Anaesthesia datasets

Sir,—While I agree with the need for a minimum dataset for anaesthetic logbooks, particularly in light of the forthcoming changes in training, I am a little perturbed by the inclusion of names and dates of birth of patients.

Drs Lack, Stuart-Taylor and Tecklenburg [1] describe a minimum dataset for anaesthetic logbooks. In the data fields described, the name and the date of birth of patients are included. No distinction was made as to whether the ('electronic') logbooks were to be held on 'home' computers or on 'hospital' machines. According to the Data Protection Act of 1984 [2], records of the type described about living, identifiable individuals, place obligations on those who record and use personal data. The users must be open about this use through the Data Protection Register. The Act does not cover information that is held and processed manually (ordinary paper files), and there are other exemptions, but many data users may find that as they cannot rely safely on the exemptions, they will need to register under the Act.

While departmental logbooks would be covered by registration of the hospital, individual logbooks on personal computers would not.

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Sir,—I am sorry that our article was not clear enough; the dataset referred to is for anaesthetic records of any type, not just logbooks.

I entirely agree on the subject of inclusion of personal identifiers in records; it is a very difficult topic. Clearly, any record of anaesthesia has to contain personal identifiers, and it is difficult to see precisely when, in the process of aggregation to produce reports and statistics, one should remove them. On the one hand there is a very understandable wish for a clinician to be able to review all the records of any particular recorded complication, but on the other hand, clinicians might take a very different view about recording complications if the reviewer were a lawyer!

The Royal College has set up a working party under the chairmanship of Professor Adams to discuss the content of both the anaesthetic record and the logbook, and it will report in due course. The minimum dataset (which we wrote about for records) and the recommended content of both (which has yet to be decided) are different.

Logbooks are a required part of training, but their value has been discussed endlessly. College visitors reviewing paper logbooks frequently find them almost worthless, containing much data but little information. Statistics from paper records are negligible. For this reason we produced an agreed report format so that when the statistics are produced, there is a known "form" to complete, so that college visitors can compare like with like.

The move from paper to electronics is inevitable, but the content of the record will not necessarily be different, and our discussions are not centred around this issue, but rather what it is reasonable to require in a recording. Your correspondent's comments about the Data Protection Act are both true and helpful, and we shall take them into account when we reach that stage.

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Risk of aspiration with the laryngeal mask

Sir,—In their recent article relating to regurgitation and aspiration with the laryngeal mask airway [1], Akhtar and Street made no prediction of the expected incidence of regurgitation or aspiration, despite the availability of such data from previous studies, nor did they state the magnitude of a difference between the two groups which they would consider clinically important. Thus they seem to have made no calculation of the sample size necessary to measure the incidence with confidence or to detect a statistically significant difference between their ventilated and spontaneously breathing groups. The incidence which they reported was 4%.

However, in a sample size of 50, the 95% confidence intervals are 0.49 to 13.71% (Geigy Scientific Tables; exact confidence limits).

The authors stated correctly that they found no statistically significant difference in the incidence of regurgitation between patients breathing spontaneously or undergoing ventilation via an LMA. Their data do not show a statistically significant difference in the incidence of aspiration. I have estimated the sample size necessary to show a difference in incidence of 1% from the previous greatest incidence of 0.8% quoted by them [2]. The sample size needed to show a difference of 4% would be approximately 350.

Although the sample used is clearly too small to achieve the authors' aims, the finding that in the patient who regurgitated, the fluid was dispersed into the bronchial tree is interesting and may merit further investigation.

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Acid aspiration syndrome in obstetrics

Sir,—The editorial on the latest Confidential Enquiry into Maternal Deaths raised the question of whether or not prophylactic lactic antacid therapy during labour should be restricted to only those women deemed to be “at risk” [1]. Although it is not possible to prove a causal relationship, there has been a decrease in the incidence of fatal obstetric acid aspiration syndrome during the past 10 yr in parallel with the increased prophylactic use of H2 receptor blocking drugs in labour [2]. Undoubtedly, improved training and increased use of regional anaesthetic techniques have contributed significantly, but we believe that the value of routine use of ranitidine in labour should not be underestimated.

Sodium citrate alone, as a single preanaesthetic dose, or multiple doses during labour, failed to reliably increase intragastric pH above 3 [3]. However, pH values greater than 3 were achieved with regular 6-hourly oral ranitidine, commenced at the onset of established labour and then combined with a preanaesthetic dose of sodium citrate [3].

