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## An ethical dilemma

### Medical errors and medical culture

A junior doctor fails to read an electrocardiogram that has been ordered and the patient dies, undiagnosed and in pain, from a myocardial infarction. We asked a professor of medical ethics, an expert in medical errors, and two clinicians to comment on the ethical implications of covering up the mistake.

### An error of omission

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The patient, an elderly lady, was blind and deaf without speech. She had been brought in as an emergency case, clutching her abdomen and moaning. She had been like that for a couple of hours and had also vomited a few times. On examination she had some epigastric tenderness, her heart and lungs were normal, and her blood

pressure was slightly low. Routine investigations were ordered; a drip was set up; and the team moved on.

On the next round the patient was still in severe pain. Nothing new had turned up. Her serum haemoglobin concentration, blood biochemistry, and chest and abdominal radiographs were normal. We

hesitated about whether to provide pain relief. Antispasmodic drugs had been ineffective. An ultrasound scan ruled out problems with the patient's gallbladder. Endoscopy took another day to organise and produced negative results. The patient's pain and sickness continued. On the fifth day she died: the causes undiagnosed, her suffering unrelieved.

As house officer on the ward I had to prepare a case summary. Fishing in the pack of x ray films for the reports I caught the long strip of an electrocardiogram. It bore the date of admission. I had asked a nurse to do it as part of the routine work up but had not remembered to check the results. The textbook signs of an extensive acute myocardial infarction were plain even to my untrained eye.

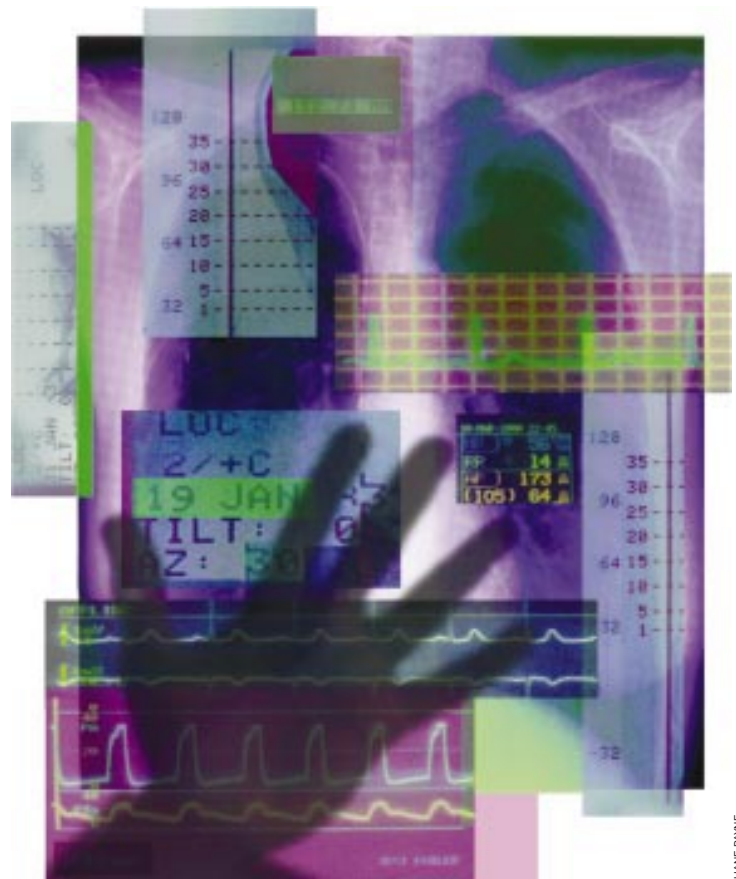
I took the tracing to the senior consultant's office. He cast a glance over it then stared at me for two uncomfortably long seconds. "Making a fuss about this won't bring her back," he said. He tore off the old date and then in a firm hand wrote the current date under the patient's name. "She has died of an acute myocardial infarction. But let this be a lesson to all of us."

