recruit staff locally. We, and other mission hospitals, have a chronic staff shortage, particularly of senior staff. Salary scales at mission hospitals are delineated by Government, which, because it pays the subsidies, is in a position to "pay the piper and call the tune." Compliance with the existing state of affairs on the part of the mission hospitals does not necessarily imply acquiescence to the principles, or lack thereof, underlying the policies which have resulted in the differential salary scales.

While at present I cannot see any clear way in which nationalist policy can be changed in South Africa, except by education of those blinded by racial prejudice, I believe that the non-white population of South Africa would ultimately be the greatest losers as the result of any measure which reduced the inflow of medical personnel, particularly those with humanitarian motives who apply for posts here.

This letter expresses my personal views, and not necessarily those of other members of the staff of King Edward VIII Hospital or McCord Zulu Hospital, Durban. It would be interesting to know whether or not Dr. Dowling's views on medical isolation of South Africa reflect the attitudes of my non-white colleagues and friends with whom she came into contact—I doubt it.—I am, etc.,

J. K. McKECHNIE

Durban, S. Africa.

SIR,—I would like to urge you to consider seriously Dr. R. Hoffenberg's constructive suggestion (8 April, p. 111). Advertisements carried in the *British Medical Journal* for posts in South Africa—which seem to have become very large lately—are indeed misleading and liable to cause serious embarrassment to a proportion of your readers.

South Africa must surely be the only country in the world where doctors are paid according to the degree of pigmentation of their skin. There are countries which discriminate against non-nationals, but the Provincial Administrations in South Africa offer better conditions of service to foreign immigrants if they are white than to South Africans if they are brown.

Advertisements for medical posts in South Africa should state unequivocally: (1) Whether the post is intended for a white doctor or a brown doctor or for either. For example, no coloured, Indian, or African doctors work on the wards at Groote Schuur Hospital, the main teaching hospital of Cape Town University, although more than half the patients are not white. (2) Where a post could be held by a doctor of any colour, the salaries for white, coloured, and African doctors should be clearly written down.

If you were to insist on this, Sir, you would surely be helping to stop a situation about which your counterpart the editor of the *South African Medical Journal*, writing within the country, recently concluded: "there must come a change, for we can no longer tolerate the situation."¹—I am, etc.,

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¹ *South African Medical Journal*, 1971, 45, 541.

SIR,—We should be grateful to Dr. Sue Dowling (11 March, p. 689) and Dr. R. Hoffenberg (8 April, p. 111) for drawing

attention to the fact that our black colleagues in South Africa receive only 70% of the pay given to white doctors for doing the same job.

This is something that concerns us all, and we should certainly urge the Editor of the *B.M.J.* to carry no advertisements for medical posts in South Africa without ascertaining that the terms offered for the post are not dependent on the applicant's colour.—I am, etc.,

YOLANDE FRIEDL

London S.E.1

Imipramine in Pregnancy

SIR,—Dr. D. L. Crombie and others' letter (18 March, p. 745) based on the 1964 study on the outcome of pregnancy in England and Wales prompted us to review the data of a similar study in Scotland. This was organized by the Royal College of General Practitioners in 1965-7 and co-ordinated by Dr. Norman Dean, then at the Usher Institute, University of Edinburgh. All medication, whether prescribed by her own doctor or taken on her own initiative during the period from six weeks before until the end of pregnancy, together with morbidity, was recorded for each mother in approximately 15,000 pregnancies.

There were 17 mothers for whom imipramine was prescribed, all (except one) within the first 10 weeks of pregnancy. No abnormalities were reported in 14. One patient aborted at 14 weeks. Two patients were reported to have given birth to a child with congenital abnormalities: one had defective abdominal muscles and possible abnormality of gut, the other was subsequently discovered to have a diaphragmatic hernia.

Of 31 mothers for whom amitriptyline was prescribed no abnormality was reported in 28. One mother aborted at six weeks, there was one stillbirth, and one child was born with hypospadias.

These findings from the Scottish study, taken in conjunction with the results reported by Dr. Crombie and colleagues, do not suggest that the antidepressants mentioned are associated with a high risk of fetal abnormality.—We are, etc.,

E. V. KUENSSBERG

Recorder,
Scottish Outcome of Pregnancy Study

J. D. E. KNOX

Honorary Director,
Scottish General Practitioner Research Support Unit
University of Dundee,
Department of General Practice,

Congenital Absence of Carpal Scaphoid

SIR,—A man 22 years of age presented himself to the accident department of Leicester Royal Infirmary complaining of pain in the left wrist as a result of a fall on the outstretched hand. On clinical examination the obvious abnormality was an obliteration of the snuff-box by swelling and some tenderness over this area. Routine x-rays showed what appeared to be an absence of the carpal scaphoid. The man was found to have a full range of wrist movement, no deformity, normal muscle power, and intact sensation. Movements of the fingers were free. In view of the tenderness and swelling over the radial side of the wrist joint, the condition was

diagnosed as a sprain. A crepe bandage was applied and he was instructed to resume his work as soon as the pain subsided. There was no previous history of injury or operation.

