Medicine and the law: what's happening?

This month we take a quick look at some medicolegal issues that have been covered in the press and how they might affect medical practitioners.

Conviction by mathematical error?

An editorial in the BMJ has urged doctors to take responsibility for the quality of expert evidence being given in courts.[1] 'Even more problematic than the issue of presenting statistical evidence fairly is the problem of getting it wrong', wrote Stephen Watkins, Director of Public Health, Stockport Health Authority, UK.

The author described how he considered mathematical error contributed to the conviction of solicitor Sally Clark for smothering her two infant children. An eminent paediatrician gave evidence that the chances of two cot deaths happening in this family was 'vanishingly small' – 1 in 73 million. However, according to the Dr Watkins, the prosecution used the figure of 1 in 73 million rather than 1 in 2.75 million (the risk for the whole population) because of the family's affluence.

Dr Watkins referred to studies of recurrent cot death. One study found two cases of recurrent cot death out of 12 recurrent infant deaths in Sheffield in 20 years. The other study found five cases in an English case series of 57. Both studies distinguished cot death from accident, illness, murder and neglect. The very existence of these studies points to the fact that recurrent cot death is not 'vanishingly' rare, Dr Watkins wrote.

'Guidelines for using probability theory in criminal cases are urgently needed', said Dr Watkins, 'Never again must mathematical error be allowed to conflict with mathematical fact as if each were a legitimate expert view… Medical evidence is trusted, and we must retain that situation and ensure that it is not abused.'

He concluded, 'It is possible to be an extremely good doctor without being numerate, and not every eminent clinician is best placed to give epidemiological evidence. Doctors should not use techniques before they have acquainted themselves with the principles underlying them.'

Series Editor's comment

Statistics are almost irrelevant when applied to one case. For example, it is important to tell a patient that statistically an IUD has a 1 to 2% failure rate. It is equally important to stress that this means that of 100 women with newly inserted IUDs, one or two of them will be 100% pregnant in one year's time. They all won't be 2% pregnant! That sounds fatuous but, in retrospect, statistics are irrelevant to an individual patient. No matter how rare the side effect, if it happens to a particular patient, as far as he or she is concerned it is a 100% strike rate.

It's a truism to say, 'there are lies, damn lies and statistics!' The statistics may be true, but the spin attached to them may vary according to the presenter's perspective.

For example, the Commonwealth Statistician was taken to task by a talkback caller because of his Caucasian bias. The statistician acknowledged that it was true that the number of Buddhists in Australia had doubled between the antepenultimate and penultimate census. The caller's accusation of bias was that despite a doubling of this statistic, the options for answering the census' question on religion had remained 'Catholic, Protestant, Jewish or Other'. The statistician's reply was that the doubling took Buddhists from 0.1% of the community to 0.2% – that is, still below the level of statistical significance.

It is important not just to quote statistics, but then to make those figures relevant to the individual patient. Providing statistics is simply providing information. Progressing from that to help patients acquire true knowledge, and from that knowledge wisdom, is an essential part of the art of medicine.

A duty to protect your patient's sexual partner?

Late last year Justice Bell of the New South Wales Supreme Court was faced with determining whether a Sydney-based GP owed a duty of care to the sexual partner of one of his patients.[2]

The plaintiff – known as BT – was the wife of a man (AT) who attended the defendant (Dr Oei) between November 1991 and January 1993. During this time, AT had returned to Dr Oei with recurring fever, aches and pains, and was diagnosed with hepatitis B, urinary tract infection and a kidney stone. Cirrhosis of the liver was diagnosed in January 1993 and AT was referred to a gastroenterologist; he did not return to Dr Oei from this point.

The plaintiff met AT, her future husband, in 1992 and they married in 1994. In February 1993, BT became ill with

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what was subsequently considered to be her seroconversion illness. A diagnosis of HIV infection was confirmed about one year later. Subsequently her husband was diagnosed as HIV positive but he died from liver failure not long after. It was held by the court that AT was probably infected with HIV no later than November 1991, and that he was the source of his wife's infection.

The plaintiff argued that her husband's doctor owed her a duty of care and that he had breached that duty when he failed to diagnose the possibility of HIV infection in her husband and to counsel him as to the need to undergo an HIV antibody test. She asserted that the reasonably competent practitioner in 1992 should have been alert to the possibility of HIV, given the history of hepatitis B and urinary tract infection in a man.

She argued that it was reasonably foreseeable that if AT was unaware of his HIV status he could transmit the virus to his sexual partner. Had he been appropriately counselled, he would have undergone an HIV antibody test and the couple would not have engaged in unprotected sex. This breach of duty materially contributed to the plaintiff's own infection with the virus.

The court agreed with the plaintiff, on the basis of all these factors, as well as a consideration of public policy reflected in the Public Health Act (NSW) 1991 (with respect to the treatment of and supply of information to patients with sexually transmissible conditions).

The doctor's negligence was thus held to be the cause of the plaintiff's injury, despite the fact that she had never been his patient.

Series Editor's comment

The principle that a doctor may have a duty to a third party – who may be known or unknown to the doctor – is not new. In *Tarassoff v. Regents of the University of California*,[3] a psychologist was found negligent because he chose, in order to fulfil his duty of confidentiality to a patient, not to warn the patient's girlfriend that the patient had stated an intention to kill her. The patient did murder the young woman and the psychologist was found to have been negligent in not taking steps to prevent foreseeable harm, even though he had no professional relationship with the woman.

If you misdiagnose an airline pilot's pre-infarction angina as indigestion and the next day he has a major coronary event which leads to a crash, it is possible that injured passengers (or the relatives of deceased passengers) would have grounds for an action against you.

The Dr Oei case was complicated by evidence from a forensic writing expert that despite Dr Oei's statement that all the notes to one critical consultation were contemporaneous, the expert's assessment was that part of the entry was added some time after the rest.

Dr Oei contended that he had suggested HIV testing but that the patient considered that it was not necessary. The patient denied having such a conversation. Dr Oei's credibility in the eyes of the court was damaged by the revelation from the writing expert and hence, on the balance of probability, the court preferred the patient's recollection of the consultation.

The moral is:

- Good records = Good defence
- Poor records = Poor defence
- Altered records = No defence. MT

References

1. Watkins SJ. Conviction by mathematical error? [editorial] BMJ 2000; 320: 2-3.

2. *BT v. Oei* [1999] NSWSC 1082

3. *Tarassoff v. Regents of the University of California* 1976 CA 131 Cal Rptr 14, 551 p2d 334 CA Supreme Court.