

CAM and conventional therapies; rather, there are only therapies that either work or don't work. The reality is that scientifically oriented physicians accept a lower standard of evidence for adopting a therapy they consider scientifically plausible.

L. John Hoffer

Sir Mortimer B. Davis – Jewish General Hospital
Montréal, Que.

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CMAJ on the Web

The article on diagnosing and treating diabetic ketoacidosis and the hyperglycemic hyperosmolar state¹ was very informative. I especially appreciate the fact that neither a subscription nor membership in the Canadian Medical Association is required to download articles from the *CMAJ* Web site. This is helpful to those of us who are unable to subscribe to the journal.

Antonio P. Ligot

General Surgeon and Hospital Director
Good News Clinic & Hospital
Banaue, Ifugao
The Philippines

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1. Chiasson JL, Aris-Jilwan N, Bélanger R, Bertrand S, Beauregard H, Ékoé JM, et al. Diagnosis and treatment of diabetic ketoacidosis and the hyperglycemic hyperosmolar state. *CMAJ* 2003;168(7):859-66.

Should cost-effectiveness take the blame?

A miram Gafni and Stephen Birch,¹ in their excellent article on the importance of opportunity costs, posit that the uncontrolled growth in expenditures of the Ontario Drug Benefits Program (ODBP) is attributable to the use of the incremental cost-effectiveness ratio (ICER) of interventions, without consideration of opportunity costs, in the development of policy recommendations. The program's failure to control expenditures leads the authors to conclude that "simple tools such as the ICER represent a departure from the economics discipline and hence they fail to address the decision-makers' problems."

While cost-effectiveness is indeed frequently misused, this particular conclusion does not seem justified. The real cause of the "uncontrolled growth in expenditures" of the ODBP is surely the belief of its administrators that their resources will, in fact, not be limited. That they are justified in this belief is evidenced by the fact that the government allows the program's expenditures to grow by 10% to 15%, year after year, as reported by Laupacis.² Only if resources were limited and the program's budget fixed would it be necessary to consider opportunity costs. As long as administrators of the program are allowed to increase expenditures, it is entirely appropriate that they should try to get the best value for those resources by considering the ICER of each potential addition to the program. Indeed, it is the continuing failure of governments and their electors to forgo any health technology capable of bringing any benefit that is the real cause of the uncontrolled growth in expenditures.

Maurice McGregor

Professor Emeritus
Department of Medicine
McGill University
Montréal, Que.

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1. Gafni A, Birch S. Inclusion of drugs in provincial drug benefit programs: Should "reasonable

decisions" lead to uncontrolled growth in expenditures? [editorial]. *CMAJ* 2003;168(7):849-51.

2. Laupacis A. Inclusion of drugs in provincial drug benefit programs: Who is making these decisions, and are they the right ones? [editorial]. *CMAJ* 2002;166(1):44-7.

[The authors respond:]

We disagree with Maurice McGregor's suggestion that the real cause of the uncontrolled growth in expenditures of the Ontario Drug Benefits Program (ODBP) is the belief on the part of the program's administrators that their resources will not be limited. McGregor's letter indicates confusion between the case of unlimited resources and the case in which resources are allowed to grow. In a world with unlimited resources, there is no scarcity and thus choices need not be made between different programs (i.e., there are no opportunity costs). In this situation, maximizing total health improvements requires only information on effectiveness; no information about costs is needed. In contrast, in the situation where program resources (such as those for the ODBP), even if scarce, are allowed to increase, choices will be needed: the additional resources must be taken from elsewhere, and those resources are insufficient to support all new interventions. Contrary to McGregor's claim, the information provided by the incremental cost-effectiveness ratio (ICER) is insufficient to identify the efficient use of additional resources (see Appendix 1 to our commentary¹). Only by considering opportunity costs can the "best value for those resources" be determined.

