Fitness for diving

Sir,—In answer to a recent question (17 April, p 949) whether it would be safe for a young person to dive if he had a history of an abnormal electroencephalogram (EEG) and had been treated for epilepsy until the age of 11 your expert’s reply was that “it is as safe for this young man to do underwater diving as it is for anyone.”

We believe this guidance to be potentially dangerous. In fact, this guidance is immediately contradicted by the next sentence of the answer, which states that in various circumstances under water “he would be more likely to have a fit than someone without his previous history.” It needs to be realised that a fit occurring under water, whatever its cause, can be rapidly fatal.

Standards of fitness to dive are laid down by various authorities. Current British naval practice would not accept an individual with an EEG suggestive of epilepsy even if he had never had a fit. United States Navy regulations state that “organic brain disease seizure disorders of any sort... shall be disqualifying.” The memorandum for medical officers who have been approved by the Secretary of State, Department of Energy, to undertake the medical examination of commercial divers in the UK and the South Atlantic states that epilepsy is among the conditions which disqualify a man from diving. The British Sub-Aqua Club has recently decided to exclude from diving those with a history of epilepsy.

Under the weight of these separate opinions it would seem somewhat more responsible for the physician to recommend that this particular individual should seek some other sport or occupation.

D H ELLIOTT
R R PEARSON

Institute of Naval Medicine, Alverstone, Gosport, Hants

*Our expert writes: “It is true that if someone were to have a fit under water his chances of dying would be high. The first point to make is that this young man is aged 21 or more; and, this being so, he has had no fits for 10 years. To all intents and purposes such a person should not be regarded as suffering from epilepsy and he should lead a normal life, doing any job he wants to take and driving motor-cars. When I read the question I thought only of diving for sport with aqua-lungs and was not thinking of commercial or naval diving. Aqua-lung diving was, I presume, what the question was about. I quite see that, whereas a young man who is keen on aqua-lung diving would be willing to take the very small risk of ever having a fit while diving, the Navy cannot take this responsibility for someone else.”—Ed, BMJ.

Guillain-Barré syndrome

Sir,—The essential contribution of Guillain, Barré, and Strobl1 to the study of peripheral neuropathy was the discovery, in their cases, of a raised cerebrospinal fluid (CSF) protein with a normal cell count—the “cytolauminologic dissociation.” The three patients described by Drs A Royston and B J Prout (17 July, p 150) are of considerable interest, but as the CSF was normal in two they cannot be properly described as simulating the Guillain-Barré syndrome.

Eponyms change meaning over the years, but it is a pity to forget the basis of the original definition.

C P PETCH
Wolferton, King’s Lynn, Norfolk


Diet and malignant disease

Sir,—In answer to a question on the treatment of histiocytoma lymphoma (19 June, p 1522) your expert says: “I know of no evidence that diet can influence the course of this or any other malignant disease in man.” May I refer you to your leading article entitled “Small bowel tumours” (18 January 1975, p 115), where it is stated with reference to colicai disease and malignancy that “both lymphoma and carcinoma occur, but the incidence of carcinoma is reduced if the patient is treated with a gluten-free diet”?

HAROLD SMITH
Secretary, Coeliac Action Group
London W2

Our expert writes: “There is no conflict between what I said in my answer and what was said in the leading article mentioned by Mr Smith. My answer referred to the possibility that the course of malignant disease might be influenced by diet. The leading article refers to the incidence. There is quite a lot of evidence to suggest that the remarkable geographical variations in incidence of various kinds of malignant disease, especially bowel cancer, might be related to differences in diet, but I repeat that I know of no good evidence that diet can influence the course of any malignant disease. Of course, this is not to say that it does not do so. It may well do so. I am just not aware of any good evidence that it does.”—Ed, BMJ.

Mechanism of action of antiallergic drugs

Sir,—Drs J C Foreman and L G Garland (3 April, p 820) have provided an excellent summary of current thinking on the mechanism of the anaphylactic reaction and on the way in which cromoglicate and similar compounds may inhibit this process. Their experiments1 and other recently published evidence2 support the hypothesis that drugs of this type inhibit the entry of calcium into the cell. We would, however, disagree with their suggestion that the inhibition of the anaphylactic reaction caused by some of these compounds is attributable to their inhibition of cyclic adenosine monophosphate phosphodiesterase (cAMP-PDE). Our disagreement is based on the following observations.

