is sustainable on a routine basis by staff with no special interest in information technology.

Long implementation in context of fast managerial change

Healthcare management is changing rapidly and staff often switch responsibility. This means that project teams overseeing extended programmes are rarely in post for the whole period. The head of department and many senior individuals who supported the original project changed during the Limpopo project.

"My baby" syndrome

Most new interventions in health care are driven by entrepreneurs who have great faith in their project. They may not be capable of standing back and taking a dispassionate view of the cost effectiveness of the interventions. In this case, the implications of an emerging national policy that was encouraging modular systems—that is, pharmacy and radiology that could be linked rather than fully integrated—were not fully assimilated.

Reluctance to stop putting good money after bad

When we look back at unsuccessful projects, it is often clear when the process started going wrong. However, it is more difficult to assess whether the subsequent worsening could have been rectified and, if not, when funding should have been withdrawn. At the time, it is often easier to continue to inject resources in an attempt to achieve a result. If fundamental underlying factors are not corrected, the project will still fail but at additional cost.

Failure to look for and learn from lessons from past projects

Evaluation of expensive healthcare interventions often fails to take an overall view. Managers usually monitor costs and meeting of contractual milestones, whereas academics or health economists assess effectiveness and overall worth (cost effectiveness). This fragmentation of responsibility (often with an absence of external and unbiased observers) can result in quite large deficits being missed until it is too late.

Conclusions

The failure of implementation resulted in the failed aspirations of many dedicated information technology staff, health managers, and other professionals. Most demoralising, however, is the lost contribution that the initial £14m plus £6.2m for the second contract could have made to health care in one of the poorest regions of South Africa. Nevertheless, this story is not unique to developing countries. The United Kingdom has had its share of failed health information systems, wasted millions, and disciplinary hearings.[8][9]

The computer industry has flourished by portraying its products as essential for efficient and effective health care. Until this is proved by experience and sound research, scepticism is required. The errors described above will continue to be replicated until the unique nature of hospital information systems is recognised and properly designed evaluation is built into all contracts at the beginning.

1 Friedman C, Wyatt J. *Evaluation methods in medical informatics*. New York: Springer-Verlag 1997.
2 Willcocks L, Lester S. *Evaluating the feasibility of information technology, research*. Oxford: Oxford Institute of Information Management, 1993. (Discussion paper DDP 93/1.)
3 Gibbs W. Taking computers to task. *Sci Am* 1997;278:64-71.
4 Kaplan B. Development and acceptance of medical information systems: an historical overview. *J Health Hum Resour Adm* 1988;11:9-29.
5 Herbst K, Littlejohns P, Rawlinson J, Collinson M, Wyatt JC. Evaluating computerised health information systems: hardware, software and human ware. Experiences from Northern Province, South Africa. *J Public Health Med* 1999;21:305-10
6 Health Systems Trust. Evaluation of hospital information system in the Northern Province in South Africa. www.hst.org.za/research/hisnp.htm (accessed February 2003).
7 Irregularities in health tender. www.news24.com/contentDisplay/level4Article/0,1113,2-1134_1123426,00.html (accessed September 2002).
8 Audit Commission. *For your information: a study of information management and systems in the acute hospital*. London: HMSO, 1995.
9 National Audit Office. *The 1992 and 1998 IM&T strategies of the NHS Executive*. London: Stationery Office, 1999. (HC371, 1998-99.)

Limits to patient choice: example from anaesthesia

Rachel Markham, Andrew Smith

Patients have a right to information about their care. Information allows better understanding and greater involvement and enables patients to make choices if they wish.[1] Information is also crucial to the concept of consent to treatment.[2]

Food and drink are withheld from people undergoing routine general anaesthesia, traditionally from midnight on the day of surgery. Recent evidence indicates that prolonged fasts are unnecessary in healthy people; one typical guideline allows a light meal six hours before and clear fluids up to two hours before induction of anaesthesia.[3] How is this information presented to patients?

