



## ***Editorial***

---

### **SURGICAL EDUCATION IN BANGLADESH**

Who is a general surgeon? A specialist who is trained to diagnose, treat and manage patients with a broad spectrum of surgical conditions affecting almost any area of the body. The surgeon establishes the diagnosis and provides the preoperative, operative, and postoperative care to patients.<sup>1</sup> The general surgeon has the knowledge and technical skills to manage some cases thoroughly and in others life saving basics.

To acquire this knowledge and skill one has to go through a program. Efficiency in the program is reflected by the end product. There has been age old apprenticeship when a trainee used to work with a Guru for a long time and acquire the skills. But many factors came in to play and gradually a structured residency program has established its role. It is less subjective and it encourages self or active education and also it tries to assure overall quality. With time residency program has seen many revolution and evolution, but time and again it has proved its importance.

Surgical education is at crossroads in our country. Production of competent and motivated surgeons is threatened by many challenges at undergraduate and post graduate levels. The surgical identity has become blurred in medical schools, surgical undergraduate training is suffering from poorly structured educational objectives resulting in serious lack in knowledge, skill and attitude development.

The seeds of surgical education are planted in the medical school. Vital elements of the building blocks of a surgical identity include systematic surgical and pathological anatomy, diagnostics and decision-making, indications and principles of operative

management and consequences of delayed or missed diagnosis of diseases and injuries requiring surgical treatment. An intensive exposure to the spectrum of surgical practice may assist junior medical students in their career decision-making and planning.<sup>2</sup>

Newer learning techniques are being practiced in the advanced world. Integrated teaching & PBL (Problem Based Learning) are faculty intensive and may not be practical for implementation at the moment in our country. But we should try to bring our students out of the memory based shallow learning to long lasting active learning. A clearly defined & structured curriculum with carefully selected lectures, reducing contents, structured bedside teaching in small groups, practical surgical skills courses and most of all proper assessments to measure knowledge, skill and attitude may help learning the basics required for a skillful future surgeons.

Numerous constraints may limit the practical experience of surgical residents. Current research supports a need for structured curricula, skills acquisition, and feedback outside the operating room (OR) and formal assessment of technical skills.<sup>3</sup> In surgical residency training, personal attitude and values, team work and leadership skills, ability for self evaluation and continuing professional development are important aspects of surgical competence, also surgical knowledge, judgment (decision-making) and dexterity are equally vital and essential parts of the making of a good surgeon. Guidance in surgical decision-making and gaining technical surgical skills are the most important elements requiring more attention. The few studies in the literature suggest that ethics education, when

integrated in surgical residency curricula, can lead to measurable improvements in resident-centered outcomes, which include knowledge and confidence in handling ethical dilemmas.<sup>4</sup>

Responsibility of a training institute is to impart training to the prospective surgeon. A senior trainee should be able to demonstrate a level of knowledge, clinical skills, technical skills, and attitudes consistent with independent consultant in practice. The training program should provide adequate opportunities for a trainee to gain skills in all common and emergency procedures. The trainee should be provided with an appropriate balance of inpatient, outpatient, critical care, and ambulatory training experiences. A trainee should have sufficient exposure to each of the recognized subspecialties so as to become fully familiar with the role and contribution of each for effective patient care. Appropriate feedback, guidance, and counseling should be given to assure proper development in all areas of training and professional behavior.

Increasing patient expectations, economic and efficiency demands, and the evolution of the minimally invasive surgery have profoundly changed the training environment of surgical residency. Nevertheless, a well-structured and graded training program including practical surgical skills courses can come a long way to overcome the current challenges. In addition, detailed analysis to crucial decision-making elements in regular mortality and morbidity meetings, clinical meetings, rotations, and grand rounds, presentations by residents, proctored surgery, and regular assessments are essential to the development of

sound surgical judgment skills. E-learning, uses of teleconference, simulation training console, video of classical surgery, international surgical meetings are becoming essential in the process of training worldwide. Standardization and regular monitoring of the training programs by the degree giving authorities will definitely change the scenario. Faculty development program should be an integral part in the process of creation of a good surgeon. Surgical education will never be successful without enthusiastic, motivated, and clinically active surgical educators.

---

**Prof. Humayun Kabir Chowdhury****References:**

1. Leppaniemi Ari, Wanted: surgical Education, scandinavian J Surg 2006, (95) : 182-183.
2. Sedaghat N, Mondy J, Eslick GD, Cox MR., Exposure of Medical Students to Surgery: The Nepean Summer Vacation Surgical Program.: J Surg Educ. 2012. 69( 50) :580-587.
3. Helft PR, Eckles RE, Torbeck L. Ethics Education in Surgical Residency Programs: A Review of the Literature, J Surg Educ 2009 January, 66 (1):35-42.
4. Roxana Geoffrion, Jae Won Choi, Gretchen M. Lentz , Training Surgical Residents: The Current Canadian Perspective, J Surg Educ 2011 November , 68 (6) : 547-559.