Classification of perinatal deaths by "clinical cause"

Baird <i>et al</i> ^a	Cardiff Births Survey ^a
Premature, cause unknown	Prematurity
Mature, cause unknown	Anoxia asphyxia
Trauma (• difficulties in labour)	Difficulties in labour (• trauma)
Toxaemia	Toxaemia
Antepartum haemorrhage	Antepartum haemorrhage
Maternal disease	Acute or chronic disease in the mother
Fetal deformity	Congenital malformation
Other causes	Haemolytic disease
	Infection
	Ill-defined or unknown

Both Walker⁷ and Dr McNay and her colleagues have expressed concern that the categorisation of perinatal deaths used by the Cardiff Births Survey differs from that recommended by Baird *et al*.⁸ In fact, the two methods of classification by clinical cause are entirely comparable, which is not unexpected considering that the Cardiff Births Survey was designed and implemented by obstetricians who had arrived in Cardiff from Baird's department (see table). Our anoxia/asphyxia category (mature, unknown) was 68% of the wider group used in our study and showed no trend. The apparently unchanging picture which we described earlier is further confirmed and the cautious comments on the interpretation of these data which accompanied our earlier analysis require no modification.

IAIN CHALMERS
R G NEWCOMBE
H CAMPBELL

Department of Medical Statistics,
Welsh National School of Medicine,
Cardiff

- ¹ Fedrick, J, and Yudkin, P, *British Medical Journal*, 1976, **1**, 738.
- ² Yudkin, P, *British Journal of Obstetrics and Gynaecology*, 1976, **83**, 603.
- ³ Chalmers, I, *Lancet*, 1976, **1**, 1125.
- ⁴ *Annual Report of the Medical Officer of Health for Glasgow for the Year 1967*, p 356.
- ⁵ Chalmers, I, *et al*, *British Medical Journal*, 1976, **1**, 735.
- ⁶ Cole, R A, Howie, P W, and Macnaughton, M C, *Lancet*, 1976, **1**, 767.
- ⁷ Walker, J, *British Medical Journal*, 1976, **1**, 1211.
- ⁸ Baird, D, Walker, J, and Thomson, A M, *Journal of Obstetrics and Gynaecology of the British Empire*, 1954, **61**, 433.
- ⁹ Duncan, A S D, Cardiff Births Survey Coding Rules, 1964.

regarded as being at risk." The high-risk groups, which presumably always obtain the best staff:patient ratio, did not show an equivalent drop in perinatal mortality.

Even though "mature, unknown cause" deaths fell as the induction ratio rises, the association is still empirical as long as the cause is unknown.

ANTHONY LYNCH

West Herts Hospital,
Hemel Hempstead, Herts

SIR,—Dr Margaret B McNay and her colleagues (5 February, p 347) suggest that increased use of induction has contributed to the improved perinatal mortality rate at the Glasgow Royal Maternity Hospital.

The perinatal mortality rate decreased from 33.9 to 22.8 per 1000 births at the Glasgow Royal Maternity Hospital over a period of 10 years, during which time induction increased from 16.3 to 35.6%. The authors invite comparison with other centres. At the National Maternity Hospital, Dublin, the perinatal mortality rate decreased from 38.4 to 16.4 per 1000 between 1966 and 1976 while the induction rate decreased from 23.6 to 10%.¹ Incidentally, the incidence of caesarean section in Glasgow increased from 7.8% in 1966-70 to 12.8% in 1971-5, while in Dublin it fell from 5% to 3.6%. The difference between these figures represents 700 additional women subjected to a major abdominal operation in the practice of this hospital every year. And for what purpose?

Everyone concerned with perinatal mortality agrees that late fetal deaths represent the main problem in contemporary practice, but we cannot accept that the solution is to expose very large numbers of normal mothers and children to the risks of unnecessary medical interference on a routine basis.² The comparison seems to support our viewpoint.