It took me a while to come to terms with the fact that a patient had suffered for five days and died, perhaps unnecessarily, because of my omission. Having lived with the memories of this case for 15 years, I would like to offer some personal reflections with the wisdom of hindsight.

This patient was completely unable to communicate in any meaningful way. She had had routine electrocardiography, but everybody thought that somebody else had already seen the results. There is a lesson to be learnt here about communication, clinical responsibility, and teamwork. These events occurred in the days before thrombolysis, and the patient might have died even after a prompt diagnosis. Such arguments may ease one's conscience but are not ethically airtight: medical errors should not be justified by the lack of therapeutic options or the likely outcome. The patient might have benefited from intensive coronary care, avoiding undue stress, and conventional supportive measures, including adequate pain relief.

Errors will never disappear from medical practice. Our aim should be to ensure that they occur as rarely as humanly possible. But once they occur, how should we respond? Certainly some corrective action should be taken in every case. Medical audit and meetings to discuss morbidity and mortality are both valuable tools for education and improving practice. If errors recur, there may be a real issue of medical negligence. From a strictly legal viewpoint even a single error is unacceptable. In the moral sense, however, feelings of guilt for an isolated tragic event may be adequate punishment. This may be particularly true for junior doctors who are at the beginning of their careers.

What about the senior doctor's decision to conceal the error? He probably shared the junior doctor's feelings of guilt, and his behaviour might be seen as self protection and not merely as leniency towards his house officer. In the eyes of the law he falsified evidence, and this cannot be condoned. There is, however, a philosophical difference between law and medicine. Law is about achieving justice; medicine is about balancing benefit and harm. We must always ask what harm we are doing by taking a particular course of action. In this case, the harm of disclosure might



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include adding to the family's grief by involving them in a court case. The benefit of disclosure is harder to quantify: nothing will bring a dead patient back to life or undo their suffering or the suffering of their family.

The publication of every medical mistake may cause widespread harm and result in a mistrust of medicine. This does not mean that serious errors should be routinely and uncritically swept under the carpet. However, a first occurrence is probably best seen as an opportunity for education not litigation. In the long term such a course may help make us more careful and considerate physicians.

Competing interests: None declared.

### Corrections and clarifications

#### *To diet for*

In this press review by Rhona MacDonald (21 April, p 1002) we inadvertently twice misspelt the name of Kenneth Nunn [as Dunn]. We apologise to Professor Nunn for this.

#### *Scientists attack Bush over U turn on climate change*

The third paragraph from the end of this news article by Polly Ghazi (7 April, p 813) wrongly represented Professor Andy Haines's views on malaria. He was reported as saying that malaria was an airborne disease; it is of course vector borne. He has also told us that it is unlikely that climate change will result in malaria becoming a substantial health problem in the United Kingdom in the future, although the possibility of small outbreaks cannot be excluded.

#### *Obituary*

We failed to notice a geographical error in the obituary of Suhas Kumar Roy, contributed by Mike Roy (14 April, p 933). Comilla is in Bangladesh, not Pakistan.

## Commentary: Learning to love mistakes

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“Let this be a lesson to all of us,” said the senior consultant. He was likely referring to three lessons: myocardial infarction must be considered in the differential diagnosis of abdominal pain; physicians must check the results of the tests they order; and mistakes should be handled in private. A lesson I draw, however, is that the senior consultant’s actions may have unwittingly led to the deaths of many other patients.

Everyone makes mistakes. Fortunately, we work in teams, organisations, and health systems that can be designed to ensure that mistakes are corrected before they cause adverse outcomes for patients. The mistake made in this patient’s case was an accident waiting to happen. Electrocardiograms were recorded on rolled up strips that were easy to misplace. Someone put the diagnostic strip in a place where the doctor could easily miss it. Processes that force abnormal electrocardiograms to be brought to the attention of the doctor were not used or were unavailable. How many other patients were harmed because of the lack of systematic safety processes for electrocardiography?

