The general practitioner and the x-ray department

PAUCITY of x-ray facilities has been a leading cause of discontent among general practitioners since the inception of the NHS. The Report of the Joint Working Party of the Royal College of General Practitioners and The Royal College of Radiologists, published today on pp. 528-530, is thus especially welcome, since it records the minimal criteria by which adequate facilities should now be judged. It is a wry comment on the speed of change in the NHS that 33 years should have elapsed before an aid to diagnosis of such importance, whose universal provision has been considered routine in all developed countries, received this degree of attention. However, all Health Service administrators should now be left in no doubt as to the acceptable levels of provision and accessibility of x-rays to general practitioners. Since 1966, it has been known that general practitioners use the x-ray department with as much discernment and economy as specialist departments in hospital (Cook, 1966), and this has been confirmed by subsequent studies (Mair *et al.,* 1974), yet their Cinderella-like treatment has continued in many areas.

Access

Publication of this Report should mark the end of the era when it has been thought reasonable to use consultant and casualty services in hospital as the only way in which general practitioners could have access to x-ray facilities. The Report spells out (paras. 2 and 4) the right of family doctors to have open access to urography, cholecystography and barium enema examinations, and this clear statement will be widely welcomed. Likewise, those paragraphs (10-15) which call for improvement in communications for requests, referrals and reporting, and availability of films to general practitioners, will have universal support. Some progress towards a uniform request card must surely follow from this recommendation, whatever local difficulties may obstruct it. The final paragraph, calling for more teaching of radiology at undergraduate and postgraduate levels, must win approval, even though wrenching the relevant time from the curriculum will be difficult.

Centralization

But education for what? It is at this point that queries about the Report must be raised. The Working Party consisted of six radiologists and four general practitioners from city and academic practice. It is possible that weaknesses in the Report stem directly from its authors' backgrounds which, though distinguished, are not typical of general practice as a whole. When the future general practitioner has received more teaching in radiology, there could be a serious risk that this may represent yet another underused skill. Thus para. 16 implies that there will be little place for reporting of films by general practitioners. But surely those who acquire a serious interest in radiology during their training could be of use in many departments in a clinical assistant or hospital practitioner capacity? Implementation of paras. 5-9 may encounter widespread opposition from the 3,000 general practitioners who have a primary responsibility for reading their own films at present (Cavenagh, 1978). In particular, this part of the Report is likely to be criticized on the grounds that its recommendations would increase the dependence on centralized facilities which is already responsible for so much of our present waiting lists, and would be at variance with the conclusions of Gruer (1971).

Small units

Many will wish to take issue with the statement that provision of new x-ray equipment in small units is not justified. From the point of view of the local community, casualty services are the most efficient that general practitioner hospitals provide. Thus only two per cent of casualties are referred to larger units, compared with somewhere between 30 and 70 per cent of inpatients. Without x-ray facilities, a casualty service becomes a mockery. There may also be an outcry at the suggestion that contrast examinations should be concentrated in large units. More than 20,000 contrast examinations are performed in general practitioner hospitals at present (Cavenagh, 1978), and the implication that these are being done under substandard or dangerous conditions is unacceptable. Until the cost-benefit of centralizing services has been further evaluated, it would surely have been more constructive for the Working Party to have laid down desiderata in terms of skill and equipment which should be available for the rare case requiring resuscitation as a result of intravenous pyelography or cholecystography. The majority of these occur within two minutes of injection and almost all within 20 minutes. A general practitioner should be familiar with resuscitation technique, and the necessary equipment

should be at hand during this time. In small units, the expense of providing the minimum drugs (adrenalin and hydrocortisone), intubation and ventilation equipment, and ECG and defibrillator will readily be borne by Leagues of Friends, rather than lose a valued local service. Radiologists in administrative charge of these units will find no difficulty in ensuring that their conditions are met.

