Letters

Treatment for haemophilia by postcode

EDITOR—Recently the United Kingdom Haemophilia Centre Directors Organisation issued evidence based guidelines on therapeutic products for treating haemophilia. Before finalisation the draft guidelines were circulated to professional societies, royal colleges, and departments of health and modified accordingly. The final guidelines were unanimously approved at the organisation's annual geneal meeting and published.[1]

One recommendation was that the treatment of choice for haemophilia A was recombinant factor VIII concentrate (rFVIII). This is because plasma derived factor VIII concentrates (pdFVIII) still transmit viral infections—for example, those caused by non-lipid coated viruses such as hepatitis A and parvovirus—despite the incorporation of viral inactivation steps in the manufacturing process.[2 3] At present the licenced rFVIIIs contain human albumin as a stabiliser but there are no reports of viral transmission by it and manufacturers are developing non-plasma derived stabilisers. Despite concern that rFVIII may contain neoantigens, the incidence of anti-factor VIII antibodies is probably similar to that after the use of pdFVIII concentrate.

rFVIII is more expensive than pdFVIII. Value added tax has been imposed recently, thus increasing the cost by a further 17.5%. As we recognised that purchasers would probably not want to change all patients immediately to rFVIII the guidelines suggested those patients who should be offered it first: those who had not been exposed previously to pdFVIII (mostly babies with severe haemophilia) and those not infected with hepatitis C virus (mostly children). This policy is in keeping with practice in Western Europe and North America, where about half of all therapy is with rFVIII concentrate.

The implementation of the recommendations on rFVIII by purchasers has been variable. For example, in the south of England, Scotland, and Northern Ireland rFVIII is becoming available for the high priority patients. In other areas some directors of public health have stated that rFVIII should not be prescribed, whereas others in neighbouring districts are funding rFVIII so that treatment choice depends on the patient's post code. There are thus widely divergent arrangements for treatment with a drug that is perceived by physicians, patients, and parents to be safer than the cheaper plasma derived concentrate. The consequence is likely to be that some patients will move to districts that do pay for rFVIII, thus increasing the financial burden further for the new purchasers. An intolerable situation will arise when a patient currently receiving rFVIII has to move to a district that does not fund this and he is consequently switched to pdFVIII.

Before the publication of the guidelines the department of health informed all directors of public health in England that purchasers should make their own evaluation of the benefits of rFVIII before allowing it to be purchased. As a result various consortia of purchasers have attempted to evaluate the complex medical, scientific and medicolegal issues related to treatment of haemophilia and to estimate the cost effectiveness of rFVIII in an arbitrary way. Despite a specific request, the department has provided no evidence that rFVIII should not be the treatment of choice nor has it criticised the priority given to different groups of patients. What is needed to help purchasers and trusts with haemophilia centres is for the department to engage in a constructive dialogue with our organisation and provide leadership on how the guidelines should be implemented. This will ensure patients are treated fairly. To leave the decision to the vagaries of local purchasers is to abrogate its responsibility for an important aspect of health care.

Christopher A Ludlam, *Chairman*
United Kingdom Haemophilia Centre Directors Organisation, Haemophilia and Thrombosis Centre, Royal Infirmary, Edinburgh EH3 9YW
Charles R M Hay, *Vice chairman*
Haemophilia Centre, Royal Infirmary, Manchester
Gerard Dolan, *Treasurer*
Haemophilia Centre, Queens Medical Centre, Nottingham

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Whose data are they anyway?

Access to raw data would need legislation

EDITOR—Tony Delamothe argues that there should be universal access to the raw data of medical research.[1] I agree, subject to practicality: some records are very bulky and cannot be kept indefinitely. Contrary to Delamothe's assertion, electronic files rarely are raw data—they are data that have been processed, and in the handling they have been open to error and filtering.

Delamothe does not mention that legislation would be required in the United Kingdom and the United States, because lobbying by the pharmaceutical industry has ensured that the raw data of their treatment trials have to remain secret unless a litigant can obtain a court order. The Freedom of Information Act in the United States does not give access to those copies of raw data from drug companies that are held within the Food and Drug Administration. For the past decade those copies have in any case been limited to the records of patients who died or entered hospital during a treatment trial.

Ian Oswald *Emeritus professor*
41 St Ronan's Terrace, Innerleithen, Peeblesshire EH44 6RB

1 Delamothe T. Whose data are they anyway? *BMJ* 1996;312:1241-2. (18 May.)

Datasharing would cause problems in nuclear industry

EDITOR—The article by Tony Delamothe advocating researchers' unrestricted access to anonymised raw data[1] might lead one to think the author naive, arrogant, and authoritarian. We do not hold such views, but we nevertheless feel stimulated to respond.

As occupational physicians in the nuclear industry we act on behalf of workers; we act in consultation with their representatives as gatekeepers of access to their data. Nuclear workers are among the most intensely studied, discrete populations in the world. In their willingness to have their data used for many purposes not originally envisaged, they epitomise the altruistic goodwill which Delamothe well describes. However, nuclear workers have not always felt that this goodwill was sensitively reciprocated when it came to publication time.

