Wernicke's encephalopathy and hyperemesis gravidarum

EDITOR,—In their lesson of the week describing Wernicke's encephalopathy and central pontine myelinolysis after prolonged treatment with intravenous fluids for hyperemesis gravidarum P S Bergin and P Harvey do not consider an alternative biochemical explanation for their findings—namely, phosphate depletion.¹

Prolonged vomiting and infusion of phosphate free fluids have well recognised associations with hypophosphataemia, which, like thiamine deficiency, may worsen acutely after a carbohydrate load. This is well described in patients undergoing refeeding after starvation.² Hypophosphataemia has adverse effects on many organs, including the central nervous system, and may give rise to a syndrome resembling Wernicke's encephalopathy.³

The presumed mechanism for these multisystem effects is a fall in the availability of high energy phosphates, especially ATP.⁴ Thiamine itself is not an active cofactor until it has been phosphorylated by thiaminokinase—an ATP dependent step. Red cell transketolase activity would be low and show an increased thiamine pyrophosphate effect since the pyrophosphate form, and not necessarily thiamine itself, would be lacking. Hypophosphataemia should therefore be considered in Wernicke's encephalopathy, even if there is apparent biochemical evidence of thiamine deficiency.

We endorse the recommendation that thiamine supplements should be given to patients with prolonged vomiting but would go further. Patients should not be given prolonged intravenous treatment consisting only of saline and dextrose solutions as nutritional deficiencies will invariably develop; these will be unlikely to be corrected by replacement of a single nutrient alone. This is especially important in pregnancy, when the metabolic requirements are much greater, thereby lowering the threshold for the appearance of nutrient depletion.

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Exercising for health

EDITOR,—Daphne Gloag highlighted the low levels of physical activity among all ages and the risk factors for cardiovascular disease and other conditions from physical inactivity.¹ The benefits of increased physical activity in school children, adults, and older people have been well documented.^{2,3}

The 1990 general practitioner contract included the concept of health promotion and disease prevention by allowing health promotion clinics. Exercise counselling was included in the list of clinics. I have argued for exercise counselling clinics to take place in venues outside the surgery, including village halls, leisure centres, education establishments, and church halls, by using qualified staff and paying them from the monies

received from family health service authority health promotion clinics.⁶ Patients with cardiovascular disorders, asthma, osteoporosis, arthritis, and neurological disorders, and elderly patients have benefited from these clinics, and in some cases medication has been reduced.

Health promotion clinics ceased to exist from 1 July 1992, and a new banding procedure will be introduced from April 1993. Health promotion will be based on key target areas as outlined in *The Health of the Nation* white paper.

Increased physical activity for all age groups will result in an improvement in the nation's health, and in a reduction of medication and an improvement in the quality of life for many people. But if health promotion clinics, including exercise counselling clinics, are abolished and community resources like leisure centres, village halls, and education centres cannot be used, then the primary care team's interest in promoting physical activity will be reduced.

General practitioners should be encouraging their patients to use these community resources to improve their health and lifestyle. *The Health of the Nation* encourages the concept of healthy alliances, healthy cities, healthy schools, and healthy workplaces. Why not healthy villages? Rural areas have health needs, and primary care can take a lead role in promoting physical activity for "health gain." We must encourage the negotiators who are deciding the new concepts for health promotion in general practice to support physical activity counselling to help reduce the risk factors of inactivity and to support the uses of community resources to improve the health of our nation.

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EDITOR,—Daphne Gloag states that doctors are in a key position to encourage people to take exercise.¹ Local general practitioners have been operating a system of referrals to the Lagoon Leisure Centre in Hailsham for the past 18 months. Up to 20 general practitioners refer patients for a course of exercise. The medical benefits of the project have been, to quote one of the doctors, "amazing"; anecdotal experience suggests that the psychological benefits are also considerable.

The people referred by the general practitioners differ greatly from self referrals. Our local research programme indicates that barriers to participation such as shyness and negative preconceptions about sport are greater in those referred by general practitioners, who, by definition, are people who did not previously use the centre. Our research programme found that 74% of people in our catchment area who did not use the centre said that "nothing could be done to attract them to use the Lagoon Leisure Centre."

In one specimen general practice 56 people attended at least once for a 10 week exercise programme; 48 completed the course and 36 continued to use the centre regularly. In another practice 47 out of 50 people referred for a six week course turned up; 42 completed the course and 26 became regular users of the centre. This seems to indicate that reasons for non-attendance such as

"lack of time," "too old," and "not enough energy" may just be masking personal sensitivities.

By using the power of the general practitioner to bypass the traditional barriers to participation and by getting the centre's staff to introduce patients to fitness programmes sympathetically, successful adherence to healthier lifestyles can be achieved. This is good news for general practitioners, who will have an additional weapon in their armoury; the government, because a fitter population will place fewer demands on the NHS; the leisure centres, which will have a completely new market; and most of all, the patients, who are being empowered to take responsibility for their health.

