

Confusion over death certification

For many years doctors in Britain have believed that they should not issue a medical certificate of the cause of death in cases that are reported to the coroner. In fact the law, in the shape of Victorian statutes consolidated in the Births and Deaths Registration Act (1953), directs a medical practitioner who was in attendance during the patient's last illness to issue a certificate and to initial Box A on the reverse, but this direction is almost universally disregarded. Common sense suggests that, since many deaths are reported to the coroner simply because the doctor does not know or is not confident about the cause, in such cases he is patently unable to write anything meaningful on the certificate. In other cases, the death is not natural, from a variety of reasons from murder to pneumoconiosis. In all these circumstances the local registrar of births and deaths cannot register the death until the coroner's investigation is complete.

This state of affairs had been accepted by all concerned until the Office of Population Censuses and Surveys issued a new form of booklet containing death certificates in January this year. In the notes to medical practitioners, the former "suggestion" to certifying doctors that, in deaths reported to the coroner they "should not refrain" from issuing a certificate, was altered to "You must complete the certificate . . . even if you believe that the death is one that should be reported to the coroner (ie, violent or unnatural death or sudden death in which the cause is unknown or death in any suspicious circumstances)."

These apparently mandatory directions have caused confusion and consternation among doctors, who have written in numbers to the British Medical Association and other professional bodies to inquire what they should now be doing. Teachers of forensic medicine, who already have difficulty in explaining the rules to students and newly qualified house officers, have the embarrassment of having to teach a conventional rule which is now rather tersely contradicted by the official document.

In a standard reply to the many queries and complaints, Mr A R Thatcher, the Registrar General, claims that it is not a new instruction. Nevertheless, anyone comparing the old and new books can be in no doubt about the definite change in emphasis. Mr Thatcher also claims that the strict interpretation of the law avoids delay in those cases where the coroner decides to take no action when a death is reported to him. As this delay usually consists in the length of a telephone conversation, it seems hardly worth upsetting an established working convention. Furthermore, no consultation whatsoever was made with the medical or legal professions.

Recent surveys have shown that causes of deaths given by clinicians without the benefit of postmortem examination are incorrect in half of cases, half of these being gross errors.¹ If, therefore, doctors are now to be asked to issue certificates speculatively in deaths which they report to the coroner because they are unsure of the cause, there will often be conflicting opinions. This is hardly likely to help relations between doctors and the public.

Dr John Havard, Principal Deputy Secretary of the British Medical Association, has pointed out² that the Births and Deaths Registration Act states that a doctor is *not* required to give a certificate if he is unable to state the cause of death to the best of his knowledge and belief. Thus the Registrar General has no statutory grounds for requiring certificates to be issued

in all cases where a doctor has attended the deceased in his last illness.

The state of affairs is unsatisfactory, not least because no attempt has been made to seek an opinion of those most concerned, the certifying doctors themselves. There is adequate machinery for consultation and advice which could have avoided the present uncertainty among practitioners, students, medical teachers, and even registrars and coroners.

¹ Waldron, H A, and Vickerstaff, L, *Intimations of Quality: Antemortem and Postmortem Diagnosis*. London, Nuffield Provincial Hospitals Trust, 1978.

² Havard, J D J, *The Detection of Secret Homicide*. London, Macmillan, 1960.

New contract "on the shelf"

Two years of hard negotiations were set aside in a few minutes last week when the CCHMS unanimously rejected the pricing of the consultants' new contract. The new contract proposals¹ have now been put "on the shelf" and the CCHMS negotiators given the task of persuading the Secretary of State for Social Services to improve the present contract in two main ways: firstly, by modifying the rules for non-NHS work and, secondly, by obtaining payments for consultants for undertaking additional NHS sessions in exceptional circumstances; in addition, the CCHMS wants the money allocated by the Review Body for emergency recall fees to be added to the recommended increases in basic pay, thus ensuring that all consultants receive the "average" rise of 26% proposed for career grades² (details are at p 1750). The extra money that would have been required for funding the Review Body's pricing of the new contract—an estimated £24 million in a full year—is presumably unavailable for improving the existing contract—though the Government would resuscitate consultants' morale if it found this sum during the negotiations over any readjustment.

