

BRISTOL ROYAL INFIRMARY INQUIRY

PHASE TWO

Systems: safety and risk management, quality and information

Summary Report

This is a summary report of the key points emerging from the seminar discussion on *Safety and risk management, quality and information* which took place in London on 16 March 2000.

The following points were put to the Panel in discussion; they do not necessarily reflect the views of the panel.

Summary of the discussion

The purpose of the seminar was to explore the concepts of organisational accident theory and strategies associated with the assessment and management of risk and consider their application in health care. The seminar included participants with experience of dealing with these issues both in industry and in the health service. The seminar began by focusing on conceptual and analytical issues with regard to types of accident and the relationship between safety and quality and good information. The particular nature of accidents and risks in various different health care settings was then discussed. Attention was drawn to the importance of positive organisational cultures in reducing risk as well as the need to identify and learn from errors. The discussion moved on to identifying particular barriers to achieving a 'safe culture' in health care. The final session focused on specific strategies for achieving change. The key points emerging in each of these areas are summarised below. Many of the issues are elaborated further in position papers that were submitted in advance of the seminar. These papers are available on the Phase 2 section of the Inquiry's website.

1. Conceptual and analytic issues

1.1 Types of accident

(i) Attention was drawn to the distinction made in accident theory between individual accidents and those occurring at the system level. In the case of individual accidents, however serious the consequences may be for those involved, both the history of the accident and its outcome were perceived to be quite limited. It was noted that occurrence is often associated with error and lack of recognition that a defense may be required. Systems accidents, by contrast, are larger scale events where the effects are not confined to single victims. They characteristically occur in circumstances where there are many defenses and safeguards. Such accidents happen when, for a brief moment, a clustering of circumstances results in coincidental breaches in all the defenses at once. One key difference between individual and systems accidents lies in the degree of defense against hazard. Another difference is the possibility of tracing the outcome backwards through the process. At the systems level this is not always easy, because of the element of chance which allows the hazard to come into contact with the victims. It was suggested that accidents in the health service cover the entire span of accident types including systems failures which impact on individual patients, which do not fit clearly into either of the categories described above.

1.2 Safety versus quality

(i) There was discussion of the difficulty of defining what is meant by 'safety' and 'quality'. Participants considered the difficulty of their measurement and assessment in the absence of agreed definitions of what levels of either are acceptable. Attention was drawn to the distinction between quality and safety as objectives for an organisation. It was suggested that quality management aims to improve a product or service, while safety is an explicit approach to managing risk. In health care, it was suggested, quality has always had the clear aim of improving patient care, whereas risk management did not always have that goal, but grew out of organisational concern to reduce the costs of litigation. Safety is dependent on quality, in that safety management relies on the existence of effective quality assurance systems. Safety should be also be regarded as a determinant of quality, in that if something is not safe then it is not good quality. However, in some cases, participants noted that there may

need to be a trade off of one against the other. For example an innovative treatment may offer potentially greater benefits to patients but may be less safe, at least in the short term. It was suggested that both quality and safety must be seen in relative rather than absolute terms, with the emphasis on achieving continuous improvement in both areas together.

(ii) It was generally acknowledged that safety and quality are the 'hardest games in town'. Discussions of either concept in the abstract can be meaningless, the tools for assuring both can be misused and measures of either can be dangerously deceptive, can distort priorities, engender false confidence and divert attention from the bigger picture.

2. The nature of accidents and risks in health care

2.1 Accidents in health care

(i) There was discussion of the idea that health care differs significantly from other organisations in respect of how and why accidents occur. It was pointed out that while many other settings start with the premise of healthy individuals and technically safe systems, the health care system deals with sick patients who require treatment that is known to carry risks, and the treatment is provided by fallible individuals in situations where there may be considerable uncertainty about what should be done. In this sense some risks are built in from the start.