Several obstetric units have adopted the policy of targeting ranitidine prophylaxis at high-risk patients (rather than pre-
scribing blanket prophylaxis for all patients), knowing that there will always be obstetric patients who are unexpectedly put at risk of acid aspiration syndrome, because of obstetric or medical emergencies. When targeting fails, these units often resort to administering parenteral ranitidine at the time of the decision to operate, in the belief that such therapy provides rapid protection. We have recently simulated the pharmacological events of such an unexpected surgical intervention during labour. We continuously measured intragastric pH for 15 min after the first dose of oral, i.v. or i.m. ranitidine. We found that parenteral ranitidine was as ineffective as oral ranitidine in increasing pH during this brief period, indicating that late administration cannot provide reliable prophylaxis. Obstetric patients missed during targeting are therefore put at risk of acid aspiration syndrome.

The article also implied that treating all women in labour had "considerable financial implications". We believe that the potential benefits justify the average cost of 64–72 pence per patient (the total price of two 150 mg ranitidine tablets).

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Sir,—In the editorial on the latest Confidential Enquiry into Maternity Deaths I raised the question "should all women in labour have antacid prophylaxis or should it be given only to those at risk?". In this question I was taking into account what is current practice countrywide and indirectly I was questioning the reasons for the overall poor uptake of routine acid aspiration prophylaxis.

The most recent survey of acid aspiration prophylaxis in 202 obstetric anaesthetic units in the United Kingdom [1] showed that the routine use of ranitidine in labour has decreased since previous surveys. At present 43% of departments do not give acid aspiration prophylaxis to women in active labour compared with 25% in 1986 [2] and 18% in 1984 [3]. We can only assume that the reasons for some units not offering routine prophylaxis is in part because of cost and in part because of a lack of conviction about its efficacy in reducing maternal mortality.

I am myself convinced that the potential benefits of routine acid aspiration prophylaxis provide a compelling reason for its use and in the Leicester Royal Infirmary Maternity Unit all women in established labour receive ranitidine 150 mg 6-hourly combined with a preanaesthetic dose of sodium citrate.

It will be interesting to observe if the effect of the current lower countrywide use of acid aspiration prophylaxis is reflected in an increase in maternal mortality as a result of acid aspiration in the next triennial report.

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Multimodal analgesia before thoracic surgery

Sir,—We congratulate Kavanagh and colleagues [1] on their carefully carried out study which failed to show an effect of pre-emptive multimodal analgesia on pain after thoracic surgery. Our own research has demonstrated directly contrasting results [2] and we would like to take this opportunity to offer some opinions for these discrepancies.

We would agree with the comment of these authors that their pre-emptive analgesic regimen was possibly ineffective. The afferent block chosen was three intercostal nerve blocks. In addition to the lack of effect of this technique on phrenic, vagal and sympathetic afferents, as stated in their article, we believe the extent of the somatic block was also inadequate. As a standard posterior thoracic analgesia involves up to seven intercostal nerves and another one or two with chest drain insertion [3], three intercostal blocks would be unlikely to comprehensively inhibit afferent impulses occurring during chest wall retraction.

In investigating balanced, pre-emptive analgesia, we have found in contrast a remarkable degree of efficacy, which not only prevented postoperative pain but preserved preoperative lung function after operation and also attenuated stress responses to surgery [2]. We used a similar opioid and non-steroidal anti-inflammatory (NSAID) regimen but the afferent block chosen was paravertebral analgesia. After a single percutaneous paravertebral injection of 0.5% bupivacaine 15 ml, we observed a mean sympathetic block of eight dermatomes as evidenced by ipsilateral skin warming on thermography, with a mean somatic block of five dermatomes [6]. The extent of the block was therefore greater and the sympathetic chain was reliably blocked.

A further important difference between our work and that of Kavanagh and colleagues is that we maintained our three analgesic components (afferent block, regional NSAID and on demand opioids) for the first 5 days after operation. Failure to do so probably allows the development of peripheral and central sensitization in the postoperative period, therefore negating the benefit of the pre-emptive regimen. This has been suggested previously [7] and perhaps a comparison of these two studies is confirmatory clinical evidence for this view.

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