(1) We have found no correlation between the ability to inhibit anaphylactic release of histamine from rat mast cells.3 This is illustrated for cromoglicate, AH7725, and theophylline in the table. All have the same order of activity as inhibitors of cAMP-PDE but not as inhibitors of histamine release.

(2) The kinetics of inhibition of histamine release by cromoglicate, AH 7725, and many other antianaphylactic compounds are not those expected of inhibitors of cAMP-PDE.

Table

<table>
<thead>
<tr>
<th>Inhibition of cAMP-PDE (human lung) (k)</th>
<th>Inhibition of histamine release (rat mast cell) (IC50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cromoglicate 1 x 10^4 mol/l</td>
<td>9 x 10^-5 mol/l</td>
</tr>
<tr>
<td>Theophylline 2 x 10^4 mol/l</td>
<td>1 x 10^-5 mol/l</td>
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Cromoglicate and similar drugs must be added to the mast cell simultaneously with antigen in order to inhibit effectively the release of histamine.4 5 Precipitation of the drug on to the cell membrane prevents this, and before adding antigen the drugs much less active. In comparison, theophylline and more potent inhibitors of cAMP-PDE must be preincubated with the cells before adding antigen to produce significant inhibition of the release of histamine. This is understandable as inhibitors of cAMP-PDE require time to raise the intracellular concentration of cyclic AMP.

Even if cromoglicate in high concentration was found to raise the concentration of cyclic AMP in mast cells it would not be good evidence that this is its primary mode of action in inhibiting anaphylaxis because of its obvious activity against the cells at much lower concentrations. Similarly the modest degree of synergism reported for mixtures of cromoglicate and isoprenaline is less than we would expect for a mixture of an effective inhibitor of cAMP-PDE and a beta-stimulant. Thus we would not dispute the fact that increases in the intracellular concentration of cyclic AMP reduce the release of histamine from mast cells, but we do not believe that cromoglicate and similar compounds exert their inhibitory action in this way.

C J VARDEY
I F SKIDMORE

Biochemistry Department, Allen and Hanbury’s Research Ltd, Wan, Herts


2 Spitzer, A C, and Boomsma, H B, Biochemical Pharmacology, 1976, 25, 505.


4 Fullerton, J, Martin, L E, and Wadman, C W, International Archives of Allergy and Applied Immunology, 1975, 49, 46.


6 Thomas, D S, and Evans, D P, Clinical and Experimental Immunology, 1973, 13, 537.


Alcohol and the brain

Sir,—Your leading article on this subject (15 May, p 1168) draws attention to damage to brain function related to alcoholism. A study carried out by Mary Marshman1 on a series of patients admitted under my care at this hospital further emphasises the degree of cerebral dysfunction demonstrable by psychological studies in people seeking treatment for alcoholism. The findings were that of this particular group 76% showed signs of cerebral dysfunction on psychometric testing. This was associated with a high level of reported hostility and personality disturbance, combined with social disruption, than is usually reported in the literature.

I wonder how much this degree of cerebral dysfunction influences the ability of such people to take advantage of the psychotherapeutic methods of “treatment” which are the principal approach to the management of
alcoholism at the present time. I also wonder how much brain function recovers after
abstinence for prolonged periods—for example, six months at least. I also wonder how
you could justify your proposal of compulsory
treatment of alcoholic drivers in the light of
our present fairly ineffective efforts in the
field of alcoholism therapy.

Perhaps, however, if the driving licence
were removed this would provide a very
strong motivation for the individual to make
a success of available treatment programmes.
On the other hand the general knowledge that
assessment as suffering from alcoholism would
lead to the loss of the driving licence if an
offence were committed might make it very
much more difficult for anyone to find the
evidence to support the diagnosis.

ALAN FOSTER
Exe Vale Hospital,
Wonford,
Exeter

Death from asthma

SIR,—It is nonsense for Dr E Posner (17 July, p 179) to state without qualification that “it is
incusable to discharge an asthma patient from hospital without a follow-up period of at
least five years or, even worse, not to refer him
or her for specialist supervision at all.1
Management of common, chronic, fluctuating
conditions such as asthma is the essence of
good family medicine and, contrary to the
truth of the specialist, it is not all that difficult
to acquire the necessary skill in general prac-
tice.