Misplaced electrocardiograms are not the only mistake that can happen on a busy ward. How many other times did the senior consultant say in private, “Let this be a lesson to us all”? How many other patients died from the failure to identify and fix the processes that led to these mistakes?

The senior consultant taught the junior doctor that the correct way to handle mistakes was “in private.” How many house officers were trained under this senior consultant and also learnt this lesson? How many other patients died on wards that were subsequently led by those trainees when they became senior consultants and dealt with mistakes in private?

A narrow ethical analysis of this case would focus on the physician’s obligation to disclose mistakes to the

patient or the family (or the senior consultant’s unacceptable attempt to cover up the mistake by falsifying the medical record). There are good reasons for disclosing mistakes including maintaining the relationship of trust between the patient and doctor and the possibility that disclosure may actually reduce the number of lawsuits filed. However, the ethical obligation to prevent mistakes is even stronger than either of these.

The senior consultant’s actions are based on an ethic of personal responsibility: the physician is individually responsible for the care of the patient. Although a laudable value, personal responsibility is an inadequate ethic for medical practice because it isolates physicians from the teams, organisations, and systems in which they work.

The Tavistock Group has proposed a draft statement of shared ethical principles for everybody who works in health care.<sup>1</sup> One of these principles is that “all individuals and groups involved in health care, whether providing access or services, have the continuing responsibility to help improve its quality.”

The idea that follows from this principle is that we should cherish each mistake as an opportunity for improvement. This will require a change in medical culture from an ethic of personal responsibility to one that also values the safety of patients and the improvement of quality. Senior consultants will need to lead this charge by what they say and do. The “lesson to all of us” is that we should learn to love mistakes because they carry in them the kernel of their own elimination.

Competing interests: None declared.

1 Tavistock Group. A shared statement of ethical principles for those who shape and give health care. *BMJ* 1999;318:249-51.

## Commentary: Doctors are obliged to be honest with their patients

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This story left me with a welter of emotions. I pitied the hapless patient and commiserated with the unhappy house officer, unsettled by the echoes of my own mistakes. I was chilled by the senior consultant’s deft and imperious act that simultaneously acknowledged and forgave the mistake. Most of all I was worried lest readers, especially doctors in training, be left with the mistaken impression that this is how we should handle our mistakes.

Although the case reads like a fable, it describes a cover up. Even though the principle of “forgive but remember” is embedded in medical training,<sup>1</sup> it is not the attending doctor’s prerogative to conceal a mistake. There is too much self interest, particularly when one shares responsibility for the mistake. In many cultures there is an ethical and professional consensus that

doctors are obliged to disclose medical errors<sup>2</sup> partly because it is in the patient’s best interest and partly because it is the physician’s duty towards the patient. Surveys of patients confirm that most of them would want to be informed if a mistake had been made in their care.<sup>3</sup> A simple test of whether concealment is justified is to ask: does it pass the headline test?—that is, is this something a doctor would be willing to defend in public?

As supervising doctors, what should we say to a trainee who tells us about a mistake? The basic principles are to encourage a description of what happened, to acknowledge the gravity of the mistake, and to empathise with the emotions it elicits before embarking on a more objective analysis. An exercise has been conducted with doctors in hospitals and at professional

meetings: doctors are presented with a mistake and then asked to imagine that they had made the mistake. They are then asked how they would initiate the discussion with a supervisor and what they would want to hear in return (unpublished data). The response that was hoped for was: "I appreciate your concerns and understand your feelings. They are not unusual or abnormal. In fact, they reflect your intellectual honesty and compassion, both of which are attributes of a good doctor. I'd be happy to sit down with you and review the case. I know you feel terrible: this is normal. You should appreciate that accepting responsibility can be an important part of learning from the mistake. Now, if you had it to do over, what could be done differently?"

The incident described in the care of the elderly woman was a common mistake: the failure to follow up on a test. However, it was also a "system error"—the kind that occurs uncommonly but repeatedly and is permitted by the absence of a systematic mechanism for checking test results. Thus, although the junior doctor appreciated that the mistake was handled in private, others were deprived of the opportunity to benefit.

