

Rosenfield's article [3] which illuminates dry history by giving us a glimpse of the squabbling, intrigue, personal animosities and ambitions of a small group of erstwhile friends, colleagues, collaborators and competitors. It also provides a more realistic view of the discovery of Rh and gives us a sense of perspective beyond the simple attribution of credit for the term Rh.

## References

- 1 Landsteiner K, Wiener AS. An agglutinable factor in human blood recognised by immune sera for rhesus blood. *Proc Soc Exp Biol Med* 1940;**43**:223.
- 2 Levine P, Stetson RE. An unusual case of intra-group agglutination. *JAMA* 1939;**113**:127-7.
- 3 Rosenfield RE. Who discovered Rh? A personal glimpse of the Levine-Wiener argument. *Transfusion* 1988;**29**:355-7.

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## Organisation of clinical audit

Editor—In a recent thoughtful and stimulating article in the *Journal* (September/October 1996, pages 415-25) Dr Anthony Hopkins outlined some of the difficulties in carrying out effective clinical audit. He seems to recommend dismissing the audit staff in trusts and devolving more to the directorates.

In our trust the directorate audit activities listed by Dr Hopkins as desirable and feasible, are already supported by the audit department and have been for several years. If I may quote one of our consultants in a letter to us, 'I much appreciate your enthusiasm and professionalism and I have to say without you...there wouldn't have been much audit'. Closing the audit department would not seem an 'evidence-based' procedure here!

Dr Hopkins also raises concerns about, 'Audit assistants...who try to impose...insufficiency of knowledge on the directorate'. Obviously this is unacceptable, but the answer surely is for trusts to be

careful whom they employ and how they are managed. Of course some audit is not very well carried out, but this is hardly unique to audit. A lot of so-called 'research' is, to quote the *British Medical Journal*, 'a scandal' [1].

There are also bound to be some tensions in carrying out audits, both between clinicians, and between clinicians and support staff. It would not seem very constructive to dismiss all audit staff on this basis.

## Reference

- 1 Altman DG. The scandal of poor medical research. *Br Med J* 1994;**308**:283-4.

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## Valvular heart disease

Editor—The paper *Valvular heart disease: recommendations for investigation and management* (July/August 1996, pages 309-15) is obviously a valuable reference source and gives clear advice. However, I was disappointed to find, in the section dealing with valvular heart disease in pregnant patients, the advice that 'epidural anaesthesia should be avoided because of the risk of hypotension'.

The choice of anaesthesia for parturients with heart disease is not that simple. There are cardiac problems, usually those causing fixed or limited cardiac output, in which regional anaesthesia (more particularly, subarachnoid anaesthesia) is unwise because a rapid decrease in systemic vascular resistance may indeed cause a significant irrecoverable fall in systemic blood pressure. Nevertheless, there are other circumstances in which regional anaesthesia or analgesia may be beneficial. It must also be remembered that epidural analgesia can be given in such a way that hypotension is unlikely. The parturient experiences good pain relief and avoids the far-reaching

systemic consequences of unopposed severe pain.

The choice of anaesthesia for operative obstetrics is also complex. Balancing the risks and benefits of regional analgesia, systemic analgesia and general anaesthesia for operative delivery can only be done effectively by a team approach which can draw on the expertise, not only of cardiologists but of obstetricians and obstetric anaesthetists. Indeed, a most important recommendation which this article omitted, was for consultation between cardiologists, specialist obstetric anaesthetists and obstetricians to take place initially early in pregnancy and at regular intervals thereafter. Co-ordinated care involving obstetric anaesthetists and obstetricians, as well as cardiologists, is essential if errors or omissions of care are to be avoided in these high risk parturients. I was particularly surprised that this advice was not included, given the earlier exhortation in preceding paragraphs to involve a wide range of specialists, such as microbiologists, in the care of patients at risk of developing infective complication of their heart disease.

Maternal mortality from cardiac disease had shown little improvement until the 1991-3 Confidential Enquiry into Maternal Deaths, so I hope that there may be an opportunity for the Guidelines to be reviewed at some stage. Inclusion in your guidelines of recommendation for the involvement of a wide range of specialists in the care of parturients with heart disease may be timely and invaluable.

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## In response

Editor—We thank Dr Thomas for his comments. Clearly a detailed discussion of the complex field of obstetric anaesthesia is beyond the scope and remit of these guidelines. We merely wished to highlight the potential for a fall in