

educated and skilled in information retrieval and literature searching. Effective literature searching cannot be done by simply surfing a few hits found through free-text searching; it involves an intellectual process that requires an iterative methodology that includes expert knowledge of database design (including controlled vocabulary), knowledge of research methodology and familiarity with the subject. It is necessary for investigators to understand the importance of collaborating with librarians.

The association recommends that guidelines or standards be developed for literature searching in health care. We will work with other groups to assist in their development and will promote these to our membership.

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References

1. Ramsey S. Johns Hopkins takes responsibility for volunteer's death. *Lancet* 2001;358(9277):213.

2. McLellan F. 1966 and all that: When is a literature search done? *Lancet* 2001;358(9282):646.

Evaluating the risks of therapies for acute coronary syndromes

In one paragraph of their article in the *CMAJ*'s series on new advances in the management of acute coronary syndromes, David Fitchett and colleagues may have substantially oversold the benefit while underestimating the risk of intervention with clopidogrel.¹ Benefits were expressed as relative risk reductions of 24% and 20% in the rate of adverse outcomes, although "these benefits were achieved with a small (1%) increase in the rate of bleeding." Unfortunately, these data were from an as-yet-unpublished study. I suspect that the 1% increase in risk was an absolute risk increase. If the baseline rate of major bleeding was 1%, an absolute risk increase of 1% would be a relative risk increase of 100%, which

looks even more scary than a relative risk reduction of 20% or 24% looks good. If the proposed intervention is a good one, its benefits do not need to be inflated by expressing benefits in terms of relative risk and harms in terms of absolute risk.

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Reference

1. Fitchett D, Goodman S, Langer A. New advances in the management of acute coronary syndromes: 1. Matching treatment to risk. *CMAJ* 2001;164(9):1309-16.

[The authors respond:]

David Allen is correct in pointing out the difference between relative and absolute risk in his response to our article.¹ The benefit or hazard to the individual patient is best expressed as the change in absolute risk: from this can be calculated the number needed to treat to see a beneficial or adverse outcome.

In the case of clopidogrel and aspirin

for the management of acute coronary syndromes without ST-segment elevation, the CURE trial² showed that the rate of death from cardiovascular causes, nonfatal infection or stroke was reduced in 12 562 patients during the average 9-month follow-up period from 11.4% in the group who received aspirin alone to 9.3% in the group treated with clopidogrel plus aspirin. This is a 2.1% absolute risk reduction or a 20% relative risk reduction, with 95% confidence intervals (0.72–0.90) showing a highly significant benefit. Major bleeding increased from 2.7% in the patients who received aspirin to 3.7% in the patients who received aspirin plus clopidogrel: this is an absolute increase of 1% but a relative increase of hazard of 38%. However, few of these bleeds were sufficiently serious to require transfusion and there was no significant increase in life-threatening hemorrhage.

Expressed in terms of numbers to treat to observe both the benefits and hazards, the CURE trial showed that for every 1000 patients treated with clopidogrel and aspirin compared with aspirin

alone, 28 major cardiovascular events would be prevented in 23 patients at the cost of 9 serious hemorrhages, of which only 6 would require transfusion.

In high-risk patients with an acute coronary syndrome, outcomes can be improved by more efficacious antithrombotic and antiplatelet treatment. Unfortunately, such treatment does come with a small but important increase in hemorrhagic side effects. By carefully selecting patients, as well as determining the optimal duration of treatment, we can enhance the benefits of such treatment and minimize the risks.

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References

1. Fitchett D, Goodman S, Langer A. New advances in the management of acute coronary syndromes: 1. Matching treatment to risk. *CMAJ* 2001;164(9):1309-16.
2. Yusuf S, Zhao F, Mehta SR, Chrolavicius S, Tognoni G, Fox KK; the Clopidogrel in Unstable Angina to Prevent Recurrent Events Trial Investigators. Effects of clopidogrel in addition to aspirin in patients with acute coronary syndromes without ST-segment elevation. *N Engl J Med* 2001;345(7):494-502.

Correction

There is an error in the reference numbering in a research article by Michael Mondloch and associates.¹ In Tables 2 and 3, the numbering for references 12 to 26 should be increased by 1 (i.e., these references should be numbered 13 to 27).

Reference

1. Mondloch MV, Cole DC, Frank JW. Does how you do depend on how you think you'll do? A systemic review of the evidence for a relation between patients' recovery expectations and health outcomes. *CMAJ* 2001;165(2):174-9.