Many of the comments and speculations of researchers have caused anxiety or personal pain to nuclear workers and their families, even though they were no doubt made in a spirit of "proper" scientific inquiry. Even less palatable has been much of the media reporting and speculation on such scientific communications, and researchers cannot escape some responsibility for this. A recent case in point has been the Gardner hypothesis concerning the observation of an association between childhood leukaemia and paternal preconceptual radiation exposure at work; a theory which on further testing has proved unsustainable.[2]

Because of such circumstances we customarily invite researchers to share their study proposals with our workforces, seek their support, and take the time to share their findings with us before wider dissemination. The proposals for data access propounded in our journal would sweep away these reasonable and humane checks and would leave this particular group of "data subjects" unprotected. Here is one example at least where the inferred benefits of unrestricted data sharing must be seriously qualified. No doubt there are others.

This is not to suggest that we are in any way hostile to the idea of easier data access. Our own experience of debatable deductions, unsustained inferences, and undetected errors wholly persuades us of the value of a more open approach, but one with carefully considered and crafted safeguards.

Finally, we hope it is not too mischievous to point out that, although the main plank of Delamothe's thesis is one of benefit to the "people," the arguments that are proffered for sharing data seem largely to be of benefit to "researchers." It would be incautious to consider these interests as necessarily synonymous.

A J M Slovak *Company chief medical officer*
British Nuclear Fuels, Risley, Warrington WA3 6AS
C Kalman *Chief medical officer*
Scottish Nuclear, East Killbride G74 5 PR
N F Davies *Chief medical officer*
Magnox Electric, Berkeley, Gloucestershire GL13 9BB
G Mayho *Chief medical officer*
Nuclear Electric, Barnwood, Gloucester GL4 7RS
R Wood *Chief medical officer*
Atomic Energy Authority, Harwell, Oxfordshire OX11 ORA

1 Delamothe T. Whose data are they anyway? *BMJ* 1996;312:1241-2. (18 May.)
2 Committee on Medical Aspects of Radiation in the Environment. *Fourth report.* London: HMSO, 1996.

Food industry could be misusing data

Of course, we should all share data.[1] So should the food industry. In regulatory applications for new food additives, ingredients, and products, manufacturers routinely conceal inconvenient research results behind the screen of "commercial confidentiality." Two current examples concern the possible side effects of Tate and Lyle's sugar substitute Sucralose, which is before the Committee on Toxicity, and Proctor and Gamble's fat substitute Olestra, now with the Advisory Committee on Novel Foods and Processes.

Protecting investment is a serious consideration—but so is nutrition. The pertinent principle is that the public has a right to know about research relevant to public health.

Deference to commercial confidentiality is particularly regrettable in bodies established to protect public health. My two most recent inquiries to the Advisory Committee on Novel Foods and Processes met refusal to disclose even the issues under examination, much less evidence, and refusal to name a company whose application it had already approved. All was "sub judice."

Public access to research will become even more important in the next phase of health marketing, "functional foods." These are products fortified with ingredients claimed to provide health benefits. They blur the distinction between foods and pharmaceuticals and need rigorous assessment before launch.

We cannot be insouciant about possible "misuse of data" when they are shared with the food industry, which advertises and promotes more than any other industry. The editor's choice column in the same issue appeared to show one technique, in the *Sunday Times*'s leak on salt.[2] Using public relations agencies, such as Kingsway and Rowland,[3] to plant sympathetic "research breakthrough" stories in popular media could create uncertainty, confusion, and controversy in the public mind and, as Fiona Godlee rightly concludes,[4] forestall government action.

Nor can we rely on traditional avenues of criticism to ensure that "no lasting harm" results. The Butter Council used carefully culled scientific evidence in advertisements to denigrate polyunsaturated margarine. Such selectivity is known in marketing jargon as "highlighting." The Advertising Standards Authority found the council guilty of "misleading claims." But butter sales rose and margarine sales fell by 7%. The extra saturated fat will do lasting, perhaps terminal, harm.

The amplifying power of advertising is used by industry to give disproportionate prominence to research it conducts, funds, or likes, distorting both public perceptions and public policy.

Health claims on foods are currently being reviewed by the Food Advisory Committee. One key issue is how companies use scientific evidence in promotions. The Salt Institute's behaviour is a warning. We need controls.

J T Winkler *Director*
Food and Health Research, London N1 7AB

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Funding of contraceptive implants is crucial

EDITOR—M S Thompson's argument that the greatest problem with contraceptive implants is their potential to increase providers' control over clients' choice does not stand up to scrutiny.[1] Implants form part of a range of long acting reversible contraceptives, which include intrauterine contraceptive devices, the intrauterine contraceptive device that releases levornorgestrel, and injectable contraceptives.[2] Is Thompson suggesting that because of concerns about dependence on providers we should do away with these methods despite widespread evidence of their efficacy, safety, and acceptability?[2] Those of us who have used implants in a research setting in Britain have already documented overwhelming evidence of this.[3] Furthermore, the assertion that second generation implants do not imply a real increase in clients' choice is unfounded: single or dual rods are much easier to insert and remove and have a significantly shorter duration of action (three years), which may be better targeted at women's needs in developed countries.[3]

The key issue is not the provision of these methods but their funding: why are general practitioners not compensated for the extra time involved with counselling, insertion, and removal as they are for oral contraceptives and intrauterine contraceptive devices, and why are family planning clinics unable to afford implants?[3] Of course there are profits from sales, but how else does Thompson propose that the costs of research and development are met as well as the cost of research into future methods?

