Vitamin C depletion and pressure sores

EDITOR,—Helen F Goode and colleagues cite the main risk factors for pressure sores in elderly people—namely, acute illness, poor mobility, long periods on high pressure surfaces, incontinence, and confusion.¹ They did not control for these effects so are unwise to conclude that there is a significant association between vitamin C and the development of pressure sores in elderly subjects with femoral neck fractures, particularly since the patients were unselected.

Rather than seek a “clear cut risk factor which determines why one patient should develop a sore given the same conditions as another patient,” the authors could perhaps have used an instrument such as the Waterlow pressure sore assessment score.² This instrument acknowledges that the risk of developing pressure sores is multifactorial, but its application allows an appropriate care plan to be constructed, including the allocation of equipment such as mattresses to prevent the condition arising in the first place.³ Such a system is used routinely in many units caring for elderly people.

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1 Goode HF, Burns E, Walker BE. Vitamin C depletion and pressure sores in elderly patients with femoral neck fracture. *BMJ* 1992;305:925-7. (17 October.)
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EDITOR,—Helen F Goode and colleagues have evaluated the contribution of specific nutritional deficiencies to the risk of pressure sores.¹ There is little doubt that certain groups of patients—particularly those with impaired mobility or sensation—are at great risk of developing sores. High risk patients may be identified by routine use of the Norton pressure sore score. We are, however, alarmed at the extremely high incidence of pressure sores reported in the patients studied by Goode and colleagues (48%).

Pressure sores are unacceptable and, in most cases, avoidable.² With adequate nursing care and thorough attention by medical and anaesthetic staff to the risk of pressure sores they may be prevented. The essence of prevention is a two pronged approach to relieving pressure—namely, two hourly changing of position by nurses³ and the use of special equipment that may reduce the frequency of changes of position needed (ripple mattress, sheepskin fleeces, and pillows).

Prevention of pressure sores starts on the ambulance trolley and continues in casualty, the operating theatre, and the wards. It necessitates a short term outlay of staff time and money that saves a major long term outlay on these resources. Reflecting this long term saving, the incidence of pressure sores developing in hospitals is likely to be used as an outcome measure for rehabilitation services and acute hospital services.²

Although we accept the importance of defining biochemical factors contributing to the development of pressure sores, these sores must be seen as unacceptable sequelae to poor nursing and medical care. Until they are seen as preventable by all the team caring for the patient, pressure sores developing in high risk patients in hospital will continue to be an important avoidable expense to both the patients and the health service.

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EDITOR,—Helen F Goode and colleagues' paper on the relation between vitamin C and pressure sores in elderly patients with femoral neck fracture¹ accords with observations published in 1969 after a controlled trial of vitamin supplementation in 80 long stay geriatric patients followed up for one year.² Mean leucocyte ascorbic acid concentrations were 14.6 µg/10⁶ cells in the controls and 13.6 µg/10⁶ cells in the treated group on entry, 27.3 and 56.5 µg/10⁶ cells respectively at six months, and 23.6 and 57.9 µg/10⁶ cells respectively at 12 months. At the end of the year pressure sores were present in nine of 29 surviving controls and two of 33 survivors who had been treated ($\chi^2=6.6069$, $p<0.01$).

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1 Goode HF, Burns E, Walker BE. Vitamin C depletion and pressure sores in elderly patients with femoral neck fracture. *BMJ* 1992;305:925-7. (17 October.)
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Job advertisements from the tobacco industry

EDITOR,—I object to the placement of an advertisement from Rothmans International Tobacco Limited in the classified section of the *BMJ* of 14 November. The BMA is at the forefront of a campaign directed against the tobacco industry, and to accept an advertisement from a tobacco company implies, whether it is true or not, that the message of the campaign comes a poor second to the advertising revenue of the *BMJ*.

Although the advertisement is not in itself promoting the use of tobacco, it is assisting Rothmans in conducting its activities. The fact that the advertisement has appeared in the *BMJ* lends the company an element of respectability that should not be afforded to it by an association that is the collective voice of the medical community in Britain.

There are other ways to recruit an occupational health physician, a job which I appreciate is important in any organisation. Rothmans could use a head hunting agency or advertise in the national press and still find a suitable candidate for the post. My objection is only that the advertisement was accepted by the journal of one of the most vociferous antismoking campaigners in the world and that the journal has thereby cheapened itself and the antismoking campaign.

I hope that the *BMJ* receives enough letters on this point to adopt a new policy on accepting advertisements from the tobacco industry. Clearly the current policy is not good enough.