DECLAN MEAGHER
KIERAN O'DRISCOLL

National Maternity Hospital,
Dublin

- ¹ Annual Clinical Reports, National Maternity Hospital, Dublin.
- ² O'Driscoll, K, Carroll, C J, and Coughlan, M, *British Medical Journal*, 1975, **4**, 727.

Experiments with computers

SIR,—As users of the London Hospital computer system we were disturbed at your leading article (12 February, p 404). Your description of the system as a "major project on bed states" entirely fails to appreciate the nature of this development work, which in fact comprises a communication system currently dealing with patient index, waiting lists, admissions and discharges, and laboratory requesting and reporting. It provides as "spin-off" management information such as bed state returns and hospital activities analysis. As well as being acceptable to the great majority of users, it has some obvious advantages over our previous systems. Some of these advantages are quantifiable in monetary terms, but, perhaps more important, doctors' and, we understand, nurses' time is saved by more rapid access to essential information. We should need no reminding of the cost in both time and money of dealing with the ever-increasing amount of data generated in the Health Service; our experience of the London Hospital system suggests that

the wisdom of the Department of Health and Social Security in setting up pilot studies of this nature to deal with these problems will eventually become generally apparent.

It would clearly be impossible within the confines of your correspondence columns to detail the evidence for our views. There are, however, two further points which we should like to take up.

Your editorial comment is derived from the findings of the Public Accounts Committee, which indeed criticised the delays in implementation of the project and consequent cost rises. But the committee also recorded its satisfaction at the view of the DHSS that the London Hospital had managed a difficult experiment with considerable success. We must point out that a significant portion of the delays was due to the reorganisation of the Health Service, which made it necessary to redesign some of the systems, the original plans for which had been drawn up before reorganisation was conceived.

The bald assertion that the "all-singing, all-dancing" computer must go and be replaced by simple systems also requires a comment. We take it from the tenor of your article that the London Hospital system is included in the category thus anathematised; but we would point out that the knowledge of patient identification and location information that this system holds allows other more clinically orientated subsystems to be attached to it with ease and economy, and information can readily be made available at the time when it is needed and at the place where it is required. This would not be the case if numbers of small "simple" systems sprang up in an uncoordinated fashion. Widespread use of the type of system we have may not, for financial reasons *inter alia*, be feasible in the immediate future; but it would be regrettable if we all refused to see farther ahead than the end of our noses, for it may well be that well-developed systems of this nature will make an essential contribution to the containment of the organisational problems of hospitals in the 1980s. We understand that experience abroad is already beginning to point towards this view.

R A HENSON
Chairman

H D RITCHIE
Vice-Chairman,
The London Hospital and
Tower Hamlets Medical Council

The London Hospital (Whitechapel),
London E1

Detection of the carrier of haemophilia

SIR,—Your leading article (20 November, p 1217) describes the efforts that have been made to detect carriers of haemophilia. Although the method which uses the relation of factor VIII-clotting activity and factor VIII-associated antigen seems to achieve this goal to a considerable extent in the hands of a few authors, a definite answer cannot be given at the present time because of false-positive and false-negative results. Obviously, there is a need for additional diagnostic tests.

We would like to draw your attention to haemorrhagometry, an *in-vivo* method measuring bleeding time as well as bleeding intensity and blood loss from a small skin wound.¹ Coagulation factor deficiencies can be detected simply by measuring bleeding time when the wound is cooled to 17°C

SIR,—The excellent article by Dr Margaret B McNay and others (5 February, p 347) gives good statistical evidence for there being an association between a lowered perinatal mortality rate and a raised induction rate over a 10-year period. It also makes it clear that over the same time (1966-75) there were improvements in "standards of antenatal, intrapartum, and paediatric care." Standards do not lend themselves easily to statistical analysis, but perhaps the authors have statistics available to tell what the staff:patient ratio was over the 10 years in the maternity units studied?

