

QUALITY IN HEALTH CARE

Editorials

Learning from tragedies

When things fall apart the lessons often go untold

Tragedies involving inadequacies of healthcare systems that reach national headlines happen sporadically in all countries. Some are newsworthy enough to be mentioned briefly in the international press. However, details of lessons learnt and changes implemented afterwards, which could help people working in other healthcare systems, are less widely reported. One such tragedy has been in the British headlines this summer. This story, described by a national newspaper as “one of the blackest moments in British medical history”, has shocked the public and will change medical practice in the United Kingdom.¹ It is a local story but because many aspects of its background—poorly designed systems, dysfunctional organisational behaviour, and difficulty in responding to audit data—are not unique and are found in hospitals worldwide, the lessons learnt should be generalisable.

In June three senior British doctors were found to be guilty of professional misconduct by the General Medical Council—the body responsible for registering doctors and for setting standards of professional behaviour in the United Kingdom.^{2–4} This story centred on the performance of two cardiac surgeons and the care of 53 children at the Bristol Royal Infirmary between 1988 and 1995. For one surgeon the case was based on nine children (60%) who died out of 15 after operations to correct atrioseptal defects. The national mortality for this operation is less than 15%. For the other surgeon the case concerned 20 (53%) children who died out of 38 who had a complicated switch operation that involves transposition of the aorta and pulmonary arteries, for which the national mortality is less than 10%. The third doctor was the chief executive of the hospital.

Avoidable deaths of children provoke angry responses and much of the public anger has been directed at individual people. Superficially the problem was one of technical incompetence and of individual failings. There have been demands to make performance details such as mortality rates both for hospitals and for individual surgeons available to the public: and that is right. For over 20 years cardiac surgeons working in the United Kingdom have been able to submit—voluntarily and anonymously—their results to a central register; no doubt this will become compulsory and no longer anonymous. This case illustrates starkly that figures alone are not enough. The difficulty is not in the measuring of performance but in how to use these data to effect improvement and how to deal with the questions that arise from the figures. Even in the best

Calendar of events showing circumstances that led eventually to the hearings concerning the Bristol Royal Infirmary

1988: Newly appointed anaesthetist concerned that their paediatric cardiac operations take much longer than elsewhere and that mortality rates are higher.

1990: Audit for 1989 finds that overall mortality for children <1 year old is 37.9% compared with the national average of 18.8%.

1990: Anaesthetist writes a letter to chief executive outlining concerns about mortality rates in children <1 year old.

1992: Royal College of Surgeons of England report calling for the unit to be no longer designated is not acted on.

1993: Internal audit by anaesthetist showing that mortality rates for paediatric cardiac surgery are significantly higher than national figures. Department of Health notified.

1994: Report for Department of Health recommends stopping complex “switch” operations at Bristol Royal Infirmary.

1995: External report describes the senior surgeon as a “higher risk surgeon”. Report rejected by United Bristol Healthcare Trust.

1996: Internal inquiry shows that figures for two procedures do not compare well with other centres.

1996: Parents of children ask the General Medical Council to investigate.

1997: Start of 8 month, £2 million hearing by the General Medical Council.

1998: General Medical Council professional conduct committee find that many of the allegations against three doctors—two senior surgeons and the chief executive—have been proved.

Box adapted from Morris.⁷

circumstances, there will always be a surgeon who has the worst rates and many will be below average. Two papers in this issue examine some of the crucial questions that need to be considered if such indicators of performance are to be used to improve the quality of care.^{5,6}

As the calendar of events shows (box 1), the circumstances of the high mortality rates in this group of children

that led eventually to the hearings were widely known in the Bristol Royal Infirmary, probably for as long as 10 years. The problems were not just those of individual failings. It is perhaps the clarity with which the institutional failings have been linked to those deaths that has shaken the medical profession and many others who work in health care. Perhaps now more people will consider the place of an approach to quality improvement that includes designing and implementing organisational systems that predict, recognise, and respond to such problems when they first emerge—long before they affect performance rates. To do this we will all need to examine our practice, our assumptions, and continually ask questions about our ways of working. In reality, however, these are difficult options for both individual people and for organisations as a whole. It requires a degree of openness to measurements, to advice, and to the possibility of change that was not, in retrospect, present at that unit in Bristol. When a possible lapse in competence in a surgeon is suggested, how should the hospital act? What would have happened in Bristol had the hospital understood the results of its local audits? A functioning team would have assessed, listened, analysed, and acted. Perhaps all paediatric cardiac surgery would have been stopped. A tough decision but in retrospect the right one.

After the events at Bristol, one obvious target for reform is the training and continuing professional development and accreditation of doctors. Postgraduate training in surgery, particularly in those branches in which operative risks are high, highlights the twin responsibilities of training specialists and assuring good quality care. When any surgeon is learning a technique, the complication rate tends to be higher than when he or she becomes proficient. The argument of this “learning curve” was used in the defence of one of the surgeons in this case.² But the process of training should be such that no one suffers from a trainee’s learning curve. The test for any training system should be that it satisfies two objectives. Firstly, that all patients receive good quality care by competent doctors, and secondly, that future doctors are trained to become proficient.

Postgraduate training is not just about technical competencies. The failings noted at Bristol included failing to measure performance, failing to act on the concerns of colleagues, and giving misleading information about operative risk to the parents of the children undergoing surgery. Being able to communicate about and deal appropriately with a colleague’s, a department’s, or one’s own difficulties or perceived failings is part of professional responsibility. The main focus of clinical training is on the care of

individual patients, but healthcare professionals also work with other people, in teams within large or small organisations, as part of interdependencies. Training should prepare clinicians for the organisational aspects of their work as their abilities in these other, non-clinical, dimensions of care will impinge on the wellbeing of patients.

The clock cannot be put back. The agony of the families of the children who died continues. Public confidence in doctors and in the institutions that govern medical practice in the United Kingdom has been severely dented. During the hearings of the General Medical Council a list of issues that concern the practice of doctors was identified, and far reaching changes that will affect all doctors are predicted.¹ If all the lessons of this tragedy are learnt then patients looked after in the National Health Service (NHS) will get a better deal. But there is no quick fix. Lasting change, changes in attitudes, and changes to institutions will take time. The events that led to these hearings have been reported in detail but it is unlikely that we will be able to read in such detail about how organisations are turned around and how changes are implemented. We know that already change has happened at Bristol because outcomes from paediatric cardiac surgery have improved, with mortality rates now among the most favourable in the country, but we have been told little about the process that led to these improvements.⁸

Healthcare professionals worldwide will learn something from reading about others’ local problems and mistakes, but we could all learn so much more if we could find out too about the process of change. *Quality in Health Care* is interested in learning about what happens after these tragedies are forgotten by all except those personally affected. What are the measured responses? How are changes implemented? We share something of the tragedies, can we share the lessons?

FIONA MOSS
Editor

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- 5 Davies HTO, Lampel J. Trust in performance indicators? *Quality in Health care* 1998;7:159–62.
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- 8 Willie P, Hughes D. Cardiac surgical services at Bristol are now of high quality. *BMJ* 1998;316:1986.