

fill this seat, the choice lies between a career grade officer, a general practitioner, or a hospital junior doctor with a number of house appointments behind him.

If staffing is to be entirely by career grade officers, then the minimum number is five and not four as suggested by Mr. F. C. Durbin and Mr. J. S. Batchelor (14 August, p. 432). To staff with only four would mean a 42-hour week without taking into account time for handing over between shifts, holidays, study leave, or sickness.

For these career grade officers, there is need for consultant pay without specialist connotation. A new name is needed and I suggest that of "senior emergency officer."—I am, etc.,

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### Prognosis in Industrial Dermatitis

SIR,—I was most interested in your leading article entitled "Prognosis in Industrial Dermatitis" (21 August, p. 445), but the comment that "the payment or not of 'compensation,' which it is assumed includes injury benefit, did not affect the prognosis" really surprised me, and recalled the results of my own investigation.<sup>1</sup> Having been involved with the (then) Ministry of National Insurance in London in matters concerning dermatology since its inception, I had been able to institute a long-term follow-up of a fair number of my cases of occupational dermatitis.

The investigation covered a series of 250 consecutive claimants, involving a wide variety of occupations, and in a follow-up of 139 of these cases (83 males and 56 females) my conclusions read "In every one of 139 cases followed-up from 1-4 years compensation for occupational dermatitis is being paid. Not one has recovered fully and been able to resume his original occupation without further trouble, and 'hardening' has not been in evidence. The vast majority of the females has never worked again but continues to draw compensation." "Compensitis" (acute, sub-acute, and chronic), was to me one of the most important factors in the prognosis at that time. Perhaps the great change in social security since those days has altered the attitude of the British working man, as, judging from your leading article, "fings ain't wot they used t'oe."—I am, etc.,

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<sup>1</sup> Bentley-Phillips, B., *Practitioner*, 1954, 172, 531. 1960, 75, 766.

### Malignant Hyperpyrexia

SIR,—Your leading article "Malignant Hyperpyrexia" (21 August, p. 441) does not present the most recent information on this confused subject. We feel the most important question has yet to be answered—namely, the relevance of the muscle contracture which occurs in at least 70% of cases.<sup>1</sup> If the syndrome can develop without muscle contracture, is the contracture either a secondary phenomenon or an associated (but not causative) phenomenon?

We were surprised that your leader writer was unaware of the report<sup>2</sup> that halothane

(and methoxyflurane) induced a reversible muscle contracture in specimens of myopathic muscle. It is interesting to note that Kalow and associates<sup>1</sup> failed to demonstrate a halothane-induced contracture in muscle taken from patients who had recovered from malignant hyperpyrexia, and we attribute this to the use of unphysiological temperatures (25°C) in their experiments.

More recent work in our department on a member of a known myopathic family has shown that procaine hydrochloride both reverses established halothane-induced muscle contracture and prevents its initiation. Thus Dr. G. G. Harrison's findings in pigs (21 August, p. 454) and our own with human muscle are complementary, and the rationale of the use of procaine in patients with malignant hyperpyrexia is confirmed. Although procaine is used clinically for its stabilizing action on cell membranes, the reason for proposing this drug for hyperpyrexia muscle contracture was because of its ability to block caffeine-induced muscle contracture,<sup>3</sup> probably by inhibiting calcium release by the sarcoplasmic reticulum. Calcium can also be accumulated by mitochondria<sup>4</sup> and the therapeutic value of procaine in malignant hyperpyrexia may be due to an intracellular action, stabilizing the mitochondrial membrane.

The use of isoprenaline in the treatment of hyperpyrexia patients, as mentioned in your leading article, is controversial. It is well known that isoprenaline increases cyclic AMP by stimulating adenyl cyclase, and Pollock and Watson,<sup>5</sup> quoted by you, have proposed a theory of the pathogenesis of malignant hyperpyrexia based on a rise in the intracellular concentration of cyclic AMP.