(ii) It was suggested that the resources for dealing with and avoiding accidents differ between non-profit making public sector organisations such as the NHS which provide a service within a given budget and industrial concerns which have greater control over their resources and more money to spend on training and development of skills. The counter view presented was that these differences are not as significant as might be imagined because directing money towards training is not easy in the private sector either.

2.2 Accident and risk in particular health care settings

(i) Consideration was given to the respective roles of anaesthetist and surgeon in an operation. The anaesthetist has a technically supported task with many built in checks and warning systems, whereas surgeons work directly with their hands and are therefore less protected from error. It was suggested that the vulnerability of surgeons

is to some extent intrinsic to their task and that surgery tends to attract doctors who are able to take rapid decisions and stick to them. The profession requires the application of craftsmanship and the ability to perform well in acute and difficult circumstances, but there are measures that can be taken to protect them. These include appropriate selection and training, the keeping of detailed notes during and after operations to confirm that all necessary steps have been taken and to identify and help reflect on aspects that were problematic, and ensuring that other staff assisting with the operation feel able to comment if they think that mistakes are being made.

(ii) It was noted that there is a difference between routine and non-routine surgical procedures. In the former, the risks are known and relatively low. In the latter the risk is by definition higher, and there is a need for particularly careful planning and debriefing. Through repetition and iterative learning, non-routine procedures can be fine-tuned over time so that they become routine.

(iii) It was pointed out that surgery should not be regarded as a generic model for thinking about accidents and risk in health care, as the organisation of care, the sources of risk and the opportunities for avoidance may be quite different in other areas and specialities. One example mentioned was breast cancer screening where there is a clear product that can be checked. In this area double reading of mammographic films has been identified as crucial, along with systems which guarantee that someone is responsible for taking action to deal with any problems or inconsistencies that are identified. Another example was the issue of non-accidental injury to children, where the challenge is to identify its occurrence and problems arise from the complex system of responsibility and the problems of reporting. A third was the issue of food hygiene, where food poisoning outbreaks result from the breakdown of systems of control.

(iv) Many areas of health care involve interactions between an individual health practitioner and a patient which are not easily monitored by routine peer observation or adherence to process protocols. In these areas the focus needs to be on creating a safe practitioner. Attention was drawn to the opportunities for peer assessment using videos of consultations and also of the importance of accessing patients' views as recipients of the care.

3. Characteristics of safe and resilient organisations

(i) Participants were reminded that the health care system often works surprisingly well, considering the significant hazards involved. However, the existing culture allows errors to repeat themselves and that features promote resilience to error are:

- organisational design;
- balanced regulation;
- effective learning and the ability to question and
- the identification of errors.

It was agreed to be important not to concentrate exclusively on things that go wrong. There is much to be learned about the reduction of hazard, the avoidance of failure and the maintenance of resilience and robustness in organisations from looking carefully at what goes well.

3.1 *The role of culture*

(i) There was much discussion of organisational culture and its role in the management of risk. It was noted that culture is a concept that is widely used, but one that has 'the definitional precision of a cloud'. Nevertheless, there was wide agreement among seminar participants about the positive features characteristic of a 'safe culture'. These included:

* *knowledge and self-knowledge*

It is important that people know what they don't know, know where danger lies, know what is unacceptable, know what to do when problems are identified and know that these will be handled quickly, appropriately and fairly.

* *human variability as a resource*

If human variability is regarded primarily as a liability and source of error the capacity of people to act flexibly to compensate and recover gets overlooked. Attention was drawn to the concept of 'dynamic non-events' where much 'tweaking' leads to nothing bad happening, and as a consequence these valuable recovery activities go unnoticed. It was suggested that safe cultures are those which have the flexibility for such coping mechanisms to flourish.

* *being alert to hazards*

Along with maintaining scope for creative and flexible behaviour there is a need for a pervasive mindset of chronic unease, or intelligent wariness. This is not the same as encouraging fearfulness, which raises defences and can easily lead to paralysis. Rather

the analogy suggested was that of birds and squirrels in a garden, getting about their business effectively but remaining constantly alert for possible threats.

