SIR,—Drs. I. W. Delamore and C. G. Geary (26 June, p. 743) describe four patients who developed acute myeloblastic leukaemia after treatment of a hypoplastic anaemia with oxymetholone. I should like to report a similar case.

A 51-year-old man presented in April 1969. The blood count was: haemoglobin 9.4 g/100 ml, white cells 2,800/mm³ (neutrophils 44%, lymphocytes 50%), platelets 58,000, and reticulocytes 0.8%. The marrow aspirate was markedly hypoplastic, and there were no atypical cells. A transfusion was given but in July a similar blood count was found and treatment was thereafter with oxymetholone 5 mg thrice daily and prednisone continuously, together with frequent blood transfusions. The total dosage of oxymetholone over the next 2 years was no more than 11 g.

In July 1971 a rapid deterioration in the patient's health was observed and myeloblasts appeared in the peripheral blood. These rapidly reached a total of 51% of the white cells and the diagnosis of acute myeloblastic leukaemia was confirmed by marrow aspiration. A trephine biopsy failed to yield any marrow. Cytosine arabinoside and daunorubicin were given in five-day cycles removing the blast cells from the blood but not from the marrow, and the patient died early in September, two years and five months after the primary diagnosis of hypoplastic anaemia.—I am, etc.,

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Disposing of the Undisposable

SIR,—I am glad to see that Dr. Rex Binning (21 August, p. 476) defends the use of glass bottles against the plastic variety on the score that the latter are virtually indestructible and thus pollute the environment. I would go further and suggest that the general adoption of "disposable" syringes by the medical profession not only pollutes the environment but increases the incidence of drug addiction.

A few years ago, the consumption of glass syringes in hospitals was comparatively small and mostly limited to the replacement of cracked ones. At the present time the number of plastic syringes used by large hospitals is enormous. It is true that doctors, nurses, and theatre orderlies know that such syringes and their needles should be rendered useless before disposal, but how many escape unscathed? From limited personal observation I would say that at least half of the plastic syringes could be used again. It is all very well to say that the nozzles of all syringes should be snapped off but there is at least one make in which this is almost impossible. Under pressure, the nozzles bend right back and on release, gradually straighten out again. If placed in an incinerator, plastic syringes melt and form a sticky coating which eventually ruins the destructor. In practice, therefore, many syringes go into the rubbish bin intact and their further fate is ignored. Unfortunately, attached to many large hospitals there are unscrupulous characters who by one means or another will gain access to the daily waste. They then extract the syringes and needles and sell them to addicts for about 37p each.¹ Even if the wretched buyers

realized the importance of sterilization, they could not achieve it properly with these syringes, with the result that sepsis often adds to the misery.

In view of these facts I would suggest that the whole question of using plastic products in medicine might be investigated.—I am, etc.,

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¹ *Anaesthesia*, 1970, 25, 163.

Addiction or Dependence?

SIR,—Dr. Ian Oswald and others (10 July, p. 70) illustrate how the new terminology of "drug dependence" that is supposed to avoid the confusion of the term "drug addiction" causes confusion of its own.

The W.H.O. Expert Committee defined drug dependence as "a state, psychic and sometimes also physical . . . characterized by behavioural and other response that always include a compulsion to take the drug. . . ." The authors' subjects and patients had no compulsion ("irresistible drive to commit irrational acts") to take fenfluramine or imipramine. Consequently they were not dependent on or addicted to these drugs. The semantic booby trap into which the authors fell is the equating of withdrawal symptoms with (physical) dependence. But physical dependence is an accidental feature of drug dependence; it may or may not accompany it. Conversely withdrawal symptoms (or physical dependence) may or may not indicate drug dependence or drug addiction. Many times it does not. It is a common clinical experience that only a small fraction of the patients that have been given morphine over long periods to relieve pain are or become morphine addicts, though all may have withdrawal symptoms. Nalorphine and cyclazocine produce marked withdrawal symptoms after prolonged administration but no desire, much less compulsion, to continue taking the drugs.² And the infant that is born to a heroin-addicted mother shows obvious narcotic withdrawal symptoms, but he could hardly be called a heroin addict or a heroin-dependent individual.—I am, etc.,

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Portland, Oregon, U.S.A.