Finally, although it is impossible to define adequately the condition or possibly conditions of malignant hyperpyrexia before its aetiology is known, we regret the failure to attempt a "working definition" in your leading article. Many of the published cases do not appear to us to have been true examples of this syndrome, having developed only mild pyrexia during or even after anaesthesia. We believe that *malignant hyperpyrexia is a specific potentially fatal condition occurring during anaesthesia in which heat production exceeds physiological heat loss to an extent that causes a progressive rise of body temperature at a rate of at least 2°C per hour*. All other manifestations of the syndrome such as muscle contracture, hypoxia, acidosis, lactacidaemia, and cardiovascular collapse are not initially invariable and are probably secondary effects.—We are, etc.,

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- 1 Kalow, W., Britt, B. A., Terreau, M. E., and Haist, C., *Lancet*, 1970, 2, 895.
- 2 Ellis, F. R., Keane, N. P., Harriman, D. G. F., Kyei-Mensah, K., and Tyrrell, J. H., *British Journal of Anaesthesia*, 1971, 43, 721.
- 3 Feinstein, M. B., *Journal of General Physiology*, 1963, 47, 151.
- 4 Lehninger, A. L., *Biochemical Journal*, 1970, 119, 129.
- 5 Pollock, R. A., and Watson, R. L., *Anaesthesiology*, 1971, 34, 188.

### The New F.F.R.

SIR,—Dr. F. Pygott (28 August, p. 533) and Dr. C. G. Whiteside (11 September, p. 639) express the concern felt by radiologists at

the new F.F.R. examination. The detrimental effect likely to be experienced as a result is described by Dr. Pygott. As radiology is today anything but a popular specialty with some 60 unfilled posts, this move seems likely to cause a further deterioration.

Is it not time that both the D.M.R.D. and F.F.R. were abandoned and replaced by a board qualification, such as in Canada, where recently the Fellowship has been abolished?

The British love of multiple diplomas is surely an expression of academic vulgarity and should be discouraged. A further satisfactory alternative is to use the Edinburgh membership or the M.D. with radiology as the qualification.—I am, etc.,

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### Cyclophosphamide and the Bladder

SIR,—Another, quite different, aspect of your leading article on "Cyclophosphamide and the Bladder" (26 June, p. 726) may be of interest to those faced with a similar problem—namely, the direct intravesical instillation of cyclophosphamide in the palliative treatment of carcinoma of the bladder. At a recent follow-up examination of a patient with inoperable carcinoma of the bladder treated by regular instillation of cyclophosphamide there was no evidence of advance of the tumour during the 2½ years' treatment with the drug, and during this time the patient has been leading an active worthwhile life free of symptoms in his own home.

A 58-year-old man with inoperable carcinoma of the bladder was admitted for terminal care in May 1969. He was bleeding profusely from the bladder and had severe frequency and dysuria. There was no evidence of secondary spread of the tumour. He was grossly anaemic with a haemoglobin of 3 g/100 ml. On admission he was given 4 pints (2.3 l.) of blood. At the same time twice daily instillations of 1 g of cyclophosphamide in 50 ml of saline were started.

The haematuria lessened within a few days and soon ceased altogether. Within three months all symptoms of dysuria and frequency disappeared. The interval between the instillation was increased to one week. For the past two years the patient has been looking after himself at home, cycling to hospital once a week for treatment. Six months after treatment a cystoscopy showed absence of cystitis and bleeding, and a little sloughing of the tumour, which the surgeon thought was probably a little smaller in size.

At follow up in June 1971 his haemoglobin was 14.3 g/100 ml and white cell count 8,500/mm<sup>3</sup>. He was feeling very well and had no urinary symptoms. At cystoscopy the appearances of the tumour were almost identical with those found in February 1968 with an extensive carcinoma, involving the neck and whole of the left side of the bladder. Bladder capacity in June 1971 was 4-5 oz (110-140 ml).

Though there had been no regression of the tumour in this period of over three years the patient has had complete remission of his symptoms for the last 2½ years, and remains in ignorance of the true nature of his complaint. The only other treatment he

has had during this period is oral iron. There has been no evidence of any leukopenia throughout this treatment.

