fact there has been a serious rise in the number of deaths from asthma. I would venture to say that this is not really a shock but rather an expected result. Asthma is a psychosomatic illness, and the symptoms express the patient's need to be paid attention. Modern treatment appears to be directed at relief of symptoms, and this has become so easy that the patient in being robbed of his symptoms can do no more but die as a last desperate gesture to the society that is neglecting him. It is like piously preventing the screams of a drowning man and then wondering why he still drowns. Rather than spend time looking for organic failures in our present drug regimen we would be better employed in trying to understand the underlying psychological problems and in attempting to find a solution to them.—I am, etc.,

London W.1.

SAMUEL WEINSTOCK.

General Practice—A Worth-while Career

SIR,—Dr. J. C. Cameron's letter (24 February, p. 506) contains so many misleading statements that one wonders how it can have been written by a general practitioner.

While it is true that most of us have direct access to hospital diagnostic departments, in very few instances can it be said that we have sufficient access to investigate our patients adequately. Nor, in East Anglia at least, can many family doctors treat their own patients in hospital beds. This is still rigorously opposed by the hospitals and the regional hospital board. Attachment of health visitors and social workers to general practices is still practically unknown in Norfolk.

The greater part of the expense incurred in attending a postgraduate course is that of providing a locum. The new regulations whereby his fees are included in the basic practice allowance instead of being paid when the expense is incurred, as was the practice formerly, must act as a financial disincentive. Furthermore, as your correspondence columns have shown, an adequate provocation training after qualification results in little or no financial benefit. Dr. Cameron's statement that remuneration is now more closely related to work done and responsibility borne is also difficult to accept. The present system of payment perpetuates the dead hand of the capitation system whereby all general practitioners are paid the same regardless of what they do. While it is true that many doctors are now practising from better and more suitable accommodation this owes little to the facilities provided by the authorities. In the main these have been provided by the doctors concerned in a praiseworthy attempt to give a better service to their patients and in the hope that, under the new financial conditions of general practice, they would be rewarded for the money spent. In fact, there is widespread discontent, especially among those general practitioners who practise from surgeries attached to their own homes, for the payment they receive in the form of rent and rates is far below that economic rate promised under the Charter.

It is, of course, true that by the formation of group practices, rotas, and other deputizing arrangements it is possible to provide the essential free time for leisure and study as

claimed by Dr. Cameron. An aspect of this, rarely emphasized by those extolling these advances, is that this is achieved only by assuming a very considerable work load when on duty, and that this is in addition to a heavy working week. Thus there are eight points in Dr. Cameron's letter which can easily be disputed. While I would be the first to agree that general practice can be a most satisfying and rewarding life, surely we may expect a more realistic appraisal from someone in his position?—I am, etc.,

Blakeney,
Norfolk.

A. ALLIBONE.

Tobacco Duty

SIR,—I was interested to note the contribution from Dr. Lennox Johnston (10 February, p. 383). Surely his contribution about smoking and cancer deserved better treatment than to be reduced to "Points from Letters." I am sure Dr. Johnston is right, and I am disturbed that the editing of the *B.M.J.* reflects current attitudes, both medical and political. Few people can now doubt the causal relationship between cigarette-smoking and carcinoma of the bronchus. Few people can doubt also that cigarette-smoking is addictive. It is highly unlikely, therefore, that propaganda alone will do much to reduce cigarette consumption.

I presume that the revenue raised by tobacco duty exceeds the cost of the illness produced by tobacco-smoking. Nevertheless, I feel that it is time that this whole matter was debated in public, and I would hope the outcome of such debate would be the stopping of the importation of cigarette tobacco into this country. Presumably the balance of payments position would also be considerably eased should this measure be taken. Have the Ministry of Health or the appropriate British Medical Association Committee(s) ever debated the question of stopping the importation of cigarette tobacco into this country?

Propaganda has obviously failed in the vast majority of cases. Legislation such as that which has been suggested would, I am sure, be a far better therapeutic tool.—I am, etc.,

Gerrards Cross,
Bucks.

E. H. L. HARRIES.

Not Allowed to Die

SIR,—Professor W. St. C. Symmers (17 February, p. 442) gives a horrifying account of the infliction of unnecessary suffering by prolonging the existence of a dying patient. This is an extreme example of what may be observed in the wards of every hospital in the country, and it is important to realize that many are coming to look on this sort of thing as a type of malpractice which is bringing discredit to both the medical and the nursing professions.