¹ Expert Committee on Drug Dependence, 16th Report, World Health Organization Technical Report Series, 1969, No. 407, p. 6.

² Martin, W. R., Gorodetzky, C. W., *Journal of Pharmacology and Experimental Therapeutics*, 1965, 150, 437.

The New F.F.R.

SIR,—Dr. C. G. Whiteside (11 September, p. 639), while expressing his unease about the new F.F.R., ignores the fact that the D.M.R.D. has become outmoded in that it includes too much physics and not enough radiographic photography and normal radiographic anatomy. The latter subjects form an important part of the syllabus for Part I of the D.M.R.D. Nevertheless, as pointed out by Dr. F. Pygott (28 August, p. 533), it may be advisable to have a qualification such as the D.M.R.D. which shows a modest competence in radiology as a fall-back for those unable or unwilling to obtain the F.F.R.

Furthermore, like Dr. Whiteside I am sceptical about the intention to maintain the same standard in the F.F.R. This seems difficult when on the one hand the syllabus is to be enlarged, and on the other candidates will be allowed to sit only three years after starting radiodiagnosis, compared with four years at present. The radiology of disease in all systems of the body is far too big a subject to be mastered in two and a half years after the candidate has passed Part I of the F.F.R.

There is a further difficulty. In some parts of the country the D.M.R.D. is part of a university curriculum, and the universities may well abandon support of radiology if there are no candidates to sit for their qualification.

May I suggest a solution? The syllabus for Part I of the D.M.R.D. should be altered to comply with the syllabus of the new Part I of the F.F.R. Both the D.M.R.D. and the F.F.R. could continue, while enjoying the advantages of the new syllabus.—I am, etc.,

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Evidence to the Coroner

SIR,—As Coroner of the Diss District of Norfolk I have recently come across a sudden modification of time-honoured procedure which should concern doctors as much as coroners. Without any warning or previous consultation, a health visitor refused to co-operate with my inquiry into circumstances attending a cot death on the basis of a circular sent out by her Association.¹ The County M.O.H. immediately overruled her action but was subsequently himself overruled by the County legal department; eventually the health visitor had to be subpoenaed to secure her attendance at the inquest. A second cot death ensued within the month and it was necessary to have recourse to the same compulsion.

On inquiry I have discovered that it is almost unknown for a coroner to have to subpoena any witness in relation to giving professional medical evidence. It is clear that the Norfolk County Council had given no consideration to the matter previously, and that when it did so there was a failure to appreciate the difference between a Coroner's court of inquiry and all other courts.

I gather that the suggestion is being made by the Health Visitors' Association that readiness to give evidence amounts to a general breach of professional confidence, and that this is a broad principle of ethics to be demonstrated on all occasions, and not just in the rare event when a specific question about the family's social background might put a health visitor in breach of confidence.

All this poses important questions for doctors. Are we going to tolerate what could be a public demonstration that our standard of professional ethics appears to be less exacting than that of the health visitors who work for us? Is it really desirable for medical auxiliaries and their professional associations to come to independent decisions on important matters of this sort without even warning us, and, finally, should the health visitor who has been working on

a case under a doctor's care suddenly choose to "go it alone" at some point?

Probably the forthcoming report of the Brodrick committee will favour less rather than more formality in relation to coroner's inquiries. All the same, a doctor might well feel a little uneasy about giving his usual ready co-operation with a coroner in a case where a health visitor has been involved if he thinks she might be going to demonstrate publicly that she regards such co-operation as a breach of professional confidence. Such a demonstration would not seem to favour happy relations between the health visitor and doctor. The obstruction and discourtesy to the coroner who finds himself presiding over such a situation is also an unfortunate matter, and it seems to me it would be a good idea for the representatives of all concerned to get together and consider the question.