The senior consultant also spared the junior doctor from perhaps the most daunting task: telling the family what had happened. As both share responsibility for the patient's care, it may be most appropriate for the attending doctor and the junior doctor to disclose the mistake together. This disclosure would call for an explanation in plain language of what had happened, a description of the consequences and actions taken, an expression of personal regret, and an apology. It also calls for a strong stomach, a willingness to answer

questions, and a disposition that allows the doctor to empathise with whatever reactions ensue. In cases involving serious injury, it may also be appropriate to involve someone working in risk management at the hospital.<sup>2</sup> For example, in this case the doctor might say: "I have something difficult and important to tell you. I regret to say that we made a mistake in your relative's care. When she first came into casualty, we missed the signs of what was probably a heart attack. If we had noticed, it is possible that she could have survived. I am devastated at being responsible for this, and can only tell you how sorry I am. I am sure this comes as a great shock to you. Can I answer any questions?"

This is a cautionary tale. There are several important messages. It is indeed proper to deal with a colleague's mistake in private without anger and with an understanding of the inevitability of mistakes in medicine and the toll they take on those who make them.<sup>4</sup> However, as physicians trusted by our patients we bear a special obligation to tell them about mistakes made in their care. As medical educators and practice managers we need to re-examine how we work in order to prevent mistakes, to detect mishaps and near misses, and to reduce the probability of error.

Competing interest: None declared.

1 Bosk CL. *Forgive and remember: managing medical failure*. Chicago: University of Chicago Press, 1979.

2 Wu AW, Cavanaugh TA, McPhee SJ, Lo B, Micco GP. To tell the truth—ethical and practical issues in disclosing medical mistakes to patients. *J Gen Intern Med* 1997;12:770-5.

3 Witman AB, Park DM, Hardin SB. How do patients want physicians to handle mistakes? *Arch Intern Med* 1996;156:2565-9.

4 Wu AW. Medical errors: the second victim. *BMJ* 2000;320:726-7.

## Commentary: A climate of secrecy undermines public trust

Seena Fazel, John McMillan

This case highlights a number of ethical issues. We will focus on two: how medical errors should be dealt with and the importance of ensuring that we learn from our mistakes.

There are a number of competing principles in this case. Does the principle of truthfulness (not falsifying medical records) override its consequences (upsetting relatives, blaming medical staff, risking litigation)? There are those who believe that falsifying medical records is always wrong irrespective of the consequences. The fact that this woman suffered unnecessarily and died makes this falsification an even more serious act. Usually, justifications for not being truthful address the consequences for patients of knowing the full truth; in this case it is the physicians' interests that are being served.

The senior consultant suggested that making a fuss would not bring the patient back thereby assuming that this should be the primary consideration in deciding against disclosing the event. Doctors need to be cautious about making such justifications. If too many critical events are covered up because no obvious or immediate good can be achieved, there may be more serious consequences for the profession as a whole. If it becomes widely known that physicians tend to cover up

such incidents, then people will stop trusting doctors. As Horton has noted, the prevailing climate, which encourages secrecy about medical errors, already undermines the public's trust because patients' fears become exaggerated when an isolated medical disaster is reported. Patients are more likely to be reassured by a profession that is open about its mistakes than by one that hides them.<sup>1</sup> To insist that the senior consultant should not have changed the date on the electrocardiogram may strike some as a little precious. However, it is worth considering what our attitude towards this scenario would be if the woman had been a young, economically productive mother with three children. We need to be careful not to make assumptions about this elderly woman's readiness to die.

It has been shown that naming, shaming, and punishing have not worked in addressing errors in the aviation and other high risk industries and that these responses produce a culture of secrecy, defensiveness, and anguish.<sup>2</sup> The way in which the senior consultant dealt with his junior doctor was helpful in that it shifted the focus onto what could be learnt from the error. Even if we accept that we ought to deal with such events in private, it may be that more can be done than simply making sure that the staff involved have learnt a

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lesson: after all it is a mistake that any junior doctor is at risk of making.