The number of singleton deliveries fell by more than a third from 6106 in 1966 to 3858 in 1975. Did the staff:patient ratio remain unaltered? Clearly higher numbers of staff available (medical and supporting—laboratory, ambulance, switchboard, maintenance, porters, etc) per patient (mother or child) improve patient care. Is not one of the values of induction that delivery is timed in daylight hours when the best staff coverage is to hand? The analysis showed significantly that perinatal mortality dropped most for primigravidae aged 20-29, a group "not generally

("cold tolerance test").² Our findings with the cold tolerance test applied to potential carriers of haemophilia were presented at the Fifth Congress of the International Society on Thrombosis and Haemostasis in Paris in 1975.³ They have now been extended and we have obtained the following results.

A total of 25 carriers (mothers and daughters of haemophiliacs) were examined. The differentiation into "proved" and "probable" carriers was in accordance with the criteria used by Nilsson *et al.*⁴ Considering the fact that haemophilia may be due to spontaneous gene mutation in some instances, a woman who has one haemophilic son while no further case of haemophilia is known among her relatives is called a "probable" carrier.

Haemorrhagometry: Cold tolerance test in normals and proved and probable carriers of haemophilia.

The figure shows the bleeding times observed with the cold tolerance test. The normal range—that is, up to 14.3 min—is indicated by the shaded area (based on the one-sided non-parametric upper tolerance limit, thus covering 95% of the population whatever the distribution). Of the 25 carriers, 21 had bleeding times outside the shaded area, which means that they can be identified by this method. For the proved carriers the rate of "false-negative" results is even smaller: Only two out of 19 proved carriers showed normal bleeding times with the cold tolerance test. Thus an estimate of the probability of false-positive results is 0.05 by definition and the probability for "proved" carriers to show false-negative results can be estimated as $2/19 = 0.105$.

When the cold tolerance test with the haemorrhagometer was applied to female relatives of haemophiliacs who were not necessarily carriers on genetic reasons—for example, aunts and sisters of haemophiliacs without male offspring ("potential" carriers)—10 of 18 had prolonged bleeding times, which is in fair agreement with the probability of 0.5 to be expected theoretically.

Thus the haemorrhagometry cold tolerance test provides a further diagnostic tool for detecting carriers of haemophilia.

A H SUTOR
C JESDINSKY-BUSCHER

Universitäts-Kinderklinik,
Freiburg im Breisgau,
W Germany

¹ Sutor, A H, *et al*, *American Journal of Clinical Pathology*, 1971, 55, 541.

² Sutor, A H, Bowie, E J W, and Owen, C A, *jun*, *Blut*, 1971, 22, 27.

³ Jesdinsky-Buscher, C, and Sutor, A H, *Blut*, 1976, 33, 83.

⁴ Nilsson, I M, *et al*, *Acta Medica Scandinavica*, 1962, 171, 223.

*This is an interesting approach to the diagnosis of carriers of haemophilia and looks promising in the hands of the Freiburg workers. The method consists of continuous irrigation of a standard skin wound with cold

distilled water. The haemolysed blood from the wound is then passed through a photometer, where the haemoglobin content is measured and continuously recorded on a moving-pen recorder. If the above results are confirmed by other workers, preferably in a blind study, then haemorrhagometry may be a useful addition to the tests at present used for the detection of carriers of haemophilia.—ED, *BMJ*.

Royal College of General Practitioners

SIR,—According to Dr Ian Capstick (5 February, p 373), members of the Royal College of General Practitioners "are weakening, losing enthusiasm, and have doubts." But surely this happens to the members of any large corporate body after the first few years of its existence. A group of doctors, like any other group of people, consists of a small core of energetic enthusiasts and a large mass of members who grumble at their leaders' actions but do precious little themselves about altering the status quo.