The Review Body's failure to price the new contract realistically is a serious blow to the NHS as well as to the Body's own credibility. While not all consultants supported the concept of a work-sensitive contract, most did,³ and there was no credible alternative that would have ensured that consultants' pay reflected their increasing work load and responsibilities. The thinking behind two aspects of the Ninth Report's treatment of consultants is particularly disturbing and hard to comprehend. Firstly, if Sir Ernest Woodroffe and his colleagues were confused by the conflicting interpretation of the funding of the new contract by the DHSS and the profession's representatives why did they not call both sides back and sort out the differences? For a group of eminent and experienced individuals to press on and price such an important agreement while apparently remaining ignorant about this crucial factor seems a strange way of conducting their affairs. Secondly, in pricing several of the identifiable items in the contract why did the Review Body pitch the work of a consultant below that of less skilled doctors working with him? Do its members really judge that a minimum of 10 years' training together with higher qualifications merit such indifferent rewards? Or do they find the idea of a work-sensitive contract for a profession totally abhorrent?

The surprise of the CCHMS meeting was that it did not start by repudiating the Review Body outright. Indeed, such a motion was put later in the meeting but it was defeated by a sizable majority. Instead, guided with commendable restraint

by the two men who have so patiently led the negotiations—Mr A H Grabham, CCHMS chairman, and Mr D E Bolt, the chief negotiator—the committee expressed “a loss of confidence in the present arrangements under which the Review Body operates and deplors the apparent lack of understanding of the nature of consultant responsibility which is revealed in the current report.” It also “urges the Government to enter into discussions with the profession on how to achieve a Review Body system which would command the confidence of the profession.”

Meanwhile the committee is reserving its judgment on its final attitude to the Review Body. Members did not, however, reserve their judgment on Mr Bolt, whose conduct in adversity is an example to all negotiators: they gave him a standing ovation. Such a display of confidence will be invaluable to him and his colleagues in reconstructing an acceptable outcome to the Ninth Report.

¹ *British Medical Journal*, 1978, **1**, 1291.

² Review Body on Doctors' and Dentists' Remuneration, *Ninth Report*, Cmnd 7574. London, HMSO, 1979.

³ *British Medical Journal*, 1978, **2**, 67.

Abnormal cilia

Ciliated cells are found in the epithelium lining the respiratory tract from the nose to the terminal bronchioles, including the paranasal sinuses and eustachian tubes. These cells are also present in the ependyma of the cerebral ventricles and spinal cord and in the lining of the fallopian tubes and efferent ducts of the testes. Electron-microscopic examination of the cilia from these different sites shows that their ultrastructure in cross-section is identical with that of the flagella of spermatozoa,¹ and is common to cilia in other species.²

In cross-section normal cilia consist of nine identical pairs of microtubules arranged concentrically around another central pair of microtubules.³ Each pair consists of an “A” and “B” tubule, and the A tubule of each outer pair is linked by an arm to the B tubule of the adjacent outer pair, and by a radial spoke to the central pair. The A tubules also carry a “dynein” arm, which appears to be essential for ciliary motility.⁴

Structural defects in cilia have recently been reported to be associated with impairment of mucociliary clearance. In Kartagener's syndrome (chronic sinusitis, bronchiectasis, and situs inversus⁵) mucociliary clearance appears to be impaired because of a defect or absence of dynein arms on the outer pairs of ciliary microtubules.⁶⁻⁸ Men with Kartagener's syndrome are usually infertile, but affected women may conceive normally. Spermatozoa from affected men are alive but immotile and show the same defects in the dynein arms as the cilia. Situs inversus occurs in many affected individuals, and possibly this may result from failure of the normal clockwise rotation of the viscera in the embryo through loss of ciliary activity within the archenteron.⁶

Patients with the “immotile cilia syndrome”⁹ may present with chronic respiratory infections and immotile cilia and spermatozoa without situs inversus. More recently, other individuals with the immotile cilia syndrome have been described in whom the dynein arms of the outer pairs of microtubules of cilia and spermatozoa are normal but the radial spokes are defective or absent.¹⁰ One or more pairs of outer microtubules are displaced and the central pair is eccentric.

