of them to benefit from the College's special facilities, as it is generally felt that an increase in the proportion of haemophiliacs would involve too much reorganization of many aspects of the College's present arrangements.

Conclusion

It is not enough for young haemophiliacs merely to survive, nor even for them to grow to manhood with good physique—they must also be able to take their place in society as well-integrated, independent individuals, able to earn a salary and support their families. Since all forms of manual labour are closed to adult haemophiliacs, educational attainments achieved during childhood are obviously of the greatest importance. Success is possible only if their education has fitted them for clerical, professional, or other work which does not involve physical strain. Constant interruptions in their schooling will bar them from just this type of work and livelihood. Because the illness is utterly unpredictable in its periodicity, and because minor injuries are inseparable from normal childhood, good and continuous education can be achieved only if school and treatment centre work together as an integrated unit.

It is clear that there may be more than one solution to this social problem. In some towns it might be possible to adapt a day-school, or in others a special hostel for haemophilic patients who attend ordinary schools might be considered; but there is no doubt that a boarding-school, combining as it should early treatment for crippling lesions with continuous education, is the first essential in any plan for educating these children.

Summary

The education of haemophilic boys presents a special problem. The boys need to have immediate and satisfactory treatment for potentially crippling haemorrhages and education to equip them for a sedentary life. This report analyses the results of a questionnaire sent to haemophilic patients or their parents, and shows that the present education arrangements are not satisfactory. The case is argued for establishing a boarding-school for haemophilic boys to be run in association with a haemophilia treatment centre.

We wish to thank the many consultants, general practitioners, school medical officers, and school principals who have cooperated with us, and especially Dr. G. I. C. Ingram and Dr. R. M. Hardisty for their encouragement and assistance, and Dr. R. H. Gandy for his hard work on the clinical aspects of the survey, which will be reported elsewhere. Professor R. G. Macfarlane gave us most helpful criticism throughout the preparation of this paper, and for this we are most grateful. We thank the Medical Research Council and the Haemophilia Society for grants without which this work could not have been carried out. We also wish to express our gratitude to all the patients, and their parents, who so willingly took part in the survey.

REFERENCES

- Barrachin, M., and Mme Bosser (1964). *Hémostase*, 4, 269.
Favre-Gilly, J., Saint-Paul, E., Duchêne, M., Thouverez, J. P., and Belleville, J. (1964). *Ibid.*, 4, 231.
Josso, F., Queneau, P., Berthault, F., Poulain, M., Brossard, J., Pellat, B., and Doualle J. (1964). *Ibid.*, 4, 259.

Memorandum on Surgical Training

R. Y. CALNE,* M.S., F.R.C.S.

Brit. med. J., 1966, 2, 228–229

There is at present no plan of training in surgery in the United Kingdom. A man qualifying in medicine from one of the British universities who wishes to specialize in surgery has a very uncertain ten years ahead of him before he succeeds or fails in obtaining a permanent consultant post as a surgeon in his own country.

During the year following registration he will probably take time off work to study for the primary fellowship, and he may attend a course designed for this examination. This is a period of severe financial strain for a young married doctor. He may prefer to spend a year as a demonstrator in anatomy and physiology, but a year spent away from clinical surgery at this stage is too long. When he passes the primary fellowship he then seeks junior posts in S.H.O. and registrar grades. He may be able to study during these appointments, but his chances of passing the final fellowship are increased if he attends a full-time course, which again involves considerable expense. After a minimum of two or, more likely, four years as a middle-grade registrar it is possible to seek a senior registrar appointment. The senior registrar posts that are most likely to result in an attractive consultant position are those in famous teaching hospitals. In London many of the teaching hospitals are extremely short of clinical material, so it is quite possible for a man to obtain one of these highly competitive senior registrar posts and spend most of his time doing minor surgery, supporting his chief in the clinics, and attending tedious undergraduate ward rounds. However, the alternative of a senior registrar-

ship in a busy non-teaching hospital is considered to be professional suicide. Recently there has been a gradual awareness of this appalling state of affairs, and many teaching hospitals have now arranged rotations for their senior registrars, so that half the time as senior registrar is spent in a busy peripheral hospital. This is the beginning of a move in the right direction, but does not go nearly far enough.

"The provision so far made for postgraduate medical education in Great Britain lacks organization and cohesion. A nation embarking on a comprehensive health service cannot afford to do without a comprehensive system of postgraduate medical education." This observation from the Goodenough Committee in 1944 still holds true in many respects today.

Objectives

Postgraduate surgical training should be closely linked to the requirements of the hospital services of the country. In less attractive areas, particularly in non-teaching hospitals, it is very difficult to get junior surgical staff of registrar status, and most of these posts are extremely busy, give little training, and are filled by graduates from overseas who have come to this country seeking, in vain, teaching in surgery.

It is necessary to formulate a plan of training to produce enough surgical specialists to fill consultant vacancies and at the same time to staff non-teaching hospitals at registrar grade. It is essential that a man who has decided to specialize in surgery should at the outset be aware of what this involves,

* Professor of Surgery, University of Cambridge.

and once he has been accepted into a programme of training he should be kept in that programme until the course is completed. He would thus be relieved of the dreadful recurring uncertainty and the haphazard moves all over the country which are the most unsatisfactory features of current practice.

