among the elderly infirm. In severe depression loss of appetite and self-neglect are almost invariable so that various forms of avitaminosis are seen—for example, folate deficiency^{3,4} and Wernicke's encephalopathy (personal observation). Mixed vitamin deficiency syndromes seem to be more common than "pure" forms so that the rash of the first patient may have been a pellagrous manifestation, responsive to the nicotinamide fraction of the whole vitamin B injection.

Thiamine deficiency is frequently misdiagnosed and it is noteworthy that the first patient was initially treated for congestive cardiac failure. Beri-beri would probably be more frequently recognized if the possibility were considered in "at risk" patients, particularly those in psychiatric and geriatric wards with peripheral oedema (unaccompanied by proteinuria) unresponsive to treatment. The rapid response of both psychiatric and physical symptoms, exemplified by the above cases, makes the exercise all the more worth while.—I am, etc.,

M. W. P. CARNEY

Blackpool and Fylde Hospital Group,
Lancs.

¹ *Price's Text Book of the Practice of Medicine*, 9th edn, ed. D. Hunter, p. 468. London, Oxford University Press, 1956.

² *Price's Text Book of the Practice of Medicine*, 10th edn, ed. Sir R. B. Scott, p. 404. London, Oxford University Press, 1966.

³ Carney, M. W. P. *British Medical Journal*, 1967, 4, 512.

⁴ Reynolds, E. H., Preece, J. M., Bailey, J., and Coppen, A., *British Journal of Psychiatry*, 1970, 117, 287.

Calling the Doctor

SIR,—Last week a pharmacist was recounting to a group of business men, in my presence, his experience on a recent Saturday morning, when a lady was brought into his shop with severe epistaxis which he failed to arrest. The patient's own doctor was off duty and the duty doctor refused to come saying "Send her to the hospital" (20 miles (32 km) away). This, said my friend, he could not do, as she was spilling blood everywhere. Fortunately, after some delay, someone met the patient's own doctor in the town and he came and did the necessary first aid treatment before removal to hospital.

I listened to this story with shame. Should not the fact that a qualified pharmacist sends for us be a sufficient justification for a call? Should we allow unqualified secretaries to decide whether we are to visit our patients when they send for us? Should they give medical advice over the phone when we are not out?—I am, etc.,

DAVID H. SMITH

G-6-PD Deficiency and Piperazine

SIR,—We were recently confronted with a 4-year-old African child who was diagnosed as having a haemolytic anaemia. His haemoglobin was 3.9 g/100 ml with 33% reticulocytes, exhibiting Heinz body formation; the serum bilirubin was 5.4 mg/100 ml with an indirect fraction of 3.1 mg/100 ml. A Coombs test and tests for cold agglutinins were negative. The only positive findings were that this patient had a G-6-PD deficiency of the negroid variety, which was demonstrated on several specimens of blood over a two month period once his reticulocyte count had fallen to normal. The re-

mainder of his family, five in number, were all normal in this regard.

We were unable to find any cause for this episode of haemolysis, the first this patient had suffered, except that two days prior to admission, he had taken some Pripsen (piperazine and senna) for roundworms. We have been unable to find any report of this drug causing haemolysis in association with G-6-PD deficiency, although we feel that a causal relationship could still exist. H. Seftel (personal communication), who has wide experience in the use of piperazine in South Africa, has never come across this problem, and makes the point that if it were a common relationship it should have been reported somewhere in the literature on the basis that G-6-PD deficiency and roundworm infestation are linked geographically.

We would be most interested to know if any of your readers, more especially in tropical countries, have come across this particular problem.—We are, etc.,

N. BUCHANAN

Baragwanath Hospital,
Johannesburg, S. Africa

R. CASSEL

T. JENKINS

South African Institute for Medical Research,
Johannesburg, S. Africa

Gastric Acid Secretion

SIR,—I refer to the statement that "In man acid secretion appears to be of little importance, for achlorhydric patients come to no clinical harm from lack of acid" quoted in your leading article "Acid Tests for Peptic Ulcer" (23 January, p. 186).

May I put in a plea on behalf of these unfortunate patients whose dyspeptic symptoms are often troublesome, often intermittent for years, and can become progressively worse during their fifties. One minute of history-taking which discloses a dyspeptic pattern of fullness and distention after small bulk meals, episodes of burning regurgitation described as a "boiling up" discomfort, and difficulty in digesting fruit, especially apples which tend "to stick", should alert one to thinking that here is someone who is failing to digest food adequately. These patients get relief from their symptoms by taking dilute hydrochloric acid 3-4 min (0.2 ml) in water before meals. Surely the reasoned answer is that dilute hydrochloric acid assists the digestion where the gastric mucus is failing to produce adequate amounts of acid. To me this is the clinical picture of borderline atrophic gastritis where treatment is well rewarded.—I am, etc.,

A. M. MCGREGOR

Turrieff,
Aberdeenshire

Schatzki's Ring

SIR,—Your description of Schatzki's ring (13 March, p. 567) adds confusion to this rare condition by including with it fibrous strictures of the lower end of the oesophagus secondary to reflux oesophagitis and hiatus hernia.

