

## Pointers

**Oslerian Tradition** : First Oslerian oration by Sir Geoffrey Keynes (p. 599).

**Acute Leukaemia** : New Zealand studies showed significant seasonal variations in onset in adults only. Tendency towards time and space clustering in preschool children suggests that aetiology in this age-group may be different (p. 604).

**Kwashiorkor** : Diarrhoea was a common problem in Ugandan kwashiorkor, but was seldom of infectious origin. Sugar intolerance was a usual cause (p. 608).

**Malnourished Indian Children** : Sugar intolerance demonstrated in malnourished Indian children, but nutritional recovery reversed abnormalities in the majority (p. 611).

**Drug Dependence** : In an industrial general practice 1.3% of patients were regularly taking hypnotics. Many may be placebo reactors (p. 613).

**Prostaglandin in Labour** : Appreciable blood levels of prostaglandin  $F_{2\alpha}$  detected during labour (p. 618); Prostaglandin  $F_{2\alpha}$  infusion was effective and safe for inducing labour in cases of postmaturity (p. 621).

**I.U.C.D. and Gonorrhoea** : Three cases of gonorrhoeal pelvic infection. Removal of device considered essential in management (p. 623).

**Peritoneal Anomaly** : Case report (p. 625).

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**Intermittent Claudication** : Investigation and assessment (p. 630).

**Endemic Disease in Developing Countries** : Role of mass campaigns (p. 634).

**"Do-It-Yourself" History** : Trial of self-administered questionnaire to see if this provides useful information (p. 636).

**Hospital Scientific Service** : Proposals of Zuckerman Committee (p. 638). Leader at this page.

**Personal View** : Dr. Clifford Hawkins (p. 640).

**Seat-belt Injuries** : Birmingham study (p. 641).

**Damages against Doctors** : Proposal for joint research by lawyers and doctors (p. 643).

**Green Paper** : G.M.S. Committee recommends continuance of tripartite arrangements (*Supplement*, p. 49).

**Medical Registration** : Discussion at G.M.C. on admission of overseas doctors to *Medical Register* (*Supplement*, p. 52).

**Private Practice Committee** : Disagrees with G.M.S. Committee's interpretation of "under active treatment" (*Supplement*, p. 53).

## Scientists and Technicians in Medicine

A committee was appointed last year "to consider the future organization and development of hospital scientific and technical services in the National Health Service hospitals." Its report to the Health Ministers, published earlier this week, is summarized at p. 638. The principal scientific services referred to are all branches of clinical pathology, medical physics, and physiology: others discussed are nuclear medicine, biomedical engineering, and computer programming. The report says that it expects more non-medical scientists will in future be employed in activities of this kind; indeed, they are "going to be increasingly responsible for the organization and provision of scientific services" and "for introducing new ideas and techniques." It is represented that they lack a proper career structure, are inadequately paid, lack facilities for postgraduate training, and are prevented by attachment to a single clinical department from contributing to the general medical work of the hospital to the full extent of which they are capable.

The remedies proposed for this and other defects of the present system are far-reaching. The main proposal is that there should be a Hospital Scientific Service organized at three levels, the top consisting of a national hospital scientific council. It is also suggested that there should be a "chief scientist": which discipline, whether physics, chemistry, physiology, or perhaps mathematics, would best fit a man for this enormous and varied responsibility is not discussed. At the second, regional board level there are to be a regional scientific advisory committee and a regional scientist. Thirdly, at each district general hospital there should be a "division of scientific services" to include the pathology department and any other medical science activities which are undertaken. In any future construction it is envisaged that all this should be accommodated under one roof. Another suggestion is the establishment of regional scientific centres "in the interests of efficiency and of economy of staff and equipment." Evidence was offered to the committee—though it is not clear how much of this advice they accept—that these centres might undertake neuropathology, some serology, automated chemical analysis, exfoliative cytology, neurophysiology, maintenance of electronic equipment, medical physics, nuclear medicine, respiratory physiology, and computer programming. The report also discusses at length co-ordination, career planning and training, the most economical use of manpower, and the exchange of information, and there is strong emphasis throughout on the duty to provide facilities for research.

The composition of this committee is strongly academic, and some of its proposals sound reasonable enough as applied to a large university medical department receiving many generous grants for research and employing non-medical scientists extensively. They certainly have less relevance, and may indeed seem scarcely to apply at all, to the work done in an average district hospital. This is unless it is proposed that in such hospitals facilities for research and the use of advanced techniques should

be greatly extended. It may then well be asked whether this change is a necessity or a luxury which the country can at present ill afford. The factor of cost is unmentioned in the report, but it seems unlikely that these proposals could be carried out without very considerable expense. One specific suggestion calls for careful consideration; this is the more frequent employment of non-medical scientists in pathology departments. Many such biochemists and a few bacteriologists have given good service, but we hope that there will be no deliberate policy to multiply such appointments, at least to the extent of restricting them to non-medical graduates. It must be recognized in this connexion that a hospital pathology department is not merely a factory churning out thousands of reports on blood and excreta. The members of its staff have also duties as consultants on clinical problems: they may need to interpret the results of their tests in the light of clinical findings or to suggest other investigations; and in connexion with bacterial infection they are now often arbiters of therapy in which clinical factors have to be considered in making a choice. Medical knowledge is often valuable and sometimes essential for this kind of thing.

