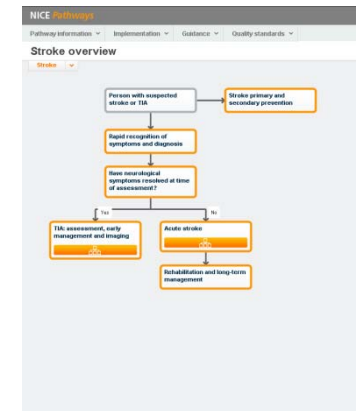
Susan Michie, Marie Johnston. *BMJ* 2004;328:343–5

Contents of the guideline – Wording of recommendations

- Recommendations should be specific to assist implementation
 - What, Who, When, Where, How
- Use active phrasing
 - e.g. *‘Carry out and record a baseline assessment...’* rather than *‘a baseline assessment should be carried out and recorded...’*
- Strength of a recommendation can be reflected in the wording
 - ‘Consider offering’ (weak)
 - ‘Offer’ (strong)

Physical Format - Guideline products

- The full guideline (including an algorithm)
- NICE version (summary)
- NICE *Pathway*
- ‘Understanding NICE guidance’ (UNG)
- Support tools
- Website



NICE's Implementation Team

- Intelligent dissemination
- Tools to aid implementation of NICE guidance
- Audit tools
- Costing tools – local and national
- Bespoke advice
- Education strategy
- Share learning
- Evaluation uptake - ERNIE (Evaluation and review of NICE implementation evidence) database.

The future....

- More research is needed to fully understand what guideline users find the most useful
- Digital authoring – increase transparency?
- DECIDE project

Thank you.

Nicole Elliott

nicole.elliott@nice.org.uk