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EDITORIAL

Evidence-based Rural General Practice: still the evidence is largely absent

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General Practitioners, both rural and urban, are more reluctant to adhere to evidence than hospitals doctors. There are many reasons for it and the commonest for Australian, British and Dutch GPs is a belief that hospital specialists treat diseases and GPs treat people[1-6].

GPs are right to question the Evidence Based Medicine movement for the evidence about primary care is largely still absent. This is even more apparent for rural practice. There are four components of the evidence for clinical effectiveness. They are *clinical evidence-based medicine, the patients' evidence, the evidence of best team practice and the economic evidence*. The EBM movement has largely ignored the latter three components, together with the difficulties of implementation.

GPs practicing in rural or remote areas usually know their patients very well and manage their problems by taking into account many facets of the patient's life. At times this well informed holistic approach will diverge from the strict advice in a guideline. Taking all these facets into account during the consultation is what gives rural general practice its great strength from the patient's view.

The EBM movement grades research results in evidence tables. Even now there is debate about their value especially where evidence is largely absent, or common sense and experience is ignored as valueless. Inevitably the tables favour Randomised Controlled Trials (RCTs), which are funded in the main by drug companies, and conducted, in the main, in urban settings. Some of the leading journals have drawn attention to the failure of companies to publish unfavourable trials and thereby biasing the evidence. Further bias arises from the professional journal in which articles are published. For example, some trails of counselling in obesity show positive results in journals of psychology but nowhere else. Recruitment to RCTs often adds further bias, e.g. most RCTs have an upper age limit for recruitment of subjects that is below the age group that GPs commonly treat.

Even without these flaws, how relevant to the health of rural communities are RCTs? Most of the diseases that affect us have a large lifestyle component. Raised cholesterol,

smoking and blood pressure combined with a sedentary life style are the major factors in CHD, stroke, type 2 diabetes, osteoporosis, and many cancers. These risk factors can only be effectively modified at the level of the whole population, and results reported in population studies[7,8]. Such studies only reach Grade B evidence even although the results may have great impact on the public's health.

The production of guidelines from systematic reviews is not always a happy process even when generalists are members of the review groups. When non-specialists hear the specialists declare their extensive interests in drug trials, they are genuinely shocked. Specialists may have pushed for a guideline, not because they are interested in a common and important disease, but because they see guidelines as a way of commandeering 'their share' of scarce resources. For instance, lung cancer specialists may use guideline production to argue for drug therapy that may make little difference to survival. The rural GP suggesting that the money would be better spent on stopping smoking gets drowned out.

Health *economic assessment* within guideline production is proving almost impossible. There is not enough evidence of the sort that economists require. Simple tests that allow the value of one treatment compared to another can seldom be applied. A good test uses *numbers needed to treat (NNT)*. From trial data it is possible to calculate how many people must take a treatment for one person to benefit. For example how may people need to take aspirin to prevent one stroke. By multiplying NNT by cost, various outcomes can be compared for value for money. (NNT x cost/outcome.) This test is easy to understand but seldom is data available. Health technology assessment is not faring much better. Industry feeds in the information and politicians sometimes attempt to interfere. One national assessment organisation in UK has already lost credibility with doctors.

Even though we seek increasingly to involve patients in decision-making, and they too have access to information on an unprecedented scale, we know very little about the *patients' evidence*. We do however know that concordance with drug therapy is poor and modifying lifestyle is not easy. Have the trials of anticoagulation in AF really picked up all the adverse consequences and evaluated them? If it is the bradykinin in ACE therapy that makes you cough, and that also does your heart good, will you take it? These are the practical considerations for GPs advising their patients.

It is the area of implementation that the greatest challenges lie. Rural GPs are deluged with guidelines but primary care teams are poorly adapted and resourced for implementation. The Australian Minister of Health's recent announcement of initiatives for asthma, diabetes and practice nursing signals the enhancement of Disease Management in Australian primary care. These incentives may remove some of the structural and organisational barriers to implementation. Disease Management offers a chance to standardise care and therefore overcome to some extent inequity in health due to rurality. These incentives, however, are not available to rural doctors in the developing world.

Effective implementation includes educational outreach visits, interactive educational workshops, and reminders. Multifaceted interventions tackling different barriers to change are more likely to be effective than single interventions. Reasonably effective interventions might be summarised as audit and feedback, local consensus conferences, opinion leaders, and patient mediated interventions[9-12]. Herein lies a paradox for EBM. Classical research studies one variable at time yet we know that it is multifaceted interventions tackling different barriers that work best.