If the proposals about medical scientists seem somewhat extravagant, those for technicians, who also figure largely in the report, are almost incomprehensible. There, the same complaints are made of over-specialization and lack of training facilities, and a plea is made for "a more broadly trained and more versatile class of technician." Table III lists 18 classes of technician and the following text specifies 7 more, yet it is apparently seriously suggested that "although the whole range of hospital technical work could not be undertaken by a single class of technician it would be possible for most of it to be covered by two or three classes in place of the present multiplicity of separate occupations." Apart from pathology, physics, and radiography, these include dental mechanics, electronics, photography, dietetics, orthoptics, audiometry, the care of animals, operating-theatre work, and the use of a wide variety of highly specialized apparatus, such as that for electroencephalography, renal dialysis, and extracorporeal circulation. Post-mortem room attendants and staff operating sterilizers and disinfecters are not mentioned but could well be included in such a list. Any interchange between most of these occupations would simply mean retraining, and the suggestion of such versatility as would enable anyone to cope with half a dozen of them—except perhaps those involving the management of apparatus—is simply fanciful. The more senior staff are not interchangeable even between the four divisions of a pathology department.

The committee recognizes that under the Professions Supplementary to Medicine Act four classes of technicians are registered after suitable training and examination, but resents the assumption that these professions are separate. "It is the essence of our proposals that the professions should be brought together into one service." It seems to be suggested that the new national hospital scientific council should have power to change these arrangements, and one passage embodies a definite threat to undermine the authority of the Council for Professions Supplementary to Medicine should they fail to toe the line.

It will be evident that there are highly contentious features in this report. Many sectional interests are involved to which it will make a varying appeal. One response may be predicted with some confidence: it will be viewed with some disfavour by the hospital pathologist. He is in no need of a

new "careers structure." He is supported by an admirably organized technical service, and the suggestion that this should be integrated in some way with others may well be resented. He will see little advantage in being physically associated with unrelated disciplines in a division of scientific services the head of which may apparently belong to any of its departments. His work concerns the welfare of patients so much more directly than that of any of his proposed associates that he may reasonably expect to retain independent control of his own department.

## Relevance and Quality

The needs of underdeveloped countries will not be understood if they are defined simply by deficiencies in relation to technically more advanced countries. Failure to appreciate this has resulted in the export to them of inappropriate methods and equipment. Nor are the problems in a continent like Africa, for example, with its immense diversity of races, cultures, and resources, any less complex than they are in the richly historical environment of Europe.

If a country's development is to be anything but a mirage, it must spring largely from its own resources and genius. Educationists with experience of the poorer countries of the world have long accepted this view, though it has not always found fulfilment in practice for two main reasons. The first is that an institution in a developed country seeking to help one that is less technically advanced has difficulty in adapting its outlook while maintaining its standards. A university in Great Britain, for instance, can be presented with a dilemma when it seeks to establish a syllabus and hold examinations in association with a university college in a developing country whose needs and history are very different from our own. The second and complementary reason is that the inhabitants of the developing country, especially those who have been educated in a Western university, are apt to fear that a syllabus balanced to the needs of their own country may entail lower standards. In short, the task is to reconcile relevance and quality.<sup>1</sup>

The need to keep this objective firmly in mind in Africa is evident from the 1967-8 report to the World Health Organization's Regional Committee for Africa by its Regional Director, Dr. Alfred Quenum.<sup>2</sup> Dr. Quenum notes that three new medical schools were opened in the year. They are at Conakry in Guinea, at Nairobi, and at Zaria in Nigeria. But the serious shortage of trained staff in many African countries is aggravated by shortage of people in training. Dr. Quenum states that at least 400 new doctors should be trained a year to attain the minimum objective of one to 10,000 inhabitants. Yet in 1967 only 189 students graduated from medical schools in the African Region, of whom 19 were foreigners. Likewise Chief Sir Samuel Manuwa, in his address published at page 634 of the *B.M.J.* this week, laments the "chronic shortage of trained manpower and of financial resources." According to

<sup>1</sup> See Ashby, E., *Universities: British, Indian, African*, 1966. London.  
<sup>2</sup> *Eighteenth Annual Report of the Regional Director to the Regional Committee for Africa*, World Health Organization, 1968. Brazzaville.  
<sup>3</sup> *Integrating Rehabilitation in Africa*, ed. B. Oscar Barry. N.D. [1968]. National Fund for Research into Poliomyelitis and Other Crippling Diseases.