Doctor "*Lite*"

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I recently had the occasion to operate with a second-year surgical resident who graduated with an MD after 3 years of training. I asked for a description of the anatomy of the femoral artery from the groin to popliteal fossa, since this was pertinent to the operative procedure. There was none supplied; the resident was clearly unfamiliar with that subject.

When I was a medical student, soon after the extinction of the dinosaurs, I was informed that 50% of what I was learning would be effete after 10 years of practice; the major cause of my anxiety at that time was that I would forget the wrong 50%. We were asked to remember a large amount of information and process it in a manner that allowed us to function as all-round competent doctors. In the current rush to alter the medical curriculum, more emphasis has been placed on equipping future doctors with the tools to learn on a lifelong basis and to communicate, collaborate, manage, empathize and perform to a level that is more often judged by nonobjective criteria rather than exams.

There are 2 papers in this issue of the *Canadian Journal of Surgery* that require close reading and intense debate in all surgical faculties across Canada.

Ladak and colleagues[1] investigated what students were learning to do in surgical rotations. They used logbooks to record clinical encounters, surgical assists and procedures performed. The exercise took place over 4 years, and 428 logbooks were analyzed; only 10 were incomplete. The study aimed to assess the difference in the core competencies as defined by the performance of 15 procedures before and after a significant curriculum change. The most striking findings from this paper are that, in 8 of 15 surgical procedures, more than 70% of students failed to complete a procedure at least once. There were, however, no significant changes in the Objective Structured Clinical Examination scores or clerkship evaluations after the curriculum changes. Although the paper addresses the limitations of logbooks, the fact remains that students were not being taught to perform procedures considered at that time to be necessary to practicing doctors.

Birch and Mavis[2] used a needs assessment to examine what students are learning in undergraduate surgical education. The design and use of this tool is well described in the paper. With a response rate of 46% from recent graduates and 45% from surgeons, some interesting facts emerged. Of all 15 surgical skills on the survey, graduates felt that they had gained proficiency in only 3. Surgeons also indicated that medical students had acquired proficiency in only 3 of the surgical skills listed. If these results are to be extrapolated to the Canadian graduating classes, then we are failing as surgical educators. Why is this so?

The pendulum has swung too far to the laissez-faire style of medical evaluation. Less time is spent on didactic teaching, but learning to perform a procedure is indeed a didactic demonstration that has to meet performance goals. It is a pass or fail encounter, yet it seems that medical educators now shy away from such evaluations. Some surgeon educators argue that not all graduates will need these skills, thus we can dispense with them. If this argument were taken to its illogical conclusion, then we should stream medical school entrants straight into their chosen or conscripted specialty. We should not be afraid to demand that doctors be able to perform certain surgical procedures on graduation; it is not known whether those skills will be used, but they remain a part of the doctors' repertoire. If doctors are to participate in a health care team, then they need to be able to communicate with doctors of many different specialties; having a firm understanding and competence in many of those specialties enables doctors to fulfill the mandate of a team leader. A good family doctor should be able to suture simple wounds, assess patients with multiple injuries away from a trauma centre and pass a nasogastric tube in a small hospital. These skills continue to be needed

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outside the Meccas of teaching hospitals, where most education takes place. Birch and Mavis use the responses of practising graduates to emphasize that these needs are valid. They also emphasize how they have changed the teaching curriculum at their university to supply those skills.

Issues greater than these need to be addressed when considering clinical exposure and clinical practice. The first involves reexamining the loss of the rotating internship. Many doctors believe that this change in education was politically motivated and not based on an unbiased examination. Greater exposure to all areas of medicine is likely to result in a more complete education; it will help to alleviate the pressures on final-year medical students to make a career choice, having been exposed to all subspecialties. Work-hour restrictions are now being placed on resident trainees and, therefore, clinical clerks, which leads to the question of whether there is enough time to learn through experience, when patients present at all times of the day. For instance, the best time to treat patients with multiple injuries is usually during the night; when students are off the next day, there may be no opportunity to make up what was missed the previous day. Too often, the students are not in the hospital before 10 am or after 3 pm, to their great detriment. My curriculum was 5 years in length, and I'm not certain that a 3-year curriculum is sufficient, now that we have to set standards and measure the performance of procedures that are a necessary part of any doctors skills.

It is time for a great debate and a reworking of how we teach undergraduates in surgery. We need to define what skills are necessary, using Birch's methodology; measure whether we are teaching students these skills, using logbooks; and push the medical school administration to get serious about accountability; we as a faculty are responsible for a doctor's ability to practise in the greater community. We must demonstrate that we are both training and evaluating necessary skills in our graduates.

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References

1. Ladak, Hanson, de Gara. What procedures are students doing during undergraduate surgical clerkship? *Can J Surg* 2006;49:329-34.
2. Birch, Mavis. A needs assessment study of undergraduate surgical education. *Can J Surg* 2006;49:335-40.