a dosage of up to 400 mg daily. This drug is used for its muscle-relaxing properties in tetanus, but it was first introduced into medical practice as a vermifuge. The worm absorbs the drug but, unlike its host, is unable to metabolize or excrete it. The anthelmintic property may be related to an anticholinesterase action which upsets the neuromuscular apparatus of the worm or alternatively to an effect on redox systems. These mechanisms might be expected to paralyse the worm, but our experience is that they retain their motility on expulsion in cases of tetanus.

It would be helpful if further light could be thrown on this problem.—We are, etc.,

F. D. DASTUR
G. H. KASHYAP
K. G. NAIR

Department of Medicine,
K.E.M. Hospital,
Bombay

1 Smith, M. H., *Nature*, 1969, 223, 1129.

Was it a Drug?—Forceval Protein

SIR,—Your report (*Supplement*, 1 June, p. 86) has once again drawn my attention to the recommendation of the Clayton Committee that Forceval Protein should be regarded as a food except "when prescribed for biochemically proven hypoproteinaemia."¹

As I have previously pointed out,² hypoproteinaemia occurs (a) as a result of defective manufacture, as in liver disease, or (b) as a result of excessive loss, as in nephrotic syndrome or carcinoma. It does not occur in simple starvation. No amount of feeding of protein by mouth will affect hypoproteinaemia unless the cause can be remedied. If it is remedied, then the body will once again retain protein from the diet and regain its nutritional protein status and the blood protein level will rise. It follows that any suggestion that Forceval Protein or any other protein given by mouth is not really a food but an endeavour to treat hypoproteinaemia cannot be acceptable. I now challenge any member of the Clayton Committee to justify its recommendation. If nobody does this time then it must be regarded as discredited and local medical committees should disregard it and use their own criteria.

Quite apart from this, the Clayton Committee perpetuates recommendations under which children (and indeed adults) born with some diseases may get nutrition free on N.H.S. prescription while those with other diseases may not. This still frequently leaves the prescribing practitioner wondering whether he may or may not prescribe what he thinks necessary for his patient's treatment and surely defeats the whole purpose of the Clayton Committee and all its predecessors.

It is my contention that all substances given by mouth which provide nothing but nutrition (even if it is a specially modified form of nutrition) are foods. If the patient is not expected to pay for them then some other means of prescribing or providing them should be instituted. We must put some limit to the intolerable situation whereby a third party sitting behind a desk can challenge what a doctor may or may not prescribe for his patient. The fact that the hospital doctor in outpatients is apparently free from this kind of control only adds to

the general practitioner's frustration.—I am, etc.,

A. LEWIS

London W.9

1 *MIMS (Monthly Index of Medical Specialties)*, 1974, no. 6, p. 207.
2 Lewis, A. A., *British Medical Journal*, 1972, 3, 588.

Stilboestrol for Prostatic Cancer

SIR,—The value of anonymous medical articles is always questionable especially when broad generalizations are made as in your leading article "Stilboestrol for Prostatic Cancer" (8 June, p. 520). The salutary findings of the Veterans Administration Cooperative Urological Research group in 1967¹ clearly suggest that oestrogens double the death rate in prostatic cancer by their fluid-retaining and thrombogenic properties. The conclusion reached was that they should be used only for urinary obstruction or bone pain. Since the treatment is for symptoms then it is essential to define precisely what symptoms are an indication, which you singularly fail to do.

Similarly, if the subsequent work of the V.A.C.U.R.G. in 1973² states that lower doses are safer while being effective in relieving symptoms (which you appear to accept) then it is hardly rational to recommend using larger doses than theirs on purely speculative theoretical grounds.

It is disturbing that Britain's most influential medical journal should dissipate the hard-won knowledge it seeks to disseminate.—I am, etc.,

MALCOLM C. BATESON

Department of Medicine,
Dundee University

1 Veterans Administration Cooperative Urological Research Group, *Surgery, Gynecology and Obstetrics*, 1967, 124, 1011.

2 Byar, D. P., *Cancer*, 1973, 32, 1126.

Lactose Intolerance in San Populations

SIR,—The paper by Dr. T. Jenkins and others (6 April, p. 23) raises some interesting points. However, we feel it necessary to point out some flaws in the claim that 90% of !Kung Bushmen are lactose-intolerant.

