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Experience in implementation of cardiovascular absolute risk assessment and management in Australian general practice

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Abstract
Cardiovascular absolute risk (CVAR) assessment (the probability of a cardiovascular event over 5 or 10 years calculated from multiple risk factors) has been recommended as a means of more accurately tailoring cardiovascular disease primary prevention strategies to the patient's risk level (1-4). Although the use of CVAR assessment has been advocated for some time, the lack of an implementation strategy has hindered its translation from guideline into practice both in Australia (5-8) and overseas (9-11). Our team has developed a theoretical implementation model of CVAR assessment and management using multiple strategies to encourage use (12,13).

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Experience in implementation of cardiovascular absolute risk assessment and management in Australian general practice

To the Editor:

Cardiovascular absolute risk (CVAR) assessment (the probability of a cardiovascular event over 5 or 10 years calculated from multiple risk factors) has been recommended as a means of more accurately tailoring cardiovascular disease primary prevention strategies to the patient's risk level (1–4). Although the use of CVAR assessment has been advocated for some time, the lack of an implementation strategy has hindered its translation from guideline into practice both in Australia (5–8) and overseas (9–11). Our team has developed a theoretical implementation model of CVAR assessment and management using multiple strategies to encourage use (12,13).

We conducted a study in Sydney from 2006 to 2008, aiming to explore general practitioners' (GPs) experience of implementing CVAR assessment and management, the feasibility of our model and patients' experience of the impact of implementation in their doctor's practice.

We recruited five GPs and 25 patients to participate. Based on the CVAR implementation model (12), GP intervention included face-to-face training in their practices using the CVAR assessment (electronic calculator and paper-based chart) and management guideline (3) and regular telephone support. Patients completed a self-assessment questionnaire prior to seeing the GP. In the encounter, GPs assessed CVAR and then negotiated treatment goals with patients, provided education and pharmacotherapy, referred to other providers and arranged follow up according to the guideline. Participants were also followed up for 3 months, with their information collected by in-depth interviews (GPs: face-to-face, patients: by phone) and questionnaires. Qualitative data were analysed using thematic analysis (14) in NVIVO 7 software (15) and quantitative data in SPSS software (16). The Human Research Ethics Committee of the University of New South Wales gave ethical approval for this study.

Apart from one patient with a baseline CVAR >30% who died of a heart attack during 3 month follow-up period, all other patients completed the study. Before this study, none of the participating GPs used CVAR assessment routinely for their patients and two of them had never assessed CVAR. By the end of the study, they had all started using it in their routine practice and used the results more often to help inform their medication and referral decisions (especially to determine the threshold at which to initiate medication treatment).

All GPs preferred the CVAR electronic calculator to the CVAR paper chart because: it was easy to use, took less time to use and allowed them to modify risk factors and recalculate CVAR. It allowed GPs to negotiate treatment options with their patients by demonstrating the outcomes for particular actions, such as the control of blood pressure or smoking cessation. Many patients also reported liking to see on the screen the impact of change in individual modifiable risk factors (e.g. smoking, BP or lipids) on their overall level of risk. Most GPs reported that using an electronic calculator to assess CVAR was an effective tool to help educate and motivate patients to make lifestyle changes. Most patients also reported that GPs mainly used CVAR results to recommend changing lifestyle rather than medications.

Both GPs and patients agreed that CVAR consultation took a longer time (approximately 20 min) than usual. They generally reported more involvement of each other in the CVAR consultation. Many patients felt that their GPs' care in the CVAR consultation was better than their usual care in terms of consultation content and time.

In general, our results suggest that the implementation experience of CVAR assessment and management is successful, and the CVAR implementation model is feasible.

Computer decision support programmes are commonly used to improve the effectiveness of the consultations (17). Other research suggests that integrated electronic calculators appeared more helpful than the paper-based risk prediction charts (18). In this study, GPs and patients preferred an electronic CVAR calculator to a paper-based chart. GPs especially liked the way the electronic calculator allowed them to visually demonstrate improvement in patient risk in response to management, as this positive communication was also encouraging to patients. In Australia, dissemination of CVAR assessment tools has so far been in paper-based format rather than an electronic calculator. Thus, incorporation of the electronic CVAR calculator as a visual aid into current practice software may be a necessary condition for widespread adoption of CVAR in general practice.

There is good evidence for a positive relationship between the duration of consultations and the quality of care (19–21). In this study, GPs and patients generally reported that approximately 20 min were spent on CVAR assessment and management during the consultation, allowing GPs and patients' sufficient time to assess the CVAR and discuss the result and management. Another research has found that after establishing that a patient was 'at risk' of CHD, primary care physicians reported spending an average of 16.5 min discussing risk factors and lifestyle changes or treatment (22). This suggests that a longer consultation with appropriate remuneration may be necessary for conducting proper CVAR assessment and management.

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LETTER

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How much vascular disease is reported by the UK media?

To the Editor:

We wonder if a new policy of media advocacy could be undertaken by healthcare professionals to enhance the reportage of vascular disease. Medical issues covered by print media must be generally 'newsworthy' – perhaps related to innovations, celebrities and world events. While newspapers are not primarily involved in health education, they may have an indirect role in how these issues are perceived (1,2). Medical coverage may not be very in-depth, but is usually in an easily comprehendible format, written at an appropriate reading age for their readers (2).

Vascular disease is highly prevalent, with large numbers of people affected directly or indirectly. Vascular risk factors are the focus of sustained health promotion and political coverage, while recent medical innovations (e.g. endovascular therapy) and celebrity illness (e.g. US Senator Bob Dole diagnosed with an abdominal aortic aneurysm in 1998) have received widespread reportage.

In order to estimate the reportage of vascular disease in the UK, the top 10 newspapers were assessed for 10 vascular terms (claudication, aneurysm, angioplasty, deep vein thrombosis, leg ulcers, vascular disease, amputation, blocked arteries, varicose veins and bypass surgery) over a 5-year period (via their on-line articles search facilities) (3). A total of 5713 articles were present (mean 10 articles per newspaper per month); the commonest terms were 'amputation' (1252 articles, 22%) and 'bypass surgery' (1072 articles, 19%). The least number of articles related to 'claudication' (17 articles, 0.3%). Tabloid newspapers (which represent 31.5% of the daily UK circulation) reported 1266 vascular articles (22% total), while Broadsheet newspapers (9.7% UK circulation) reported 4447 articles (78% total) (3,4). While there is some overlap with the search terms, this gives an estimate of the amount of coverage vascular disease receives in the media. As it was not possible to assess the content of each individual article, we are unsure if there is a genuine prevalence of certain terms in the media, or if they are secondary to world events (such as traumatic amputation in areas of conflict).

We are not sure how much reportage of vascular disease should exist in the media, but 'any publicity is good publicity'. If 6% of the population is directly affected by peripheral vascular disease, should 6% of all newspaper articles on health relate to this condition? At present we suspect that this level of reportage falls far below this. The print media coverage should be consistent, fair and relevant (5).

Health professionals, in conjunction with public health officials and journalists could form a partnership to ensure a co-ordinated approach in how relevant medical information is presented to the print media. This collaboration would ensure better dissemination of patient education to the population and hopefully enhance the background knowledge of common medical conditions. This new strategy would exist in conjunction with the presentation of medical information by traditional means (consultations and patient information leaflets) and utilise a newspaper's own writing style and format to ensure optimal uptake by readership (6). We agree with previous hypotheses that 'The media may be the most important health information source available to the general population' and thus we are keen to ensure that health professionals can influence this resource (7).

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