Carping of this nature should not detract from the value of the Report. There is now no excuse for the niggardly approach to x-ray provision which has been adopted in all too many areas in the past. At least one authority has adapted the more restrictive recommendations of the Report into practical working arrangements which maintain services at the pre-existing level. Granted the essential—and all too rare—qualities of determination, goodwill and common sense, there is no reason why such arrangements should not become universal.

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References

Cavenagh, A. J. M. (1978). Contribution of general practitioner hospitals in England and Wales. *British Medical Journal*, **2**, 34-36.

Cook, P. L. (1966). Experience in the first year of an "open-door" x-ray department. *British Medical Journal*, **2**, 351-354.

Gruer, R. (1971). Economics of outpatient care. *Lancet*, **1**, 390-394.

Mair, W. J., Berkeley, J. S., Gillanders, L. A. *et al.* (1974). Use of radiological facilities by general practitioners. *British Medical Journal*, **3**, 732-734.

Diet and diabetes — all is confusion. Or is it?

IT is still widely taught and practised that good diabetic control cannot be achieved with a diet containing more than 40 per cent carbohydrate (Truswell *et al.*, 1975). This generally false approach is based upon the Western concept that the symptoms are primarily caused by a disorder of carbohydrate metabolism. Since insulin began to be used nearly 60 years ago there has been no need for carbohydrate to be virtually excluded from the diet of the severe diabetic, and interest in diet has waned considerably. It is only more recently that the lessons to be learnt from diabetic diets in Asia and Africa are being heeded. Patients in these countries are fed diets containing between 70 and 80 per cent carbohydrate with no obvious ill-effects (Patel *et al.*, 1969) and the mortality from large vessel disease in Japanese diabetics (but not those that settle in the United States) is one tenth of that of their Western counterparts (Goto and Fukuhara, 1968). These diets contain no more than 10 to 12 per cent fat, whereas low carbohydrate Western diets often contain as much as 40 per cent fat. There is, however, no such marked discrepancy between East and West in the incidence of microvascular disease, which is more directly related to the length of exposure to hyperglycaemia.

To minimize the complications of diabetes—large vessel and microvascular—the dietary changes must be made in two ways. Firstly, the total energy intake should be just adequate to maintain the well-being and ideal weight of the Type I (insulin-dependent) diabetic, but below this requirement for the overweight, Type II (non-insulin-dependent) patient (Thomas and Powell, 1980). It is often believed that blood glucose is affected by carbohydrate intake alone. Dietary carbohydrate certainly has the most immediate effect on blood glucose, but the subsequent contribution made by other foods, particularly if the total energy intake is more than adequate, is substantial (West, 1973). Regulation of total energy intake is now thought to be more influential in controlling diabetes than any one food in particular (Arky, 1978). Secondly, the unabsorbable fibre content should be kept high (Kiehm *et al.*, 1976); fibres from a leguminous source seem to have the best reducing effect on post-prandial hyperglycaemia (Jenkins *et al.*, 1976, 1977, 1978; Simpson *et al.*, 1981).

Reduction in cholesterol intake (as against that of total fat) is pointless, since such reduction is compensated for by a rise in the amount absorbed. Eggs, being a cheap source of protein fairly low in fat, should form an important part of a diabetic diet, but special 'diabetic' foods should not. Patients dislike diets; they particularly dislike those containing large quantities of fibre. Yet to be effective in reducing post-prandial hyperglycaemia significantly, diets for diabetic patients need to contain at least five times the normal amounts found in typical Western foods (Simpson *et al.*, 1981).

So, how best can we apply the research findings to the practicalities of everyday diabetic life? The following guidelines, based on Thomas and Powell (1980), are worth considering.

1. Regulating total energy (calorie) intake appears to be a better way of managing diabetes than simply restricting dietary carbohydrate.

2. Within the individual's agreed intake of energy, a diet high in carbohydrate (60 to 70 per cent) and low in fat (15 to 20 per cent) may prove beneficial in the prevention of cardiovascular (large vessel) disease.

3. Reduction of hyperglycaemia and the risk of microvascular complications is more likely to be achieved if the dietary fibre content is substantially increased.