

Keynote address:

Training of Ophthalmologists

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I have chosen "Training of Ophthalmologists" as the topic of this presentation as I feel it is an important area of concern amongst the ophthalmic community and the two Societies. Training is a subject close to my heart and I have been actively involved in the training of ophthalmologists for the past ten years both in Malaysia as well as here in Singapore.

Training to become an ophthalmologist can be defined as "learning the scientific knowledge, technical skill and human behaviour essential for competence to provide quality eye care".

One may ask "what is quality eye care?" Quality eye care is to attain, preserve and restore the best possible vision for every citizen. It is the duty of the ophthalmologists to ensure that everyone has a clear vision of 20/20 in the same way as our Prime Minister Dr Mahathir Mohamad is pushing our nation to have a vision of 20/20 by the year two thousand and twenty.

Looking at the number of ophthalmologists in Malaysia in the pre-Independence era in 1950 there were only 10 ophthalmologists of which only 4 had the Diploma in Ophthalmology and the other 6 had no formal qualification. By 1970 there were 26 ophthalmologists with 6 having F.R.C.S. and 20 the D.O. In 1980 there were 45 ophthalmologists with one third having the F.R.C.S. and two thirds the D.O. In the next decade the number with F.R.C.S. increased more than threefold while there were less taking the .O. the total number of ophthalmologists more than doubled over the next twelve years. Today we have 98 ophthalmologists - 40 with D.O. and 58 with F.R.C.S. or M.S. In fact the M.S. programme has produced 16 ophthalmologists since its inception in 1983.

In Malaysia we have one ophthalmologist for 200,000 persons which is four times less than that of Singapore or UK where the ratio is 1:50,000. Even in the U.S. where the ratio is 1:18,000 there appears to be an apparent surplus of ophthalmologists in some areas. Yet about half of the uneven distribution of ophthalmologists, uneven quality of eye care, restricted access to eye care and limited affordability. Hence to reach the American standard we would have to train many more ophthalmologists.

Training of Ophthalmologists is a lengthy and demanding process. The first stage is the undergraduate or medical student curriculum. If the medical student has an inadequate or boring exposure to ophthalmology he or she is not likely to take up this discipline. Hence it is important to have an adequate ophthalmology posting in the medical curriculum. Once he or she graduates as a medical officer a rotation to the ophthalmology unit will further develop his or her interest to take up ophthalmology residency.

A suitable training programme will qualify him or her to be an ophthalmologist.

After my horsemanship I decided to take up ophthalmology because I thought the eye is such a small organ it will be easy to master every aspect of it. But then scientific revolution of a never ending development of new medical technology and knowledge has led to an explosion of sub-specialities such as cataract, glaucoma, cornea, uveitis, vitreous, retina, ocular trauma, neuro-ophthalmology, orbit and oculo-plastics, thalamic microbiology and pathology and yet many more to come in the future I am sure.

I will deal with the continuing medical education later.

Now I come to the question of who is entitled to be called a Consultant Ophthalmologist. At present there is no specialist register in Malaysia.

In the earlier years the Diploma in Ophthalmology was an adequate enough qualification to become a Consultant Ophthalmologist. The D.O. could be obtained after only 1 to 1-2 years of training and hence more opted to obtain the D.O. On the other hand to sit for the F.R.C.S, the big hurdle was the Part I which training to become an Ophthalmologist, one had to learn the layers of the sole of the foot and the blood supply to the lower end of the rectum. The training requirement was a posting of 2 1/2 years in a recognised hospital - it did not matter what one did during the posting.

In the ministry of Health in Malaysia when there were numerous vacancies one could be appointed as Specialist as soon as one has passed the D.O. and six months after F.R.C.S. before gazettelement as a Specialist or Consultant. The D.O. will not be recognised from the end of this year. In the private sector one could call himself or herself as Consultant Ophthalmologist the day one passes the D.O. or F.R.C.S.

In Singapore the D.O was not a recognised qualification, hence the larger number of F.R.C.S.

Because of our links to Britain the ophthalmology fraternity and the government has maintained the British F.R.C.S. examination as the standard qualification.

Passing the F.R.C.S. examination is another tricky business as most examiners in UK will assure you that one may be a good ophthalmologist and yet fail the F.R.C.S. A good examination technique is required to pass the F.R.C.S. Hence the two weeks F.R.C.S. Preparatory course was started here to tune the candidates to the same wavelength as the examiners. Once the examiners from UK land here they have to be debriefed on the pattern of diseases. Getting through the exam depends a lot on what the examiner asks you in the twenty minutes viva or practical and whether you can click in the correct wavelength at that moment. One must not forget also that the main source of income for the colleges in UK is the exam fees - so more the number of candidates and more times they re-sit the exams the better for the coffers of the college.

F.R.C.S. examination is not an ideal yardstick if it is the only criteria for the assessment of the training programme. In Singapore the M.Med. Ophthalmology examination was started as an overseas centre for the F.R.C.S. Edinburgh exam. You should have a system modified to the needs of the region. There are many models to learn from in Europe, the US, South Africa, the rest of Asia and even our Asean neighbours.

