



An evidence based clinical aid for cardiovascular disease

What do GPs think?

Brian R McAvoy, MD, FRACGP, is Deputy Director, National Cancer Control Initiative, Carlton, and a general practitioner, Victoria; on behalf of the Practical Implementation Taskforce for the Prevention of Cardiovascular Disease. brian.mcavoy@ncci.org.au



Taskforce members: Greg R Fulcher, MD, FRACP, Endocrinologist, Royal North Shore Hospital, Sydney, NSW (Chair); John V Amerena, MBBS, FRACP, Cardiologist, University of Melbourne, Vic; Greg W Conner, MBBS, FRACP, Cardiovascular Diagnostic Services, Sydney, NSW; John F Beltrame, PhD, FRACP, Cardiologist, Queen Elizabeth Hospital, Adelaide, SA; Graeme J Hankey, MD, FRACP, Neurologist, Royal Perth Hospital, Perth, WA; Anthony C Keech, MSc, FRACP, Deputy Director, NHMRC Clinical Trials Centre, Sydney, NSW; Brian L Lloyd, PhD, FRACP, Cardiologist, Perth, WA; Michael L Neale, MM, FRACS, Vascular Surgeon, Royal North Shore Hospital, Sydney, NSW; Carol A Pollock, PhD, FRACP, Professor of Medicine, University of Sydney, Royal North Shore Hospital, Sydney, NSW; Krishna Sudhir, PhD, FRACP, Cardiologist, Stanford University, Palo Alto, USA; Robert D Waltham, MBBS, FRACP, Cardiologist, Royal Adelaide and Modbury Public Hospitals, Adelaide, SA; Malcolm J West, MBBS, FRACP, Professor of Medicine, University of Queensland, Prince Charles Hospital, Brisbane, Qld.

Cardiovascular disease is the commonest cause of mortality in Australia, accounting for more than 30% of deaths.¹ Hypertension, diabetes and lipid disorders account for 15.6% of the total problems encountered in general practice.² Therefore all doctors should be familiar with well known risk factors for cardiovascular disease, as well as the benefits of interventions with them.³ There are a number of absolute risk calculators available such as the New Zealand Cardiovascular Risk Calculator (www.nps.org.au/docs/pdfs/cardiovascularrisk.pdf) and the Framingham Heart Study Prediction Score Sheets (www.nhlbi.nih.gov/about/framingham/riskabs.htm). There are also numerous guidelines on management,⁴⁻⁷ but these usually focus on single interventions and are liable to become outdated as new evidence emerges.

Method

A multidisciplinary group of physicians formulated a concise and up-to-date guide for the prevention of cardiovascular disease based on a rigorous analysis of the available published evidence.³ This information was condensed into a single page desktop chart for clinical use. Between July and October 2001, five meetings

organised by a pharmaceutical company were held in Sydney, Brisbane, Adelaide, Melbourne and Perth. The meetings were about risk factors and management of cardiovascular disease to which general practitioners were sent postal invitations. They lasted 2 hours, attracted quality assurance and continuing medical education points from The Royal Australian College of General Practitioners and were chaired by a local GP. They took the form of two interactive presentations from a local cardiologist and GP academic, followed by questions and discussion, and ended with supper. During the course of the meeting, GPs were provided with the evidence based clinical aid.

Participants were asked to complete an 18 item questionnaire seeking their views on evidence based medicine (EBM) in general, and on the clinical aid in particular. This feedback guided the final development of the aid that was published 2 years later.³

Results

Out of 335 questionnaires distributed, 259 were completed (77% response rate). The responding GPs were more likely than those participating in the Bettering the Evaluation and Care of Health

(BEACH) program in 2001–2002 to be male and in solo or small practices (*Table 1*).

When asked the sources used to access the latest EBM; 75% cited clinical journals, 58% pharmaceutical company representatives, 42% clinical meetings, and 22% cited the internet. Asked about the relevance of EBM, 82% stated it was difficult to be continuously up-to-date with the latest evidence, 69% wanted to be aware of the evidence; but only 29% believed it was the basis for 'gold standard' clinical practice.

The evidence based clinical aid was thought appropriate and relevant to practice by 77%, although 39% suggested changes. These included having some linkage to a computerised format (71%), simplifying the text and layout (45%), and providing more explanation (8%). When asked the best way for GP colleagues to be introduced to the clinical aid, 53% identified small workshops, 44% meetings such as they were attending, and 28% identified divisions of general practice.