In view of the subjective benefit achieved in this case intravesical palliative chemotherapy with cyclophosphamide in locally advanced carcinoma of the bladder may merit further study. Thiotepe and other cytotoxic drugs have been used by this route in diffuse, non-infiltrating papillary carcinoma of the bladder<sup>2</sup> for several years, but intravesical thiotepe treatment has occasionally been complicated by pancytopenia and generalized sepsis.<sup>3</sup>

The absence of leukopenia should be noted. This suggests that there was negligible transvesical systemic absorption or hepatic "activation" of the drug.—I am, etc.,

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<sup>1</sup> Jones, H. C., *Proceedings of the Royal Society of Medicine*, 1963, 56, 751.

<sup>2</sup> Abbassian, A., and Wallace, D. M., *Journal of Urology*, 1966, 96, 461.

<sup>3</sup> Bruce, D. W., and Edgcomb, J. H., *Journal of Urology*, 1967, 97, 482.

### Reflux and Hernia

SIR,—With regard to your leading article on hiatus hernia and oesophageal reflux (24 July, p. 205), may I submit that the understanding of this subject lies in a deeper, more natural, approach than the ones being pursued at the present time, and that this natural approach revolves around the question of eating with hunger or without hunger. Physiologists will recognize that in the presence of real hunger there occur much stronger contractions along the walls of the stomach—the so-called hunger waves—and even 40 years ago Ivy and Farley,<sup>1</sup> confirming the work of still earlier investigators, showed how closely the emptying-time of the stomach is determined by the hunger with which a meal is eaten. It is not surprising that S. Cohen and L. D. Harris<sup>2</sup> have found that the oesophageal sphincter contracts more strongly as intragastric pressure rises—that it responds to the challenge. For contraction-waves along the stomach would be pointless without this synergic behaviour in the sphincter. But the opposite also holds true; in the absence of hunger the waves will be minimal and the sphincter will tend to relax, so that seepage back (oesophageal reflux) will be only too likely to occur.

After many years' practice in naval hospitals—and oesophageal reflux ("heartburn") is an exceedingly common complaint in the Service—I found that without any doubt the alleviation of this complaint lay in teaching the patient not to eat in the absence of hunger. And how much of such eating takes place in Westernized countries to-day! Either because meals are eaten automatically during conversation, or have to fit in with external circumstances, or because so many of the tinned, processed, and deep-frozen foods that abound at the present time are sadly lacking in flavour. Given that a man is really hungry, and that some attractive food is available, not greatly removed from its natural state, an attack of heartburn becomes, in my opinion, impossible. Thus, a skilfully-cooked pork chop, reckoned even then as food somewhat hard to digest, will, if eaten with real hunger for it, become like a ship sunk without trace; whereas a pint of milk, reckoned

an easy food to digest, will, if taken without hunger, "lie like a ball on the stomach" for hours afterwards.

In the view just given the question of hiatus hernia thus becomes secondary to chronic reflux. It is a result, not a cause. All the foregoing is set out in detail in a joint work.<sup>3</sup>—I am, etc.,

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<sup>1</sup> Ivy, A. C., and Farley, G. B., *American Journal of Physiology*, 1929, 91, 206.

<sup>2</sup> Cohen, S., and Harris, L. D., *New England Journal of Medicine*, 1971, 284, 1053.

<sup>3</sup> Cleave, T. L., Campbell, G. D., and Painter, N. S., *Diabetes, Coronary Thrombosis and the Saccharine Diseases*, 2nd edn., Bristol, John Wright, 1969.

### Mental Deficiency Nursing

SIR,—As a parent of an adolescent boy I heartily endorse the letter (4 September, p. 582) stressing the importance of mental deficiency nursing. Because governments have neglected to expand subnormal hospitals and to encourage staff, we parents of subnormal children have been indoctrinated with the idea that they are better cared for at home.