Lawrence Mascarenhas *Subspecialty senior registrar in reproductive medicine*
Rosie Maternity Hospital, Cambridge CB2 2SW
Yakoub Khalaf *Senior registrar in obstetrics and gynaecology*
Guy's and St Thomas's Hospital, London SE1 9RT
Sammy Lee *Scientist*
Portland Hospital, London W1N 6AH

1 Thompson MS. Contraceptive implants: long acting and provider dependent contraception raises concerns about freedom of choice. *BMJ* 1996;313:1393-5. (30 November.)
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Reducing paracetamol overdoses

Provide hurdles to overdosing

EDITOR—Elizabeth Fagan and Gary Wannan say that the public should be educated about the toxicity of paracetamol in overdose.[1] This may be done paradoxically, simply providing an advertisement for an accessible suicide method. School education programmes may miss, for example through truancy, those who would most benefit; such programmes would need careful evaluation and monitoring in view of the concern voiced about suicide prevention programmes in some schools in the United States.[2]

Knowledge that paracetamol overdose can kill did not stop 77% of such overdoses in Oxford.[3] This is not surprising—firstly, because two thirds had wished to die or had been ambivalent to the outcome,[4] and, secondly, because of the impulsive nature of many of the overdoses. Indeed the finding that 74% of paracetamol overdoses had premeditation of less than three hours and 41% of such patients had obtained tablets less than an hour before[4] emphasises the potential benefits of putting hurdles in the way of obtaining large amounts of paracetamol. The strategy of limiting availability has been

effective in reducing barbiturate and benzodiazepine overdoses,[5] and any hurdle may give time for reflection and change of mind. Money would be better spent on better provision of services and more research than on dissemination of possibly unsafe "safety" information.

Simon J Taylor *Senior registrar in pyschiatry*
Whitely Wood Clinic, Sheffield S10 3TL

1 Fagan E, Wannan G. Reducing paracetamol overdoses. *BMJ* 1996;313:1417-8. (7 December.)
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Proposals will have negative effects

EDITOR—Despite assurances that primary care services should be based on scientific evidence,[1] this is not happening in the Medicines Control Agency's proposals on paracetamol, as Elizabeth Fagan and Gary Wannan show.[2] The proposals will not stop overdoses but will cause massive inconvenience to responsible citizens.

If implemented, the proposals will also have a massive impact on general practice. They will further destroy public confidence in paracetamol as a safe drug for pain and fevers. Patients are consulting their general practitioner before taking medicines for self limiting complaints, and this practice will increase when paracetamol is harder and more expensive to obtain. This will undermine general practice at a time when we are increasingly trying to educate patients to cope with minor illness and reduce unnecessary demand. It will guarantee that primary care resources are not used efficiently, despite statements to the contrary.[1]

The timing of the consultation exercise has been incredible. Three of the six weeks of the exercise fall into the busiest time of the general practitioner's year—Christmas and New Year—when efforts to initiate debate in the medical press are hampered by lack of publication, postal delays, and heavy workload. A cynic can only conclude that this was deliberate. General practitioners should prepare themselves for the inevitable: another Medicines Control Agency disaster.

Shaun O'Connell *Non-principal in general practice*
34 The Fairway, Sherburn in Elmet, Leeds
LS25 6LN

1 NHS Executive. *Primary care: the future.* London: NHSE, 1996.
2 Fagan E, Wannan G. Reducing paracetamol overdoses. *BMJ* 1996;313:1417-8. (7 December.)

Paracetamol is wrongly blamed

EDITOR—The current debate on reducing morbidity and mortality from paracetamol overdose[1 2] has not so far acknowledged the problem of the inaccuracy of the mortality statistics. This is well illustrated by co-proxamol poisoning. This compound analgesic contains paracetamol and dextropropoxyphene in a 10:1 ratio. In overdose with co-proxamol the effective lethal agent is dextropropoxyphene because it kills so rapidly, typically within an hour or less, and the minimum lethal dose is contained in 12-20 tablets.[3] Scottish mortality statistics indicate that this compounded preparation is responsible for close to half of all "paracetamol deaths." In these deaths paracetamol is an innocent bystander and appears on the death certificate because of the bad company it keeps.

In 1995 paracetamol was implicated in 77 deaths in Scotland, only three of which were accidental. Of these 77 deaths, 34 (44%) involved co-proxamol and a further 16 (21%) involved paracetamol in combination with other drugs, excluding alcohol. Since 1969 there has been a more than 10-fold increase in the number of "paracetamol fatalities," but half of these are attributable to dextropropoxyphene (table 1). Of the additional 10% or more of cases in which paracetamol is found in association with other drugs, our own case data suggest that in around half of these paracetamol played no part in the deaths. Consequently the Scottish mortality statistics could be readily misinterpreted to overestimate the true number of deaths due to paracetamol fatalities by 100%.

When paracetamol is the only named drug on the death certificate this information may also be unreliable.[5] The confounding factors include incomplete or inaccurate information on other drugs taken, failure to perform toxicological analyses, testing for a single drug without screening for other drugs, and not testing for some drugs because of technical complexity and cost. Throughout Britain the current charging system for toxicological analyses encourages analysis directed to a single named drug and discourages general screening. Consequently the mortality data on specific drugs, including paracetamol, are incomplete and misleading.

Deaths from poisoning by paracetamol alone are far fewer than current statistics suggest. This highlights the exemplary safety record of paracetamol. Despite the large number of paracetamol overdoses, few deaths result from this low toxicity drug, for which there is a specific antidote. Restricting paracetamol sales may well reduce morbidity from paracetamol overdose; it also carries the risk of precipitating a shift to the use of other, more toxic, drugs with a resultant increase in overall mortality.

