be allowed to die in peace and dignity in their own homes. Although often difficult to achieve in practice, few would disagree with this philosophy. He indicates that the nursing and medical care given in hospital may prolong the process of dying. As he vividly illustrates, a high standard of nursing care may not always be matched by a high standard of medical care. In his case report he describes a number of medical decisions that must have contributed to the miserable last 10 months of this woman's life. It is indeed sad to think that during a nine-month period a doctor or doctors could prescribe seven separate courses of five different antibiotics and fail to prescribe any medication for her "great pain."

"Vex not his ghost, O let him pass! He hates him that would upon the rack of this tough world stretch him out the longer" (*King Lear*).

A G M CAMPBELL

Department of Child Health,
University of Aberdeen

Family planning for the mentally handicapped

SIR,—Earlier this year I was involved with a medical colleague in a talk to the Leeds Society for Mentally Handicapped Children about the problems of sexual behaviour in the mentally handicapped adolescent and contraception for this group of people. The feeling was strongly expressed by parents of the mentally handicapped that provisions for advice on family planning to the mentally handicapped and their families were inadequate locally. Letters were sent about the matter to the family planning committees of the health districts of the area. Other parts of the country are probably also deficient in this service.

This is a subject which is attracting an increasing amount of attention. It is a specialised subject about which few would claim to have much knowledge or experience. The busy general practitioner, gynaecologist, family planner, and psychiatrist in the ordinary clinics cannot be expected to give the sort of help that is sought. There is probably a need for clinics to be developed specifically to deal with family planning problems in the mentally handicapped. Only a small number of patients could be dealt with at each clinic session as personal and family counselling would be involved.

This is a field where there could be scope for a clinic in which an experienced family planner, a gynaecologist, and a specialist in mental handicap could work together as a team.

D A SPENCER

Meanwood Park Hospital,
Leeds

Lung cancer and smoking: is there proof?

SIR,—Readers of your leading article (21 August, p 439) may recognise remarkable similarities between the current debate (11 September, p 640) and one earlier this century concerning the aetiology of phthisis. In 1921 Professor E L Collis and Major Greenwood,¹ in a section of their book concerned with adverse influences on phthisis, summarised the role of the eugenic argument as follows.

"One further consideration remains, the eugenic aspects of tuberculosis. Little or nothing about them has been said here, because there is little to say;

many important facts are not suitable for dissertations. But the contention of Karl Pearson, a contention which clothed in scientific form the ancient belief of an inherited predisposition to take phthisis, has never been seriously weakened by hostile criticism. It remains true, or at least highly probable, that a predisposition is inherited, and inherited with as much intensity as any of the normal variable characteristics of man. Hence it follows that the marriage of and consequent reproduction by members of tainted stocks will help to perpetuate the disease; the discouragement of parenthood amongst members of such stocks will help to diminish it. The numerical importance of this factor no man can evaluate; but it is to be a bad epidemiologist, and, what is worse, a bad citizen, to pretend that this eugenic aspect of disease is a mere fad made ridiculous by the discoveries of modern pathology. There is no opposition whatever between the sane epidemiology of environmental factors and that of innate factors; the apparent opposition has been due to the tendency we all possess to love wrangling better than truth. After all, 'In my Father's house are many mansions.'"

Had major genetic differences in susceptibility to tuberculosis been allowed to inhibit action to control environmental factors tuberculosis would not now be such a minor cause of death.

A J Fox

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and Surveys,
Medical Statistics Division,
London WC2

¹ Collis, E L, and Greenwood, M, *The Health of the Industrial Worker*, p 145. London, Churchill, 1921.

Emergency medical care

SIR,—As general practitioners in the area served by the Royal Alexandra Infirmary, Paisley, we read Dr Hugh Conway's article (28 August, p 511) with particular interest. We found the article disappointing in that, unlike Dr Conway's clinical and teaching practice, it lacked thoroughness and clarity and in some respects was inaccurate.

Even doctors who use the deputising services in this area have to be available themselves till 7 pm—not 5 pm as stated in the article. We are not clear whether the figures he quotes are for all emergencies or only those occurring "out of hours," but in any case they relate only to those patients referred in various ways to his own medical unit and take no account of the medical emergencies admitted to Dr D M Ferguson's infectious diseases unit at Hawkhead Hospital, the increasing number being admitted directly to the geriatric unit, and the considerable number treated by GPs without reference to hospital.

Dr Conway admits that one of his conclusions can be only tentative in the absence of such information about total work load. Without this information and some figures about the position obtaining in the 1950s are any of his conclusions more than impressions? Does the rate of self-referral from home indicate that the hospital is playing a major—or even increasing—role in primary medical care? This may be so, but we do not think that this paper proves it. What the paper does show is that 19% of cases being referred by GPs as emergencies are not being admitted. Is a unit with this rate of refusal playing its full role in the medical care of the community?

