

Letters

Necropsy organ weights are largely useless

In 1993 the Royal College of Pathologists published *Guidelines for Post Mortem Reports*.¹ The guidelines may well have led to improvements in necropsy practice but were unreferenced and their evidence base was unstated. They have been used as a gold standard for audit of necropsy reports,² and reiterated in an editorial in this journal.³

Most of the guidelines are sensible but I question the recommendation, in adult necropsies, of routine weighing of organs. Excluding the heart, the weighing of which can provide important information (particularly when the ventricles are weighed separately), organ weights are of little or no value.

The apparent weight of an organ depends on dissection technique and on the accuracy of the weighing balance. In common with other branches of pathology, a numerical result should always be accompanied by the normal range, corrected for the patient's sex, age, and body size. I suspect very few of us comply with this basic rule. However, even if we were to provide reproducibly accurate and referenced weights, they would not be of use to our clinical colleagues, who are accustomed to clinical evaluation of organs, supplemented by imaging techniques in which, at most, a single linear measurement of an organ is given. To be of use, our necropsy practice should reflect these assessments.

The purpose of the necropsy report is to communicate the findings of the necropsy to others, be they clinicians, coroners, or others. We should stop this ritualistic, pseudoscientific practice and concentrate on providing a relevant, meaningful service to our colleagues.

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- 1 The Royal College of Pathologists. *Guidelines for post mortem reports*. London: RCPATH, 1993.
- 2 Williams JO, Goddard MJ, Gresham GA, et al. Audit of necropsy reporting in East Anglia. *J Clin Pathol* 1997;50:691-4.
- 3 Start RD, Cross SS. Practice guidelines for necropsy: time for action. *J Clin Pathol* 1996;49:867-9.

We obtained the following comments on this letter:

From Dr R D Start

Dr Barker is correct in his statement that the Royal College of Pathologists' publication *Guidelines for Post Mortem Reports* has led to improvements in necropsy reporting.¹ This is clearly evident within recent reports of the National Confidential Enquiry into Perioperative Deaths (NCEPOD).² The necropsy report guidelines currently provide the only national audit standard for the quality of necropsy reports and I would agree that an appropriate evidence base is desirable. This was one reason behind my suggestion for national practice guidelines for necropsy.³

I am surprised that the routine weighing of organs is in question. Normal organ weight

ranges, corrected for patient sex, age, and body size, are available and can be used if necessary. Some variation may occur with dissection technique but this would be consistent for individual pathologists and could be addressed in any national practice guidelines. Facilities for weighing bodies and organs are fundamental requirements for any mortuary and accuracy is simple to achieve. The suggestion that we stop this "ritualistic, pseudoscientific practice" in order to communicate relevant findings to our colleagues by way of other variables such as a single linear organ measurement is illogical and unacceptable. Linear measurements of focal abnormalities complement gross necropsy findings and allow comparative audit of modern imaging techniques, many of which now give measurements in three dimensions. Supplementary information can also be provided by the dissection of organs in the planes of examination typically seen in modern imaging techniques.

Most clinicians, coroners, and (possibly more importantly) relatives are able to comprehend the concept that organs are abnormal when organ weights are put in the context of normal ranges, particularly if the organ is several times the average normal weight for an individual of similar size, sex, and weight. Although I am unable to provide a specific evidence base to support the use of organ weights, the reasoning behind not providing them is difficult to comprehend, particularly when the most recent major regional audit of necropsy reporting in East Anglia (including Norwich?) found "all pathologists agreed the value of routine weighing of heart, lungs and brain."⁴ I hesitate to suggest that organ weights may be an indirect measure of necropsy quality because through personal experience I have found not only that high quality necropsy reports can be generated from appalling necropsies but also that seemingly accurate organ weights can be determined without removal from cadavers.

More questionable than organ weight measurement is the reported desirability of histological examination in all necropsy cases. There is an increasingly vocal body of opinion within the profession which disagrees with this requirement and the same audit of necropsy reporting in East Anglia provided useful data in relation to the sensible use of histology in necropsy practice.⁵ Such evidence must be incorporated into any future national guidelines for necropsy practice in order that the guidelines reflect the views of most practising pathologists, rather than those of a few interested individuals who perform few, if any, necropsies.

Our principal aim should not be for more necropsies but for better quality necropsies, which are fully supported by a system of formal quality assurance. The Royal College of Pathologists has a major part to play in this process and in recent years has overlooked the necropsy in favour of diagnostic histopathology and cytopathology. The intermittent production of necropsy related guidelines has been useful but a complete reappraisal of all necropsy related matters is urgently required at a national level. Other countries have already addressed these issues⁶ and this is presumably one reason for the commissioning of a Royal College of Pathologists Working Party to examine the current status of necropsy in the United Kingdom.

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- 1 The Royal College of Pathologists. *Guidelines for post mortem reports*. London: RCPATH, 1993.
- 2 The Royal College of Surgeons of London. *National enquiry into perioperative deaths (NCE-POD)*. London: RCS, 1998.
- 3 Start RD, Cross SS. Practice guidelines for necropsy: time for action. *J Clin Pathol* 1996;49:867-9.
- 4 Williams JO, Goddard MJ, Gresham GA, et al. Audit of necropsy reporting in East Anglia. *J Clin Pathol* 1997;50:691-4.
- 5 Williams JO, Goddard MJ, Gresham GA, et al. The use of histopathology in the practice of necropsy. *J Clin Pathol* 1997;50:695-8.
- 6 Hutchins GM, Glenn GC. Practice guidelines for autopsy pathology. *Arch Pathol Lab Med* 1994;118:19-25.