Derrick J Pounder *Professor*
Patricia McAllister *Research student*
Department of Forensic Medicine, Royal Infirmary, Dundee DD1 9ND

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Methionine should be included in all paracetamol preparations

EDITOR—I find it extraordinary that a leading article on paracetamol overdose[1] makes no mention of the possible benefits of including the antidote methionine in all available preparations of paracetamol (the proprietary combination Pameton, which is not available for NHS prescription, is unattractive to consumers because of its cost). Such a measure would probably require legislation, and the cost would have to be borne either by the government or by the pharmaceutical companies. Although it would not prevent all of the 200 deaths annually attributed to paracetamol overdose, because some people would use other means (such as aspirin), this opportunity for primary prevention at least deserves to be debated.

Quentin Spender *Senior lecturer in child and adolescent psychiatry*
St George's Hospital Medical School, London
SW17 0RE

1 Fagan, E, Wannan, G. Reducing paracetamol overdoses. *BMJ* 1996;313:1417-8. (7 December.)

Medical royal colleges should have reduced rates for doctors working flexibly

EDITOR—I recently conducted a small survey (n = 20) about the costs of flexible training, on behalf of the flexible trainees committee of West Midlands. The trainees' replies suggest that many are spending half of their take home pay on the costs of working. Child care is expensive. Medical indemnity insurance and registration with the General Medical Council cost the same for flexible trainees as for full timers. Subscriptions to the various royal colleges are another large expense, particularly for women on maternity leave. None of the trainees who replied were receiving a reduced rate from their college. When I contacted the colleges I found that most have a system for reducing membership fees in cases of financial hardship and would consider applications from flexible trainees under this clause. None of the colleges have a defined "flexible training reduced rate."

In the current situation flexible trainees' costs are disproportionate to their incomes. This unfairly penalises people who need to work flexibly. I believe that all child care should be tax free and that the royal colleges should follow the BMA's lead in having a reduced subscription rate for people with lower incomes—for example, during maternity leave. My advice for flexible trainees is: contact your college about reduced rates.

Alison J Gray *Psychiatrist*
Upper Island Mental Health Centre, Courtenay, British Columbia, Canada

Patients go hungry in British hospitals

Malnutrition is common, unrecognised, and treatable in hospital patients

EDITOR—Jacqui Wise's reference to the report by the Association of Community Health Councils for England and Wales highlights a serious problem.[1] Although the report is anecdotal, the problems to which it alludes have previously been documented.[2] Patients who do not receive an adequate diet will become malnourished. Furthermore, many patients are already malnourished on admission to hospital. Our study of 500 hospital admissions showed that 30% of patients had evidence of moderate to severe malnutrition, and 65% of all patients who remained in hospital for more than one week lost weight, the weight loss being proportionately greater in the malnourished group.[3] Less than half of the malnourished patients had any nutritional information recorded in their case notes, and only a few were referred for nutritional management.

The perception that weight loss is inevitable in patients who require hospital admission is false. We randomly allocated malnourished patients who were able to take an oral diet normal treatment, oral supplements, or supplemental nocturnal nasogastric feeding on admission. More than 70% of the patients in the two intervention groups gained weight, whereas most of the control group who received normal management continued to lose weight.[4] Unfortunately, evidence suggests not only that many malnourished patients are deprived of nutritional support but also that the implementation of nutritional support may be suboptimal. During a six month study of artificial nutritional support in a teaching hospital we observed that less than half of all treated patients received their estimated nutrient requirements by either enteral or parenteral nutrition due to errors of prescription, problems of delivery, or complications of treatment.[5]

Thus malnutrition is common, it is not recognised, it is not prevented, it is often not treated, and current standards of treatment are unsatisfactory. Malnutrition impairs organ function and recovery from illness. Nutritional intervention can improve nutritional state and reduce morbidity. There are encouraging trends which suggest that the problem is now being addressed. Guidelines on nutritional care have been introduced by the British Society of Gastroenterology and the British Association of Parenteral and Enteral Nutrition. Within our unit the introduction of nutritional screening has identified patients at risk, and the appointment of a nutrition support coordinator has facilitated the implementation of local policy and improved staff training. However, a substantial number of hospitals lack nutrition advisory groups or nutrition support teams. The concern expressed by the Association of Community Health Councils is justifiable.

C R Pennington *Consultant physician*
Janet P McWhirter *Nutrition support coordinator*
Department of Digestive Diseases and Clinical Nutrition, Directorate of General Medicine, Ninewells Hospital and Medical School, Dundee DD1 9SY

1 Wise J. Patients go hungry in British hospitals. *BMJ* 1997;314:399. (8 February.)
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Department of Health should commission research on this problem

EDITOR—I believe that the Association of Community Health Councils should be congratulated for its recent report on the standards of nutrition within hospitals.[1] Throughout the period of my clinical training in many different hospitals and trusts I have repeatedly witnessed the problem of elderly and frail patients in medical and geriatric wards receiving insufficient food and fluids either because they are left out of reach or because insufficient time and help are given to feeding.

Although some of these instances may represent a failure of medical or nursing staff to be aware of difficulties associated with feeding in particular conditions—for example, visual agnosia or hemineglect after stroke and poor food and fluid intake in severe depression—I suspect that many of the problems relate to the changes in the roles and responsibilities of ward nursing and ancillary staff. Basic tasks such as feeding, washing, and help with going to the toilet are now much more likely to be carried out by untrained staff who will often be unaware of a patient's particular difficulties. Clearly, as well as the maintenance of adequate numbers of staff, communication between different clinical disciplines must be increased to ensure that these problems are recognised and dealt with accordingly.