Radiological examination confirmed that the left carpal scaphoid bone was absent. The rest of the carpal bones were normal in appearance and anatomical relationship. No bony injury was detected. The opposite wrist was x-rayed and this showed a normal-looking carpus. (Fig.)

Three and a half months later the patient was reviewed again and he stated that his symptoms had subsided two or three days after the injury and he was able to carry on his work as a lorry driver without difficulty.

There were no symptoms of congenital absence of the carpal scaphoid prior to a minor sprain. The absence of this bone would not appear to have affected the strength of the wrist nor produced any distortion of the normal carpal relationships. A search through the literatures has failed to reveal an example of this condition, although abnormalities in the carpus in which the scaphoid has been absent but associated with such conditions as flail thumb or absence of the thumb have been described.¹⁻⁵

We would like to thank Mr. R. C. J. Hill and Mr. M. McLearn for their guidance and advice.

—We are, etc.,

P. PAPANIKOLAOU

M. A. HADDADIN

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¹ Barsky, A. J., *Congenital Anomalies of the Hand and their Surgical Treatment*. Springfield, Thomas, 1958.

² Davison, E. P., *Journal of Bone and Joint Surgery*, 1962, 44-B, 816.

³ Hanley T., and Conlon, P. C., *Journal of Bone and Joint Surgery*, 1957, 39-B, 458.

⁴ Hodgeson, A. R., *British Journal of Surgery*, 1943, 31, 95.

⁵ Jones, F. Wood, *The Principles of Anatomy as Seen in the Hand*, 2nd edn., London, Baillière, Tindall and Cox, 1941.

Coalminers' Pneumoconiosis

SIR,—Dr. J. P. Lyons and his colleagues (18 March, p. 713) have reported some further results on their group of deceased miners and ex-miners, most of whom had suffered from pneumoconiosis during life. Their earlier study (29 August, 1970, p. 481) was criticized on the grounds that a sample of deaths occurring within a fixed period need not be representative of the total population in which these deaths have occurred (17 October 1970, p. 176; 31 October 1970, p. 305). It is regrettable, but not surprising, that this criticism has not been answered in their more recent paper. We say it is not surprising because it was clear from their letter (5 December 1970, p. 623) that they regarded it as totally irrelevant. They

wrote: "... all miners die. The only relevant issue is whether there are many miners in the area with pneumoconiosis who are not known to the Pneumoconiosis Medical Panel."

We accept that the Pneumoconiosis Medical Panel will be aware of the majority of miners with pneumoconiosis, but this is not the only relevant issue. The authors seem still not to appreciate that cases included in an unselected postmortem series are sampled from the general population at rates proportional to their risks of dying. If disability in life increases the risk of death, the postmortem series will include proportionally more of the disabled; if there are two independent sources of disability in life, for example, a low FEV and/or emphysema, the postmortem series will include disproportionately more of those who suffered from both sources in life. The question then is whether those miners who died are representative, or whether they died because of some aspect of their state of health which thereby makes them unrepresentative. The latter is evidently more likely.

The broad conclusions Lyons *et al.* reach are threefold and we should like to comment on two of them. The first conclusion was: "Coal workers' pneumoconiosis usually caused progressive impairment of ventilation, which was not related to radiological category in the simple form of the disease." The authors do not explain why they are justified in speaking of "causation" in this conclusion, when it is evident that the most that could be observed was association. No care has been taken to exclude other explanations for the association. The conclusion is based on their Fig. 1 in which the average ventilatory capacities of their subjects, measured within four years of their deaths, are plotted in relation to normal values given by Cotes.¹ Cotes did not produce normal values for subjects destined to die within four years; it is surely likely that, on average, the figures for such subjects would show evidence of impairment of function. Certainly it seems impossible to deduce that the observed figures represent impairment causally related to pneumoconiosis.

Moreover the average FEV of those with category 2 or 3 pneumoconiosis was 0.8 l. below expected, of those with category 0 was 1.25 l. below expected, while those with category 1 were intermediate. So far from being unrelated to category the impairment, if it can be relied on, appears inversely related to category, as was found by Carpenter *et al.*² in their earlier sample of Panel cases but not in the general population. The authors appear to attribute this trend to selection by respiratory symptoms, as did Carpenter *et al.* Since they then have no reliable figures for the separate categories of simple pneumoconiosis they cannot deduce that impairment of ventilation is unrelated to the radiological category.

The second conclusion was: "The presence of emphysema accompanying simple pneumoconiosis was a more important factor in determining the impairment of ventilation than the radiological category." This conclusion is based on their Fig. 2. The possible bias of a similar figure in their earlier paper due to the selective nature of the sample was pointed out (31 October 1970, p. 305), and it was also observed that the figure did not differentiate between cases of simple and complicated pneumoconiosis. This second criticism was

apparently met in the latest figure since it was said to include simple pneumoconiosis cases only. However, this statement was later corrected (25 March, p. 812) and the figure pertained to all cases, and not just to those of simple pneumoconiosis. Presumably this correction also implies that the conclusion applies to all cases and not just to cases of simple pneumoconiosis, and we must repeat the earlier criticism that the association between FEV and emphysema in Fig. 2 may be exaggerated both by selection by death and by including cases of progressive massive fibrosis.