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*The *BMJ* has been campaigning on the dangers of tobacco for 30 years and supports a ban on advertising. The *BMJ* Publishing Group has also, this year, started *Tobacco Control*, a journal devoted specifically to the worldwide battle against tobacco. Nobody can doubt our opposition to tobacco.

Nevertheless, the tobacco industry continues to exist, and those who work in the industry have a

right to an occupational health service. The *BMJ* is the place in Britain to advertise for doctors, and for us to deny the workers in the industry the chance of finding the best possible doctor would be too extreme a step.—ED, *BMJ*.

Screening, ethics, and the law

EDITOR,—N Wald and M Law¹ assert that the editorial by P J Edwards and D M B Hall² gave inappropriate advice by confusing research and service activities. We think that Wald and Law may be confused, as they seem to have misinterpreted the editorial. Edwards and Hall pointed out that informed consent applies equally to research procedures and service activities. Research procedures are reviewed by ethics committees, and service activities are covered by HC(90)22,³ on which the editorial was based.

We are also concerned that Wald and Law are challenging the advice contained in the editorial without appearing to consider it appropriate to refer to the guidance of the Department of Health. Advice on informed consent in HC(90)22 makes it clear that under common law patients have a right to receive sufficient information in a way that they can understand about the proposed treatments, the possible alternatives, and any substantial risks so that they can make a balanced judgment in deciding whether to submit to medical intervention. This advice applies to operations, investigations, and treatment and certainly includes novel and established screening programmes. Informed consent is aimed at service activities so that patients are not subjected to medical interventions and procedures without understanding them and the risks attached.

In antenatal screening such as that proposed by Wald *et al* for Down's syndrome,⁴ when a mother is entered into the programme she needs careful explanation of the screening test and the associated risks before having her blood taken. We believe that Wald and Law are wrong to suggest that details of the screening programme do not need to be fully explained “when offering the initial blood test.” The implication is that women may be entered into the programme without fully understanding the consequences—or, to put it another way, without informed consent.

Wald and Law's advice is open to criticism for two reasons. Firstly, we think it is unethical to expose patients to the risks and potential harm associated with any screening programme without their informed consent, and, secondly, disastrous legal consequences may await those who are unwise enough to ignore the Department of Health's advice on informed consent.

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1 Wald N, Law M. Screening, ethics, and the law. *BMJ* 1992;305:892. (10 October.)
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EDITOR,—Defining the best way of giving people information is an unhelpful objective according to Nicholas Wald and Malcolm Law¹ in their criticism of P J Edwards and D M B Hall's editorial.² The reasons they give are that too much information can be as unsatisfactory as too little; setting guidelines may encourage litigation; and decisions about best practice should be left to the discretion of the health professional offering

the test. There are several problems with these arguments. Firstly, studies showing the benefits of giving fuller information in health care far outnumber the few that document any adverse effects.¹ Secondly, the main cause of dissatisfaction among patients is being given too little information, not too much.⁴ Thirdly, health professionals are generally poor at judging the informational and emotional needs of patients.⁵

We have used tape recordings of consultations to study the presentation of cervical screening in primary and secondary care and of maternal serum α fetoprotein screening for spina bifida and Down's syndrome (T M Marteau and S Thwaites, annual scientific meeting of Association of University Teachers of General Practice, Manchester, 15-17 July 1992).⁶ The most striking feature of the results of these studies is the paucity of information given during routine screening. For example, the likelihood of being recalled—a not uncommon occurrence with these screening tests—was never mentioned in over 120 consultations. The conditions for which screening was being offered were described on just five occasions. The possibility of a false negative result for either test was never mentioned.

Brief training programmes to improve the ways in which health professionals present routine screening tests are currently being evaluated. Meanwhile, the development of guidelines on the minimum information patients should be given before they consent to screening is a worthy objective. Aside from increasing patients' understanding of the tests they are being offered, provision of more detailed information may also minimise both raised anxiety and false reassurance, two common problems for those undergoing screening.

Guidelines define good practice. This inevitably defines less good practice. Avoidance of bad practice may encourage defensive medicine, since some doctors may be encouraged to give information only because they fear litigation. The function of any such guidelines, however, is to improve the quality of services to patients prospectively. It is sad if we shrink from defining good practice purely out of fear that it defines and exposes poor practice.

