USING EVIDENCE IN CLINICAL DECISION-MAKING

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INTRODUCTION

Making clinical decisions is a fundamental task for a doctor. These decisions may be about diagnoses, initial management or treatment plans, or the ongoing management of a longer-term condition.

It is essential that doctors make the best possible decisions based on current scientific evidence, taking into account the views and preferences of patients and those close to them. Doctors have to be able to make decisions in situations where there is uncertainty and where evidence or guidelines do not necessarily apply to an individual patient. This is particularly the case in general practice, where uncertainty is common, situations are often not clear cut and investigations take time. GPs need to be able to access evidence and guidelines, interpret population level data for their particular patient and share the decision making with them in the very short timeframe of a consultation.

Guidelines and decision-making aids can help doctors and patients to make decisions but cannot replace accurate clinical assessment and the ability to consider the situation holistically, to critically appraise evidence and to communicate well with patients.

NEED TO KNOW

EVIDENCE BASED MEDICINE

Evidence Based Medicine has been defined as ‘the integration of best (current) research evidence with clinical expertise and patient values’ (1). Sackett has described a hierarchy of evidence (2) and suggested that the best evidence for change in practice is from large randomised controlled trials with clear cut results, which exist for some treatments but not for all. All doctors need to be able to assess the validity and reliability of evidence and several tools exist to help them with this (3).

Practicing evidence-based medicine means being able to translate evidence relating to populations into what might be right for an individual patient. This is not always easy; uncertainty arises because it is impossible to know how typical a patient is compared with the population which has been studied, or because there is no clear evidence for the treatment of the condition in a whole population.
Doctors must work in their patients’ best interests, but what this means may be differently understood by doctors, patients, families, carers and society. The concept of ‘values-based practice’ (4) is helpful here. Values-based practice works alongside evidence-based practice to help clinicians to match diagnostic and treatment possibilities with the patient’s individual circumstances and their values (or ideas, concerns and expectations).

GUIDELINES

Doctors working in clinical practice must keep up to date so that they practice safely and effectively. However, most do not have time to read and critically appraise each new paper. Guidelines can help with managing this problem, as to produce them, individual studies are appraised and synthesised by a group of experts, followed by consultation with a wide variety of stakeholders. The aim is to present a consensus regarding the compiled available evidence in an easily accessible format. There are many such guidelines and it can be a challenge to know which one to use as they may be biased, incorrect or outdated, or may be based on outcomes other than patients’ needs (for example cost or wider societal considerations). Most GPs working in the UK choose guidelines produced by NICE (the National Institute for Health and Care Excellence [https://www.nice.org.uk/guidance]) or SIGN (the Scottish Intercollegiate Guidelines Network [https://www.sign.ac.uk/]).

DECISION AIDS

There are an increasing number of evidence-based decision aids and their use is becoming more widespread. They can be used:

- As a quick screening tool to identify a need for longer more detailed assessment (such as the CAGE questionnaire where the answers may indicate alcohol misuse [https://pubs.niaaa.nih.gov/publications/assessingalcohol/InstrumentPDFs/16_CAGE.pdf]).
- In diagnosis, such as the Rome criteria for diagnosing irritable bowel syndrome ([https://theromefoundation.org/rome-iv/]), the Centor criteria for diagnosing a bacterial sore throat ([https://cks.nice.org.uk/sore-throat-acute]) or the Wells score which indicates a need for further investigations to diagnose venous thromboembolism ([https://www.nice.org.uk/guidance]).
- To inform decisions about management, for example the CHA2DS2-VASC/HASBLED scoring system for the management of atrial fibrillation: [https://www.chadsvasc.org/].
With both clinical guidelines and decision aids, care needs to be taken that patients are not subjected to tests and treatments which are not appropriate for them, even if their condition meets the criteria in the guidance. Over recent years, the concept of shared decision making (5) has gained much ground in the practice of medicine, as exemplified by the ‘no decision about me without me’ initiative (6). The King’s Fund report (6) which describes this concept, suggests that tools which help patients make decisions about their health care are as important as clinical guidelines. In shared decision making, clinicians and patients should work together to decide what to do in all situations, but especially where there is uncertainty. NICE, for example, states that its recommendations should be followed, but acknowledges that some are made with more certainty than others and that ‘people have the right to be involved in discussions and make informed decisions about their care’ (https://www.nice.org.uk/about/what-we-do/our-programmes/nice-guidance/nice-guidelines/making-decisions-using-nice-guidelines).

In shared decision making, both the doctor and the patient have knowledge and opinions. If communication is effective, these opinions will be shared, and patients may then be more fully informed. They are then able to either give or decline consent from this position, meaning that they have true autonomy. This usually leads to better outcomes for patients and often more efficient health care provision. Alongside the development of decision aids for use by clinicians, there are many which are designed for use by patients, sometimes intended to be completed before clinic attendance, helping to focus discussions during a consultation especially were there several different treatment options. Examples of their use are in helping patients to decide about hip, knee, prostate or breast surgery or whether to take preventative medicines such as statins (https://www.nice.org.uk/guidance/cg181/resources/patient-decision-aid-pdf-243780159).

Shared decision making is therefore a key part of values-based practice and applying evidence-based medicine appropriately - integrating the science with more subjective knowledges.

Part of sharing decision making with patients is being able to discuss the risks of potential management plans. The best way of doing this is to talk in terms of the absolute risk, as many people do not understand percentages, proportions or ratios, and changes in relative risk are often confusing or misleading. For example, the relative risk of something happening could be expressed as 1.3, or the risk increasing by a third or by 30%, all of which all mean the same thing but may not give a clear idea of the risk involved. A doubling of the relative risk could mean an increase in risk from 1 in a million to 2 in a million (a very small increase in risk), or from 4 in 10 to 8 in 10 (a very large increase), whereas a change in the absolute risk from 5 in 1000 people being affected by something to 10 in 1000 is clear and easy to understand.
Discussions using the concept of prolongation of life are also helpful for patients; for example, being able to say to a 39 year old female patient that her life expectancy would be reduced by nine years if she continued to smoke, but that if she could stop before the age of 40 it would return to almost the same as that for a woman who had never smoked.

**SUMMARY**

Evidence and evidence-based guidelines should support clinical decision making when making a diagnosis and planning management. Their use, along with decision aids, contribute to good decision making and therefore patient safety, however, the need remains for good clinical assessment and communication skills, and it is essential to share decision making with patients and those close to them.

**ACTIVE LEARNING**

- Talk with your GP tutors about the sources of evidence they use and how they incorporate them into a consultation; what are the challenges they have in doing this?
- Talk with your GP tutors about the value of patient decision aids - do they use them and if so how useful do they perceive them to be?
- Observe how the clinicians in the practice talk with patients about risk; do they use numbers? If so, how? How do patients respond when they do?
- Try looking at some of the patient decision aids online - how useful are they? How would they help you if you had to make a decision?
- Think about a few of your recent consultations - how effectively was shared decision making employed?
- What do you think patients think about shared decision making? Does it vary between patients - if so, which groups of patients seem to value it more?
- What happens when patients bring in their own 'evidence' from the internet or other media sources? Have you observed GPs handling these discussions? What strategies do they use?
FURTHER LEARNING

RESOURCES

REFERENCES


The following resources have been developed in conjunction with SAPC Heads of GP Teaching. If you have any queries or questions regarding the resources on offer, please contact **Prof. Joe Rosenthal** or **Prof. Alex Harding**, Co-Chairs of SAPC’s Heads of GP Teaching Group.