From Dr M J Goddard

In our paper,¹ we included the measurements of major organ weights (heart, lungs, brain, liver, and kidneys) as one of the audit criteria. We do not consider this a gold standard but set this audit standard on the basis of the guidelines of the Royal College of Pathologists, together with a consensus view of the pathologists whose reports were used in the audit.

It is interesting to note that in the audit, this was the area of the internal examination which was done least well, with only 73% of reports recording all five weights in the initial audit, improving to 84% at the time of re-audit. This could be taken to suggest that at least a proportion of pathologists are unwilling to record data that they perceive as meaningless.

As one of the pathologists who reviewed the necropsy reports at the time of the audit, I would have to say that there were very few if any instances where the weight of the organ other than the heart contributed to the quality of the report. I would have to agree that from my own personal viewpoint, together with my impressions gleaned from the audit, the routine weighing of organs serves no useful purpose, provides no information to clinical colleagues, and should cease.

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- 1 Williams JO, Goddard MJ, Gresham GA, et al. Audit of necropsy reporting in East Anglia. *J Clin Pathol* 1997;50:691-4.

Book reviews

The Science of Laboratory Diagnosis. Edited by J Crocker and D Bumett. (£59.95.) Isis Medical Media, 1998. ISBN 1899066 62 4.

The editors have done a marvellous job, more than fulfilling their stated aim of producing a volume describing the multidisciplinary state of modern pathology which will be of interest to a wide range of readers. The book is beautifully produced with excellent colour photographs and line diagrams which clearly explain the practicalities described in the text. I was particularly

impressed by the many tables and flow charts, which can be used as aids to decision making.

All aspects of pathology are covered and it is very easy to find the specific information one needs; the first page of each chapter has its own index, there are summaries of topics at the top of each page, and the general index is detailed and comprehensive. Each subject is clearly introduced with relevant background information. Practical details are easy to follow and alternative methods discussed. Attention is paid to the interpretation of results and to the use of quality controls. At the end of each chapter future directions are covered and there is a useful further reading list. The unifying theme to the book is the application of similar methods to different disciplines. Microscopy and molecular techniques are referred to frequently and it is obvious that a common language is developing between pathologists. This welcome situation will be helped considerably by this work, which should be on the bookshelf of every laboratory. The availability of a version on CD-ROM will increase its appeal.

D M BARNES

Oxford Handbook of Clinical Immunology. By G Spickett. (£19.95.) Oxford University Press, 1999. ISBN: 0 19 262721 X.

Immunologists may well wonder whether there is any need for another volume to complement the many excellent texts that already exist on clinical immunology. Gavin Spickett explains why he wrote the book, saying it was for selfish reasons in that the book that he would like to have had was not available when he was a trainee. Therefore the volume has to be assessed from two points of view: first, does it fill a need in the market, and second, does it meet Dr Spickett's own requirements?

In my opinion the answer to both questions is yes. The volume is up to date, comprehensive, and easily referenced. The text includes information on both clinical and laboratory

immunology and has useful appendices on quality and managerial issues which laboratory trainees will find particularly valuable. Skipping through the volume, I find it is generally very up to date, for example the section on X linked lymphoproliferative disease identifies the cloned gene, information about which was only published in *Nature* in October 1998.

In a volume such as this, one's attention tends to get drawn to areas of one's own particular interest and not surprisingly not all contributions are similarly up to date. I found it surprising that the section on HIV infection did not mention combination antiretroviral therapy, particularly protease inhibitor therapy, or viral load testing in any detail, and also indicated that there was no value in sequential monitoring of CD4 counts once they had fallen below 0.05—information that is clearly incorrect following the advent of new treatments.

However, such criticisms are minor in what is otherwise an excellent volume, and I applaud Dr Spickett's omission of fundamental immunology which has little or no place in such a book. I think that immunology trainees will find this volume invaluable, as will most of their trainers, but whether the market will be larger than the 150 or so individuals that this group comprises remains to be seen. I certainly cannot see many SHOs in general medicine carrying this book alongside the many other small slim volumes that currently sit in RMO's pockets, but I may be proved wrong on this too.

GRAHAM BIRD

Correction

Because of an error in the publishing process, Dr Ibrahim's Best Practice article in the February issue (Guidelines for handling oesophageal biopsies and resection speci-

mens and their reporting, vol 53, no 2, pp 89–94) has been numbered 155 instead of 156. Reprints of this article will be numbered correctly, as will references to the article in our in-house Best Practice advert that appears at the end of each issue. We apologise for this error.

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References

- References must be numbered in the order they appear in the text and include all information (Vancouver style; references with more than three authors should give only the first three followed by *et al*):
 - 1 Fletcher CDM, McKee H. Sarcomas - a clinicopathological guide with particular reference to cutaneous manifestations. I. Dermatofibrosarcoma protuberans, malignant fibrous histiocytoma and the epithelial sarcoma of Enzinger. *Clin Exp Dermatol* 1984;9:451-65.
 - 2 Washington JA. Conventional approaches to blood culture. In: Washington JA, ed. *The detection of septicemia*. West Palm Beach, Florida: CRP Press, 1978:41-87.
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 - 1 International Committee of Medical Journal Editors. Uniform requirements for manuscripts submitted to biomedical journals. *BMJ* 1991;302:338-41.
 - 2 International Committee of Medical Journal Editors. Protection of patients' rights to privacy. *BMJ* 1995;311:1272.

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Revised Mar 2000



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