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80 – The Growth of the Guideline – Provision of Evidence-based Care with Unintended Consequences

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The rise of evidence-based medicine

In the 1980s David Sackett, a professor of medicine at McMaster University, Canada, published a series of articles on how to critically appraise medical research to inform safe and effective clinical practice (1). This work was extended by his colleague Gordon Guyatt in the 1990s, who coined the term evidence-based medicine - clinical practice based on what has been scientifically shown to work for patient management of different conditions (2). There followed a series of papers in JAMA on 'Users Guides to the Medical Literature' with a particular focus on interpreting the results of clinical studies, and on deciding how to apply these in patient care (3).

At the same time Scottish doctor Archibald Cochrane was advocating for the use of randomised controlled trials (RCTs) to improve the effectiveness and efficiency of medical practice. The Cochrane Centre was established in Oxford, England in 1992 under the leadership of a health services researcher, Iain Chalmers. The aim of the Centre was to review and assess the entire body of literature on all interventions. This led to the establishment of the international Cochrane Collaboration in 1993, producing up-to-date systematic reviews and meta-analyses of relevant RCTs of healthcare, and subsequently the Cochrane Library database (4).

Chalmers and Muir Gray, a public health physician, established the Centre for Evidence-Based Medicine in Oxford in 1995, with David Sackett as director. This facilitated the spread of evidence-based medicine to the United Kingdom, Europe and beyond (5). Clinical practice now could be based on examination of the current evidence rather than tradition or authority.

Practice by Guideline

By the turn of the century this evidence was being incorporated into clinical guidelines, directing decisions regarding diagnosis and management in specific areas of healthcare. Guidelines usually include consensus statements of what is considered to be best practice, and often algorithms to aid decision-making. There was a rapid proliferation of guidelines for a huge variety of conditions, produced regionally, nationally and internationally by professional bodies, healthcare organisations, governments and international collaborations to help standardise and improve the quality of care. Guidelines rapidly became commonplace.

However guidelines themselves could be variable in their scientific validity, reliability and usability. In 2002 an international group of researchers from 13 countries (the Appraisal of Guidelines, REsearch and Evaluation [AGREE] Collaboration) developed and validated a generic tool to appraise the quality of clinical guidelines (6). This led in

turn to the establishment of the Guidelines International Network, with member organisations such as the UK National Institute for Health and Clinical Excellence (NICE) and the US National Guideline Clearinghouse, applying the AGREE standardised methods to produce quality guidelines.

There has been an exponential increase in the publication of RCTs, of systematic reviews distilling the accumulating evidence, and guidelines to inform best practice. Increasingly general practitioners (GPs) are expected to use guidelines to direct their clinical decision-making. In 2004 the Quality and Outcomes Framework (QOF) was introduced in the UK as a pay-for-performance scheme, covering a wide range of clinical and organisational outcomes, with financial rewards for meeting determined targets for these QOF indicators.

As the stack of guideline books accumulated on the consultation room floor, increased effort went into the implementation of guidelines, now a research topic in its own right. Approaches include educational sessions, making summaries available on GPs' computer desktops, and algorithms electronically incorporated into clinical pathways.

Benefits and unintended consequences

There is no doubt that understanding and applying robust scientific evidence from well-conducted trials can improve patient care and health outcomes. For example, achieving quality targets may result in significant health gains among patients with cardiovascular disease .

However there is also the danger that guidelines can lead to cookbook medicine, with less of a holistic, biopsychosocial approach to patient care. Many guidelines synthesise hospital-based studies of homogeneous patient groups. This may lead to fragmentation and consequent poor coordination of care. Applying single disease guidelines to a patient with multi-morbidity may lead to polypharmacy and adverse medication interactions. Insufficient resources for all GPs to implement the evidence may increase health disparities. The QOF tick-box approach focuses on what is easy to measure, rather than the less tangible clinical elements such as the nature of the doctor-patient relationship. Population health objectives may conflict with a patient-centred approach to individual care. Consultations have a finite capacity, and the quality of care may reduce for conditions not included in the incentive framework.

Sackett himself warned that scientific evidence can inform but never replace clinical expertise 7. Clinical decisions must always involve our patients within the complex and uncertain reality of their lives. Decisions must take into account a large array of factors, including patient preferences, social, moral and legal issues and resource constraints. Best practice requires the synthesis of scientific knowledge, the context in which it is applied and phronesis - the accumulated wisdom of the practitioner 8. Empirical evidence contributes to management decisions made by doctors and their patients, but must not supplant the contextual knowledge that both contribute.

Take home messages

- Evidence-based medicine led to systematic reviews and meta-analyses of studies to assess the effectiveness and efficiency of medical interventions.
- Clinical guidelines use distilled evidence to direct clinical decision-making.
- Best practice is incentivised by achieving specified quality indicator targets.
- Unintended consequences include fragmentation of care, polypharmacy, health disparities, and neglect of conditions excluded from the quality framework.
- Best practice requires the synthesis of scientific knowledge, the context in which it is applied, and phronesis.

Original abstract

http://www.woncaeurope.org/content/what-are-general-practitioners-obstacles-implementing-guidelines

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