I would hope that the Health Visitors' Association could be persuaded to withdraw from its present position, as the association in my view is letting down its members badly and prejudicing good relations between them and the doctors.—I am, etc.,

J. SHACKLETON BAILEY

Eye,
Suffolk

¹ *Health Visitors and the Courts*. London, Health Visitors' Association, May 1971.

Fibrin/Fibrinogen Degradation Products in Glomerulonephritis

SIR,—Dr. A. R. Clarkson and others (21 August, p. 447) have produced evidence that the urine concentration of fibrin/fibrinogen degradation products (F.D.P.) provide a reliable and sensitive index of activity, progression, and natural history in proliferative glomerulonephritis. They suggest that the F.D.P. are derived from lysis of intra-glomerular fibrin deposits and limited proteolysis of fibrinogen filtered through an abnormally permeable basement membrane.

Some years ago¹ we had demonstrated the presence of fibrinogen in the urine of certain patients suffering from the nephrotic syndrome due to glomerulonephritis. This fibrinogenuria was estimated in the range of 0.057–0.230 g/24 hrs with a clearance two to ten times smaller than the total proteins clearance. In this work, as well as in a previous paper,² we had studied the different factors including proteolysis, which may, in certain circumstances, have a suspensive effect on the fibrinogenuria, resulting from the passage of plasma fibrinogen through the damaged glomerulus.—I am, etc.,

HIPPOCRATES YATZIDIS

General Clinic of Athens,
Athens, Greece

¹ Yatzidis, H., *Nature*, 1964, **201**, 187.

² Yatzidis, H., and Richet, G., *Revue Française d'Etudes Cliniques et Biologiques*, 1957, **2**, 717.

Lung Transplantation

SIR,—Reference was made in a paper entitled "Lung Transplantation in a Patient with Fibrosing Alveolitis" (14 August, p. 391) to the use of antilymphocytic globulin labelled with radioactive iodine-125. It was suggested (p. 395) that this material was "eliminated in two days," which could imply that the binding of the label to the globulin

was very poor. In fact globulin-bound radioactivity was followed in the blood plasma for nine days, at which time the radioactivity per ml was 10% of its initial value. A graph of the change in plasma radioactivity with time was approximately mono-exponential, after the initial equilibration period, with a biological half-life of 70 hours.—We are, etc.,

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Arteriosclerosis, Duodenal Ulcer, Blood Group, and Secretor Status

SIR,—The association of peptic ulcer and abdominal aortic aneurysm has been emphasized^{1,2} and a similar link suggested between arteriosclerosis and peptic ulcer by Barabas *et al.* (26 June, p. 768). Two series of patients suffering from occlusive peripheral arteriosclerosis have contained an excess of blood group A subjects,^{3,4} yet it is well known that duodenal ulcer is associated with blood group O.⁵

	N	O	A	B	AB
Male arteriosclerotics	554	216 (39.0%)	268 (48.4%)	52 (9.4%)	18 (3.2%)
"Proved" D.U.	81	31	37	10	3
"Possible" D.U.	28	12	13	3	—
Total D.U.	109	43 (39.4%)	50 (45.9%)	13 (11.9%)	3 (2.7%)
Blood donors (Leeds region)	98,054	45,399 (46.3%)	41,006 (41.8%)	8,510 (8.7%)	3,149 (3.2%)
Male peptic ulcer (York)	1,526	846 (54.8%)	557 (36.5%)	87 (5.7%)	36 (2.4%)

This dilemma may be clarified by our findings in 554 men with occlusive peripheral arteriosclerosis recently subjected to retrospective analysis in relation to blood group incidence. Because the surgeon contributing the majority of cases (Shucksmith, personal communication) had long recognized a clinical association between peptic ulcer and claudication, most patients had been asked about dyspepsia. A patient was classified as having a "proved" duodenal ulcer if it had been demonstrated by a prior barium meal examination, or by inspection of the duodenum during an intra-abdominal vascular operation, or by post-mortem study, or if he had had an operation for duodenal ulcer. Information was also collected with regard to patients who gave a suitable history of dyspepsia or of haematemesis or melaena but in whom definite evidence was lacking that the peptic ulceration was duodenal in site. Known gastric ulcers were excluded.