The authors wrote (5 December 1970, p. 623) that "There is always possible bias in correlating postmortem material with findings in life, but this is insufficient reason for not pursuing such studies so long as this danger is kept in mind." This does not go far enough; it must be possible to estimate and correct for bias, or at least set limits on its effects, not merely to "keep it in mind" and in practice ignore it.—We are, etc.,

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G. BERRY

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- 1 Cotes, J. E., *Lung Function*. Oxford, Blackwell, 1965.
- 2 Carpenter, R. G., Cochrane, A. L., Gilson, J. C., and Higgins, I. T. T., *British Journal of Industrial Medicine*, 1956, 13, 166.

Interviews for Prospective Students

SIR,—Dr. C. M. Tonks in his "Personal View" (8 April, p. 107) has touched on a subject which interests me greatly—the interview. Having been a university medical officer for 10 years I am more than ever convinced of the value of the interview, and regret that not all prospective students have one before coming up to university, no matter what subject they choose to read.

What it is so important to remember, and what Dr. Tonks seemingly ignores, is that the interview is a two-way affair. Not only does the university find out a bit more about the prospective student, but the student finds out often considerably more about the university. As Dr. Tonks points out, the candidates are often very ignorant about the different universities. Many a student who has put the "university of X" as first choice on his list has rapidly changed his mind after the interview, sensing that for one reason or another he would not fit in or feel happy there. Others who have been accepted without an interview have later regretted it.

As for selection being dependent on the ability to pass the academic hurdles, even if one accepts that this criterion in itself is sufficient (which I don't), how can one tell which candidate will succeed? Proved ability to pass "O" and "A" level exams certainly is no criterion, as has been shown time and time again in one study after another. After all, university is not just an extension of school, in spite of the increasing prevalence to think of it as such.

There is so much change for change's sake in education that we should be very careful to do only what is likely to prove good and useful in changing our educational system. Heaven knows that there is masses to do in improving our medical education (another special interest of mine)—but for

heaven's sake let's keep our interviews.—I am, etc.,

T. C. DANN

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Endocrine and Metabolic Manifestations of Cancer

SIR,—The object of my short review (18 March, p. 735) was to outline for non-specialists the various events that may occur in patients suffering from cancer and which, at first sight, might not appear to be connected with the local lesion. The cause of some of these events we think we understand as due to the secretion of polypeptide hormones by the tumour. These were listed in Table I. Others which as yet have no metabolic cause ascribed to them were listed in Table II. Readers, including Dr. J. G. Azzopardi (8 April, p. 109), who wish for more detailed documentation will find it in a more lengthy review¹ which was mentioned in the references and also in other reviews,^{2,4} including one by Azzopardi.⁵ The examples of tumours of various organs concerned in the production of the hormonal syndromes mentioned in the Tables were drawn partly from the literature and partly from personal experience. The histological diagnosis of the tumours has been accepted as stated by the original authors. Some may require revision. Williams, Morales, and Horn,⁶ for example, have reviewed the histological sections of eight cases of carcinoma of the thyroid reported in the literature as causing "Cushing's syndrome" and rediagnosed five as being medullary rather than papillary in type. Two reported cases were accepted by them as papillary carcinomas with the comment that "this may merely represent a chance association."

The prevalence of these complications in patients with cancer cannot yet be known with accuracy since to my knowledge only two series have been reported. Why Dr. Azzopardi should deem one series (his) to be more accurate than another (mine) is difficult to understand. Azzopardi, Freeman, and Poole⁷ reviewed 185 patients with carcinoma of the bronchus. I had concluded that all these patients had come to necropsy as the paper contains the statement "this illustrates the dangers of drawing conclusions (as to histological diagnosis from biopsy or sputum examination) without a thorough necropsy," but apparently I was mistaken. Azzopardi *et al.*⁷ found evidence of the secretion of corticotrophin in 0.5% of patients with bronchogenic tumours; Kato, Ferguson, Bennett, and Burford⁸ examined 138 cases of oat-cell carcinoma of the bronchus and found an incidence of 3%, whereas I found an incidence of 2% in bronchogenic carcinomas of all cell types. Azzopardi *et al.*⁷ found that 6% of patients with bronchogenic carcinoma had hypercalcaemia. Hypercalcaemia due to osteolytic secondaries is far commoner than hypercalcaemia due to the secretion of parathyroid hormone by the tumour; the former cause should not be included within the definition of "hormonal syndromes produced by cancer." Since one-third of all patients with bronchogenic carcinoma have metastases in bone⁹ it is probable that many of the cases reported by Azzopardi *et al.*⁸ had hypercalcaemia due to the presence of secondary deposits in bone. In my series