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COMMUNICATIONS

Surgical specialism in Malaysia

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I would like to consider some problems to do with surgical specialism in Malaysia with which I have grappled during the past year while helping to consolidate the cardiothoracic surgical unit in the University Hospital.

Malaysia is a rapidly evolving western type society. It has a national health service directed from Kuala Lumpur which is the capital and nerve centre of a country of approximately thirteen million people and with a yearly population growth of 3%.

Historical Background

In 1962 it was predicted that the children of Malaysia would grow up in an environment different from that of their parents and that their pattern of life would change accordingly. This has happened. In 1963 a 5 year university medical training scheme with a compulsory year in a teaching hospital on graduation was adopted. The scientific course was integrated with clinical application in the University Hospital which was physically joined with the medical school. The arrangement functioned with such a precision that the hospital, complete with polyclinic and accident service, was opened in 1967 just in time for the first clinical students. This class graduated in 1969 and since then, nine-hundred and twenty-four doctors have graduated. The first priority of the medical school and hospital training scheme was rightly given to the training of doctors, but the national need for post-graduate training was clearly accepted. Soon afterwards the new General Hospital of 3000 beds was built and now acts as the clinical school for the recently established medical school of the National University Kebangsaan.

The government acknowledges a shortage of medical manpower. Much medical preventive care and social medicine, especially in rural health areas, is done by non-medically qualified personnel. Approximately 120 doctors qualify yearly from the University of Malaya, and serve as House Officers for a year and are assigned to government hospitals for two years, while approximately 70 graduates return from training overseas. Many are now involved in the direction of the Medical Services and teaching at the University and General Hospitals.

Within the University Hospital and the General Hospital, post-graduate training is a busy apprenticeship system in which trainees fit in lectures and study as best they can in their spare time. In peripheral hospitals, the clinical load is often greater, and many trainees have few facilities or incentives for post-graduate study. It is hard for surgical trainees to match-up to the rigorous standards required by the Royal Colleges of Surgeons, especially for the Primary Examination.

Since the beginning of Malaysia's university orientated Medical School, emphasis has been placed on general medicine and surgery, for these satisfied the needs of under-graduate training. Training posts were set aside for clinicians – physicians, surgeons, anaesthetists, radiologists, medical scientists and technical staff, but in many cases these are inadequate to satisfy the present needs of the national health service.

In recent times there has been a depletion of senior surgical staff from the teaching hospitals and from the government hospital service. Some doctors

have migrated; others faced with financial restraints of an inflating situation and a doubtful career structure, have left the staff to pursue their specialities in unrestricted private practice. Although it is possible that private practice should be encouraged, for the costs of all medical care are born privately, complete services of the highest quality must be maintained in the teaching and general hospitals. Inspite of an increasing national need for general surgeons and for specialist surgeons to care for the growing population, whose requirements and standards are those of university level, there is a great shortage of surgical recruits.

Until recently, post-graduate medical training has been acquired in centres of learning overseas, mainly in Britain, the United States and Australia. Now this is becoming increasingly difficult and the Malaysian health service faces the dilemma of establishing sufficient post-graduate training centres in general hospitals – perhaps in some cases by upgrading metropolitan hospitals as well for this purpose – and the priorities it should give to establishing sub-specialties within teaching departments.

The necessity for providing sufficient trainee posts to satisfy the needs of a mushrooming population, both in the cities and in the rural areas, warrants a review of post-graduate training. It is only by wise planning of complementary specialist and hospital requirements in accordance with anticipated needs, similar to that which was successful in creating schools and institutions for undergraduate education, that anticipated post-graduate needs will be met.

While priority should be given to training general physicians, surgeons, anaesthetists, radiologists, and medical scientists, yet national training centres should be supported for sub-specialties; for example centres of radiotherapy, neurosurgery and urology have all been established in the General Hospital in Kuala Lumpur and cardiothoracic and vascular surgery at the University Hospital. At present, due to manpower shortage and lack of recruits, these are supplying clinical service needs, but are not training specialists to satisfy the present and future national needs.

In order to highlight some dilemmas confronting administration of the national health service, I would like to pose three questions namely:

1. **Is it necessary to provide special facilities and trainee posts above those already funded‡**

   The answer is in the affirmative; but first it will be necessary to assess the number of surgeons and anaesthetists adequate to the needs of general and special surgery in the foreseeable future and to define the basic facilities and organisation necessary for training young surgeons (registrars).

With the growth of surgical specialties and the number of patients requiring surgery, the need everywhere is for skilled and versatile surgeons to staff existing and new hospitals. These needs are expanding with a real population explosion.

Professional freedom and advancement within the limitations imposed by society, is a surgical heritage. It is only by providing professional incentives and a career structure, that the most active and able medical graduates will be attracted to undergo arduous post-graduate training and to assume the life-work of a busy surgeon.

As the caseload and staffing within general hospitals increases, surgeons naturally divide up work according to special interests and training, and refer the patients they cannot handle to a teaching hospital. Surgical training must cover a broad field, and all general surgery that can be done in a general unit should be done there.

In order to train a surgeon beyond basic skills and to develop a clinical service of an international standard, it is necessary to establish sub-departments of surgery in special areas, to which surgeons in training can be rotated for a period. When well-equipped units, staffed by surgeons of repute, have been established, trainee surgeons will be exposed to modern techniques and handling of particular surgical problems, and in time and from among these, more specialists will be recruited and trained. Only in this way can the brain-drain of graduates flowing overseas in search of special skills be stopped. The best of these may never return, or on returning, may leave again when they perceive that there are neither facilities nor the opportunity to continue their interests and professional work.