We were pleased to look after our dull child as he developed into a well-adjusted teenager and it helped the rest of the family to become self-sufficient and sympathetic. But now he is much happier in his short terms in hospital than with us because we cannot keep up with his energy and he gets bored. He bites his wrists at home but not in hospital, which is practical proof of this.

We don't feel that hostels would offer the supervision and discipline that the hospital does and which he needs. Also we are not keen on these innocent youngsters wandering about, easy prey for the lawless to lead into crime. Am I a voice crying in the wilderness? Or are there others who wish to defend our hospitals and save the staff from this endless criticism of incidents which inevitably happen again and again where there is a subnormal person? The most ridiculous thing I have ever seen on T.V. was normal occupation of patients called "exploitation." The hyperactivity of these youngsters requires long spells of useful work to keep them out of mischief, as I well know.—I am, etc.,

JEAN PATEY

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### Practicalities of Nursing

SIR,—The leading article (4 September, p. 545) which denigrates Salmon schemes makes dismal reading to one who is neither a doctor nor a nurse. The fact is that the Salmon report<sup>1</sup> was a charter which allowed nurses to experiment and to develop in an area where they were weakest—that is, in nursing administration. As the leading article says "The message that sound administration is as essential to nursing as to any other service does need getting across." The Salmon report emphasized that clinical and managerial practice could be welded so as to provide a progressive career structure. Doctors should remember that more than ever these days nursing has to compete with other attractive careers, but that in spite of this, as the leader grudgingly points out, the hospital nursing service has continued to expand. The cry seems to be that ward sisters are being "lost" to administration. The

first chief nursing officer appointments were made in November 1967; at 30 September 1967 there were 30,987 (whole-time equivalent) ward sisters in post, at 30 September 1968 the figure was 31,751, and by 30 September 1970 the figure was 34,025.

In the sphere of total management and patient care I would hope to see greater medical participation rather than indulgence in the ill-judged and hasty criticisms set out in this leader. The report *Organization of Medical Work in Hospitals*<sup>2</sup> recommended (paragraph 31) that clinicians should play a "continuous and leading part in the management arrangements for the complex of hospital and associated institutions. . . ." The new chief nursing officer whose job it is to determine nursing standards of patient care would welcome that kind of support and participation from clinicians—for instance, in obtaining a fair share of resources for nursing services, and for clinical and managerial training for nurses.

May I suggest that the medical profession which prides itself on scientific analysis, and particularly those doctors without experience of a Salmon scheme which is fully operative, reserve their comments. Though some two-thirds of the top group nursing posts have now been filled few groups have appointed all other grades. Experience of those with fully operative schemes is that after a transitional period the number of posts above ward sister level need be no more than before the scheme was introduced. There has been little time yet to test the value of nursing officer posts. Doctors might actively devote themselves to extending the skill of their clinical nursing colleagues so that some of them became consultants in nursing at nursing officer level. Such a nursing officer could be the right-hand man of a number of consultants working within his/her unit, and counsellor to newly appointed ward sisters and to sisters who have returned to nursing after a lapse of years. That would be a start in the direction suggested in the leader.

It will be unforgivable if we do not have a settled and acceptable nursing administration when integration of the National Health Service occurs. Far from calling a halt to the implementation of Salmon it should be pursued with vigour so that with the parallel reorganization of local authority nurses a sound and established nursing administration can move into the integrated Service in 1974.—I am, etc.,

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<sup>1</sup> Ministry of Health. *Report of the Committee on Senior Nursing Staff Structure*. London, H.M.S.O., 1965.

<sup>2</sup> *Organization of Medical Work in Hospitals*. London, H.M.S.O., 1967.

### Queen Alexandra and the Tate

SIR,—The extension of the Tate Gallery must be fairly low on the list of priorities and interests of the majority of the profession. Support by the profession for the retention of the Millbank hospital in opposition to the realistic expansion of the Tate Gallery may lack the detached judgement that this matter requires.

Compared with New York, London is sadly deprived of the requirements of a major museum of modern art to grace a great