Rather than professing indignation on behalf of doctors and nurses, I believe that the Department of Health would be better advised to commission some prospective research on this important subject to ensure that sufficient staff are available to offer appropriate help to patients in hospital.

Andrew Tarbuck *Consultant in old age psychiatry*
St Andrew's Hospital, Norwich NR7 OSS

1 Wise J. Patients go hungry in British hospitals. *BMJ* 1997;314:399. (8 February.)

Thyrotoxicosis in multiple trauma

Pre-existing medical conditions must be taken into account in multiple trauma

EDITOR—Jo Fitz-Henry and Bernard Riley's account of thyrotoxicosis in a patient with multiple trauma indicates the need for a full and accurate medical history, even in critically injured patients.[1] Pre-existing medical conditions are common in patients with trauma in Britain. Our recent retrospective examination of data from 33 497 patients in the British major outcome study showed that 38.8% had pre-existing medical conditions.[2] We also showed that pre-existing medical conditions were present in all age groups and that their incidence increased significantly with advancing age. Unfortunately, as Fitz-Henry and Riley say, such conditions are not often considered.

In a more detailed study the presence and number of pre-existing medical conditions were both shown to be significant independent risk factors adversely affecting outcome after major trauma. This study also showed that cardiovascular (21%), respiratory (15%), and psychiatric (18%) conditions accounted for 54% of all pre-existing medical conditions. Furthermore, cardiovascular, renal, and hepatic diseases were responsible for a fourfold increase in mortality.[3]

Interestingly, there also seems to be a relation between patients labelled as having died inappropriately and the presence of pre-existing medical conditions.[3] These conditions should be considered early in resuscitation, particularly when the patient does not respond to treatment.

Thus we endorse the authors' recommendation that an AMPLE history should be taken (Allergies, Medications, Past medical history, Last meal, Events or description of the injury). By identifying pre-existing medical conditions the trauma team is in a better position to interpret the patient's presenting state and response to resuscitative measures.

T D Wardle *Consultant physician*
Countess of Chester NHS Trust, Chester CH2 1UP
P A Driscoll *Senior lecturer*
M Woodford *Coordinator, major trauma outcome study*
University Department of Emergency Medicine, Hope Hospital, Salford M6 8HD

1 Fitz-Henry J, Riley B. Thyrotoxicosis in a patient with multiple trauma: the value of "AMPLE" history taking. *BMJ* 1996;313:997-8. (19 October.)
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Malignant hyperpyrexia should have been considered

EDITOR—We are surprised that Jo Fitz-Henry and Bernard Riley do not mention the possibility of malignant hyperpyrexia in their report of a patient with thyrotoxicosis who had multiple trauma.[1] Six hours postoperatively the patient had a temperature of 39.4°C and a heart rate of 140 beats/min. The most common causes of tachycardia in the perioperative period are pain, hypoxia, hypercarbia, hypovolaemia, and sepsis. It is also important, however, to consider the less common causes—namely, thyrotoxicosis (as in this case), malignant

hyperpyrexia, and undiagnosed phaeochromocytoma.

In malignant hyperpyrexia an early diagnosis, the discontinuation of triggering agents (suxamethonium and volatile inhalational anaesthetics) and treatment with dantrolene may be life saving. The differential diagnosis of fever and tachycardia in the perioperative period may be difficult.[2] We assume that in this case other signs suggestive of malignant hyperpyrexia, such as increased end tidal carbon dioxide concentration, increased arterial carbon dioxide pressure, and a combined respiratory and metabolic acidosis, were absent. It may not be wise, however, to wait for all the classic signs to develop before starting treatment. It has been recommended that "if another aetiology of a patient's hypermetabolic state is not quickly found, malignant hyperpyrexia should be assumed and treatment begun."[2]

We are also puzzled by the use of noradrenaline. We agree that the haemodynamic variables obtained by pulmonary artery catheterisation (a high cardiac output and low systemic vascular resistance) were consistent with a hyperdynamic circulation. We do not, however, believe that vasopressor treatment is indicated in these circumstances unless there are also signs of inadequate tissue perfusion and oxygen delivery, such as oliguria, lactic acidosis, and decreased mixed venous oxygen saturation. It is unclear from the case report whether these signs were present. It is also important to note that systemic vascular resistance is a derived and not a measured variable and depends on measurements of mean arterial pressure, mean central venous pressure, and cardiac output. One should therefore be cautious in using systemic vascular resistance as a guide to treatment. When vasopressor drugs are used to manage distributive shock (shock associated with vasodilatation) the dose should be titrated against the arterial pressure rather than the systemic vascular resistance.[3]

Michael Staunton *Senior registrar in anaesthesia*
Niall Hughes *Consultant anaesthetist*
Department of Anaesthesia and Intensive Care, St James's Hospital, Dublin 8, Republic of Ireland

1 Fitz-Henry J, Riley B. Thyrotoxicosis in a patient with multiple trauma: the value of "AMPLE" history taking. *BMJ* 1996;313:997-8. (19 October.)
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Authors' reply

EDITOR—T D Wardle and colleagues are right to bring the frequency of pre-existing medical conditions in patients with trauma to a wide audience.