As a foundation member who does not enjoy committee work and whose energy and enthusiasm have been largely diverted into other channels I have stood admirably on the sidelines watching the college gain in stature and recognition over the years. I am sure it will go from strength to strength. General practitioners who are well known for their research and educational activities but have remained outside the college are few in number, whereas hundreds of college members have advanced the status of general practice in both these fields.

As far as general policies are concerned the college leaders would be the first to admit that mistakes have been made, as happens in the early years of any new major organisation, but they have shown that they have been willing to learn from their mistakes and are happy and willing to accept constructive criticism.

The college now requires a fresh impetus in the opinion of many doctors both inside and outside its portals. It could well come from literate enthusiasts such as Dr David Cargill (19 February, p 508). Why can't David Cargill and others who think along similar lines join or rejoin the college and reform it from within? I can guarantee from my own experience of serving for short periods on two college faculty boards and from having contacts with members as lecturer and tutor that they will be given a fair hearing at all levels in the college. Positive suggestions put forward will be debated fairly. Constructive criticism from within the college is more valuable than from outside it, as it is more informed. There can never be too much of it!

DENIS CRADDOCK
Honorary Librarian,
Royal College of General
Practitioners

S Croydon, Surrey

"Act of Rape"

SIR,—On 22 January a television programme entitled "Act of Rape" was presented on BBC2. It consisted of a play "based on recent court cases" followed by a panel discussion. Many of our members have complained about the impression the play set out, apparently quite deliberately and certainly successfully, to give of the police and to a lesser extent the

police surgeon—the plaintive cries and later screams of the victim while in the surgeon's room together with the fact that the police officers outside could hear everything that was going on therein gave an impression of a complete disregard by the police surgeon of normal medical ethics and courtesy to his patient. The doctor and the senior police officer on the panel were repeatedly interrupted by the interviewer, who allowed uncomplimentary remarks by the other members of the panel to go unanswered.

We would stress that this association and indeed our police colleagues would not tolerate such behaviour by a doctor, who would be very quickly removed from the police surgeon's rota. We concede, as Barbara Torner, author of the recently published report *The Facts of Rape*,¹ has implied in her chapter on the medical and forensic examination, that all is not well in some areas and that there is room for improvement in these areas, but she has written a fair and well-balanced chapter which gives a much more truthful picture of the subject than the BBC programme.

Since 1967 this association has been pressing for proper medical facilities at police stations and indeed in 1968 sent recommendations to the Home Office for the design and equipment of medical rooms. Following our evidence to the Heilbron Committee² Home Office inspectors of constabulary have notified chief constables that these facilities will be specially inspected this year. We hope economic reasons will not be the excuse for failing to bring medical facilities up to the proper standard, as the cost of providing these at one police station is less than the cost incurred in the investigation and subsequent trial of a rape case. Furthermore, while deploring the type of behaviour shown on the programme, this association by education and example continues to improve the conduct of these examinations. Most police authorities now actively encourage their appointed police surgeons to become members of the association and from our personal knowledge of our members we are sure that they do strive to carry out a difficult and sensitive task with the dignity and professionalism they would expect to be shown to one of their own family in such circumstances.

F A GABBANI
President

H DE LA HAYE DAVIES
Honorary Secretary,
Association of Police Surgeons
of Great Britain

Rotherham, S Yorks

¹ Torner, B, *The Facts of Rape*. London, Arrow Books, 1977.

² Home Office, *Report of the Advisory Group on the Law of Rape*. London, HMSO, 1975.

Radiation-induced breast cancer

SIR,—Your leading article on radiation-induced breast cancer (22 January, p 191) may have produced some apprehension over the use of mammography. The report on your article by the medical correspondent of *The Times* (21 January, p 5) appeared under the headline "Doctors say x-ray testing may lead to breast cancer." Phillip Strax recently told me that in the USA many women have overreacted to similar reports and some are refusing mammography where there are clear clinical indications for it.

The uncertainty surrounding radiation risk estimates is well documented by Goss,¹ and