stones,¹ and as a cause of radiolucent filling defects in intravenous urograms they must not be forgotten.

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Manslaughter convictions for making mistakes

The real lessons are for training and supervision

Were the two young doctors found guilty of manslaughter over the death of a 16 year old patient with leukaemia rightly convicted? That question may ultimately have to be decided by the House of Lords. Appeals by Barry Sullman, aged 27, and Michael Prentice, aged 25, against their convictions could go to the highest court in the land.

Dr Prentice was a preregistration house officer at Peterborough General Hospital in March 1990 when he injected vincristine (which should have been administered intravenously) into the spine of 16 year old Malcolm Savage, a leukaemia sufferer since the age of 4. Dr Sullman, then a senior house officer in general medicine, supervised. A washout performed after the mistake was realised was unsuccessful and the patient died.

Malcolm Savage was scheduled to receive methotrexate intrathecally and vincristine intravenously. Dr Prentice was told by ward staff that the patient was coming in for his normal lumbar puncture. Neither he nor Dr Sullman had been given any "cockpit drill" on administering drugs. Dr Prentice had never performed a lumbar puncture on an adult and asked Dr Sullman to supervise the procedure. Dr Sullman told the police that he believed he was being asked only to supervise the lumbar puncture not the administration of vincristine, with which he was unfamiliar.

To justify a manslaughter charge, death has to be caused not just negligently but recklessly. But what constitutes recklessness? The judge directed the jury that they should convict if satisfied, firstly, that the defendants created an obvious and serious risk of causing serious harm, and secondly, that they gave no thought to that risk.

The judge felt constrained to give that direction because of two House of Lords cases in 1982 in which the law lords said a defendant could be reckless not only where he knew of a risk of physical harm and nevertheless went on to take it, but also where he gave no thought to the possibility of such a risk.

Lawyers for Drs Prentice and Sullman will argue on appeal that this direction, laid down in a case of reckless driving, should not apply in their case.¹ Their behaviour, their lawyers contend, amounted to no more than "ordinary" medical negligence.

If the House of Lords test stands, arguably it will be the least experienced doctors—those who know so little that an obvious risk never occurs to them—who will be most likely to fall foul of the criminal law. There have been five previous cases in the UK where vincristine has been injected intrathecally, in three of which the patient died. In each case the

doctor administering the treatment was in a better position to know the risks than Drs Sullman and Prentice. One was an experienced senior house officer in oncology, the second an experienced registrar in haematology, and the third a senior house officer in haematology. None was prosecuted.

In the Peterborough case and at least one of the others vincristine and methotrexate were brought into the ward in the same box or bag. Staff at Peterborough told the court they were unaware of published articles warning against this practice.

The data sheet for vincristine states that it should be administered only by or under the supervision of a physician experienced in cytotoxic chemotherapy. The General Medical Council's recommendations for the training of house officers say they should be supervised by a senior registrar, registrar, or senior house officer in the particular specialty. Both juniors were in general medicine, not haematology. The hospital's own handbook for the administration of intravenous drugs imposes an obligation on prescribers of such drugs to make sure that whoever administers them is fully aware of their nature and purpose. It appeared from the evidence that Dr Prentice was told about the problems in administering cytotoxic drugs but was not made aware of the potentially lethal effects.

The consultant haematologist caring for Malcolm Savage told the court he was not aware that Dr Prentice would be administering the drugs. If asked, he would have said that the house officer was not a suitable person to do this, nor Dr Sullman to supervise. A registrar in general medicine told the court he encouraged Dr Prentice and said he should give the injections if supervised. He told him to ask Dr Sullman to supervise if he had done a lumbar puncture before; otherwise he (the registrar) would supervise.

Bringing the full weight of the criminal law to bear on two fledgling doctors will do little to remedy a system which lets juniors loose on patients with too little training, too little support, and too little sleep. As Mr Justice Owen said in passing sentence, "It seems to me that you could have been helped much more than you were helped. This could have ensured that this particular tragedy never happened."

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1 Metropolitan Police Commissioner v Caldwell (1982) AC 341; R v Lawrence (1982) AC 510.