A critical incident review would have shared this knowledge with others and enabled those involved to take part in a full and frank discussion about what had happened.<sup>3</sup> The danger in the senior consultant's approach is that the message may have been, "When things go wrong, falsify medical records" rather than "When things go wrong, deal with an error in as open a manner as the situation allows." A proper internal

review would also ensure that when things do go wrong changes are made to systems to minimise the risk of the mistake being repeated. This would go some distance towards ensuring that lessons are learnt from medical errors.

Competing interests: None declared.

1 Horton R. The uses of error. *Lancet* 1999;353:422-3.

2 Berwick DM, Leape LL. Reducing errors in medicine. *BMJ* 1999;319:136-7.

3 Critical questions: critical incidents; critical answers [editorial]. *Lancet* 1988;i:1373-4.

## Measuring quality of life

### Is quality of life determined by expectations or experience?

Alison J Carr, Barry Gibson, Peter G Robinson

#### This is the first in a series of five articles

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The way we think about health and health care is changing. The two factors driving this change are the recognition of the importance of the social consequences of disease and the acknowledgement that medical interventions aim to increase the length and quality of survival. For these reasons, the quality, effectiveness, and efficiency of health care are often evaluated by their impact on a patient's "quality of life."

There is no consensus on the definition of quality of life as it is affected by health (health related quality of life). Definitions range from those with a holistic emphasis on the social, emotional, and physical well-being of patients after treatment<sup>1</sup> to those that describe the impact of a person's health on his or her ability to lead a fulfilling life.<sup>2</sup> This article assumes it to be those aspects of an individual's subjective experience that relate both directly and indirectly to health, disease, disability, and impairment. The central concern of this paper is the tendency to regard the quality of life as a constant. We contend that perceptions of health and its meaning vary between individuals and within an individual over time. People assess their health related quality of life by comparing their expectations with their experience. We propose a model of the relation between expectations and experience and use it to illustrate problems in measuring quality of life. The implications of these concepts for the use of quality of life as an indicator of the need for treatment and as an outcome of care are discussed.

#### Definitions and determinants of quality of life

Measures of the quality of life summarise the judgments people make to describe their experiences of health and illness. This is what distinguishes them from measures of disability that ask about an ability to complete specific tasks, such as climbing stairs or dressing oneself. Quality of life is a broader concept and is concerned with whether disease or impairment limits a person's ability to fulfil a normal role (for example, whether the inability to climb stairs limits a person at work). However, the measures do not consider how people arrive at these judgments. Understanding the mechanisms through which health, illness, and healthcare interventions influence the quality of life (that is, understanding the deter-

#### Summary points

Health related quality of life is the gap between our expectations of health and our experience of it

Perception of quality of life varies between individuals and is dynamic within them

People with different expectations will report that they have a different quality of life even when they have the same clinical condition

People whose health has changed may report the same level of quality of life when measures are repeated

Current measures do not take account of expectations and cannot distinguish between changes in the experience of disease and changes in expectations of health

minants of quality of life) may highlight ways in which it can be maximised.

A primary aim of treatment, particularly in chronic disease, is to enhance the quality of life by reducing the impact of the disease. Yet patients with severe disease do not necessarily report having a poor quality of life.<sup>3</sup> Therefore the relation between symptoms and quality of life is neither simple nor direct. Considering quality of life as the discrepancy between our expectations and our experience provides a way of explaining how we evaluate it.<sup>4</sup>

#### Expectations, experience, and quality of life

Our everyday lives are complex. When we are asked about them we need ways to simplify our thoughts to provide answers. We do this by using sets of stable assumptions (expectations) to inform our observations. A haematologist uses reference values in the same way. Patients with back pain, for example, may expect that consulting a doctor will solve their problem. Patients have expectations about how they