Other leisure managers have recognised the benefits of the project in Hailsham, and 42 leisure centres throughout the country wish to set up similar schemes. What they need are general practitioners who would be willing to join these schemes. The Wealden District Council model in Hailsham has been extended to use nurses, community health workers, and social services, and we have received funding to evaluate the results of our work.

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- 1 Gloag D. Exercise, fitness, and health. *BMJ* 1992;305:377-8. (15 August.)

Day surgery for cataracts

EDITOR,—Hugh F Thomas and Roger Humphry emphasise that attitudes within the ophthalmic profession still present a major block to greater use of day surgery for cataracts.¹ This will change, and rapidly. Day case ophthalmic surgery has obvious benefits for both the patient and the system. It is suitable for a wide range of procedures and has been shown to work in several centres and countries. Moreover, those who have started using day case surgery have not reported problems and reverted to inpatient care.

Thomas and Humphry state, however, without giving a reference, that "day case cataract surgery is unsuitable for training junior ophthalmologists." What is the basis for this comment? Over the past 10 years my team has performed day case surgery on virtually all children, and for the past three years we have used it for a smaller but increasing proportion of adults. The use of trainees has not been a problem. Why should it be? The difference between day case and inpatient ophthalmic surgery lies not in the surgical procedure itself but in the preoperative and postoperative management.

This is not a trivial issue as almost all ophthalmic units play a part in training. Precluding trainees from doing day case work would curtail training, encourage entrenched attitudes, and also restrict the shift to day case work, which would be most significant in the larger training centres. Precluding them does not make sense as once they have achieved consultant status they could be expected to treat at least 80% of cataracts as day cases, as already happens in the United States. This misconception that day case cataract surgery is unsuitable for ophthalmologists in training must be laid to rest immediately if we are to improve the surgical services to our patients.

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- 1 Thomas HF, Humphry R. Day surgery for cataracts. *BMJ* 1992;305:536-7. (5 September.)

AUTHORS' REPLY,—Our statement was based on a guidance note from the College of Ophthalmologists, which suggests that "A very high level of surgical expertise is required to minimise post-

operative complications and therefore the day-case unit is not a suitable place for basic surgical training. All trainees should, however, benefit from experience in the day-case unit." With the high level of day surgery in the United States much of trainees' teaching there must obviously go on in that setting. One of us (RH) performs 40% of his cataract operations as day cases and finds no real difficulty in teaching junior staff members while so doing. We certainly agree with Alistair R Fielder that this issue must not be used to stem the development of day case cataract surgery.

Colin Dryden may be correct in claiming that modern general anaesthesia has many of the benefits associated with local anaesthesia.² A recent study of cataract surgery comparing general anaesthesia with local anaesthesia found, however, that local anaesthesia was 15 times cheaper in material, led to a faster throughput of patients in the operating theatre, and halved the expenditure on staff (ophthalmologists gave the local anaesthetic).³ These are important factors where waiting lists are long or units are competing to obtain contracts for work. Patients' opinions are hard to gauge, but a small study of 24 patients with cataract suggested a preference for local anaesthesia.⁴

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EDITOR,—Hugh F Thomas and Roger Humphry assert that "undoubtedly . . . the impetus for day case surgery [in the United States] has come from insurance companies because it is cheaper." I recently reviewed day case surgery in the northern region and visited the Methodist Medical Center in Illinois. The authors are right to point out that the high proportion of day case surgery for cataracts in the US is not associated with poorer outcome or other disadvantages to patients but are wrong to assume that the primary impetus is price. The Methodist Medical Center does 99% of its cataract surgery as a day case procedure.

The main impetus for the remarkable performance derives from the following facts.

Firstly, the patients want day case surgery. The elderly population in the US is vocal, mobile, active, and on the whole made up of discerning consumers.

Secondly, the clinicians want day case surgery. Most of the work entailed in the preoperative assessment, admission, discharge, and follow up of patients and in audit of day case procedures is done by registered nurses according to agreed, written protocols and recovery criteria. This allows the surgeons to turn up in the theatre, operate, and leave. Their incentives for day case surgery include the absence of any follow up ward rounds.

Thirdly, the employers and insurance companies want day case surgery. Price itself is not a factor because despite cost differences the price that units charge for inpatient or outpatient procedures is the same. Pricing policy allows ambulatory care to cross subsidise extensive inpatient capacity, not necessarily to save the purchaser money. The overall cost is less because recovery time is shorter and patients can return to work sooner. That is the incentive, not the relative cheapness of the procedure.

For many reasons the American experience cannot be repeated in Britain. Currently, patients' expectations may be different. An overcrowded outpatient clinic makes follow up on the first postoperative day a completely different experience

from the "office based practice" of a specialist in the US. But there are many lessons for both purchasers and providers in Britain—for example, because of our enhanced ability to control costs there are genuine revenue implications for the NHS in a shift to day case surgery.

