Opportunities for incorporation in government-funded prescribing improvement initiatives

neal.maskrey@nice.org.uk

Professor of Evidence-informed decision making, Keele University. Consultant Clinical Adviser, Medicines and Prescribing Centre, NICE.
Disclosure Statement of Financial Interest

I, Neal Maskrey DO NOT have a financial interest/arrangement or affiliation with any healthcare related companies that could be perceived as a real or apparent conflict of interest in the context of the subject of this presentation.

I am employed 0.6wte by the National Institute for Health and Care Excellence.
If you want more.....
www.npc.nhs.uk/evidence
Making decisions better

Summary

- There is much variation in the implementation of the best available evidence into clinical practice. However, the gap between evidence and practice is often a result of multiple individual decisions.
- Health care practitioners need to be good decision makers, yet decisions making is rarely discussed during undergraduate or postgraduate teaching.
- When making a decision from a set of available interventions and outcomes, it is impossible to know or determine all the factors that influence the decision. A limited amount of information is stored in each individual practitioner's decision-making process.
- There are two key processes used in decision making: System 1 and System 2. System 1 involves less deliberative decisions and is associated with System 1 processing, whereas System 2 processing involves more complex, less automatic processes.
- It is crucial for decision-making processes to be more deliberate when making decisions. Knowledge of System 1 and System 2 processes and how they differ will help to improve clinical decision making.
- Understanding the decision-making processes and the evidence that supports them can help clinical decision making to improve.

NHS
National Press Building Centre
Placed in NCC

InnovAiT: Autumn / Winter 2009-2010
How clinical decisions are made

Louise Bate, Andrew Hutchinson, Jonathan Underhill & Neal Maskrey

1National Institute for Health and Clinical Excellence (Medicines and Prescribing Centre), London, 1FB, United Kingdom and 2Keele University, Keele, Staffordshire ST5 5BG, United Kingdom

Summary

There has been a trend toward clinical guideline development, which is driving the need for staff to make decisions quickly and with less information than in the past. The challenge is to ensure that these decisions are reliable and to help staff deal with the increasing complexity of information. This work aims to provide guidance on managing uncertainty in clinical decision making, which is a key skill for all healthcare professionals. The key to successful decision making is to balance the need for information with the need for action. This involves understanding the uncertainty associated with the available evidence and determining the best course of action in the context of the individual patient. The authors discuss the importance of acknowledging uncertainty and the role of different types of evidence in decision making. They also highlight the need for healthcare professionals to develop their own decision-making skills and to be able to communicate the rationale for their decisions to colleagues and patients. The authors conclude by emphasizing the importance of ongoing education and training in decision making for all healthcare professionals.
What is evidence-based medicine?

EBP is "the conscientious, explicit and judicious use of current best evidence in making decisions about the care of the individual patient. It means integrating individual clinical expertise with the best available external clinical evidence from systematic research."

Sackett D, 1996
Evidence-based medicine


Best available evidence

Expertise, experience, skills and judgement

Patient’s needs, values and preferences
• To raise awareness and knowledge of evidence-based decision-making and systematic reviews
  UK Cochrane Centre 2020 strategy
• Helping doctors make better decisions
Research → National guidance → Local Care Pathway → Individual

Bias ↑ Bias ↑ Bias ↑ Bias ↑
"Thinking about the fact that we don't have a lot of time, and this is the thing I feel really ashamed about, I'm in a job where people's lives depend on the fact that I make the right decision, and sometimes I feel completely overwhelmed with the fact that I don't know enough information about some critical decisions that I make every day"

GPST West Yorkshire 2010
“I certainly don’t do any of it, you know – don’t remember the last time I really looked at a paper. I have a pile of BMJs at home this high [gesture] but I don’t ever read them. I sometimes carry them around in my bag in case I kind of osmotically get the information [ironic expression] but you know, time-wise it’s easier to look on GP Notebook.”

GPST West Yorkshire 2010
Herbert Simon
1978
Economics

Bounded rationality
Satisficing
“Clinicians rarely accessed, appraised, and used explicit evidence directly from research or other formal sources; rare exceptions were where they might consult such sources after dealing with a case that had particularly challenged them.”

Gabbay and le May. BMJ 2004; 329: 1013–1016
“Instead, they relied on what we have called "mindlines,“ collectively reinforced, internalised tacit guidelines, which were informed by brief reading, but mainly by their interactions with each other and with opinion leaders, patients, and pharmaceutical representatives and by other sources of largely tacit knowledge that built on their early training and their own and their colleagues' experience.”
Daniel Kahneman
Economics
2002

Dual Process theory
All together, big breath in.......... 

