

## Editorial

### ENHANCING SURGICAL TRAINING – MALAYSIAN PERSPECTIVE

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#### Introduction

In the past, the education and training of surgeons in Malaysia were done through the Royal Colleges in the United Kingdom and Australia. The Faculty of Medicine Universiti Kebangsaan Malaysia offered the first local surgical training programmes in general surgery, orthopedics and otorhinolaryngology in 1982. Currently, five universities provide training programmes in the various surgical specialties in close collaboration with the Ministry of Health and other professional bodies. These programmes are four-year structured programmes leading to a clinical Master`s degree. The management system of these programmes are already well established, with the National Conjoint Board overseeing all these programmes. In these programmes, like most other surgical training programmes, the curriculum encompasses teaching core basic knowledge and progressive development of the trainees` surgical skills which are largely obtained through preceptorship and hands on experience in the wards, clinics and operating rooms. Realising that surgical education through these traditional methods is inadequate in the current complexity of decision making and surgical

procedures, many new methods of surgeon`s training should be made available in the programmes.

### **Televideoconference**

Several factors such as the increasing number of trainees, reduction of time and opportunities, ever increasing numbers of procedures and surgical techniques resulted in the trainees having lesser opportunities to develop proper skills. Due to development of subspecialties, training centres also varied in number, variety and complexity of cases. A reasonable training strategy to overcome this was to televise real- time, surgical procedures performed in one training centre to other training centres in the country. This is to enable all surgical trainees in the various training centres throughout the country to observe the procedures. Digital videos and internet facilities are already available in most operating rooms. Using these facilities, real-time interaction between trainees at various centres and surgeons can certainly enhance surgical training (1). Every centre involved with surgical training should make an effort to develop and use this application of televideoconference routinely.

### **Surgical skills laboratory**

Although a large part of gaining surgical skills is from performing operation on patients, ethical considerations and complexity of current surgical procedures will require more training methods without using patients. Training centres should have surgical skills laboratory using animals or cadavers for skills training. Many surgical procedures can be performed in specialised laboratory such as temporal bone dissection laboratory for otologic surgery, microsurgical laboratory for vascular surgery and endoscopic

laboratory for laparoscopic surgery. As these laboratory may be quite expensive to set up, training centres can be made responsible to establish only a certain number of laboratories. The use of these facilities can then be shared with other training centres. Training workshops conducted regularly in these laboratory can certainly increase the trainees skills and minimize the “hands-on” training on patients.

### **Simulation**

The complexity of modern surgical techniques, which uses instruments with advanced technology require us to increase the use of simulators in surgical training. Many current surgical procedures involve use of endoscopes, cameras and microscopes which require additional hand and eye coordination and fine motor skills (2). The use of robots will certainly increase in future surgery. The ideal method of developing such skills is through the use of simulators. Simulators give trainees the opportunity to practice surgical skills and procedures and discover errors and mistakes without harming patients (3). Although most sophisticated simulators developed by industries are quite expensive, more simple simulators can be developed locally. Local universities certainly have the potential to develop surgical simulators through collaborative teamwork with experts in the surgical procedures, computer-graphics, programming and simulation technology. Simulators should not only be used routinely for teaching and training, but should also be used in the assessment of the trainees’ skills and performance.

### **Professionalism and communication skills**

Surgical education is much more than surgical skills training. Decision- making, compassion, appropriate action under critical and emergency situations greatly affect

the management and surgical outcomes. It also depends on collaboration in a team. This requires professionalism and good communication skills and therefore, should be part of the training of surgeons. In many instances, patients or patients' relatives dissatisfaction regarding the patient's management is due to poor communication. Innovative methods of teaching and inculcating professionalism and good communication skills should be developed and emphasised in the curriculum.

### **Conclusion**

In conclusion, the format and management system of the various 4-year surgical training programmes in Malaysia are already well established. Steps should be taken to further improve the training programme to face the current challenges of surgical training, namely the increasing number of trainees, reduction of time and opportunities, and ever increasing numbers of procedures and surgical technique. Training centres should maximize the use of modern medical technology in skills training outside the operation room. Use of live televideo conferencing, surgical skills laboratory and simulators should be enhanced not only for teaching and training, but also assessment of skills and competency. Innovative methods of teaching and inculcating professionalism and good communication skills should be developed and emphasized in the curriculum.

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