Michael Staunton and Niall Hughes are correct in their assumption that in our patient the end tidal carbon dioxide concentration was normal throughout the four hour operation and that there was no respiratory or metabolic acidosis, so that malignant hyperpyrexia seemed to have been excluded. We also considered the possibility that the patient had hyperpyrexia induced by "ecstasy," but the circumstances and time of day made this unlikely; an overdose of aspirin and self poisoning with glycol antifreeze were also unlikely. Once again, an AMPLE history would be important in the differential diagnosis.

Staunton and Hughes's comments about the use of noradrenaline to manipulate systemic vascular resistance in high output vasodilatory states are understandable, and the authors rightly point out the importance of concurrent evidence of inadequate tissue perfusion. None the less, the use of noradrenaline to maintain organ perfusion in the systemic inflammatory response syndrome is widespread, and there is at present no type 1 evidence based data to suggest that one inotropic agent offers any advantage over another, given adequate cardiac preload.

Jo Fitz-Henry *Research fellow, anaesthesia*
City Hospital, Nottingham NG5 1PB
Bernard Riley *Consultant in anaesthesia and intensive care*
Adult Intensive Care Unit, Queen's Medical Centre, Nottingham NG7 2UH

Writing in English for an international readership

Our language reflects our diversity

EDITOR—I agree with John Kirkman that the English language may present difficulties for readers whose first language is not English, but I disagree with his solutions.[1] His suggestion that we should "confine" our writing to "the normal range" of words expected of overseas readers is naive and patronising. Certainly we should endeavour not to complicate the structure of sentences but to strive for clarity. We should avoid informal expressions but not relinquish metaphors or allegorical imagery, which even in scientific literature are germane. To "avoid words that readers with a limited command of English are unlikely to have met before," however, is to put a dark spell on the fate of our language.

Words make it possible to communicate with other people. They are the currency of information and education. More importantly, we think with words. Indeed, words and thoughts are so intimately entwined that a deficiency in one invariably affects the other. The more words we know the more clearly and powerfully we think and the more ideas we can evoke. The power of words is overwhelming. It is often said that when words fail, wars begin.

Cognitive therapy expounds the theory that our thoughts determine our feelings and thus our behaviour. If we are to restrict our words then we must restrict our thoughts, our outlooks, and ultimately ourselves. It is a process of deintellectualisation. In other words, if we were to restrict ourselves in order to help those with a limited command of English we would surely flounder. "Shouldn't we try to help those readers?" Kirkman asks. Unequivocally, we should promote international readership by dedicating ourselves to the delivery of clear, correct English. If, further, our ideas colourfully exploit the endless resource of our language then we expand not only our own horizons but those of our readers. We flourish rather than flounder. We make progress.

A novel may seduce its reader by the power of its narrative. Academic writers should express themselves in a way that both informs readers and entices them to explore the subject further. Interesting descriptions are engrained in the memory; prosaic descriptions may dissolve from it.

We all share the same molecular ingredients, yet we are unique. Such is the range of humankind, and such is the diversity of human experience. And our language reflects this diversity.

Tim Hall *Haematology registrar*
Fremantle Hospital, Fremantle, Western Australia 6009

1 Kirkman J. Writing in English for an international readership. *BMJ* 1996;313:1321-3. [With commentary by I Heath and B Nilsson.] (23 November.)
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Readers don't have to come from overseas to benefit from plain English

EDITOR—I have been a general practitioner since 1980, working in a multicultural area with mixed socioeconomic groups. By necessity I have learnt to tailor the language to the patient. I have lost count of how often I have had to translate a hospital assessment and letter into terms that my patients can understand. Fortunately, English has such richness and variety that it is possible to use simple terms that still convey the full meaning of the medical terminology so beloved of research registrars.

I therefore see no objection to articles in the *BMJ* being written in plain English.[1] Not only will this allow colleagues from overseas to comprehend important original papers but it will enable those closer to home (such as myself) to see the point too.

A J Davis *General practitioner*
70a Norwood Road, Southall, Middlesex UB2 4EY

1 Kirkman J. Writing in English for an international readership. *BMJ* 1996;313:1321-3. [With commentary by I Heath and B Nilsson.] (23 November.)

Be clear, concise, and correct

EDITOR—John Kirkman deserves support for his plea that authors should avoid the more obscure idioms when writing for readers whose mother tongue is not English.[1] I would go further and maintain that all scientific papers, whether or not intended for an international readership, should be written clearly and concisely; scientific data and their interpretation are becoming increasingly complex, and the use of simple expressions greatly improves the efficiency of communication.

The commentary on Kirkman's article by Iona Heath and Björn Nilsson seems to miss Kirkman's main point, which, as I understand it, is not to call for "severe restrictions" to the

vocabulary but to discourage the use of words in idiomatic combinations unfamiliar to many foreign readers. Heath and Nilsson rightly refer to the richness of our language, but the degree to which it is exploited must be tailored to the subject matter. What is appropriate for describing, say, the psychiatric aspects of a neurological illness may be quite inappropriate to a paper on the underlying pathological changes.

The most readable and informative scientific articles are those couched in prose that is simple and direct. Authors will not go far wrong if, in addition to avoiding difficult idioms, they observe what I call "the three C rules": the meaning of every sentence must be Clear and Concise, and its grammar must be Correct. Papers conforming with these principles may be read with profit even by those with limited English.

Leslie Collier *Emeritus professor*
8 Peto Place, London NW1 4DT

1 Kirkman J. Writing in English for an international readership *BMJ* 1996;313:1321-3. [With commentary by I Heath and B Nilsson.] (23 November.)