* *teamwork, ownership and responsibility*

There was much mention of the importance of good teamwork. However, it was noted, that there is a danger of seeing teams as rigid entities rather than fluid and dynamic structures which people move between.

* *no blame*

There was discussion of the need for a culture which celebrates openness about problems as opportunities for learning and improving, rather than blaming individuals for their errors. However it was noted that a 'no blame' culture cannot be entirely blame free. There will always be a need for effective sanctions in cases of blameworthy conduct.

* *openness and honesty*

Openness needs to extend beyond the organisation to the patients and wider community. At present this often does not happen, partly because of anxiety about adverse media coverage and fear of litigation. It was suggested that in fact these hazards are greater when information is withheld than when it is freely given. Several examples were given of positive gains for the organisation from proactively acknowledging and explaining errors or near misses to patients and local media. There was discussion of the value for patients of receiving an explanation and apology when things go wrong. There was general acknowledgment of the basic principle that patients have a right to know about issues affecting their care.

* *appropriate and effective use of information*

Attention was drawn to the danger of collecting data on what is most easily measured, irrespective of its significance. Rather, the focus should be on making the important measurable; ensuring that measures are meaningful and the information generated is disseminated in an accessible form to those who need it and ensuring that it is used appropriately. It was suggested that data is best collected and analysed as part of the process of care, rather than as a separate, retrospective exercise.

4. Obstacles to achieving a safe culture in health care

(i) Participants commented on features of health service culture which they identified as potentially inhibiting the development of the positive culture outlined

above. These included problematic relations between health care professions and with patients, difficulties arising from cultural 'tribalism' within different professions and inadequate systems for collecting or utilising information.

4.1 *Tribalism and hierarchy*

(i) Relationships within, and between, health care professions are characterised by hierarchy and tribalism and health care organisations tend to be complicated by internal politics. These characteristics militate against an open culture. Patients are at the bottom of the hierarchy and their views and complaints are not always respected, although efforts are increasingly being made to change this.

4.2 *Traditional approaches to medical training*

(i) There was discussion of the shortcomings of traditional medical education, which focused primarily on the transmission and assessment of knowledge. Considerations of competence, performance and attitudes tend to have been overlooked, in part because measurement and testing of these is time consuming, difficult and expensive.

(ii) In addition, the tradition of training by humiliation (it was noted that this is now changing) discourages people from acknowledging their shortcomings or learning needs. It was observed that the ethos of medical education is one that encourages competition and individual success, with much less value accorded to developing skills of teamwork and collaboration. There continues to be very little inter-disciplinary training of health care professionals.

(iii) A further problem with medical culture and medical education is the heavy emphasis on individual patient care as the main route to achieving good outcomes. There is little appreciation among doctors of the scope for helping individual patients through attention to the system, nor recognition of such work as a source of professional satisfaction. This lack of interest was identified as one reason for the widespread failure of clinicians to get involved in audit effectively during the 1990s. Audit was widely seen as an irrelevant, ineffective and bureaucratic exercise, frequently delegated to junior staff because consultants were not interested. Participants noted the influence of medical and nursing training and commented on the differences between the attitudes of the two professions towards audit.

4.3 *Shortcomings in information systems*

The NHS was described by one participant as 'a sea of data and a desert of information'. Problems include: no effective or comprehensive IT system; lack of good clinical information; lack of agreement between clinicians about what information is needed; no mechanisms to validate the data which is collected; use of audit funds for other purposes; lack of personal responsibility for dealing with the data once it is collected; and a tendency to criticise data rather than doing anything about its implications.

5. Strategies for achieving a safer culture in health care

(i) It was acknowledged that cultural change is not a short term, one-off process but rather a dynamic journey which takes place over years and requires continuous reassessment as the needs, opportunities and barriers alter over time. It was agreed that exhorting people to think differently is not sufficient on its own to bring about change. Rather, key elements in successful cultural change are to start by changing processes, to ensure good leadership and to utilise examples, building on what has been learned elsewhere. Discussants were also cautioned to remember that, while culture is essential, a safe organisation also requires appropriate planning and the proper procedures.

