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Ross Baker and associates¹ adopt and reinforce a social intolerance toward AEs as events of innocent origin. In the complex environment of acute health care, it is very easy for errors to occur, and the health care system is well behind other high-risk industries in its attention to basic safety principles. Strategies to reduce clinical risk should not include punitive actions against those who have made mistakes, but rather action to change the systems in which the mistakes occurred.² The key to reducing clinical errors is to make it difficult to do the wrong thing and easy to do the right thing.³

Making a profound change in the culture surrounding medical error and shifting the emphasis from silence to safety are the goals of a new program at Vancouver's St. Paul's Hospital, the only Canadian centre participating in a collaborative project of the Boston-based Institute for Healthcare Improvement.⁴ In the United Kingdom, "a mandatory no-name, no-blame national system for reporting 'failures, mistakes and near misses'" was to be implemented in 2002 under the National Patient Safety Agency.⁵ It is now time to start evaluating the effects of these and similar programs in preventing medical errors. Furthermore, the results of such assessments should be widely disseminated for the benefit of patients in developing countries as well as those in developed countries.

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[Three of the authors respond:]

The Canadian Adverse Events Study¹ used a chart review to determine AEs experienced by hospital patients. We agree with Peter Zed and Richard Slavik that this method, which has been used in other studies, underestimates the rate of AEs. However, these underestimations are not limited to medication-related AEs. Other events, including errors of omission, are also less likely to be identified by this method. Moreover, although our results include data from some patients who received care in the emergency department and were then admitted to hospital, further exploration of AEs in emergency departments and other settings is certainly needed to fully assess patient safety in these environments.

Maurice McGregor suggests a number of reasons why our results should be interpreted with care. Our methods relied on a structured review of written records and, as in previous studies, the reliability of such assessments is moderate. However, there are clear differences between patients who experience AEs and those who do not. Patients who have an AE stay in hospital on average 6 days longer than those who do not.¹ The burden of injury for these patients is also substantial. Although most of the AEs we identified occurred during the index hospital stay, McGregor correctly points out that 31% occurred before this admission.

Pat Croskerry and Sam Campbell note that we observed a higher rate of AEs in teaching hospitals. We believe that the greater complexity of care, provided by greater numbers of caregivers, may contribute to the higher rate in this setting. However, the rate of preventable AEs, an important indicator of

quality, was not significantly different across hospital types.

Chris Delaney and colleagues suggest some of the reasons that may explain why AE rates reported from the United States are lower than what we observed in Canada. To these reasons we would add the fact that the US studies were carried out on patients who received care in 1992² and 1984,^{3,4} whereas our study considered patients who received care in 2000.

We agree with Ediriweera Desapriya that a change from the culture of blame and shame to one of learning and improvement is essential. Knowing where and why AEs occur will guide improvement, while a focus on changing the system rather than blaming those involved in AEs is the critical strategy for improving patient safety.

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