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An Introduction to NICE


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What is NICE?

The National Institute for Health and Clinical Excellence (NICE) is part of the NHS. It is the independent organisation responsible for providing national guidance on the promotion of good health and the prevention of ill health.




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What kinds of guidance are produced?

There are 3 centres in NICE, which produce different types of guidance:


- Centre for Health Technology Evaluation
- Centre for Clinical Practice
- Centre for Public Health Excellence



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Centre for Health Technology Evaluation


- Technology Appraisals
 - guidance on the use of individual health technologies
 - 'technology' includes all types of medical intervention, for example drugs, medical devices, types of operation and health education programmes
 - appraisal of clinical and cost effectiveness
 - Secretary of State for Health's direction on funding
- Interventional Procedures
 - guidance on whether surgical techniques or other interventions are safe and effective enough for routine use



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Centre for Clinical Practice


- Produces clinical guidelines on the care and clinical management of people with specific conditions.
- Clinical guidelines are recommendations for the care of individuals by healthcare professionals, based on the best available evidence.
- They are also important for health service managers and commissioners.
- Guidelines can be used to develop standards and training for healthcare professionals, and help patients make informed decisions.



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Centre for Public Health Excellence

- Produces two types of public health guidance:
- Public health programme guidance on types of activities to improve health (such as ways of helping people give up smoking)
- Public health intervention guidance on a specific activity (such as giving people advice to take more exercise)
- The functions of the Health Development Agency (HDA), were transferred to NICE on 1 April 2005.



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Does NICE cover the whole of the UK?


- NICE produces guidance on health technologies and clinical practice for the NHS in England and Wales.
- Guidance on interventional procedures covers England, Wales and Scotland.
- NICE guidance on public health covers England.



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How are topics chosen?

- The Department of Health commissions NICE to develop clinical guidelines and guidance on public health and technology appraisals.
- Topics are referred by the Secretary of State for Health
- Suggestions for topics come from a variety of sources:
 - health professionals, patients, carers
 - the National Horizon Scanning Centre
 - the DoH's National Clinical Directors and policy team
 - the general public



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Questions?



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Developing NICE guidance

- Different processes and methods for different types of guidance, but there are common guiding principles:
- Robust
 - underpinned by a sound evidence base and methodology
- Inclusive
 - genuine consultation of stakeholders
- Transparent
 - evidence, considerations of the evidence, and conclusions in the public domain
- Independent
 - decisions by independent advisory committees



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How are technology appraisals developed?

Overview:

- Stakeholders
- Decision makers
- Factors in decision making
- Process
 - Multiple Technology Appraisal
 - Single Technology Appraisal
- Methods
 - Clinical effectiveness
 - Cost effectiveness



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Stakeholders

Consultees and commentators are invited to participate in NICE technology appraisals. These include:

- Patients and carers: organisations and individuals
- Healthcare professionals: organisations and individuals
- Manufacturers and comparator manufacturers
- Academic institutions and research groups
- Primary care trusts
- Governmental departments

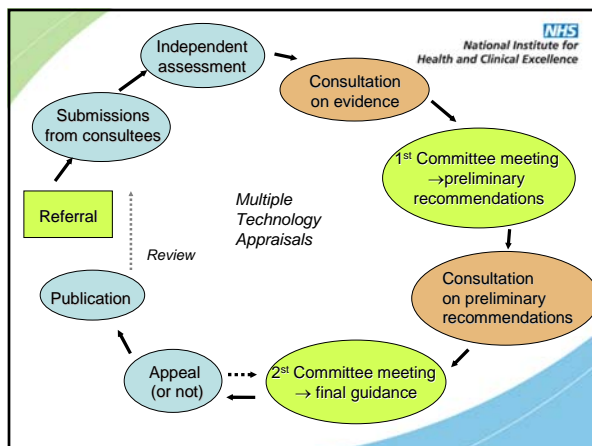
The public also have the opportunity to comment on consultation documents

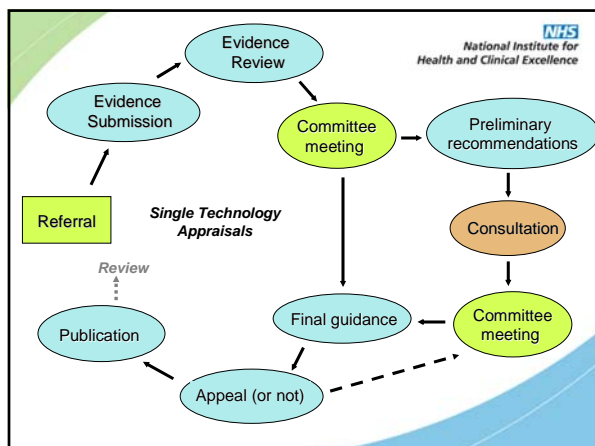
Who makes the decision?

- The Appraisal Committee makes recommendations to NICE on how the technology should be used in the NHS.
- This standing committee is independent of NICE and has members from a variety of backgrounds:
 - doctors, nurses, pharmacists
 - NHS managers
 - health economists
 - statisticians
 - lay representatives

Factors in decision making

- In reaching the decision, factors taken into account by the Institute and the Appraisal Committee include:
- the broad clinical priorities of the Secretary of State for Health and the Welsh Assembly Government
 - the degree of clinical need of the patients with the condition under consideration
 - the broad balance of benefits and costs
 - the effective use of available resources
 - the Institute also takes into account the longer-term interests of the NHS in encouraging innovation in technologies that will benefit patients.