Discussion

Our primary aim was to provide a summary of the evidence for cardiovascular disease in a user friendly format according to the

Table 1. Characteristics of the GPs responding compared with those participating in the BEACH program⁸

Characteristics	Respondents (%) (n=259)	95% confidence limits	GPs participating in BEACH (%) (n=1000)
Sex			
Male	80	(75.1–84.9)	64
Female	20	(15.1–24.9)	36
Age range			
<35	7	(3.5–9.5)	7
35–44	23	(17.9–28.1)	27
45–54	42	(35.5–47.5)	37
55+	29	(23.5–34.5)	30
Practice size			
Solo	27	(21.4–32.2)	15
2–4	46	(39.4–51.6)	40
5+	28	(22.2–33.0)	45

best principles. But it also allowed for the evaluation of the format. The convenience sampling means these opinions may not be representative of Australian GPs. Despite the over-representation of male GPs, and those from solo and small practices – which probably reflects their educational preferences – the relatively positive opinions on the relevance of EBM are encouraging. Other studies have demonstrated less positive attitudes to EBM among solo GPs.⁹

Positive attitudes to clinical practice guidelines and EBM^{10–16} may not translate to changes in clinical practice.^{17,18} Our finding that less than one-third of respondents believed that EBM was the basis for ‘gold standard’ clinical practice may be the consequence of scepticism and pessimism about the value of clinical practice guidelines previously described.^{10–13,17,18}

For more than half the GPs, access to the latest evidence was from pharmaceutical company representatives (the second most popular source). As the meetings were organised by a pharmaceutical company this may indicate social response bias. Nonetheless, this may reflect a considerable influence of the pharmaceutical industry (of particular concern if there are strong interactions between clinical practice guideline authors and the pharmaceutical industry).¹⁹

The strong support for having some linkage

to a computerised format, and the preference for small workshops and educational meetings as dissemination mechanisms should provide useful pointers for guideline developers, policy makers and health service managers.

Implications of this study for general practice

- Out of 259 GPs surveyed at pharmaceutical company sponsored educational meetings on cardiovascular disease guidelines:
 - 75% said they used journals as a source of evidence
 - 58% pharmaceutical representatives
 - 42% clinical meetings, and
 - 22% used the internet.
- Many felt positive about EBM and decision aids, although 82% thought it was difficult to maintain being up-to-date with the latest evidence.
- Only 29% thought EBM was a basis for gold standard clinical practice.
- GPs thought being engaged in developing decision support tools before dissemination should increase acceptability and uptake.

Conflict of interest: the author received an honorarium for his presentations at the educational meetings. The development of the evidence based clinical aid was supported by an unconditional grant from Aventis Pharma, which had no input into the writing of this article.

References

1. Australian Institute of Health and Welfare. Australia's Health 2002. Canberra: AIHW, 2002.
2. Britt H, Miller GC, Knox S, et al. General practice activity in Australia 2002–03. AIHW Cat. No. GEP 14. Canberra: AIHW, 2003.
3. Fulcher GR, Conner GW, Amerena J, et al. Prevention of cardiovascular disease: an evidence based clinical aid. Med J Aust 2003;178:S1–16.
4. National Heart Foundation of Australia. Lipid management guidelines, 2001. Med J Aust 2001;175:S57–88.
5. National Blood Pressure Advisory Committee. Guide to management of hypertension for doctors. Canberra: National Heart Foundation of Australia, 1999.
6. National Health and Medical Research Council. Evidence based guidelines for type 2 diabetes: primary prevention, case detection and diagnosis. Canberra: NHMRC, 2001.
7. National Health and Medical Research Council. Clinical practice guidelines. Prevention of stroke. Canberra: NHMRC, 1996.
8. Britt H, Miller GC, Knox S, et al. General practice activity in Australia 2001–02. AIHW Cat. No. GEP 10. Canberra: AIHW, 2002.
9. Newton J, Knight D, Woolhead G. General practitioners and clinical guidelines: a survey of knowledge, use and beliefs. Br J Gen Pract 1996;46:513–7.
10. Gupta L, Ward JE, Haywood R. Clinical practice guidelines in general practice: a national survey of recall, attitudes and impact. Med J Aust 1997;166:69–72.
11. Mayer J, Piterman L. The attitudes of Australian GPs to evidence based medicine: a focus group study. Fam Pract 1999;16:627–32.
12. Mazza D, Russell SJ. Are GPs using clinical practice guidelines? Aust Fam Physician 2001;30:817–21.
13. Hayward RSA, Guyatt GH, Moore K, McKibbin KA, Carter AO. Canadian physicians' attitudes about and preferences regarding clinical practice guidelines. Can Med Assoc J 1997;156:1715–23.
14. Putnam W, Twohig PL, Burge FI, Jackson LA, Cox JL. A qualitative study of evidence in primary care: what the practitioners are saying. Can Med Assoc J 2002;166:1525–30.
15. Siriwardena AN. Clinical guidelines in primary care: a survey of general practitioners' attitudes and behaviour. Br J Gen Pract 1995;45:643–7.
16. McColl A, Smith H, White P, Field J. General practitioners' perceptions of the route to evidence based medicine: a questionnaire survey. BMJ 1998;316:361–5.
17. Cranney M, Warren E, Barton S, Gardner K, Walley T. Why do GPs not implement evidence based guidelines? A descriptive study. Fam Pract 2001;18:359–63.
18. Freeman AC, Sweeney K. Why general practitioners do not implement evidence: qualitative study. BMJ 2001;323:1100–2.
19. Choudhry NK, Stelfox HT, Detsky AS. Relationships between authors of clinical practice guidelines and the pharmaceutical industry. JAMA 2002;287:612–7.

AFP

Correspondence

Email: afp@racgp.org.au