Affected individuals show impaired mucociliary clearance and immotile sperms.

Impaired mucociliary clearance seems, then, to be associated with structural abnormalities of cilia. Further abnormalities of cilia have been described, including compound cilia with many pairs of microtubules, increase in matrix substance, and absence of the central pairs of microtubules,¹¹ but mucociliary clearance has not been measured in such cases.

The next step is for further electron-microscopic studies to be performed in patients with chronic bronchitis or bronchiectasis, in whom mucociliary clearance is commonly impaired.^{12 13} The interpretation of the reported findings must be cautious, because we are uncertain whether the techniques for rotational imaging of cilia with electron microscopy as originally described have always been used.³ This technique gives better detail and alignment of internal structures within cilia; and if it is omitted in many instances structural defects may appear to be present in otherwise normal cilia.¹⁴

¹ Gibbons, I R, in *The Functional Anatomy of the Spermatozoon*, ed B A Afzelius, p 127. New York, Pergamon, 1975.

² Gibbons, I R, in *Molecular Organization and Biological Function*, ed J M Allen, p 211. New York, Harper and Row, 1967.

³ Allen, R D, *Journal of Cell Biology*, 1968, **37**, 825.

⁴ Gibbons, I R, in *International Conference on Cell Biology*, ed B R Brinkley and K R Porter, p 348. New York, Rockefeller University Press, 1976.

⁵ Kartagener, M, and Stucki, P, *Archives of Paediatrics*, 1962, **79**, 193.

⁶ Camner, P, Mossberg, B, and Afzelius, B A, *American Review of Respiratory Disease*, 1975, **112**, 807.

⁷ Pedersen, H, and Mygind, N, *Nature*, 1976, **262**, 494.

⁸ Afzelius, B A, *Science*, 1976, **193**, 317.

⁹ Eliasson, R, et al, *New England Journal of Medicine*, 1977, **297**, 1.

¹⁰ Sturgess, J M, et al, *New England Journal of Medicine*, 1979, **300**, 53.

¹¹ Ailsby, R L, and Ghadially, F N, *Journal of Pathology*, 1973, **109**, 75.

¹² Lourenco, R V, Loddenkemper, R, and Carton, R W, *American Review of Respiratory Disease*, 1972, **106**, 857.

¹³ Camner, P, Mossberg, B, and Philipson, K, *Scandinavian Journal of Respiratory Disease*, 1973, **54**, 272.

¹⁴ Dewar, A, and Cole, P J, Brompton Hospital, unpublished observations.

Product liability

The campaign to reform the law in Britain on drug liability was set alight by the long-drawn battle for compensation for thalidomide victims. Those injured by thalidomide might well have failed to win compensation, had their case gone to court, for two reasons. Firstly, at that time the legal status of the unborn child was still uncertain; and, secondly, the plaintiffs would have found it difficult to prove that thalidomide had been inadequately tested before it was marketed. Under the law of tort an injured patient can obtain damages only if he can prove that his injury was caused by the drug and that the manufacturer had been negligent. In practice, negligence and causation often turn on a balance of probabilities so that few people have been able to obtain damages as of right.

The Consumers' Association and some lawyers have long argued for the introduction of strict liability over prescribed drugs. With this system the onus is on the manufacturer to provide a defence rather than on the injured person to prove fault. The Consumers' Association argue that the drug companies must be responsible for all their products and that they are the group best able to bear the cost.

The system of determining compensation on the basis of proof of negligence after road-traffic and other accidents has long been regarded as inefficient and unfair.¹ This has provided the main motivation for changing the law, but the law relating to compensation for drug injury is likely to change at the same time. Four bodies have produced specific recommendations: