

Painful inquiries: lessons from Winnipeg

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After 12 children died in Manitoba during or after open heart surgery in 1994 and more than 4 times that number died in Bristol between 1989 and 1995, inquiries were launched to determine what went wrong. Although the mandate of neither inquiry was to find fault or to lay blame, both concluded that the health care provided for these infants did not meet the standard that their parents had rightly anticipated.^{1,2}

The inquiry in Manitoba was conducted by Associate Chief Judge Sinclair, to whom I provided assistance in the area of human error and human factors analysis. In addition, I was one of 2 people who provided extensive advice on the preparation of diagrams of the hearts of the 12 children who died in 1994. I also assisted in proofreading the final draft of the report.

There is much to be learned from both reports, but most importantly we need to understand that, as Judge Sinclair wrote, it is completely “unrealistic to believe that human error can be totally eliminated.”¹ Errors occur and should be expected and anticipated. During the course of our normal health care activities, we need methods that will help us to avoid making errors (thus minimizing the number of errors we make in the first place). Should errors be made, then we need to trap these errors (by detecting them as they occur and absorbing their effects). Finally, should the combination of flaws in the system and the errors that

are made lead to complications, then we need to treat the consequences (by providing care for those affected).³

Both inquiries identified, as one underlying factor in the cardiac surgery deaths they examined, an insufficient volume of cases being undertaken to ensure expertise. Congenital cardiac abnormalities requiring surgery are, fortunately, rare. Given the small population of Manitoba, on average, fewer than 100 children with cardiac abnormalities required surgical intervention each year. The result of this lack of “volume” was an increase in complications, especially in “high-risk surgery.”¹ In Bristol, where the surgeons were working with “small numbers of disparate congenital cardiac anomalies,” a similar concern was expressed.²

A second problem was that, in both centres, the notion of a “learning curve” was invoked to explain deaths. This was defined as: “an expected and acceptable excess of patients who will die or be harmed in the early experience of a learner but who would have fared better if they were operated upon by a surgeon who is on the plateau of experience.”² One of the Bristol surgeons testified as to the difficulties that every surgeon experiences when he or she undertakes a new procedure.² But failure to discard this concept — that is, the acceptance of poor outcomes as part of a learning curve — was described as “one of the tragedies of Bristol.”² In Winnipeg, the “acceptance of a learning curve muted the degree of concern” that the sur-

geon, cardiologist and head of pediatric surgery should have had when the OR nurses and anesthesiologists “voiced concerns about surgical results.”¹

The concept of the learning curve is relevant also to what parents were told preoperatively. Both inquiries judged that parents were not fully informed of the inexperience of the surgeon. In obtaining proper informed consent from the parents, risk factors for procedures were presented as averages for pediatric cardiac surgery generally and were not based on the situations the children actually faced. Nor did risks of mortality accurately reflect the surgeon’s experience.^{1,2} The odds of a poor (or good) outcome often reflected profession-wide data, rather than results specific to where the procedure was to be carried out. Both reports recommended that patients should be told about the experience of the particular doctor carrying out a procedure.^{1,2}

Both reports also stressed the need to increase openness about the existence of human error in health care. There were clear statements that we all need to learn from error, rather than seek someone to blame. This must be our priority when we work to improve the quality and, especially, the safety of health care. We also need to adopt a systems approach to the analysis of adverse outcomes, through which errors are “seen as the product of systems which are not working well, as much as the result of any particular individual’s conduct.”³

Indeed, many people in Manitoba and elsewhere in the country (including many health care workers) concluded that the deaths in Winnipeg were due to one individual — the surgeon. However, the problems were actually systemic. When we take a systems approach, we consider all the interrelated components that interact within a working environment to produce an outcome. In health care, the system comprises the patients (and their families, friends and colleagues); personnel; the equipment with which and environment in which care is provided; the organizations that provide care; and the regulatory agencies, such as government, that legislate or regulate the provision of health care. Such an approach is patient-centred: each of the 5 basic components of the system (including the patients themselves) has an effect on the final outcome for every patient. But this approach also considers all the many contributing human factors — the interaction among people and the other parts of the system necessary to achieve an outcome (whether positive or negative).^{5,6} Interactions that were considered important in both inquiries included leadership, teamwork, communication and decision-making.^{1,2}

One difference between the 2 inquiries lies at the regulatory level and has become most obvious since the release of the 2 reports, and of another report by a Province of Manitoba Review and Implementation Committee.⁷ This latter report contained an evaluation of the recommendations made in Judge Sinclair’s report and their possible implementation.³ Recommendations from the Bristol Inquiry

have been noted throughout the United Kingdom, while those from Winnipeg seem not to have had much direct effect outside the province. Health care regulation is conducted at different levels in these 2 jurisdictions: it is “national” for Bristol and “provincial” for Winnipeg. Despite the fact that the Canada Health Act assures universality and portability, provincial borders can — and do — act as barriers to the identification, dissemination, access and use of information and recommendations from such inquiries.

What are the lessons from these deaths? First, both reports do not apply only to those who care for children, but to those who care for patients of all ages. That children died is simply a reflection of their lower tolerance for perturbations in the health care system. Second, the reports do apply not only to pediatric cardiac surgery but to all forms of operative care. Pediatric cardiac surgery featured in these inquiries because this specialty requires excellent — and not average — performance, from all involved. Third, both reports do not apply only to health care in Winnipeg, Manitoba or Bristol, England, but across both countries. The deaths in Winnipeg were Canada’s problem, those in Bristol all of the UK’s. Lastly, the deaths in Winnipeg, Bristol and elsewhere⁸ clearly show the need to learn why systems are flawed and how they fail. If we do not, then the stories in Bristol and Winnipeg are “bound to be retold elsewhere.”⁹

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