In all, 14.6% of 554 men were proved to have or to have had duodenal ulcer, and a further 5.1% fell into the "possible" category. The blood group distribution of the duodenal ulcer subgroup followed closely that of the larger arteriosclerotic group, but was markedly different from the blood donor contrast data and from a typical series of male peptic ulcer patients in York.

Our figure of 19.7% total duodenal ulcer cases is in close accord with the finding by Allan and Dawson⁶ of 19% duodenal ulcer in 353 male Aberdeen myocardial infarction survivors though they noted an excess of duodenal ulcer in the group O patients.

Because of the known deficiency of secretors in duodenal ulcer⁷ saliva from 66 currently attending survivors from the original 554 patients was tested for the ABH substances.⁴

Assuming a frequency of 77% secretors,^{7,8} this is a significant deficit of arteriosclerotic secretors ($\chi^2=19.1$, $n=1$, $P<0.001$). It may be that the non-secretor is not only liable

	O	A	B	AB	Totals
Sectors	12	20	2	2	36 (54.6%)
Non-sectors	13	15	2	—	30 (45.4%)

to duodenal ulcer but also to arteriosclerosis, and this could explain the paradoxical associations of blood groups O and A respectively in the face of the clinical association of the two diseases.

We wish to thank Dr. J. D. Crossland for the blood donor data, Dr. C. N. Pulvertaft for the York peptic ulcer blood group data, and Mr. K. Cumberbatch for technical assistance in testing saliva samples for ABH substances.

—We are, etc.,

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¹ Jones, A. W., Kirk, R. S., and Bloor, K., *Gut*, 1970, **11**, 679.

² *British Medical Journal*, 1971, **1**, 129.

³ Kingsbury, K. J., *Lancet*, 1971, **1**, 199.

⁴ Hall, R., Bunch, G. A., and Humphrey, C. S., *Arteriosclerosis Research*, in press.

⁵ Aird, I., Bentall, H. H., Mehigan, J. A., and Roberts, J. A. F., *British Medical Journal*, 1954, **2**, 315.

⁶ Allan, T. M., and Dawson, A. A., *British Heart Journal*, 1968, **30**, 377.

⁷ Clarke, C. A., *et al.*, *British Medical Journal*, 1956, **2**, 725.

⁸ Camps, F. E., Dodd, B. E., and Lincoln, P. J., *British Medical Journal*, 1969, **4**, 457.

Dermatoglyphics and Chromosomes in Cat-eye Syndrome

SIR,—In reply to Drs. C. W. Darby and D. T. Hughes (3 July, p. 47) I should like to report the results of the dermatoglyphic analysis I carried out¹ in a patient who was extensively studied by Curcio.² The patient was a newborn baby displaying several of the typical cat-eye syndrome features: anal atresia, rectovestibular and pre-auricular fistulae, presence of short metacarpal bones, and 13 ribs. In this patient, as in other published cases,^{3,4} there was an extra chromosome, about half the size of those in group G. As in the case reported by Drs. Darby and Hughes, the patient's father had a normal karyotype, but the mother was found to have the same marker chromosome. The dermatoglyphic pattern of the patient¹ was characterized by the presence of 10 ulnar loops on digits; distal t (axial) triradius; and a whorl pattern in the proximal hypothenar area on the right palm, and a radial loop in the hypothenar area on the left palm.

As suggested by Drs. Darby and Hughes it is possible that the peculiar chromosome anomaly of cat-eye syndrome affects the growth pattern of dermal ridges. However,