In the best of all possible worlds every
asthmatic would be supervised personally
by the most expert asthmatoologist, but this
is not possible and the best compromise is
long-term care by a competent family doctor
with access to specialist advice when necessary.
Forthwith my own experience of transferring large numbers of patients for
supervision by frequently changing junior
staff in outpatient clinics, with the resultant
inevitable diminution in general practitioner
experience in managing asthma, would pro-
duce any real benefit to asthma patients,
and it might well be to their general detriment.
None of this is to deny the potentially
disastrous outcome of bad management of
asthma, which is certainly inexcusable, and it
behoves every physician caring for asthma
patients to be fully acquainted with current
methods of investigation and treatment.

DARRYL TANT
Luton, Beds

America—the closing door

SIR,—There is no longer considered to be a
shortage of doctors in the United States, and
the Health Manpower Bill, passed by the
Senate on 1 July, places new limitations on
the issue of visas to medical immigrants. I
therefore believe that “the writing is on the
wall” for the prospective entrant to America
and that if any doctor is thinking about coming
to the US he needs to file an application for a
visa at least one year in advance of the probable
date of migration.

There have been many examples recently
of intolerable delays in doctors getting their
visas from the American Embassy in London,
with much anxiety and frustration for them
and their families. With the new regulation
from Washington the American government
appears to be spelling out a very clear message
that the doors are closing and that the United
States no longer requires the large number of
immigrant doctors that were encouraged or
tolerated in the past.

It would be a very wise precaution for any
British doctor contemplating accepting a job
in America to confirm the likely date of
processing before committing himself to taking that job, giving up his
home, and resigning from his job in Britain.

BRIAN McGUINNESS
Department of Family Medicine,
Southern Illinois University
School of Medicine,
Springfield, Illinois

Doctors and trade unionists

SIR,—I was interested to see your report of
the interview with Mr Alan Fisher of the
National Union of Public Employees (24 July, p 227). Doctors, of course, have always had
a very special place in left-wing demonology,
and much of what Mr Fisher had to say was
merely thinly disguised doctor-bashing. How-
ever, he did also say that he could understand
doctors complaining that if pay-beds were
phased out they would lose money.

Why, indeed, don’t they come out and say
just that? If you do not go to the doctor, you
will not necessarily die or even ill. If you
do not eat, you most certainly will die,
having first become frightfully ill. It is not
shameful for the producers of food to want to
make profits? Why should it be so for doctors
—or, come to that, drug firms?

M G BARLEY
Brighton, Sussex

Consultant contract—a reduction in
work load?

SIR,—I write as a maximum part-time con-
sultant anaesthetist. I was informed of the
seven per cent. increment but actually being paid £7454 for the third.
Why should I not be paid the full
£10 689, as I have passed the five-year limit
of the new incremental scale and my pro-
gression was anticipated from a full-time?

The answer lies partially in the poor econo-
mic state of the country, which will not allow
any substantial increase in the remuneration
of consultants for the next few years. Too
much concern given to specific extra burdens in our present contracts
as a method of justifying an increase in pay.
Payment by item of service often puts a
higher price on a session, but in the longer
term remuneration for the same work,
whether assessed by item, session, or annually,
will be equalised by adjustments in rates.
If the money is not available then juggling with
the details of the method of payment will
not alter this fundamental fact. I suggest
therefore that we demand a reduction in
clinical work load and rewrite our contracted
programmes to allow adequate time for
reading, teaching, administration, and creative
planning for the future. We need in addition
the time to maintain our homes, as we cannot
afford to pay anyone else to do this.

This concept of a flexible contract allows
compensation for differences between special-
ties and different areas of the country. Hitherto
vacant posts in the less popular specialties in
industrial regions could be filled if an attractive
package was offered. Full pay for two
thirds of a consultant would be better than
no consultant at all, and a policy of positive
belief in the future is preferable to the devious
defeatism of the DHSS in phasing out
unfitted consultant posts.

The satisfaction of any appointment de-
dends upon the balance of pay, working
conditions, and work load and the local
amenities. Differences between specialties
are likely to lead to work in less pleasant
areas are less likely to receive widespread
support than the individual tailoring of
contracts to compensate for shortcomings in
specialty or environment.

A S JACKSON
Cheltenham General Hospital,
Cheltenham, Glos

Social service delays

SIR,—I wonder whether other family doctors
have experienced the same problem with
their social services departments as is being
experienced in our area. This morning I had
to refer an 80-year-old man to an acute medical
bed in the local district general hospital
25 miles away because our practice general
practitioner beds were occupied either by