What is the answer to this sum?
2 + 2 =
All together, big breath in........

What is the answer to this sum?
75 \times 56 =
Say OUT LOUD what you see on the next slide

WITHOUT STANDING ON YOUR HEAD 😊

I MEAN IT!

BIG BREATH IN....and....
Diclofenac prescribing as a percentage of total NSAIDs

EAST MIDLANDS
EAST OF ENGLAND
LONDON
NORTH EAST
NORTH WEST
SOUTH CENTRAL
SOUTH EAST COAST
SOUTH WEST
WEST MIDLANDS
YORKSHIRE AND THE HUMBER
ENGLAND
“So.....what am I to DO!”
When planning implementation, IN ADDITION TO “MAKING IT HAPPEN” take into account how people make decisions

• Behavioural economics and cognitive psychology:
  – Bounded rationality (Herbert Simon 1978)
  – Dual process theory (Daniel Kahneman 2002)
  – Most decisions are informed by brief reading and talking to other people
Research → National guidance → Local Care Pathway → Individual
1. Information Management

• Brief reading & talking to other people

Supporting local implementation of NICE guidance on use of the novel (non-Vitamin K antagonist) oral anticoagulants in non-valvular atrial fibrillation

This consensus report was developed at a meeting on October 15, 2013, at which health care professionals and patient group representatives discussed barriers to use of the novel (non-Vitamin K antagonist) oral anticoagulants (NOACs) for reducing stroke risk in non-valvular atrial fibrillation and how these barriers might be overcome locally to facilitate appropriate use of the drugs. The meeting was held on behalf of the NICE Implementation Collaborative, which provides support to the NHS to implement NICE technology appraisals.

Key points
• The three currently licensed novel oral anticoagulants (NOACs) — dabigatran, rivaroxaban and apixaban — have been approved by NICE as options for the prevention of stroke and systemic embolism in patients with non-valvular atrial fibrillation
• The drugs must therefore be made available for prescribing within their licensed indications.
2. Teach calibration (routinely)
“It sort of makes you stop and think, doesn’t it.”
• **Consider alternatives**
  
  Routinely think: “if I am wrong what else might this be”
  
  ROWcS

• **Seek incongruent data**
  
  Don’t be afraid to try and prove you are wrong

• **Reframe when recording**
  
  Mentally reconsider meaning
  
  Reassess the associations YOU have created

• **Reconsider dissonant facts**
  
  Take a step back from the problem
3. Truly embrace shared decision making

**CHADS2-VASc score 3**

**No treatment: CHADS2-VASc score 3**

- If 1000 people with AF and a CHADS2-VASc score of 3 take no anticoagulant, over 1 year on average
  - 963 people will not have an ischaemic stroke (the green faces)
  - 37 people will have an ischaemic stroke (the red faces)

**Anticoagulant: CHADS2-VASc score 3**

- If 1000 people with AF and a CHADS2-VASc score of 3 take an anticoagulant, over 1 year on average
  - 983 people will not have an ischaemic stroke (the green faces), but would not have done anyway
  - 25 people will be saved from having an ischaemic stroke (the yellow faces)
  - 12 people will still have an ischaemic stroke (the red faces)
# How I feel about the options

You can use the table to help you think about how important the questions covered by this decision aid are to you.

<table>
<thead>
<tr>
<th>Question</th>
<th>Very important</th>
<th>Important</th>
<th>Unimportant</th>
<th>Very unimportant</th>
</tr>
</thead>
<tbody>
<tr>
<td>What does the option involve? What will I have to do?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>By how much will it reduce my chance of having a stroke?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>By how much will it increase my chance of having major bleeding?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What are the other main side effects?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Will I need any regular blood tests?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Will I have to change what I eat or drink?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What happens if I forget to take a dose?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What happens if the effects need to be reversed in an emergency?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Do you have any other questions you would like to ask?

Yes: ........................................................................................................
4. Work on our own and others metacognition

Personal strategies for improved performance

• Thinking about thinking (whilst its happening)
  Right system at the right time
  Reflect on the affective process
  When do I need to slow down / be very careful

• Decrease reliance on memory
  Use cognitive aids (but use them wisely):
  Decision support, mnemonics, guidelines, algorithms etc.

• Try to make tasks easier
  e.g. Calculate drug doses on paper (not in your head)
5. Locally:

Team dynamics and group decision making
Thank you

Comments and questions welcome

neal.maskrey@nice.org.uk