Recommendations

A National Board of postgraduate surgical training should be set up with representatives from the Royal Colleges and the Universities. The Ministry of Health would inform this Board of the number of consultant vacancies that would occur in the course of a ten-year period. The Board would then be in a position to set up regional training programmes in surgery centred on teaching hospitals throughout the country. The professors of surgery would be responsible for co-ordination of the training in the teaching and regional hospitals.

The primary fellowship would serve as an essential pre-requisite for application to a training programme. It would be desirable that a man studying for the primary fellowship should be able to get a financial loan from the Government for three months' study-leave, at the end of which period he would take the examination. Having passed the examination he could then apply to whichever region he wished. The professor in charge of the training programme, aided by a surgeon from the teaching hospital and a regional board adviser, would make a selection from the applicants. The number selected for each regional programme would be decided by the National Board of Postgraduate Surgical Training, based on expected consultant vacancies in the United Kingdom and applications from overseas graduates, who would return to their own country after completion of the programme. The first two years of the programme would consist of a rotation of registrar jobs in which the trainee would spend one year in general surgery and two periods of six months in specialties of his choice, part of the time in the teaching hospital and part in designated peripheral hospitals in the region, where active postgraduate training would continue. He would then be given one month's study-leave, at the end of which he would be required to take the final fellowship. He would be permitted three attempts, but if he was unsuccessful on the third occasion he would have to leave the surgical training. This elimination

at an early stage would prevent the much greater disappointment that often occurs now at the end of ten or more years of training. Once the fellowship was passed the trainee would have three possible lines of further progress during the subsequent four years.

1. *Non-academic*.—Training in clinical surgery, with a possible year abroad.

2. *Partly Academic*.—The trainee would spend a minimum of one year doing full-time research in the United Kingdom or abroad and would be expected to write a mastership thesis. He would not stay in pure academic surgery, but would eventually apply for a National Health Service consultant job.

3. *Academic*.—Trainees who intend to become academic surgeons would also spend a minimum of one year doing full-time research either in the United Kingdom or abroad, and would be expected to do part-time research during the rest of their training period.

There would be compulsory rotation of all trainees to designated regional hospitals without any chance of falling off the "surgical ladder." This would improve the staffing of regional hospitals and be an asset in training surgeons with abundant clinical material and operating experience. It would be necessary to provide adequate married accommodation in the regional hospitals.

Once the fellowship examination was passed the rest of the training period would not be a continual time of anxiety. Provided they worked to a reasonable standard, the surgical trainees would be ensured of a consultant appointment. Research, publications, and a mastership would not be undertaken as chores necessary for obtaining a job. They would be pursued only by those who were genuinely interested, and, if aptitude was demonstrated, part-time research could be continued for the rest of the training period and afterwards as a consultant.

The regional surgical training programme would therefore be approximately six years in all—two as a registrar after the primary fellowship examination and before passing the final fellowship, and four as a senior registrar. On completion of the programme a Health Service or academic consultant post would be guaranteed because of the limited numbers of trainees admitted to the programme. It would therefore not be necessary to change the present system of appointing consultants.

CONFERENCES AND MEETINGS

Clinical Sessions at Exeter A.R.M.

Because the B.M.A.'s Annual Scientific Meeting for 1966 is to be held in Karachi the number of clinical sessions at the Annual Representative Meeting at Exeter (see Supplement, 16 July, p. 17, and p. 73 this week) was limited to two—a series of demonstrations, and a symposium on the use of corticosteroid drugs.

New Techniques in Medicine and Surgery

The first clinical session was held on 6 July in the Newman Building, Exeter University. A demonstration of new techniques in medicine and surgery was presented by consultant staff from the Exeter hospitals, with Mr. T. L. BRADBEE in the chair.

Dr. F. S. W. BRIMBLECOMBE described new methods of resuscitation of the newborn. The Saling technique of estimation of blood pH in the foetus *in utero* provided for the first time an accurate index of foetal distress. Babies with severe foetal distress were often white and flaccid at delivery. In these circumstances the child should be

sucked out immediately, and if there was no spontaneous respiration within three minutes endotracheal intubation should be followed by intermittent positive pressure respiration.

An alternative to this technique, but one that was still very experimental, was the use of hyperbaric oxygen chambers. In answer to questions Dr. Brimblecombe said that he thought all general practitioners engaged in domiciliary obstetrics should be familiar with the techniques of endotracheal intubation and positive pressure respiration.

Mr. K. P. S. CALDWELL described his experience with the use of electronic stimu-

lating units in achieving sphincter control in incontinent patients. In order to avoid trailing wires and other aesthetic difficulties it had been found best to use a small implant with a radio-frequency link to a further small unit worn on the exterior of the body. The implant directly stimulated sphincter contraction. Half millisecond pulses were transmitted 25 times a second from the power unit. Unfortunately, if the coils of the two units were not opposite each other no signal would be transmitted, and it was therefore necessary to have some cooperation from the patient.