Methods and results

We carried out a survey and textual analysis of materials gathered from 267 anaesthetic departments in the United Kingdom as part of the Royal College of Anaesthetists' patient information project.[4] We noted the length of fast recommended, the explanation and evidence cited for this, and the tone of text used. Both authors agreed on the classification of the tone of the text. Out of 51 leaflets about general anaesthesia in adults, only 27 mentioned preoperative fasting. Fourteen of these suggested times reflecting up to date evidence.[3] Eight did not specify a fasting period. Three

Department of Anaesthesia, Royal Lancaster Infirmary, Lancaster LA1 4RP
Rachel Markham
specialist registrar
Andrew Smith
consultant anaesthetist

Correspondence to: A Smith andrew.smith@rli.mbht.nhs.uk

Tone of language used in leaflets

Language	Number	Examples
Declarative	5	No reasons for fasting given
Explanatory	18	"Before your operation it is essential that your stomach is empty"
		"You can be sick when having an anaesthetic and if you have an empty stomach this is less likely"
		"If you are sick when you are unconscious, your body cannot get rid of the vomit safely and you may choke, or drown because liquid has got into your lungs"
		"You will be unconscious and if your stomach contains any food or drink you maybe sick under anaesthetic and it could get into your lungs and affect your breathing and cause you to get an infection"
Punitive	4	"If you eat or drink during the period you have been asked not to, your operation will not take place that day"
		"If you don't follow this rule, your operation will have to be postponed for safety reasons"

advocated "nil by mouth from midnight" for both morning and afternoon operations. Eighteen explained why fasting was necessary. None quoted research evidence to support the stated times. The table reports the tone of the text used.

Comment

Preoperative fasting is one aspect of perioperative care about which patients may wish to exercise a choice, but our survey shows that it is dealt with poorly in written information materials. Good patient information should describe what will happen, explain why, and highlight possible choices with risks and benefits. Providing such materials implies that patients will be involved and choices offered. However, we believe the suggestion that patient choice is akin to consumer choice in general is misleading and unfair to patients. We outline three limiting factors.

Withholding of information—Only half the leaflets dealing with fasting promoted up to date times; this may be because of the age of the leaflets surveyed. Also, different members of anaesthetic departments may be unable to agree on a written policy. Omitting to specify fasting times, or indeed avoiding the issue altogether, allows hospital staff the leeway to vary fasting times according to their beliefs and preferences. If evidence is not made available to patients they are unable to challenge unnecessarily prolonged fasts.

Expectation—The implied relationship between anaesthetist and patient is conveyed in the choice of words and "tone of voice" used in information materials. Leaflets that adopt a declarative or punitive tone imply that the patient is a passive recipient of instructions rather than a partner in decisions. Explanations are better than commands, as people are more likely to cooperate when they understand the reasons behind a request. However, as our examples show, apparently simple explanations can contain images and comparisons that may unintentionally disturb or threaten the reader.

Safety—Patient safety is paramount in anaesthetic training and practice. If we offer choice to patients they may express preferences that seem "irrational" to us because we consider them unsafe.[5] In this context, patient safety may be regarded an ethical "trump card" used to deny patient choice. However, safety is a fluid concept; it changes over time and according to context. Current evidence supports the safety of fasting times that were considered dangerous 20 years ago, and things may change again in the future. Furthermore, safety depends on the skill and experience of the anaesthetist as well as the patient's preoperative condition. Acknowledging such uncertainties should foster a relationship of mutual confidence and respect and allow patients to understand why some choices might not be available to them.

1 Coulter A. After Bristol: putting patients at the centre. *BMJ* 2002;324:648-51.
2 Department of Health. *Good practice in consent implementation guide: consent to examination or treatment.* London: Department of Health, 2001.
3 American Society of Anesthesiologists Task Force on Preoperative Fasting. Practice guidelines for preoperative fasting and the use of pharmacologic agents to reduce the risk of pulmonary aspiration: application to healthy patients undergoing elective procedures: a report by the American Society of Anesthesiologists Task Force on Preoperative Fasting. *Anesthesiology* 1999;90:896-905.
4 Lack JA, White L, Thoms G, Rollin AM, Williamson C, eds. *Patient information: raising the standard.* London: Royal College of Anaesthetists, in press.
5 Smith R. The discomfort of patient power. *BMJ* 2002;324:497-8.

(Accepted 1 February 2003)

Submitting articles to the *BMJ*

We are now inviting all authors who want to submit a paper to the *BMJ* to do so via the web (http://submit.bmj.com).

Benchpress is a website where authors deposit their manuscripts and editors go to read them and record their decisions. Reviewers' details are also held on the system, and when asked to review a paper reviewers will be invited to access the site to see the relevant paper. The system is secure, protected by passwords, so that authors see only their own papers and reviewers see only those they are meant to.

Anyone with an internet connection and a web browser can use the system.

The system provides all our guidance and forms and allows authors to suggest reviewers for their paper. Authors get an immediate acknowledgement that their submission has been received, and they can watch the progress of their manuscript. The record of their submission, including editors' and reviewers' reports, remains on the system for future reference.

The system itself offers extensive help, and the *BMJ*'s editorial office will help authors and reviewers if they get stuck.

Benchpress is accessed via http://submit.bmj.com or via a link from bmj.com