McGregor's assessment that ODBP administrators believe that resources "will, in fact, not be limited" is not supported by evidence. In his description of the decision-making process of the ODBP, Laupacis stated, "Given that resources for health care are limited, it seems sensible . . . that cost-effectiveness is the main criterion used to determine which drugs are reimbursed from the public purse."² Administrators were led to believe that selecting programs on the basis of ICER values would maximize total health improvements from whatever resources were made available. Decision-

makers can be blamed for consistently failing to recognize that the use of such methodology is a prescription for uncontrolled growth in expenditures, but they should not be blamed for adopting the methodology in the first place.

Perhaps researchers will, at some point, admit that promoting simple tools such as the ICER represents a departure from economic principles and fails to address the decision-makers' problem, as illustrated by the uncontrolled (but predictable³) growth in ODBP expenditures. If not, there might be grave consequences (e.g., cancellation of a program perceived by government as unaffordable). We recommend giving economics principles a chance before it is too late.

Amiram Gafni

Professor

Stephen Birch

Professor

Department of Clinical Epidemiology
and Biostatistics

McMaster University
Hamilton, Ont.

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1. Gafni A, Birch S. Inclusion of drugs in provincial drug benefit programs: Should "reasonable decisions" lead to uncontrolled growth in expenditures? [editorial]. *CMAJ* 2003;168(7):849-51.
2. Laupacis A. Inclusion of drugs in provincial drug benefit programs: Who is making these decisions, and are they the right ones? [editorial]. *CMAJ* 2002;166(1):44-7.
3. Gafni A, Birch S. Guidelines for the adoption of new technologies: a prescription for uncontrolled growth in expenditures and how to avoid the problem. *CMAJ* 1993;148(6):913-7.

Relative risks or odds ratios?

I was surprised that in an article concerning risks of waiting for cardiac catheterization, written by specialists in clinical epidemiology,¹ the same results are reported as relative risks (in the abstract and the Results section of the paper) and as odds ratios (in Table 5). Given that these data were generated by multivariate analysis, I suppose that the values are odds ratios, as stated in Table 5. However, with regard to the results of the univariate analysis, which are presented only in Table 5, I'm uncertain what the numbers represent. They might be odds ratios, as stated; however, because the report describes a cohort study, relative risks should have been given.²

Cristian Baicus

Specialist in Internal Medicine

Clinical Epidemiology Unit

Colentina University Hospital

Bucharest, Romania

References

1. Natarajan MK, Mehta SR, Holder DH, Goodhart DR, Gafni A, Shilton D, et al. The risks of waiting for cardiac catheterization: a prospective study. *CMAJ* 2002;167(11):1233-40.
2. Sackett DL, Deeks JJ, Altman DG. Down with odds ratios. *Evid Based Med* 1996;1:164-5.

[Two of the authors respond:]

Cristian Baicus is correct in pointing out the inconsistency in terms in our article.¹ We intended to refer to relative risks in all instances. The type

of analysis (univariate or multivariate) would not determine the type of value generated.

Madhu K. Natarajan

Rizwan Afzal

Division of Cardiology

Population Health Research Institute

McMaster University

Hamilton, Ont.

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1. Natarajan MK, Mehta SR, Holder DH, Goodhart DR, Gafni A, Shilton D, et al. The risks of waiting for cardiac catheterization: a prospective study. *CMAJ* 2002;167(11):1233-40.

Corrections

In the Nov. 26, 2002, article concerning risks of waiting for cardiac catheterization,¹ the values in Table 5 are relative risks, not odds ratios.

Reference

1. Natarajan MK, Mehta SR, Holder DH, Goodhart DR, Gafni A, Shilton D, et al. The risks of waiting for cardiac catheterization: a prospective study. *CMAJ* 2002;167(11):1233-40.

In a recent review article on peanut allergy,¹ on p. 1281, first paragraph, ImmunoCAP-FEIA is FDA-approved quantitative, not semiquantitative as printed.

Reference

1. Al-Muhsen S, Clarke AE, Kagan RS. Peanut allergy: an overview. *CMAJ* 2003;168(10):1279-85.

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Arthrotec

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Repeat of April 29, 2003, page 1143