There may be a case for changing the method of providing emergency medical care, and Dr Conway's suggestions are worthy of consideration. Perhaps this could be discussed

at a local level. But surely this should be as a means of providing a better service for the patient, not primarily as a means of reducing further the work done by this unit.

ROBERT ERSKINE J A CLARK
ALEC D FLEMING J L HASTINGS
A S MORRISON MARION FRASER

Paisley

Abortion and maternal deaths

SIR,—I would be interested to know how you (leading article, 10 July, p 70) and Dr C B Goodhart (21 August, p 477) would carry out "well-planned prospective studies in large, representative communities" of women seeking an abortion. How would you identify them and secure their co-operation and that of the professionals and institutions they contacted? It is a formidable task and I suspect that you would be unlikely to get a more representative sample than we did when we attempted to interview a random sample of women who had had an abortion.

The bulk of our failures came from the institutions rather than the women themselves and this means, as Dr Goodhart rightly points out, that private clinics were greatly under-represented in our sample. The study does, however, give a picture of the delays encountered by women who succeed in having an abortion in NHS hospitals, and my point was that we should be taking action to reduce these delays straight away without waiting for your "well-planned prospective studies."

ANN CARTWRIGHT

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* * * This correspondence is now closed—ED,
BMJ.

Hazards of smallpox vaccination

SIR,—I hope Dr F Kellerman (11 September, p 638) will forgive me for pointing out that although the belief that in some areas smallpox is endemic may be "mere fantasy," the reality is that rules regarding vaccination before entering certain countries are based on this fantasy. As Pakistan is one of the "fantasy lands," we in the UK are greatly affected when travelling. I deprecate such regulations as much as he, but this does not alter the fact that until these rules for entry into other countries are abolished, those not vaccinated in infancy will still face this procedure as adults. Let us hope that this correspondence will lead to action in Ethiopia and any other lands where smallpox exists and is undecleared and to change in the visitor entry laws elsewhere.

GEORGE T WATTS

General Hospital,
Birmingham

Marital urinary infection

SIR,—I read Lieutenant-Colonel B Simpson's letter (28 August, p 529) with interest. Experience in family practice leads me to share his view that sexual intercourse is relevant in the pathogenesis of urinary tract infection in men as in women.

In January 1970 a 56-year-old married man consulted me with his 50-year-old wife. The man, a dyestuffs worker, complained of a three-day history of frequency of micturition, dysuria, offensive urine, and pain in the left testicle. His wife complained of a two-day history of frequency of micturition, dysuria, right loin pain, offensive urine, and "flu-like" symptoms. Both patients had suffered similar attacks before and both on this occasion blamed sexual intercourse, which had occurred four days previously.

Haematological examination revealed a leucocyte count of $17 \times 10^9/l$ ($17\,000/mm^3$) (10% neutrophils) in the man and $9 \times 10^9/l$ ($9\,000/mm^3$) (8% neutrophils) in the woman. Urine examination revealed that both patients were infected with *Escherichia coli* serogroup O6, which was present in concentration greater than $10^6/l$. A rectal swab was taken from the man and rectal and vaginal swabs were taken from his wife. *E. coli* serogroup O6 was found in all of these. Subsequent and more detailed serological examination at the Salmonella Reference Laboratory, Colindale, revealed that the responsible organism was *E. coli* serotype O6 H1, which was isolated from all swabs except the rectal swab in the husband, from which no organism could be grown, presumably owing to loss in transit.

That husband and wife had the same urinary pathogen would appear to be beyond dispute, but the pathogenesis of the infection in the man remains speculative. One interpretation of the facts is that the husband developed an ascending infection that was sexually transmitted in that he received an inoculum from the wife's vagina rather than his own bowel flora. Subsequent urological investigations revealed mild bladder neck obstruction only, but attacks (often associated with epididymitis) continued until vasectomy in 1971. This was the second such case I had encountered within a 12-month period and subsequent inquiry among local colleagues revealed that other family practitioners had experienced the same phenomenon.

Lt-Col Simpson suggests that prophylactic chemotherapy might be considered in this situation when a wife has urinary tract infection. If the above hypothesis is correct the results might be disappointing, as vaginal colonisation with a urinary pathogen might occur without urinary tract infection. Prophylactic chemotherapy might well be of value in selected men after intercourse, however.

I acknowledge invaluable assistance from Dr G Garrett and Mr R Holihead, of Oldham Clinical Laboratories, and Dr Joan Taylor, Dr B Rowe, and Mr R J Gross, of the Salmonella Reference Laboratory, Colindale.

DAVID BROOKS

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The elderly in a coronary unit

SIR,—One cannot deprecate too strongly the attitude of Dr B O Williams and his colleagues (21 August, p 451). It seems that their suggestions could deprive older patients of the facilities for which they have paid during the whole of their working lives through income tax, national insurance contributions, etc, in the interests of retaining the cost-effectiveness of a coronary care unit for younger patients.