The main issues of day case surgery are better outcome, higher quality of service, equity, and the ethical use of resources.

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- 1 Thomas HF, Humphry R. Day surgery for cataracts. *BMJ* 1992;305:536-7. (5 September.)

Setting up a practice newsletter

EDITOR,—Tim Albert's article on setting up a newsletter raises many issues¹; he does not, however, touch on that of distribution. To have impact the newsletter should reach the practice population rapidly. The only way to do this is by post, and a practice with a list of 10 000 patients might well find the cost of including every household—around £800—unacceptable. Alternatively, newsletters could be included with every mailing for other purposes (immunisations, cervical smears, health promotion recalls, or repeat prescriptions). Other patients could obtain copies from the waiting room or reception desk on a "help yourself" basis.

The value of a newsletter in general practice is hard to define. What about advertising services offered by the practice? This is better served by the practice information leaflet. What would constitute "news" and give the feel of a homely caring group of family doctors—staff births, deaths, marriages, the Christmas party, refurbishments, research undertaken, awards achieved? Good for morale (of staff only) but egotistical and unlikely to modify patients' behaviour. How about providing articles on managing self limiting illness? Inadvisable. Propaganda—for example, how hard we work, or appropriate use of the out of hours service? Albert points out that this will be scoffed at. Patients might be interested in audit of aspects of care and an evaluation of the practice output, but this would be best served by an annual report.

The benefit of a newsletter is undeniable when a practice is undergoing change, to provide reassurance if nothing else. Rumours abound in local communities, and health care is emotive. Newsletters could explain the reasons for moving premises, changes in consulting times, a decision to become fundholding, the new trainee, and so on. For this purpose newsletters make fiscal sense. Patients are unlikely to join a practice because of a newsletter, which they are unlikely to see. Newsletters might, however, prevent an exodus. Newsletters will burn a sizeable hole in the practice purse and, worse, will require days of extra work. Before embarking on this venture be sure you have a clear objective and decide how you intend to achieve it.

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- 1 Albert T. How to set up a newsletter. *BMJ* 1992;305:631-5. (12 September.)

Screening, ethics, and the law

EDITOR,—We are concerned that the editorial by P J Edwards and D M B Hall does not give appropriate guidance.¹ It confuses research and service activities.

It is incorrect to say that the novel implementa-

tion of an effective screening procedure should be regarded as research. This requirement would mean that screening might not be introduced because its funding would fall between two stools: health authorities would not fund research, and bodies that do fund research would not fund an activity of proved efficacy and safety. Edwards and Hall do not make explicit the need to develop national mechanisms for assessing the efficacy and safety of new screening tests and for the controlled implementation of new screening programmes of proved value, with audit of the service and the quality of care. Monitoring and refinements should be regarded as an integral part of the service, not a separate research activity.

Screening procedures of unknown effectiveness and safety should not be introduced as service activities; research designed to resolve the uncertainty is essential. Such research can be based on observational data (as with antenatal screening) but may require a randomised controlled trial. Confusing research and service may delay the introduction of worthwhile screening programmes and also encourage the introduction of ineffective programmes provided they have been approved as ethically acceptable by an ethical committee.

Of course people offered a screening test must know what is going on, but how this is done and the extent of detail provided need be considered carefully and a reasonable judgment reached. Too much information can be as unsatisfactory as too little. The detail will vary according to the test or procedure, the expectations of the people being screened, and the individual person concerned. The editorial is too prescriptive about this, and its suggestion that a doctor could be successfully sued for negligence unless detailed information was provided at the outset may be a self fulfilling prophecy. In antenatal screening, for example, the editorial advocates that women should be told the rates of false positive and false negative results and the risk of amniocentesis causing miscarriage. Such detail may be appropriate before the amniocentesis but not when offering the initial blood test, nor to avoid "disastrous legal consequences." The approach proposed will not always suit specific circumstances, yet screening authorities may feel obliged to comply through fear of legal action regardless of its overall merit. It will have the effect of encouraging defensive medicine.

Nobody would dispute that screening programmes must be worth while and delivered to the public effectively, economically, equitably, and with appropriate monitoring. The real problem is the need to establish a national mechanism within the health service for doing this instead of leaving the matter to individual units throughout the country. It will not be helped by calling a service programme a research project or by encouraging defensive medical practice.

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- 1 Edwards PJ, Hall DMB. Screening, ethics, and the law. *BMJ* 1992;305:267-8. (1 August.)

Service increment for teaching and research

EDITOR,—Trevor A Sheldon¹ infers that the King's model for allocating the service increment for teaching and research (SIFTR) within its provider unit² is founded on an untenable assumption and underwrites inefficiencies. We believe that he has misunderstood the approach that we have taken.

The King's model undertakes a preliminary distribution of SIFTR to specialties that is not