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Patient compliance

EDITOR,—Although J K Aronson and M Hardman's documentation of the scale of non-compliance with treatment is accurate,¹ we believe that they substantially underestimate the complexity of this phenomenon. We question their failure to consider the patient's behavioural choices in the context of his or her understanding and assessment of the potential effectiveness and hazards of the treatment offered. In particular, we regret their apparent reduction of patients' motivations to ignorance and forgetfulness: the patients may have good reasons for choosing not to "follow doctor's orders."²

Compliance is associated with patients' satisfaction with the consultation,³ communication,⁴

and the general standard of care.⁵ Studies of patients with hypertension and rheumatoid arthritis suggest that non-compliance cannot simply be attributed to problems of understanding or memory.^{6,7} Instead of being passive recipients of medical advice and treatment, patients participated in continuing monitoring of their condition and the effect on it of taking or not taking the treatment. They also evaluated its therapeutic benefits against any adverse side effects and its impact on their normal lives and were concerned about becoming dependent on the drugs prescribed. Their decisions to continue or discontinue treatment were informed by these judgments. Indeed, as Sharma reported, such concerns may lead to patients seeking treatment that is more consonant with their underlying beliefs outside conventional medicine.⁸

Demographic change and medical advances mean that the main challenge now confronting doctors is managing chronic conditions in such a way as to maximise the social functioning of patients. In many instances long term drug treatment will have to be combined with dietary or some other form of intervention, with obvious implications for enlisting and maintaining patients' cooperation. If this is to be achieved doctors must understand better the lives in which they are intervening. They must also seek to discover patients' prior beliefs rather than treat them as empty vessels into which "appropriate" knowledge can be poured.

The word "compliance" implies that patients are either passively obedient or wilfully disobedient in the face of medical expertise. Thinking of the doctor-patient relationship as one of collaboration or as a therapeutic alliance rather than in terms of compliance might be more constructive.

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- 1 Aronson JK, Hardman M. Patient compliance. *BMJ* 1992;305: 1009-11. (24 October.)
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EDITOR,—J K Aronson and M Hardman include educating the patient as a factor that may help improve patients' compliance with drug treatment¹; they might perhaps have given this greater priority. I am also surprised that they do not mention drug information leaflets, which provide patients with written information about the drug prescribed, detailing its preparation (tablet or liquid form), method of administration, possible drug interactions and side effects, and advice regarding missed or vomited doses. Such information should clearly be an adjunct to, rather than a substitute for, oral advice as patients often do not remember or misunderstand much of what is said to them by doctors. This is probably most pertinent with respect to adverse events or side effects; unexpected side effects may distress or annoy patients (and parents), which may adversely affect compliance.

All the families attending this regional paediatric epilepsy clinic are provided with the information leaflet for the antiepileptic drug prescribed for

their child. I know, therefore, that patients who read these have a greater knowledge and understanding of the drugs that their children are taking.

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EDITOR,—Patient compliance is important therapeutically but often discounted. I am concerned, however, that J K Aronson and M Hardman's article may perpetuate several common misconceptions.¹

Intuitively, it would be expected that simplifying dosage regimens should enhance compliance; indeed, there are studies which lend support to this contention. Little evidence exists, however, that compliance with once daily treatment is much better than that with twice daily treatment. In addition, omission of a single dose may have considerably greater impact in a once daily regimen than in a twice daily regimen. This is particularly true when modified release formulations are used, when it is likely that the "natural" elimination characteristics of the drug will be apparent at some time in the 24-48 hours after it is taken. The consequences of this are an apparent acceleration in elimination of the drug, a rapid decline in plasma concentrations, and, as a consequence with many drugs, a loss of therapeutic effect.

The article also perhaps fails to recognise that compliance is not simply a yes-no phenomenon. Tablet counting at best provides evidence only of total drug taking over a period and in many instances has been shown considerably to overestimate the adequacy of compliance.² Medication monitors with a silicon chip built into the container do provide evidence of both the compliance rate and timing; although, as Aronson and Hardman recognise, they do not provide definitive evidence that the tablet has been taken, evidence indicates that, with a few exceptions, they are a reliable indicator of dosing.³

Prescribing doctors should pay attention to compliance because of both the potential financial implications and the growing recognition that poor compliance may explain a high proportion of therapeutic failures.

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EDITOR,—When describing methods of investigating patient compliance J K Aronson and M Hardman refer to the use of markers with a short half life but fail to mention indicators with a long half life.¹ The use of either a pharmacological marker or an indicator included in formulations of the therapeutic drug may overcome many of the problems associated with traditional techniques of assessing compliance. While a marker with a short half life, such as riboflavin or isoniazid, can reflect only compliance with the previous one or two doses, a substance with a long half life will indicate compliance over the preceding few weeks. Thus the technique using substances with a long half life cannot be manipulated by the patient taking a few doses before sampling—the so called "toothbrush"