believe it remains an important tool, particularly in young women and obese patients. Surgical techniques including Endoloop sutures and clips instead of the repeated and expensive use of stapling devices can reduce cost of laparoscopic appendectomy. With improvement in laparoscopic techniques and instrumentation, including the introduction of micro-laparoscopy, it is likely that laparoscopy will become an integral part of the evaluation and treatment of patients with clinical symptoms of appendicitis. Although Temple and colleagues state that the definitive study comparing the laparoscopic option with open appendectomy remains to be performed, I believe in selected patients it may be already the procedure of choice.

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Complete surgical training

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In their paper in this issue (page 353) Drs. Sidhu and Walker document the continuity of preoperative, operative and postoperative care provided to patients by general surgery residents in a single university teaching program. They report that, although in 80% of cases studied a resident was the primary surgeon, in only 40% of cases was complete continuity of care provided by the same resident. In an ambulatory care setting, only 20% of patients were assessed by a resident preoperatively (before entering the operating room). Fortunately, in emergency cases at a higher intensity hospital, 83% of patients were seen preoperatively by a resident.

Sidhu and Walker should be commended for undertaking this study. It is a matter of concern that such a low percentage of patients are afforded complete care by their "operating resident." It is disappointing that residents are not being exposed to the totality of surgical patient care, including judgement issues such as when to operate, communication issues such as obtaining consent, and quality issues that can be assessed only by postoperative follow-up.

Today surgeons are faced with many challenges. Restructuring has led to the dissemination of individual practice, increasing the workload and the travel time. The ever-increasing workload, as the population of general surgical patients increases and the relative number of general surgeons decreases, has led to less time for teaching. Changing practice patterns, including the move to outpatient surgery and same-day admission has resulted in increased preoperative assessment by the consultant surgeon with less opportunity for residents to play a part. As our personal practices have to change, so must our practices of teaching residents the skills required for surgical practice.

A resident's time is divided among many duties. Most programs have achieved good consistency of resident attendance in the operating room. This is based largly on the residents' desire to be in the operating room (as opposed to the clinic and other places within the hospital) and in their drive to improve their technical skills. Surgical consultants have come to enjoy good surgical assistance from the residents and to encourage their attendance. Residents' presence in the operating room is also fostered by rotation scheduling and surgical team structure, whereby a single resident will cover a number of surgeons, all of whom expect the resident to attend their cases. Thus, they are too busy to

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attend to aspects of care outside the operating room and ward environment and do not get the training they need in the area of total patient care. Drs. Shidu and Walker examined only preoperative assessment associated with intraoperative and postoperative care. They did not address in depth such issues as surgical decision-making (although some senior residents did participate in the decision to operate). The other aspect of patient care that was not addressed is care beyond the early postoperative predischarge phase. Current emphasis on early discharge leads to more telephone calls from patients, families, community care providers and referring family physicians as they strive to help the surgeon care for patients postoperatively. On graduation, surgical residents must be prepared to handle all these aspects of care.

A number of opportunities exist to provide experience for residents in the delivery of care for patients in all phases of their treatment. Some training programs have established a resident preadmission clinic, as Shidu and Walker have described at Queen's University, Kingston, Ont. It allows residents to reassess patients before operation. Other university centres have instituted rotations in ambulatory care, often timed a few months before the residents sit the Royal College of Physicians and Surgeons of Canada examinations. This has the additional advantage of allowing adequate time for studying. Other programs have designated individual "clinic days" so that residents can attend outpatient clinics. Attendance may be sporadic, and none of these opportunities directly addresses continuity of care, although they will provide "snapshot views" into some aspects of preoperative and postoperative care. The best learning will take place, when, under the guidance of an experienced surgeon, the resident must decide to operate (or not) and then assume the responsibility for the decision, including the operative and postoperative care. If residents are not assessing patients preoperatively and postoperatively, then our training programs run the risk of producing only technicians. Our short-term needs for introperative help must not overshadow the long-term needs of training tomorrow's surgeons. There may be a role for the "perioperative care mentorship" of a resident by an individual consultant even within the current structure of a busy surgical team. This would allow the resident to be involved in all aspects of care for a portion of the patients on the service without overloading the resident or diminishing operative experience. This type of arrangement would require careful structuring at individual sites to ensure that this is truly educational and allows residents to experience real surgical practice.

We must continue to resist the temptation to train residents in only the technical aspects of surgery. It is not the technical skills that make great surgeons but the insight and knowledge of when to apply these skills. As our practices continually change with the pressures of today's environment, surgical educators must continue to strive to make timely improvements in training programs to reflect the changing environment and the tasks expected of us and our trainees.

Drs. Sidhu and Walker are to be congratulated for reviewing their program's ability to deliver excellent training in aspects of patient care that are frequently not assessed by surgeons. Other university centres should follow this example and use the data to help strengthen our excellent Canadian general surgery training centres.