The suggestion that "fibrosis and chronic inflammatory changes . . . in the submucosa" are present varies from the original de-

scription. One of Inglefinger and Kramer's¹ cases was operated upon and showed "no evidence of inflammation or fibrosis, but extreme muscular thickening." Schatzki and Gary² report in their paper that their one case operated upon showed no histological evidence of "ulcer, scar or inflammation."

The ring is a localized muscle spasm which may be associated with a hiatus hernia, but not necessarily so; it may progress later to a fibrous stricture if there is continued reflux oesophagitis. But when a Schatzki's ring is present it is possible, under general anaesthesia, to pass an oesophagoscope through the relaxed muscle and into the stomach; that is what differentiates it from the fibrous stricture with which you confuse it.—I am, etc.,

A. G. NORMAN

Royal Infirmary,
Sheffield

¹ Inglefinger, F. J., and Kramer, P., *Gastroenterology*, 1953, 23, 419.

² Schatzki, R., and Gary, J. E., *American Journal of Roentgenology*, 1953, 70, 911.

Tongue-twisting Jargon

SIR,—Dr. P. Bye (20 March, p. 673) may be correct in his general comments but unfortunately he specifically considers "osmolality" and "osmolarity," which have only a verbal similarity; osmolality refers to the concentration of a solution in moles per 1,000 g of solvent, whereas osmolarity refers to it in moles per 1,000 ml of solution. There is apparently some value in using these different terms where concentration is measured from the physical properties of solutions. The tongue twistality (or is it twistarity?) of such words at least means that they become audibly differentiated because the speaker needs to enunciate them carefully. Words like abduction and adduction are frequently misheard so that several of my American colleagues pronounce them "A.B.duction" and "A.D.duction."

As verbal communication becomes increasingly more important—be it telephonic or tape recorded—perhaps we ought to pay more attention to verbally confusing words, but can we expect this of a profession which uses the same sounds for mouth (oral) as it does for ear (aural)?—I am, etc.,

PETER ROBSON

Newcomen Centre, Guy's Hospital,
London, S.E.1

** Other correspondents have written to make the same point as Dr. Robson about the meaning of "osmolality" and "osmolarity."—ED., *B.M.J.*

Endocrine and Metabolic Disorders in Bronchial Carcinoma

SIR,—I was interested in the comments made by Drs. P. von Wichert and P. F. Mitchell-Heggs (6 February, p. 345) on the high incidence of hypercalcaemia in bronchial carcinoma reported by Dr. J. G. Azzopardi and others (28 November, p. 528).

In a recent series of lung carcinoma cases studied in Jersey the serum calcium was found to be raised in 17 out of 103 patients. There was necropsy or radiological evidence of bone metastases in nine patients and no clinical evidence of the hypercalcaemic syndrome in the remaining eight. Locks¹ found that in 2% of 119 lung

carcinoma patients the serum calcium was raised to around the 16 mg/100 ml level and that the classical symptoms of hypercalcaemia were present; there were no skeletal metastases.

It would appear that the low incidence of the hypercalcaemic syndrome in Locks's series and its absence in the Jersey study would tend to support the comments of Drs. von Wichert and Mitchell-Heggs.—I am, etc.,

JOHN CRAGG

General Hospital,
Jersey, C.I

¹ Locks, M. O., *Journal-Lancet*, 1962, 82, 165.

New Look at Tennis Elbow

SIR,—A study of the relationship between tennis equipment and tennis elbow, on the rare occasions in which it actually affects tennis players, may shed some light on the aetiology and management of the condition in general.

The pathogenesis of the condition is not well understood. Most of the extensor muscles of the wrist arise from ligaments, fascia, and intermuscular septa which are relatively mobile. This may make it difficult to co-ordinate the contraction of individual fibres when the hand is gripping and the forearm rotating as in tennis. This lack of easy co-ordination may predispose to minor repeated unrecognized injury near the origins of the muscles, and may also make healing more difficult as the mobility of the origins may be affected by adhesions.