This is really the old story of treating or investigating the disease without adequate regard to the most humane way of helping the patient. It is most disturbing to find that as our technical powers increase this problem is becoming ever more prominent.—I am, etc.,

W. RITCHIE RUSSELL.

United Oxford Hospitals,
Oxford.

When Is Life Extinct?

SIR,—Your legal correspondent's suggested new approach to the problem of "legal death" (10 February, p. 389) would certainly clarify the situation for a lawyer dealing objectively with the personal rights of other people, but I doubt whether it will help the surgeon or anaesthetist in the intensive care unit. The point at which one can accept that such rights have been liquidated is likely to be associated in the public mind with the old-fashioned "ill-defined" word.

While the search for a new legal concept of death is international,¹ each legal system will have to solve the problem in its own way. English law has had its own concepts of life and death in relation to newly born children for many years and it would not seem unreasonable to extend the principles involved to the present situation. In 1874 Brett defined a live birth as one in which the baby was "breathing and living by reason of breathing through its own lung alone without deriving any of its living or power of living by or through any connexion with its mother,"² and this concept of an independent existence was repeated in the statutory definition of a stillbirth in the Births and Deaths Registration Act, 1926. Surely, if life only begins when independence is achieved, subject to certain qualifications, it ends when independence is lost. "Living" in the sense in which Brett used it implied no more than the ability to breathe and sustain an independent blood circulation, functions which we now know to be primarily dependent upon the vital centres in the brain stem. If a person loses his ability to exist independently because these are irrevocably damaged (as distinct from one who requires assisted respiration in poliomyelitis or a pacemaker in heart block) he has passed out of the category deemed by Brett to be alive and is presumably only then legally dead, or to put it in the other way, deprived of his legal personality.

Surely the important thing from a legal point of view is to say what is not death—that is, the visible (and perhaps temporary) cessation of breathing and heart-beat—but far more important is it for a bold pathologist, when asked in court to state the time of death, to say "What, my Lord, is death?" The reply of the Human Tissue Act, 1961, is "When life is extinct." Therefore, we must look to the definition of "life."—I am, etc.,

Coroner's Court,
Sheffield, Yorks.

HERBERT H. PILLING.

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- ¹ Wasmuth, C. E., *Anesth. Analg. Curr. Res.*, 1967, 46, 25.
- ² R. v. Handley, *Cox's Criminal Cases*, 1874, 13, 79.

Abortion and Huntington's Chorea

SIR,—The report by the B.M.A. Committee on Therapeutic Abortion (20 January, p. 171) states that "pregnancy is rare in women suffering from this condition [Huntington's chorea]."

In Northamptonshire there are at least five children of women at present suffering from Huntington's chorea who were conceived after the start of their mother's illness. This illness is seldom diagnosed promptly. It is generally represented by those demented,

jerking patients seen in mental hospitals or neurological units whom a second-year medical student could hardly fail to diagnose. Following Pleydell's^{1,2} and Reid's³ pedigrees, and new pedigrees in this county, we find many more patients out of hospital than in hospitals. It is of course the less obvious cases that transmit the illness. As Huntington's chorea is transmitted as a Mendelian dominant, and is *not* a sex-linked condition, why was the B.M.A. committee only interested in the mother's condition? It is also irrelevant to refer to the risk to "families with a high incidence of the condition." If one generation happens to have well under the 50% expected incidence, the next may be unlucky, with perhaps most or even all of the siblings affected.

Manifestation of symptoms can occur after some or all the children are born. The consequences of the illness (in either parent) on the children can be intensely harmful. In Northamptonshire we now have details on a pedigree spanning six generations in which 10 of the 44 adults have had Huntington's chorea. Of the remaining 34 subjects 10 or more have had (or have) serious neurotic and/or marital troubles, divorce, etc., five have been (or are) alcoholics, five have had psychotic illnesses, and two or more have criminal records. The incidence of abandoned or illegitimate children, or children who have died young, should interest anyone interested in preventive medicine or public health. Finally, among all this illness and distress the relevant medical notes for each affected individual seldom have a remotely accurate family history concerning the other members.

The personal tragedies, morbidities, and mortalities occurring in Huntington's chorea pedigrees point to the need for a country-wide medical linkage system as has been started at Oxford. They also act as a reproach to the leaders of the medical profession for such an enfeebled attitude to the question of birth control, sterilization, and, as a last resort, termination of pregnancy. My experience is the same as that of Pleydell: in general, members of these unfortunate drifting families welcome sympathetic but decisive help in preventing them from having large numbers of children.—I am, etc.,

St. Crispin Hospital,
Duston, Northampton.