Now coming to the subspecialties, the situation is even more open. There being no specialist register and with the mushrooming of subspecialties there is nothing to stop me from calling myself a retina specialist or a neuro-ophthalmologist or any other subspecialty I dream of.

In Britain with the formation of the College of Ophthalmologists the system is being modified by placing emphasis on the training programmes and the accreditation of posts. The FCOphth Part I is taken during the two years senior house officer posting of which 18 months must be in Ophthalmology. The Part I FCOphth is a prerequisite for the Registrar's posting. The trainee is expected to obtain the Part II FCOphth by the end of the 2 years Registrar's posting. Four years of higher Surgical Training is required after that before appointment as a consultant i.e thirteen years from the start of the medical career.

The American system places more importance on the ophthalmology residency programme which is a very structured in service programme. To become Board Eligible is more important than the examinations. The best part of the American system is the 1-2 years Fellowship Training in the Subspecialty. There is a formal training programme for you to subspecialise. But once you become a retina-specialist you cannot do cataract surgery in the US scene. I understand even among the cataract surgeons you have further subspecialisation into one stitch surgeons and no-stitch surgeons and may be even left cataract specialist and right cataract specialist.

Continuing Medical Education is another strong point in the American system.

In Malaysia the Specialist Register has been planned for many years and is finally coming into existence. I hope it will be implemented over the next two years. In essence it will require four years of supervised training in Ophthalmology.

The MS programme covers the full four years. Fellowship exams of the various colleges will still be recognised and could be taken during this 4 years training period. But the essential thing should be the in service structured training during the four years. This would enable one to be a specialist and eventually it should take another two or three years before being designated as a consultant ophthalmologist.

The Master of Surgery (Ophthalmology) programme which was started in 1983 in the UKM and now in the University of Malaysia as well, is a four years full time in service programme. There is a continuous assessment with supervisors responsible for the monitoring of the progress of the trainees. If the candidate is found to be not at par he or she can be asked to repeat the posting or even stop the course.

The Part I and Part 2 examinations are held at the end of Year 1 and Year 3 and consist of written, orals and practical postings and operations done and assisted. They also have to do case reports of interesting cases which they can publish. By the end of the 4 years they have to complete a research project and write a dissertation on the project. In the part 3 examination, a one hour viva is held to discuss the dissertation and case histories.

The in service training and continuous assessment is like the American programme. The Part I and Part 2 exams are like the British FRCS examinations. The case write ups and dissertation on the research project is from the European System. We have taken the best parts of the different systems and modified them for local programme.

Now I have discussed the requirements to run a successful training programme. First there must be a core of trainees. Every ophthalmologist has taken the Hippocrates Oath as a doctor to pass your knowledge to your fellow doctors. One must take pride in being able to transfer your expertise and experienced to others for the well-being of mankind. One must not be selfish and think that the trainee will become better than you. Not all doctors are good teachers and a good ophthalmologist may not be a good trainer.

The quality of the trainees in the programme is also important. Prof August Deutman of Holland told me that he had to choose two trainees from 650 enthusiastic applicants. I am sure these two trainees will not require any examinations to assess them during their training period.

For the clinical training one requires patients who are willing to be examined by trainees. If the situation is handled tactfully enough clinical training on patients can be given. I do understand it can be a problem in some private set ups. But the knowledge and insight obtained from patients cannot be matched from textbook knowledge. Imagine trying to teach a mechanic to repair a car without the actual car being there.

In this age of technology, reasonably well equipped clinics with facilities for full ophthalmological work up are necessary. Since most operative procedures make use of the microscope the operation theatre must be fitted with a good audio visual system for the trainees to follow the surgical steps. Wet labs are very essential for beginner to practice on the animal eyes and eye models so that the trainee is competent in handling instruments and trying sutures before undertaking surgery.

Text books, reference books and Journals in a well-stocked library are necessary for the trainees to have a wide reading and in depth knowledge of the subject.

Some didactic lectures and tutorials are necessary but these form only a small part in the training programme. Teaching ward rounds where the clinical features and management of every cause is discussed forms an essential part of the programme. This is supplemented with case presentations of problem cases and interesting cases as well as seminars and discussions on various relevant topics. Critical appraisal of articles in the various journals as well as an informative summary of recent publications should be presented in the Journal Club.

I have already stressed on the use of wet labs. Updates and teaching workshops as held at this meeting by experts in their fields will introduce newer technologies and hence should be on a regular basis. In fact at the American Academy of Ophthalmology the Teaching Courses are greatest crowd pullers.

One of the objectives of a training programme is to equip the future ophthalmologist with the skill needed to filter new information critically. The Ophthalmologist has to adapt to a milieu which is constantly changing. To keep up to date it is necessary to take in a torrent of new information all of which must be critically filtered. The best way of acquiring this skill is by taking part in a research project which is well planned, well supervised and designed to solve a problem.

Training of an Ophthalmologist is by apprenticeship and hence in service training should be the hallmark of the training programme.

I have already stressed in various modes of assessment of the trainee but one must not forget the assessment of the programme itself by an external body.

Ophthalmologist like all other medical professionals is expected to continue medical education throughout their careers to sustain the high professional standards and to utilise new scientific advances.