Letters

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Protecting children from lead in tap water

Lead in drinking water is still an important health issue in Germany. There is concern about the association of lead exposure with neurologic and intellectual deficits as described by Mark Payne[1] and with hearing impairment in infants; higher levels of lead exposure have been associated with increased morbidity in adults and with cognitive decline in older people.[2,3] Although the maximum allowable lead concentration in tap water will be reduced from 0.025 mg/L to 0.01 mg/L by December 2013 in Germany, a 2005 test of 237 000 random samples of tap water showed that the lead concentration in more than 5% of the samples exceeded 0.025 mg/L in several regions.[4] In Germany it is recommended that pipes be flushed to reduce lead levels by running water for at least 5 minutes every morning, as also suggested by Payne.

Data from the German Federal Environment Agency suggest that even at a lead concentration of 0.01 mg/L in tap water, infants should not consume more than 0.4 L of tap water per day if the water comes from plumbing systems containing lead. As an interim solution until all lead is removed from plumbing, it has been proposed that infants should be given bottled water to avoid exposure to tap water during childhood because the threshold exposure level for lead toxicity has not yet been established.[5]

Most German municipalities are taking responsibility for removing lead from plumbing systems to protect infants and toddlers in particular from the health hazards associated with exposure to lead in drinking water. In Hamburg alone, all plumbing systems containing lead will be replaced for 28 000 households.

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Hospital standardized mortality ratios

We do not agree with Kaveh Shojania and Alan Forster's assessment of the value of reporting hospital standardized mortality ratios.[1] Our view is that the public reporting of hospital standardized mortality ratios in Canada provides a useful and much needed focus on the quality of health care.

The authors criticize the validity of hospital standardized mortality ratios on the basis that they "correlate weakly with other measures of quality of care" and cite as an example one of the findings from a 1987 US study by Dubois and colleagues.[2] However, Dubois and colleagues reported in the same study that "detailed reviews by physicians of the records of patients who died during hospitalization revealed a higher rate of preventable deaths in the high [outlier hospitals] than in the low [outlier hospitals]."

In some circumstances, process and outcome measures would be expected to be correlated, but in others they would not, for a number of valid reasons. When these 2 types of measures produce different results, we should not treat the process measures as the gold standard against which a "big dot" (i.e., broad-based) outcome measure like the hospital standardized mortality ratio should be assessed. Both types of measures have strengths and limitations and as such it is important that both be considered when examining the quality of health care within a hospital.

The authors also criticized the precision of the hospital standardized mortality ratio on the basis that "random variation likely accounts for much of the observed differences in mortality among institutions." In our report of hospital standardized mortality ratios,[3] we presented the hospital standardized mortality ratios results and confidence intervals only for large hospitals and regions to minimize the effect of random variation and to inform users of the level of precision associated with a given hospital standardized mortality ratio.

Producing hospital standardized mortality ratios for Canadian hospitals responds to the need for a "big dot" measure of the quality of health care. With an understanding of their limitations and in conjunction with other measures and information, hospital standardized mortality ratios can be used for their intended purposes. Within this context, the hospital standardized mortality ratio is both a valid and useful measure. Our work on developing more and improved quality measures is ongoing.

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Competing interests: The Canadian Institute for Health Information reports hospital standardized mortality ratios for Canadian hospitals and health regions.

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