5.1 *Process change*

(i) It was suggested that attitudes may be altered over time by making changes in the physical or legislative environment which force behavioural change even before the reasons for this are internalised – “fix the system, not the people”. The example was given of the civil rights issue in the US, where legislation to change practice, for example on the use of discriminatory language, helped to make such language unacceptable.

5.2 *Openness*

(i) “Nothing about me, without me” was given as an example of proof of commitment to putting the patient first ie, a higher profile for safety in healthcare

culture can be achieved by being open and honest with patients about risk. It was noted that openness can be proactive as well as reactive.

5.3 *Leadership*

(i) Cultural change requires consistent and effective leadership at every level. This involves both leadership by example and by building the priorities into the fabric of the organisation. For example, it was suggested that the issue of safety should be made into a corporate objective, should be talked up at all opportunities and should be built in as a standard component of all decisions or reports. At the same time desirable behaviour to support safety should be encouraged through role modeling, with leaders demonstrating their own willingness to admit when they get things wrong.

5.3 *Demonstrating the benefits of change*

(i) It was suggested that 'the engine of change is dissatisfaction with the present' but this in itself is not sufficient. Getting people to commit to change depends on demonstrating to them that there is a problem, showing how it can be dealt with effectively and without hazard to themselves, sharing ownership of the change and ensuring there is sufficient time and enough resources to achieve it. Participants noted that 'quick wins' are a useful tool for persuading people of the benefits of change. One example discussed was the introduction of a no blame drug error reporting system. This led initially to a huge increase in reported errors and a continuing higher rate of events, but the number of serious errors fell dramatically. The change was easily measurable and the outcome made evident to those involved.

5.4 *Frameworks for analysing problems*

(i) Seminar participants heard about the 'business excellence model' which provides a framework for organisations to address their own performance against an internationally accepted model of quality, helping them to identify key questions which need to be addressed

5.6 *Information and audit*

(i) Besides the general principles outlined above, a number of specific suggestions were made for improving the collection and use of information to review and improve practice. These were:

- * ensuring that all clinicians in the organisation have basic IT competence and keyboard skills;
- * increasing the use of benchmarking and comparative data between organisations;
- * developing the use of the single clinical record, including patient input;
- * exploring the scope for electronic patient records which require action before signing off;
- * enforcing scrutiny of audit once it is completed and supporting people in dealing with problematic findings;
- * where data is collected for audit at the macro level, ensuring that those providing it get feedback on how it is used;
- * in large organisations, ensuring that all the data collected in different departments is brought together in one place so that important connections are not missed;
- * not losing sight of the value of collecting informal and unsystematic qualitative information about the organisation (for example, talking directly to staff).
- * collecting information as a bi-product of normal clinical practice;
- * collecting and measuring every day information ie, when conduct conforms with, as well as deviates from, the norm and
- * recognising the possibility of recording “integrated” care rather than “episodic” care.

The example of New York State Cardiac Advisory Committee audit of risk adjusted mortality figures for cardiac surgery was given. Compulsory data collection began in 1963, results were made public, referrals were maintained and mortality rates were consistently recorded as the lowest of any state in the USA.

5.7 *Training, performance management and support*

- (i) A number of suggestions were also made to help address some of the barriers to cultural change identified as specific to the health care setting. These included:
- * providing a common core of training as health professionals before proceeding to specialisation as doctors, nurses etc;

- * developing methods of team based performance appraisal rather than focusing always on the individual;
- * acknowledging that even with accurate reporting and a no-blame culture, individuals who make mistakes which affect other people's welfare, themselves experience pain, embarrassment and humiliation and need support;
- * being honest about the complexity of the system and recognise the complexity of being honest;

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