J. E. OLIVER.

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- 1 Pleydell, M. J., *Brit. med. J.*, 1954, 2, 1121.
- 2 Pleydell, M. J., *Brit. med. J.*, 1955, 2, 889.
- 3 Reid, J. J. A., *Brit. med. J.*, 1960, 2, 650.

Medicine and Mass Media

SIR,—The fortuitous circumstance that the first heart transplantation was undertaken in Cape Town has bedevilled an issue that, for all the irrelevant mumbo-jumbo of morals, ethics, law, and economics, deserves dispassionate examination by surgeons and physicians who have not spent most of their working lives with eyes glued on the thorax and its contents.

Surgery is almost always a crude makeshift. Thus, as an instance, when hypotensive drugs became safe and effective, surgeons stopped doing sympathectomy. When we learn how to delay the onset of heart disease, and how to avert its consequences, we shall not need to transplant hearts, though no doubt valvular heart disease and congenital malformations will continue to be treated surgically. Meanwhile, desperately ill cardiac patients are in

much the same situation as patients who have inoperable cancer. It is worth asking ourselves what surgery and/or radiotherapy can offer to patients with operable cancer, let alone to patients in whom the disease is far advanced. A comprehensive figure for cancer at all sites is about 20% for five-year survival. For the remaining 80% the figure is much less promising. Yet no one suggests that surgical intervention should cease until more effective methods become available or that patients should not be told of the outside chance of prolonging life by shouldering the risk of a possibly fatal outcome. In the case of breast cancer, patients have been pursued to within an inch of the grave with extended radical mastectomy, adrenalectomy, and disarticulation of the arm. Pelvic exenteration, with the formation of ileal bladders and colostomy, encounters no adverse comment. Heart transplantation, it would appear, is something else. Why?

Mr. W. J. Dempster and his colleagues (20 January, p. 177) answer that the problems of graft rejection are not resolved; we need to know much more before we can hold out hope of reasonable survival. But heart transplantation in laboratory animals has yielded some encouragement, and kidney transplantation is being carried out all over the world. Ah, but here we have dialysis to fall back on, and Mr. Dempster warns us that even kidney transplants are not all they are cracked up to be. One could justifiably argue that pelvic exenteration, cobalt therapy, and other radical procedures are equally not all they are cracked up to be. They are desperate and interim resorts, and so is organ transplantation.

At some point some one has to take the first step from the laboratory to the patient. There comes a time when a drug, elaborated in pharmaceutical laboratories and tested for toxicity and sublethal dosage, has to be submitted to clinical trial. Even here there is a calculated risk, and we have seen enough of the disasters which may follow this step to persuade us to be charitable to other workers who face similar setbacks. The first man who opened the abdominal cavity knew little of the attendant risks.

So, if a patient who is doomed to an early death is told that there is an outside chance that his life may be prolonged and that he runs the risk of not surviving, then if he and his family accept the risk they should be allowed to do so.

Mr. Dempster and his colleagues must be naive if they imagined that their cautionary pouring of cold water in their letter to you would not be picked up by every lay journal in the world. The reporter's pencil and the television eye are poised over every issue of reputable medical journals. Mr. J. M. Potter (10 February, p. 378) may lament this, but the days of cosy claustrophobic discussion confined to the medical press are over, and the medical innovator jostles the pop singer off the front pages of the daily press. Most of us deplore this invasion of our privacy, recognizing that publicity, like power, can go to the head. Yet I confess that I would have expected the Hammersmith workers to show some understanding of the impact of publicity on Groote Schuur Hospital, remembering what they had to endure on the occasion you recall in your leader columns (10 February, p. 330).

This said, I am forced to acknowledge that publicity went too far. I do this all the more

sadly because, as a former colleague of his, I have the highest regard for Professor C. N. Barnard as a man and as a doctor solicitous of his patients' welfare. Moreover (and in this I know that those who have visited Groote Schuur Hospital will concur), the standard of medical care at that institution should occasion no surprise that this formidable enterprise should have been embarked upon there.—I am, etc.,

London W.8.

GEORGE SACKS.

Danger of Airguns

SIR,—Doctors should lose no opportunity of warning patients of the danger of airguns and firearms in the hands of inexperienced people, especially children.

The photographs show pellets in the faces in two of six recent victims having to attend this hospital. In four cases the weapon was an airgun and in two a shotgun. In four cases the pellet narrowly missed the eye. In one case (Fig. 1) the pellet lodged in the eyeball and has caused blindness, and in another (Fig. 2) the pellet entered the medial aspect of the orbit, causing impaired vision. It

FIG. 1

FIG. 2