Readers who want to read "a rich language" should buy a novel

EDITOR—In their commentary on John Kirkman's article about writing in English for an international readership Iona Heath and Björn Nilsson are concerned to protect the freedom of expression of writers in journals such as the *BMJ*.[1] Most of us who read the journal want to obtain information as clearly, accurately, and quickly as possible. This is the function that this subgenre of "literature" seeks to fulfil, and the language used must be subservient to this aim, as Kirkman argues.

Poetic language works by operating within rules, more or less loosely formulated. A sonnet fulfils its function by working within the strict rules of its genre. Medical writing must be able to operate effectively within the bounds of linguistic coherence.

Poetic language is indeed "anything but simple," as Heath and Nilsson say. Most modern analysis of literature would concede that such language is ultimately "constructed" into meaning by each individual reader and so is open to a multiplicity of readings. This is hardly the aim of a meta-analysis or a randomised controlled trial—"Make of it what you will." If Heath and Nilsson wish to "grope towards understanding and meaning [through] a rich language" they would be well advised to look beyond the original research published in the *BMJ* and buy a novel.

If freedom of expression among doctors is the aim then let us have a more lively forum in the Soundings column and personal views. But rhyming couplets should be kept out of statistical analysis, and linguistic snobbery out of the *BMJ*.

Wayne Lewis *General practitioner*
Carreg Wen Surgery, Blaenavon, Gwent NP4 9AE

1 Kirkman J. Writing in English for an international readership. *BMJ* 1996;313:1321-3. [With commentary by I Heath and B Nilsson.] (23 November.)

Use short sentences

EDITOR—"Earlier this year John Kirkman, former director of the communication studies unit at the University of Wales Institute of Science and Technology, argued to *BMJ* staff and advisers that if they were serious about reaching an international audience they should pay more attention to the comprehensibility of the language they use for readers whose first language is not English and in particular work hard to remove a whole host of culturally specific words and phrases."[1] That one sentence has 75 words.

It is a pity that John Kirkman's advice was not heeded.

Andrew Rouse *Consultant in communicable disease control*
South and West Devon Health Authority, Dartington TQ9 6JE

1 Kirkman J. Writing in English for an international readership. *BMJ* 1996;313:1321-3. [With commentary by I Heath and B Nilsson.] (23 November.)

Words used must be able to put chosen message across to chosen audience

EDITOR—It is a pity that John Kirkman's sensible plea for medical journals to use simple English triggered the standard reaction that this will restrict vocabulary and diminish the future.[1] Sadly, such critics tend to ignore the fact that, in the context of medical publishing, the words that writers choose become of worth when they put across a chosen message to a chosen audience. Tellingly, Kirkman uses the noun "reader" 15 times; his critics not at all.

Tim Albert *Principal*
TAA Training, Leatherhead KT22 9AU

1 Kirkman J. Writing in English for an international readership. *BMJ* 1996;313:1321-3. [With commentary by I Heath and B Nilsson.] (23 November.)

Language used for professionals can be different from that used for lay people

EDITOR—While I agree with John Kirkman about the importance of clear writing for an international readership, I disagree totally with his approach.[1] He has confused the problem of communicating to a lay audience or patients with that of communicating to fellow professionals whose first language is not English. For the former, simple Anglo-Saxon words are to be preferred, though cricketing metaphors are probably appropriate; for the latter, however, professional jargon is international and easily understood.

Kirkman cites four "unfamiliar words," three of which have a Latin derivation or are actually Latin (surely the first international language); the fourth, "hijack," is nothing if not an international word. He correctly suggests that sentence structure should be simple but gives as undesirable examples some figures and statistics that are readily comprehended in any language. He objects, moreover, to a well written piece about bacteria that I believe self respecting microbiologists all over the world would understand. Finally, although Latin may not be his first language, as a consultant in the presentation of scientific and technical communication he should be aware that "data" is the plural of "datum."

Felicity Reynolds *Emeritus professor of obstetric anaesthesia*
St Thomas's Hospital, London SE1 7EH

1 Kirkman J. Writing in English for an international readership. *BMJ* 1996;313:1321-3. [With commentary by I Heath and B Nilsson.] (23 November.)

Positive findings of mammography may lead to suicide

EDITOR—I S Tobias and Michael Baum postulate that false positive findings of mammography will have psychological consequences.[1] We report two cases of suicide in women with positive results of mammography.

As part of the Health of the Nation strategy for mental illness we examined our local coroner's records for suicide and undetermined deaths for the years 1992-5. Undetermined deaths were included to avoid problems of misclassification. In women aged 50-64 there were 12 recorded deaths. Two, both classified as suicides, occurred between the women receiving notification of recall after mammography and reattending.

The first woman was under follow up after a mastectomy in 1986. She was not thought by her general practitioner or relatives to have been depressed. Her suicide note was written on her recall letter, and no other reason was given. The second woman had a history of depression and alcohol problems and was screened as part of the national programme; this led to an appointment for investigation of a suspected lesion. She left a suicide note mentioning her fear of admission to hospital but no other factor. Neither woman had attempted suicide previously or expressed any intention of doing so, but both had had children who had died of disseminated (non-breast) cancer.