The authors have confused lactose intolerance with lactose malabsorption. As they point out, none of their sample had symptoms following ingestion of 50 g of lactose, though blood glucose levels did not rise significantly in 39 of the 40 subjects. Thus a high incidence of lactose malabsorption and not lactose intolerance has been shown.

The fears concerning the possibility of the introduction of milk powder as a form of dietary supplementation are likewise unfounded. Milk powder is used mainly as a food supplement in the paediatric population, particularly in the age group that has just been weaned and at risk from protein energy malnutrition. This group as a whole should have adequate lactase levels in the small-bowel mucosa. It has also been shown in patients with kwashiorkor that the low lactase levels do not necessarily correlate with lactose intolerance but rather with lactose malabsorption.¹ It is unlikely in adults that anywhere near 1½ litres of reconstituted cow's milk a day (equivalent to 50 g lac-

tose) would be consumed. Thus if lactose intolerance did not occur with the lactose tolerance test it is doubtful if it will occur with milk supplementation.

Too much importance has been placed on a flat lactose tolerance curve. Milk remains a very good source of protein and calories, and therefore should not be discarded because of an abnormal blood result, but rather only if a high incidence of lactose intolerance in a population group is shown. This was not demonstrated in the sample studied.

Another contentious point is the authors' comment that the !Kung Bushmen tested were not undernourished. Yet a survey done on a similar group a few miles away had definite evidence of undernutrition.² In the presence of chronic undernutrition and lack of exposure to milk after weaning from the breast, can a genetic cause for the lactose malabsorption justifiably be postulated in the !Kung Bushmen on present evidence?—We are, etc.,

J. M. PETTIFOR
JOHN D. L. HANSEN

Metabolic and Nutrition Unit,
University of the Witwatersrand,
Johannesburg

1 Prinsloo, J. G., et al., *Archives of Disease in Childhood*, 1971, 46, 474.

2 Truswell, A. S., et al., *American Heart Journal*, 1972, 84, 5.

Treatment of Vulval Candidiasis with 5-Fluorocytosine

SIR,—Fungicidal agents effective in the treatment of systemic candidiasis are little used for localized vulval infections because of the dangers of toxic effects of therapy and the apparently trivial nature of the disease. Nevertheless, there is a place for such treatment in severely affected women who have proved resistant to conventional methods.

A patient aged 42 had a 20-year history of vulval candidiasis varying in intensity and often disabling, with intense irritation. Numerous courses of treatment, including local and oral nystatin, gave only temporary relief. She was a diabetic, well controlled on insulin. The vulva had an inflamed, macerated appearance and swabs from this area grew *Candida albicans* sensitive to 5-fluorocytosine (5-FC) in a concentration of 0.2 µg/ml.

She was admitted for treatment, and, renal function proving normal, was given 2 g of 5-FC six hourly for 12½ days together with 5-FC cream locally. Blood 5-FC levels were 6 µg/ml three hours after starting treatment and 20 and 32 µg/ml on subsequent occasions. There was a dramatic subjective improvement within 18 hours of starting treatment and complete freedom from vulval symptoms within three days. She developed transient abdominal cramp and mild diarrhoea which lasted for one month. Following treatment she felt more fit than she had for many years and has remained symptom-free, with negative cultures, for nine months.

Before undertaking treatment with 5-FC it is essential to make sure that the yeast is a sensitive strain, and an adequate blood level will lessen the likelihood of secondary resistance developing.

Gastrointestinal upsets occur in 5-10% of cases; laboratory abnormalities include increased serum transaminases, alkaline phosphatase, and blood urea and pancytopenia. These have mainly been found in severely ill patients and may reflect underlying infection or treatment with drugs such as immunosuppressive agents rather than drug toxicity.