It is said that some Eskimos used to dispose of their elderly by leaving them in an igloo on an ice-floe. Many elderly have fought for

their country to enable it to retain the liberty of which we are now proud. One would have thought the benefits of civilisation for which these older patients have struggled merits, if not gratitude, then at least equal access to the facilities which, when used properly and successfully, will enable them to continue a useful life without gross residual disability, as this article shows.

F FOSTER THOMPSON

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"Press that bruise"

SIR,—In the teaching and practice of first aid direct pressure on the site of bleeding is recognised as the method of choice in the control of haemorrhage. When I was teaching first aid I always added that the pressure should be kept up until the clotting time of blood had passed—namely, 3-5 min. I explained that the small leaks in the tiny blood vessels would by then be sealed off by blood clot and that this is the only way that the leak of blood is stopped at all.

For many years I personally have used direct pressure immediately on bruises to prevent subcutaneous haemorrhage or leaking of lymph from the injured vessels. I have done this on myself and others and on children's bruises. The finger pinched in a door is exquisitely painful and may lead to loss of a nail from subungual bleeding. Immediate pressure prevents this, rendering the tissues bloodless; when the pressure is released there is no effusion or swelling and very little pain. My grandchildren, aged 4 and 2, now ask to have their own bruises pressed "like grandfather" with good results. This is, of course, what is done after surgery on the limbs under bloodless conditions, when a firm pressure bandage is applied before releasing the tourniquet.

Talking to other doctors I have been surprised to find that this simple, immediate, truly first aid way of treating bruises apparently has not been taught or practised at all. I write this letter as I am sure that my slogan, "Press that bruise," should be broadcast.

BASIL M TRACEY

Norwich

Computer interrogation of patients

SIR,—Reading the paper by Dr R W Lucas and others on this subject (11 September, p 623) I remembered the story of a patient who consulted an American psychiatrist. He began to give his history but the psychiatrist said that it would save him much time if the patient would kindly give his history into the tape recorder. The patient agreed, whereupon the psychiatrist proceeded to another assignment. A few minutes later, as he was leaving the building, he was surprised to encounter the patient, also leaving. The patient explained that as he had consulted so many different psychiatrists he had found it convenient to make a tape-recording of his clinical history and that he had therefore left his tape machine giving his history into the machine of the psychiatrist.

Would it not be possible for the Glasgow researchers to develop a refinement of their method on these lines and so help further to purge medical practice of that most undesirable

element—human contact between doctor and patient?

A L JACOBS

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Sign language?

SIR,—I very much enjoyed your leading article "Beyond Calais" (11 September, p 606) but take issue with you on three counts regarding your observations on the word "semiology."

Firstly, it is not synonymous with "symptomatology" because it concerns signs as well as symptoms, its etymological derivation being from the Greek word for sign.

Secondly, it is far from obsolete since what other word embraces both symptoms and signs? (I would agree that "semeiotics," which is equivalent to "symptomatology," is no longer needed.)

And thirdly, while decrying "American English" in the following paragraph, you spell semeiology "semiology."

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Measurement of blood pressure

SIR,—In a survey of the blood pressure of 1037 men aged 45-70 years carried out by nurses using a random zero sphygmomanometer (on the left arm) as part of a multiphasic screening study in south-east London¹ we were surprised to find the following results. When phase IV (muffling of the Korotkoff sounds) was used to measure diastolic blood pressure the average level was 87.2 (SD 16.2) mm Hg. When phase V (disappearance of sounds) was used the average level was 77.1 (SD 12.6) mm Hg. There was thus, on average, a difference of 10.1 mm Hg between these two phases of blood pressure. Although differences between these phases have been reported before,² they have only been half as large and were found in studies carried out by doctors on much smaller samples.

Dr Sergio Conceicao and his colleagues (10 April, p 886) suggest that faulty sphygmomanometer valves may be an important source of error in blood pressure measurement, and in a letter last year (9 August 1975, p 370) Dr R A Swallow drew attention to evidence that there might also be as much as 10 mm Hg difference between the right and left arms. The epidemiological literature on blood pressure measurement³ has of course documented many other possible sources of error, such as observer error and digit preference.

Our purpose in emphasising the difference between phase IV and phase V readings is, however, related to the vexed decision of when to start people on antihypertensive therapy. Confusion as to which phase is used might have considerable health, economic, and social consequences. The best evidence available from controlled trials³ would suggest that in men a significant difference in clinical outcome is found on treating levels of diastolic blood pressure (phase V) of 105 mm Hg or more. Our own figures would suggest that 2.7% of men aged 40-65 years have these levels on a preliminary screening. If, in confusion, phase IV pressures were to be considered to be the same as phase V, no less than 11.5% of men would be categorised as having "levels of 105 mm Hg or more."