It is not possible to be sure about cause and effect in these two cases. Both of the women may have been vulnerable, and the recall letter may simply have been the final straw. Both these deaths, however, would have been missed by the British studies of psychiatric morbidity associated with screening for breast cancer.[2 3] Apart from the small numbers studied, these studies selected only women with normal results of screening[2] or who had attended for investigation of a positive result.[3] To our knowledge this is the first report suggesting that adverse psychological effects of mammography might also include death; hence reduction in all cause mortality should be a part of the evaluation of mass mammography. In the meantime, it may be of some reassurance that, nationally, the trends in suicide in women in this age group over 1986-94 remain downwards.[4]

J G Weil *Senior registrar*
J I Hawker *Consultant in public health medicine*
Birmingham Health Authority, Birmingham B16 9SA

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Doctors as well as patients need education to ensure adherence to treatment regimens

EDITOR—J S Lilleyman and L Lennard highlight the problem of non-adherence to chemotherapy in childhood leukaemia.[1] They refer to similar problems in several other childhood conditions. Renal failure could well have been added to this list, because throughout the history of paediatric transplantation non-adherence to immunosuppressive regimens has been a major problem.[2 3] We were reminded of this recently when three adolescents attending our weekly transplant clinic had unrecordable cyclosporin concentrations. This is 7% of our total transplant population (30% of adolescent patients), and only a minority of the patients are due for review in any one week.

We agree that it is essential to educate the children and their parents. This does not, however, guarantee adherence to treatment. Two of our three patients had experienced multiple episodes of rejection because of non-adherence to treatment, and an older brother of the third had lost a renal transplant because of non-adherence. The conclusion that good understanding does not ensure adherence is further reinforced by the findings of a study of growth hormone treatment for short stature in renal failure. We have shown that the parents and children in this study had a good understanding of the issues and likely response to treatment.[4] Despite this, non-adherence reached 92% at two years (unpublished findings). Beck *et al* have similarly shown that, though knowledge about immunosuppressive regimens improved with an educational programme, improved knowledge did not correlate with improved adherence.[2]

We therefore need to look beyond patient education if we are to reduce non-adherence to treatment further, and perhaps education of professionals should be the next target. Wolff *et al* have said, "With few exceptions non-compliance is regarded as the patient's fault rather than exploring organizational or interactive reasons for non-compliance."[5] Some of the other issues that need to be considered include the characteristics of the treatment regimen (side effects, complexity, social intrusiveness); the behaviour of care givers and care givers' interactions with patients; patients' health beliefs and attitudes; and personal and familial factors (including family instability and discord, poor communication, resources of support and coping, and parental or personal psychological functioning). It is only by adopting this wider perspective that we will begin to understand non-adherence to treatment and increase adherence and hence the success of treatment regimens.

R J Postlethwaite *Consultant paediatric nephrologist*
M A Lewis *Consultant paediatric nephrologist*
N J A Webb *Consultant paediatric nephrologist*
Royal Manchester Children's Hospital, Manchester M27 4HA
D M Eminson *Consultant child and adolescent psychiatrist*
Bolton General Hospital, Farnworth BL4 0JR

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Treatment of breast cancer before surgery will present pathologists with challenges

EDITOR—Richard Epstein's editorial on treating breast cancer before carrying out surgery raises the question of how breast surgeons will feel about withholding lumpectomy from many of their patients with newly diagnosed cancer.[1] Another, perhaps more important, question is how pathologists will feel. The best predictor of tumour behaviour is an assessment of tumour size, histopathological grade, and lymph node status. This has been established as a powerful indicator of prognosis, notably by a group in Nottingham.[2] The collection of these data depends on the surgeon excising the tumour and dissecting the axilla; if primary medical treatment is shown to be effective in the long term then the challenge will be to provide similar or maybe better prognostic information from small samples of the tumour.

The first difficulty is in providing the diagnosis. Pathological evidence of carcinoma can be obtained from core biopsy specimens and by fine needle aspiration, which provides a cytological diagnosis. Although there have been attempts to grade and type carcinomas on core biopsy, validation with the grade assessed from the excised tumour is not convincing; even when the core biopsy specimen shows in situ carcinoma the presence or absence of invasion elsewhere in the tumour is unknown. Similar problems occur with needle aspirate samples, in which differences between in situ and invasive carcinoma are not apparent. Cytological grading has its advocates, but some pathologists are sceptical, and currently it is done only in dedicated centres.

The good news is that needle aspiration is comparatively painless and can therefore he repeated during treatment. This provides a dynamic element to the management of the carcinoma so that the S phase fraction and ploidy[3] as well as cell markers can be estimated in sequential samples in patients being treated. For example, early changes (or lack of changes) in proliferation or apoptosis may be a helpful indicator of whether to persist with treatment in individual patients.

Primary medical treatment presents pathologists with new challenges. Conventional prognostic indicators established through the "snapshot" histopathological examination of excision biopsy specimens will be replaced by samples obtained by core biopsy or needle aspiration. As methods for investigating prognostic indicators by immunocytochemistry expand,[4] the advantages of the examination of sequential needle aspirates may be realised.[1]

P A Trott *Consultant pathologist*
N Nasiri *Consultant pathologist*
Department of Anatomical Pathology and Breast Unit, Royal Marsden Hospital, London SW3 6JJ

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When deciding which letters to publish we favour originality, assertions supported by data or by citation, and a clear prose style. Letters should have fewer than 400 words (please give a word count) and no more than five references (including one to the BMJ article to which they relate); references should be in the Vancouver style. We welcome pictures.

Letters should be typed and signed by each author, and each author's current appointment and address should be stated. We encourage you to declare any conflict of interest. Please enclose a stamped addressed envelope if you would like to know whether your letter has been accepted or rejected.

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