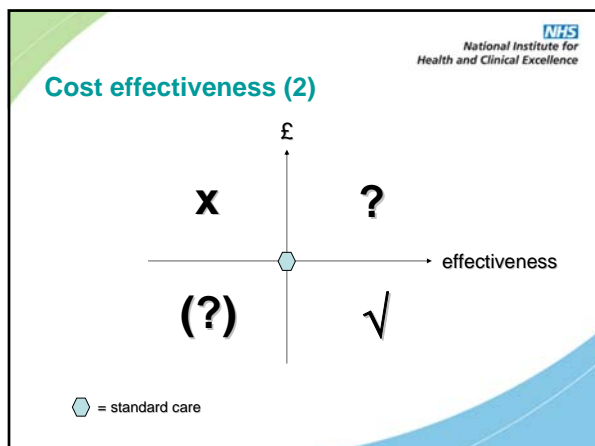


Clinical effectiveness

- Techniques
 - systematic reviewing
 - critical appraisal
 - medical statistics
 - evidence synthesis
- Types of evidence
 - randomised controlled trials
 - observational studies
 - grey literature

Cost effectiveness (1)

- Cost-utility analysis
 - Usually Markov state transition models
 - Time horizon long enough to capture all relevant costs and outcomes, so usually involves extrapolation from evidence
- QALYs: quality adjusted life years
 - Survival: transition probabilities usually estimated from clinical trial evidence
 - Utility values for health states: instruments, questionnaires, mapping, eliciting preferences - public, patients
- Costs:
 - Split into drug and administration, disease-related, adverse effects




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Cost effectiveness (3)

- Scenario analysis
 - most relevant to NHS in England and Wales?
 - most cost effective?
- Uncertainty:
 - deterministic sensitivity analysis
 - probabilistic sensitivity analysis (MC simulation)
- Key results: ICERs, cost effectiveness plane, CEA curves
- Reference case
 - covers perspective (NHS and PSS), discount rates, etc
 - set out in NICE methods guide

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The impact of NICE guidance


- Health professionals and the organisations that employ them are expected to take published NICE guidance in account when deciding what treatments to give people.
 - However, this does not replace the knowledge, skills, and responsibilities of individual health professionals.
- NHS organisations in England and Wales are required to provide funding for treatments recommended in technology appraisals guidance.
- The Audit Commission:
 - Managing the financial implications of NICE guidance (2005)



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Implementation of NICE guidance (1)


- The NHS and the environment within which NHS organisations operate are constantly changing.
- NICE produces tools to support implementation
 - for example, costing reports (estimates of the national cost impact) and costing templates (spreadsheets that allow local users to estimate the cost of implementation taking into account local variation)
- Certain national initiatives will have a major impact on the way services are commissioned and funded, which will affect the implementation of NICE guidance.



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Implementation of NICE guidance (2)

- Healthcare Commission assessment:
 - considers performance in relation to core and developmental standards, as well as the existing and new targets the NHS is expected to achieve.
- Payment by Results
 - this is a national tariff structure, initially concentrating on secondary care.
- Practice-based commissioning
 - this enables groups of GPs to commission care and services that are specific to the needs of their patients.



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Recently published and upcoming guidance


- Technology Appraisals:
 - Bevacizumab and cetuximab for colorectal cancer (Jan 07)
 - Alteplase for acute ischaemic stroke (in progress)
- Clinical guidelines:
 - Antenatal and postnatal mental health (Feb 07)
 - Stroke (in progress)
 - Breast cancer (in progress)
- Public Health guidance:
 - Substance misuse (Mar 07); Workplace smoking (in progress)
- Interventional procedures:
 - microwave ablation of hepatocellular carcinoma (March 07)



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Research and development at NICE


- R&D programme promotes and commissions research
- The programme focuses on:
 - working with research organisations, patients and other partners to explain NICE's research needs
 - using research to improve the methods that NICE uses to develop guidance
 - using research to find out how NICE can help the NHS implement and apply NICE guidance better.



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What aspects of NICE guidance might be of interest to actuaries?

- As a source of information
 - could find information useful for pricing and reserving in publicly available information via NICE website
 - rigorous analysis of clinical and cost effectiveness of latest advances and treatments used in complex disease areas
 - epidemiological, resource use and cost data (although limited relevance as for general not insured population)
- As a factor to consider in product design
 - Guidance may affect benefits covered in private insurance
 - Guidance may inform programmes for preventive healthcare, limitation of claim costs while maintaining quality of care, advice by helplines?



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How could NICE guidance impact on health insurance?


- Seems most relevant to PMI & Major Medical Expenses
- As a benchmark for defining benefits coverage
 - a high-standard, sensible and defensible minimum
 - easily marketable higher coverage for higher premium
 - easier to dove-tail state healthcare provision when it is more explicitly defined
- As a guide to good treatment practice
 - information source of safe, effective and value-for-money drugs, operations and overall medical management
- As a guide to good preventive practice
 - information source for ideas to help policyholders avoid getting ill



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How you can find out more

- www.nice.org.uk
 - NICE e-newsletter
- www.dh.gov.uk
- www.hta.nhsweb.nhs.uk
- National Collaborating Centres: *professionally led groups that help develop clinical guidelines: acute care, cancer, chronic conditions, mental health, nursing and supportive care, primary care, mental health, women's and children's health*
- www.healthcarecommission.org.uk
- www.audit-commission.gov.uk/health



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