

Dyslipidemia guidelines

The measures suggested by Jacques Genest and colleagues^{1,2} for the prevention of vascular diseases, both cardiac and neurologic, indicate the magnitude of the problem of overweight in the United States and Canada. Here in Brazil, we observe a paradoxical situation: many people are afflicted with poverty and famine, yet they also have risk factors for cardiovascular problems. It thus appears that vascular risks have no regard for a country's economic status.

The new left-wing federal government in Brazil is making strong efforts in the area of social benefits, for example through the Fome Zero (Zero Hunger) program. However, public health doctors have no particular preoccupation with vascular disease, and suboptimal nutrition may occur among Brazilians even in the presence of adequate caloric intake, as evidenced by abnormal levels of C-reactive protein, apolipoprotein, homocysteine and other compounds.^{3,4}

Although Brazilian physicians apply evidence-based guidelines in the modern facilities that are available in our large cities, elsewhere they have adopted a system of what might be called "blind prevention," whereby patients are given acetylsalicylic acid, a statin, folic acid and vitamin E (unpublished manuscript). Physicians in the developed world tend to disapprove of this approach because it does not take into account individual patient factors such as microalbuminuria or gastric problems. This issue was recently the subject of heated debate in the "rapid responses" section of the *BMJ* after Wald and Law⁵ proposed a "Polypill."

Despite the differences in medical systems and patient populations in Canada and Brazil, the guidelines presented by Genest and colleagues^{1,2} will be an important reminder to Brazilian health authorities that vascular disease also requires their attention.

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Although I appreciate the updated guidelines on the management of dyslipidemia developed by Jacques Genest and colleagues,^{1,2} I fear that family physicians will find it difficult to follow the recommendations because the requirements of individual patients are not well addressed.

In the guidelines, information about risk is not presented in a patient-friendly fashion. Patients (and their physicians) are often uncertain about the meaning of risks expressed as a percentage, and decisions about the correct course of action often depend on the way in which statistics are framed.³ For example, according to the model for estimating risk (presented in the appendix of the print summary¹ and as Table 1 in the full guidelines²), a 75-year-old male nonsmoker with a systolic blood pressure of 145 mm Hg, a total cholesterol level of 5.4 mmol/L and a high-density lipoprotein cholesterol level of 1.1 mmol/L has a total of 15 risk points, representing a 10-year risk of a coronary event of 20%. On the basis of results from the Heart Protection Study, as summarized by Genest and colleagues,² treatment with simvastatin should reduce that risk by 24%, to approximately 15%. A reduction in risk of nearly 25% sounds impressive, but an alternative way of presenting the same information would be to say that for every 100 patients taking simvastatin for 10 years, 95 would receive no benefit (80 would not have experienced an event

even if untreated, and 15 would experience an event even though they were taking the medication).

Even more confusingly, the risk calculator^{1,2} will not show our hypothetical patient any evidence of benefit with simvastatin therapy: despite a probable reduction in cholesterol, this treatment will not change his total risk points, which will remain stubbornly at 15.

Dyslipidemia does not exist in isolation and is generally confounded by other cardiac hazards. I believe that the risk should have been presented in a pictorial fashion, expressing the relative importance of smoking cessation and reduction in blood pressure and cholesterol. The tables in the New Zealand⁴ and British⁵ guidelines seem much more usable tools than the arithmetic calculation suggested by Genest and colleagues.^{1,2}

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[One of the authors responds:]

Celio Levyman mentions the massive demographic changes taking place in countries with emerging market economies, where urbanization is occurring at an unprecedented rate. In Costa