All improvement is inherently local. Improvement doesn't just happen. It needs to be intended. Disease Management achieves better outcomes through a combination of patient education and support, guidelines for practice, consultations and follow up using a *team approach, and a strong focus on quality improvement*[13-20].

The benefits of a team approach for patient care are apparent. Rural GPs are multi-skilled generalists. Consequently GPs and health staff working in rural or

remote areas are faced with a diversity of clinical challenges that makes team work all the more important. Intervention studies show repeatedly that greater involvement of nursing staff and other staff who complement the role of the doctor leads to improved adherence to guidelines, patient satisfaction, improved clinical and health outcomes, and improved use of services.

Asthma was perhaps the first disease to benefit from this approach and diabetes has also been shown to be amenable to it. At present rural and remote General Practice is not staffed or supported to implement evidence and arrange systems for disease management.

Is EBM all we have to improve clinical effectiveness? Clearly not. A body of knowledge now exists on how to improve the quality of health care. Drawing on continuous quality improvement and Senge's work on teams, Berwick has described a new approach[21] that has been adopted worldwide. We would do well to incorporate these ideas into planning for improvement.

Perhaps the main thing we can say is that EBM has provided evidence of absence and that is what we should learn. Let's stop doing what doesn't work but let us also remain wary of experts who fail to recognise the absence of evidence.

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References

1. Freeman A, Sweeney K. Why general practitioners not implement evidence: qualitative study. *BMJ* 2001;323:1100-2

2. Mayer J, Piterman I. The attitudes of Australian GPs to evidence based medicine:a focus group study. *Fam Pract.* 1999;16:627-32

3. Veldhuis M, Wigersma I, Okkes I. Deliberate departures from good general practice: a study of motives among Dutch general practitioners *Br J Gen Pract* 1998;48:1833-6

4. Howitt A, Armstrong D. Implementing evidence based medicine in general practice: audit and qualitative study of antithrombotic treatment for atrial fibrillation. *BMJ* 1999;318:1324-7

5. Tomlin Z, Humphrey C, Rogers S. General practitioners perceptions of effective health care. *BMJ* 1999;318:1532-5

6. Neville R, Clark R, Hoskins G, Smith B. National asthma attack audit 1991-92. General Practitioners Group in Asthma. *BMJ* 1993;306:559-62

7. Puska P, Tuomilehto J, Nissenen A, Vartiainen E. The North Karelia Project: 20 years results and experience. National Public Health Institute of Finland 1995

8. Vartiainen E, Puska P, Pekkanen J, Tuomilehto J, Jousilahti P. Changes in risk factors explain changes in mortality from ischaemic heart disease in Finland. *BMJ* 1994;309:23-27

9. Grol, R. Beliefs and evidence in changing clinical practice. *BMJ* 1997;315:418-21

10. Bero L, Grilli R, Grimshaw J et al, editors.Cochrane effective professional and organisation of care group. The Cochrane Library Issue2 Oxford: Update software; 2002.

11. NHS Centre for Reviews and Dissemination. Getting evidence into practice. *Effective Healthcare Bulletin* 1999;5:1-16

12. Oxman A, Thomson M, Davbis D et al. No magic bullets:a systematic review of 102 trials of interventions to improve professional practice. *CMAJ* 1995;153:1423-31

13. Kesteloot K, Defever M. Disease management: the silver bullet for innovative health care management. *Eurohealth* 1998;4:28-30

14. Lorig K, Sobel D, Stewart a, Brown B, Bandura A, Ritter P, et al. Evidence suggesting that a chronic disease self-management programme can improve health status while reducing hospitalisation: a randomised controlled trial. *Med Care* 1999;37:5-14

15. Ellrodt G, Cook D, Lee J, Cho M, Hunt D, Weingarten S. Evidence based Disease Management *JAMA*;278:687-92

16. Epping-Jordan J. The challenge of chronic conditions:WHO responds. *BMJ* 2001;323:947-48

17. Cheah J. Chronic disease management: a Singapore perspective. *BMJ* 2001;323:990-93

18. McAlister F, Lawson F, Koon T, Armstrong P. Randomised trials of secondary Prevention of coronary heart disease: systematic review. *BMJ* 2001;323:957-62

19. Olivarius N, Beck-Nielsen H, Andreasen A, Horder M. Randomised controlled trial of structured personal care of type 2 diabetes mellitus. *BMJ* 2001;323:970-5

20. Tuomilehto J, Lindstorm J, Eriksson J, Valle T, Hamalainen H, et al. Prevention of type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance. *N Engl J Med* 2001;344:1343-1350

21. Berwick, DM. A primer on leading the improvement of systems. *BMJ* 1996;312:619-22