In many of the tennis players affected by this condition the equipment used is faulty. Either the racket lacks resilience and flexibility, or the gut is too "boardy," and the arm is jarred causing pain. The handle may be too big or too small, putting excessive strain on the forearm muscles when they are rotating. A top-heavy racket has a similar effect. It is difficult to attribute a cure to any special measure in a condition like tennis elbow which can cure itself, but in many cases when the "faulty" racket is replaced the symptoms are relieved more quickly than by other means. The most dramatic instance is that of an experienced player with this condition who over two years had tried everything except operation (including indigenous treatments) without relief. He changed to another racket of the same weight and handle size but with a better weight distribution and a shock absorbing string suspension system; his symptoms disappeared in two days and have not returned for nine months. Relating these observations to the known theories about the aetiology of tennis elbow it is our impression that the use of faulty equipment can in tennis players lead to excessively inco-ordinated muscle action and damage which produces tennis elbow. Correction of the tools can relieve the condition.

It is possible that in non-tennis players (who form the majority of the sufferers from this condition) there are similar "faults" in equipment—for example, badly balanced shears—or, of course, bad technique in the use of faultless equipment. We would suggest that early consideration should be given to modifying equipment or its use, in addition

to the traditional methods of management in all cases of tennis elbow.—We are, etc.,

S. CHAWLA
A. P. R. ALUWIHARE

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Waiting Room Problems Solved

SIR,—One of the intractable problems facing hospital administrators today is the out-patient queue. Everybody talks about it, many complain about it, but here at last is someone who is doing something about it.

On a recent busy Monday morning here an elderly Indian gentleman was causing great delight to a large crowd of suffering humanity waiting to see a doctor. For a modest fee of sixpence, he would swallow the most remarkable objects—his recent meal had consisted of iron nails, broken glass and pieces of old torch batteries. He is well known in Fiji as an entertainer wherever crowds gather, but this was apparently the first occasion that he had chosen the clinic waiting room for his stage. He was persuaded to submit to radiological examination, and an abdominal x-ray is reproduced without comment.

In spite of his austere diet, our visitor clearly enjoys the best of health and temper, so there is no indication for medical interference.—I am, etc.,

G. HOLMES

Lautoka Hospital,
Lautoka, Fiji

Termination of Life

SIR,—Your remarks (23 January, p. 187) on this subject are tinged with current prejudice. You talk of legal euthanasia "tragically undermining the patient's endurance," thus revealing the commonly held philosophy that illness, however incurable or protracted, is something society has ordained to be suffered to the end. To ask for and obtain release can neither be antisocial nor immoral, and the burden of denying it must lie heavily on the conscience of an ultraconservative profession.

Doctors have daily experience of appalling torture suffered by their patients, only very inadequately relieved by the resources of medicine. To talk of "killing patients" is a

confusion of semantics. But the 1961 Suicide Act should be amended to allow a doctor to help his patient yield up his life if he so desires, accepting death openly and fearlessly as a gift from a merciful Providence. Our present attitude is irrational and primitive. It mirrors the ultra materialism of contemporary society.—I am, etc.,

S. L. HENDERSON SMITH

Huddersfield, Yorks

N.H.S. Superannuation

SIR,—I am writing to say how much I support the Association in its efforts to obtain an improved N.H.S. superannuation scheme and how much I welcomed your leading article (20 March, p. 622) on this subject.

There is, however, one important point which you appear to have overlooked as there is a further way in which these N.H.S. pensions compare badly with other government pensions. I am advised that N.H.S. pensions are paid less British income tax even if the recipient becomes resident abroad and no longer liable for British tax. In this way N.H.S. pensions seem to be separately discriminated against, as this is not the case with Civil Service and Army pensions.

I think it is particularly unfortunate that this discrimination is made because many doctors, especially hospital ones, might decide to retire at the age of 60 in order to do service in one of the underdeveloped countries. This would be one way in which these countries could obtain the services of very experienced specialists for a number of years, but this special discrimination must seriously discourage this.—I am, etc.,

REGINALD J. CARR

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Bradford, Yorks

Hospital Practitioner Grade

SIR,—It was reported in the *Supplement* (6 March, p. 64) that it has been proposed that the General Medical Services Committee should be responsible for making submissions to the Review Body and for negotiations with the Department of Health and Social Security on the above grade. This is a welcome development. Occupational health for hospital staff is a field in which this new grade may be of particular value. At present, doctors wishing to specialize in occupational health within the hospital service are graded clinical assistants.

In new and large district hospitals the responsibilities and training necessary to initiate and run an occupational health department are considerable. A doctor of sufficient experience is unlikely to pursue a career in the clinical assistant grade. Unless realistic salaries and gradings are applied to this new specialty within the hospital service, doctors of the right calibre and training will not be available. We are now witnessing new hospitals inadequately staffed, with wards and departments failing to open. If occupational health is to make a contribution to improving this situation, doctors with specialized experience must be recruited.

Acceptance of the hospital practitioner grade may be the means to achieve this.—I am, etc.,

J. A. LUNN

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Harrow, Middx