Clinical efficacy, efficiency and outcomes

Ebrahim N, Nat. Dip Rad (Diag) S.A., FETC (London) MSc Radiography (Diag) Cambridge.

Dept. of Radiography. Medunsa. SouthAfrica
nebrahim@medunsa.ac.za

Ogunbanjo GA, MBBS, MFGP (SA), M Fam Med, FACRRM, FACTM, FAFP (SA)
Dept. of Family Medicine and Primary Health Care.

Medunsa.South Africa
gao@intekom.co.za

Keywords: evidence-based: medicine, practice, healthcare, primary care, education. efficacy, efficiency, outcomes

(SA Fam Pract 2004;46(4): 19-20)

Introduction

The success of change will depend upon explicit clarification at the outset and/or vision of the expected outcome(s). The success of effective change is dependent on co-operation of all stakeholders. According to Davies, 'change from within is invariably more successful than that which is imposed or initiated from outside'. ¹ The aim of this article is to clarify the meaning of clinical 'efficacy', 'effectiveness' and 'outcomes'.

Efficacy and effectiveness of clinical treatment

'Efficacy and effectiveness are terms used for describing how well a treatment achieves its desired outcome'. ² Efficacy refers to how well a treatment performs in an **ideal situation** such as carefully controlled clinical trials. Effectiveness on the other hand describes how well a treatment does in the **real** world. ^{2,3}

'The dual concept of evidencebased practice and clinical effectiveness have become increasingly important in health care in recent years'. ⁴ In addition, there has also been attempts at increasing the adoption of evidence-based practice by various groups. One of such groups is the 'Clinical Effectiveness Initiative', which originated from Wales in 1995. Clinical effectiveness needs six components namely: The right person should do the right thing in the right place and at the right time in the right manner with the right results (figure 1).⁵

Clinical effectiveness is thus another perspective to evidence-based health care and figure 2 puts this paradigm shift towards evidence-based practice.⁵ This shift has been promulgated by:

- The advent of quality of movement.
- The focus on the consumer/client

expectations.

- Focus on outcomes.
- Reduced resources for health care.
- Emphasis on cost effectiveness.
- Proliferation of clinical trials.
- Recognition of the research gap.
- Availability of computer databases.
- Increased emphasis on professional competency.

Outcomes

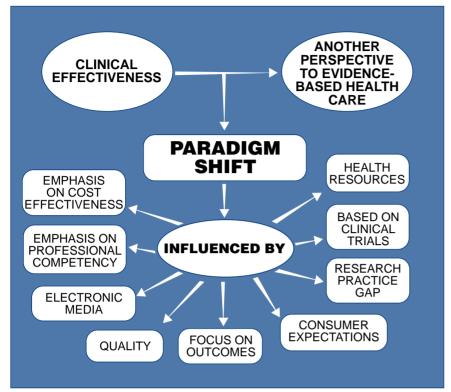
Before embarking on becoming an evidence-based practitioner, there must be a clear understanding of what the term 'outcomes' means. Viewed in the context of 'outcomes management' and 'outcomes research'. Outcomes management refers to the use of outcomes in the

Figure 1: Six components of clinical effectiveness



SA Fam Pract 2004;46(4) 19

Figure 2: Synthesising the evidence



course of routine clinical care'. 6 For example, outcomes measured might be used for quality improvement purposes. Surveys may be conducted amongst patients or consumers of a service in order to improve physical or procedural facilities. Outcomes research on the other hand refers to 'investigations aimed at what works and what does not work in clinical care'. The term generally applies to effectiveness of various clinical procedures. It can also refer to analysis of large administrative databases such as cost effectiveness, or statistics on complications of a procedure.

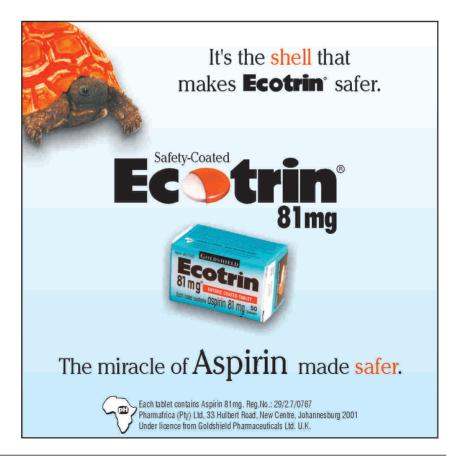
Conclusion

From the above, it can be concluded that 'clinical effectiveness' is synonymous with 'clinical outcomes'. Research focuses on the result of patient care in terms of symptoms, disability and survival. Thus if clinicians are to make confident estimates of benefits of treatments for their individual patients, there is need for

effectiveness as well as efficacy research within evidence-based practice. \P

References

- Davies P. In: Dawes M, Davies P, Gray A, Mant J, Seers K, Snowball R. Teaching Evidence-based Health. In: Evidence-Based Practice – A Primer for Health Professionals. United Kingdom: Churchill Livingstone; 1999.
- Geddes J. In: Trinder L. and Reynolds S, editors. Evidence-Based Practice in Mental Health. In: Evidence-Based Practice. A Critical Appraisal. United Kingdom: Blackwell Science; 2000: 84.
- Ramsey SD. In: Geyman, JP, Deyo RA. Evaluating Evidence from a Decision Analysis. In: Evidence-Based Clinical Practice. Concepts and Approaches. Oxford, United Kingdom: Butterworth-Heinemann; 2000.
- Upton D. Clinical Effectiveness and Evidences-Based Practice 1. British Journal of Therapy and Rehabilitation 1998; 5 (12): 647-650.
- Graham G. In: Diener I. Evidence-Based Practice. An International Perspective. Physio Forum 2001; 15 (8): 13-14.
- Deyo RA. In: Geyman JP, Deyo RA. Using Outcomes to Improve Quality of Research and Quality Care. In: Evidence-Based Clinical Practice. Concepts and Approaches. Oxford, United Kingdom: Butterworth-Heinemann; 2000.



20 SA Fam Pract 2004;46(4)