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DOI:10.1503/cmaj.1080101

[The authors respond:]

The finding of higher rates of preventable deaths in hospitals with high mortality in the study by Dubois and colleagues¹ applied only to the analysis of deaths from pneumonia, for which the physician reviewers exhibited very poor agreement ($\kappa = 0.11$). Moreover, in citing Dubois and colleagues in our commentary,² we did not presuppose that process problems constitute the gold standard for quality indicators. However, process change represents the major aspect of health care delivery under providers' control. If hospital standardized mortality ratios correlate poorly with the need for process changes (as in the study by Dubois and colleagues and a recent study from Ontario³), it remains unclear how hospital standardized mortality ratios can serve as a useful screen for quality problems.

Few would argue there are quality problems in the Canadian health care system. The Canadian Adverse Event Study found preventable events in every hospital studied.⁴ Ideally, all hospitals would accept these results as fact and undertake vigorous efforts to look for quality problems rather than wait for the results of their hospital standardized mortality ratios analysis. Given that this does not occur, one might argue for the use of a screening test, to engage hospitals.

However, as we outlined in our commentary, the hospital standardized mortality ratio has both low sensitivity and poor specificity for quality problems.² This is not unheard of among screening tests. Despite terrible performance characteristics, the fecal occult blood test improves detection of colon cancer, presumably because the results of annual application of this test randomly scare sufficient numbers of patients into undergoing the test they should have agreed to undergo in the first place, namely colonoscopy.

Unfortunately, whereas colon cancer

really does reside in the colon, most quality problems do not manifest themselves in the charts of deceased patients.⁵ Thus, rather than engaging hospitals in vigorous and effective detection of quality problems, promotion of hospital standardized mortality ratios focuses hospitals' attention on chart reviews of in-hospital deaths, which has all the inconvenience of colonoscopy but not comparable benefits.

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Competing interests: None declared.

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DOI:10.1503/cmaj.1080102

Smoking cessation trials

I submit that the meta-analysis by Mark Eisenberg and colleagues on pharmacotherapies for smoking cessation¹ is grounded in a false premise, namely that researchers were somehow able to hide the onset of nicotine withdrawal symptoms from control group members, whose previous quitting history had taught them exactly how withdrawal felt (a rising tide of anxieties, anger, dysphoria, concentration difficulty and sleep fragmentation within 24 hours of quitting), and that researchers found a way to mask the reduction of withdrawal syndrome for intervention group members. Mooney and colleagues found that studies of nicotine replacement therapies are generally not blind in that participants correctly

guess assignment at rates significantly above chance.² When this finding is combined with the meta-analytic finding by Eisenberg and colleagues that smoking cessation with pharmacologic treatment is nearly always more successful than cessation without pharmacologic treatment in clinical trials and the fact that cessation with pharmacologic treatment has failed to be more successful than cessation without such treatment in nearly all of real-world surveys conducted to date,³ it strongly suggests that the pharmacologic treatment of chemical dependency may be the only known research area in which blinding is impossible.

Mooney and colleagues warned that the validity of the results of clinical trials of nicotine replacement therapies could be questioned if future studies failed to assess the integrity of study blinding.² This warning has not been heeded. How badly can study blinding fail? Dar and colleagues found that control group members were 3.3 times more likely to correctly guess that they had received placebo than to incorrectly guess that they had received nicotine (54.5% v. 16.4%).⁴

In the era in which pharmacologic therapies are used for smoking cessation, the decline in smoking rates seen previously has come to a screeching halt.⁵ Although excitement about varenicline should briefly improve cessation rates, Canadian policy-makers must realize that toying with chemicals that stimulate the dopamine pathway is not more effective than teaching those hooked on nicotine how to quickly and more comfortably adapt to natural stimulation.

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Competing interests: John Polito is the editor of *WhyQuit*, a forum on abrupt nicotine cessation. He was compensated by the State of South Carolina for presenting 63 prison programs on abrupt nicotine cessation in 2007 and 2008.

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