On the other hand, when the best graduates are recruited and trained locally, and are assured of professional independence and a career of their choice, they will naturally contribute their skill to help their own society; they are likely to be satisfied and aspire to develop local work; they will bring back special skills and techniques learned overseas during periods of secondment or sabbatical leave spent in special centres of learning, and in the course of time they will build national schools of surgery.

In order to attract trainees of the highest calibre and motivation into exacting specialties, it will be necessary to provide a more generous career structure, including opportunities for attending scientific meetings abroad and periods of sabbatical study leave. This is nowhere more apparent than in cardio-thoracic and vascular surgery – a service known to be expensive in staff, facilities and equipment and in consequence only to be developed as a nucleus in special centres – which has been consolidated as a service within the University Hospital. The key staff is but a skeleton comprising at present of one cardiothoracic surgeon and a trainee, one anaesthetist familiar with open heart procedures who has other important committments, and usually one part-time assistant. This is not a sufficient nucleus to build an important national service and training centre. Eventually the unit will need to operate every day and will have to be staffed accordingly.

A similar state of chronic understaffing and lack of provision for specialist trainees in national centres exists in the Institutes of Neurosurgery, Urology and Radiotherapy at the General Hospital.

In order for each to fulfil the role of referral and teaching centre, these units need to be granted independent management with adequate staffing of surgeons, anaesthetists, trainees operating personnel, beds, and they take part in teaching programmes.

In general surgery there is need for more trainee posts and for many more consultant anaesthetists and trainee posts, just as there is in the surgical specialties.

2. **Does specialism become sterile and fail to contribute to the training of surgeons?**

Unless certain guidelines are adhered to, this is likely.

A specialist fails in his duty and become sterile in a young society, when, becoming preoccupied by his own interests and his own patients and concentrating his time and energy on technical matters, he neglects to teach others and loses the flexibility necessary to adapt himself to the needs of his colleagues. He loses sight of a basic function, which is to train other surgeons and other members of his team to a way of thought and in special skills. In all societies and in order to remain alive and supported by young life, it is necessary to observe the teaching hospital tradition whereby the senior staff teaches the junior at all levels. Unless a specialty accepts its part in maintaining the whole body of general surgery and its member assist in cross-fertilisation of ideas inseparable from this integration, it will become sterile. In order to avoid this happening, it is wise to choose as teachers and surgical leaders, men of broad vision and scholarship – men of generous disposition, excelling in their craft. Such men understand the issues of marrying training to clinical service.

There are other reasons for failure, namely empire-building, personality clashes and racial discrimination.

If a specialty seeks empire over an anatomical region and does not return to the general field those areas that can be competently dealt with by general surgeons when they are trained to take them over, it loses their support. This department will become cluttered up and unable to break new ground. It will be unable to fulfil the real objects for which it was established. The real philosophy of our pyramidal elitist system, is teaching and delegation of all work to those trained to do it, leaving a specialist free to devote his energy to the work that no one else can do. Personal dislikes and animosities and jealousies between inter-departmental heads, are reefs on which many good ships founder. Lack of harmony and unity of purpose block development.

3. **How can surgical training be organised to the mutual advantage of Malaysia and the Western Democracies?**

(a) By integration of training programmes with specific universities and rotation of trainees.

This would breathe vitality into departments by cross-fertilisation of ideas and the impact of cultures. Trainee surgeons would mature, make friends and gain experience by a six-month exchange period arranged in a rotation scheme towards the end of their training. When this is not possible, and many difficulties are foreseen, trainee positions could be applied for, the application being supported by the department to which he will return on completion of training.

(b) *Senior Personnel*

There is a good place for roving-ambassadors who bring interest and goodwill. The temporary appointment of specific surgeons to the staff to work in a field or department with

the object of helping to galvanize special organisations or introduce new techniques, is of great value.

(c) *Sabbatical Leave*

Staff positions reserved for men to work in specific fields on sabbatical leave would be of mutual benefit to departments.

(d) *Arrangement of post-graduate training programmes with the help of the Royal Colleges of Surgeons:*

This could best be incorporated under the wing of the Malaysian College of Surgeons.

Teaching Unit Structure

Each unit service should be organised as a team following the easily managed traditional pattern and consisting of surgeon, senior surgical registrar, (his trained deputy who is rounding off clinical experience in the unit and occupying a semi-permanent position until appointed clinical specialist or consultant), a surgical registrar, preferably with primary F.R.C.S. when he is trainee specialist, and two rotating senior house officers undergoing general surgical training. Surgical training should be tenable for the period of training only. All training posts should be used for the purpose defined and not employed for routine service postings. Each unit should have its regular anaesthetic service.

Conclusion:

The opinion is expressed that an assessment of the numbers and categories of surgeons required by the University Teaching and Government Hospitals in the foreseeable future needs to be made, and the basic facilities for training hospitals defined. This might best be done in conjunction with the Malaysian College of Surgeons. In this way post-graduate surgical training could be wisely planned for the national service.

It is concluded that each surgical training centre allocated trainee posts, should be adequately equipped and its staff orientated towards the training of general surgeons. Sub-specialist centres for research and training should be incorporated in teaching hospitals where they are able to share facilities and take part in teaching.

In order to attract recruits of the highest calibre and motivation to fulltime staff posts, it will be necessary to plan a generous career structure and conditions of service for them.

By expansion of training centres, establishment of sufficient training posts and attention to career structure, it is anticipated that Malaysia would soon become self-sufficient in surgery. If this policy were adopted and administered by a board of post-graduate medical studies broadly representing the University, the government and the public, and all promotion based on merit and accomplishment, a national school of surgery would soon be created.