Surgical training in Guyana: the next generation

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SUMMARY

The pioneering surgical training partnership between the Canadian Association of General Surgeons (CAGS) and the University of Guyana has successfully graduated 14 surgeons since 2006. The association has recruited 29 surgeons who have made 75 teaching visits to Guyana, and CAGS involvement has been critical to providing local credibility to the program, organizing the curriculum structure and developing rigorous examinations. The program is now locally sustained, with graduates leading a number of clinical hospital programs. The initial diploma qualification is being reassessed, as other specialties have introduced postgraduate Master of Medicine degree programs. Many graduates are pursuing additional training opportunities overseas, and almost all of those remaining in Guyana have returned to the tertiary centre from the regional hospitals. The program has succeeded in training surgeons and raising the standards of surgical care in Guyana, but broader health system efforts are necessary to retain surgeons in outlying regional hospitals.

Surgical training partnerships are a sustainable way to address the deficiencies of surgical care in low- and middle-income countries.[1] In 2006, the Canadian Association of General Surgeons (CAGS) partnered with the University of Guyana (UG) to train surgeons locally for regional hospitals.[2] Fourteen surgeons have graduated, exceeding the original expectations. However, most are practising in the tertiary centre rather than a regional hospital, and several have migrated. This commentary reflects on lessons and challenges during the evolution of this north–south training partnership.

Guyana is a "land of many waters" on the Caribbean coast of South America with a population of 750 000, and it ranks 118th on the Human Development Index. In 2001, the physician:population ratio was just 1.8:10 000, and surgical care was being provided by a few specialists trained overseas. Some UG graduates who were ambitious to become surgeons moved to Jamaica or Trinidad to complete a 5-year Doctor of Medicine specialist degree through the University of the West Indies (UWI), but most did not return. Local surgical leaders identified the need to train surgeons to replace expatriates and serve the rural population, and they approached CAGS to help start a locally based postgraduate course. The Canadian International Development Agency (CIDA) provided 3 years of funding support.

Recognizing that there was not enough capacity to support a longer training program, the 2.5-year Postgraduate Diploma in Surgery curriculum focused on local diseases and resources. Visitors from CAGS shared teaching with local faculty, and the tutorial format enabled visitors to complete a module during a 2-week visit. Twenty-nine Canadian surgeons made 75 visits to Guyana over 8 years, and Skype sessions provided continuity. Residents were assigned to a regional hospital for 6 months before graduation, which was a key part of the transition to independent practice, and they continued serving there for at least a year.

One of the priorities was to train faculty to take over the program. Small research grants supported faculty and bilateral resident exchange and

conference participation, raising the academic standards. One pilot project led to a CIDA-funded diabetic foot care program that resulted in a 40% reduction in amputations and won an award for best original research from a developing country.[3] The Canadian Network for International Surgery (CNIS) Trauma Team Training (TTT) instructor course provided skills in educational leadership, and graduates subsequently trained more than 150 TTT providers.[4] The Postgraduate Diploma in Surgery program graduates are now senior registrars and lead hospital programs (e.g., burn unit, trauma, endoscopy), teach medical students and tutor participants in the surgical course modules.

Some of the factors critical to the program's early success included the locally relevant curriculum, strong local leadership, committed Canadian partners and external funding support. Program sustainability will depend on the oversight provided by the local Postgraduate Education Committee, which has representation from all stakeholders, and Ministry of Health support for the training budget and resident salaries.

The role of the Canadian partners has evolved, and the program is now completely run by local faculty. The imprimatur of CAGS was critical to providing local credibility to the program, recruiting visiting faculty, organizing the curriculum structure and developing rigorous examinations. Several university departments of surgery supported faculty exchange, research projects and clinical fellowship training after graduation, and there is an ongoing need for continued collaborations.

With the end of the formal CAGS partnership and external funding, current trainees and faculty are concerned whether the program can continue in its present form. Maintaining the quality of the training, revising the qualification and retaining graduates are some of the ongoing challenges. Residents have a heavy clinical workload and lack protected academic time. There is no external accreditation process to meet international postgraduate program quality standards,[5] although the Caribbean Accreditation Authority for Education in Medicine and other Health Professions accredits the undergraduate medical program.

KEY POINTS

1. Surgical training partnerships should be locally based and locally relevant.
2. External partners bring credibility, faculty, research opportunities and resources.
3. Local leadership is essential to sustainability, and train-the-trainer courses are critical to faculty development.
4. The qualification must be of international standard to be locally recognized.
5. Young surgeons seek further opportunities for professional development and career advancement.
6. Retention efforts should focus on incentives, and improvement of regional hospital support systems.

The Postgraduate Diploma in Surgery has been recognized by medical councils in Guyana and Montserrat and by the provinces of Ontario and Alberta for clinical fellowships at the University of Ottawa, McMaster University and the University of Calgary, respectively. However, no graduate has yet been promoted to hospital consultant, and the local consensus is that additional overseas clinical experience or qualifications are necessary to become a locally recognized specialist. The introduction of Masters of Medicine degrees in the new postgraduate programs (i.e., emergency medicine, pediatrics, obstetrics, internal medicine) has drawn away applicants from the surgery program. Consideration is being given to upgrade the Postgraduate Diploma in Surgery to a 4-year Master of Medicine program, which will require curriculum revision and additional resources. Other options are to emulate the UWI 5-year Doctor of Medicine program or qualify graduates for fellowship in the nascent Caribbean College of Surgeons. Some graduates are now pursuing additional surgical specialist qualifications in the United Kingdom through distance education.

The training program needs to reconcile graduates' aspirations with competing national needs. Nine graduates remain in Guyana and provide much of the surgical care in the country, but most have returned to the main tertiary hospital. The World Health Organization is making efforts to strengthen the global health workforce, recognizing that surgeons are only 1 part of the health system.[6] They work with a team of ancillary staff, need equipment and supplies, and require a responsive governance structure. Until these larger health system issues are addressed, the challenge of retaining surgeons in regional hospitals will continue.

Retention efforts by the Ministry of Health have included promotion, salary increments, housing benefits and, more recently, longer return of service bonds. Graduates report that their main reason to consider migration is professional development, and 5 are currently enrolled in further training outside Guyana. The 3 graduates who have migrated to Trinidad and Jamaica are working as surgical house officers and are enrolled in the Doctor of Medicine program at UWI. Their Postgraduate Diploma in Surgery qualification has helped them attain those positions and do well on their examinations, but has not been recognized for any advanced standing in the UWI training program. Two graduates are doing clinical fellowships in Canada while remaining contracted to the Guyana Ministry of Health. There is optimism that most of these graduates will return to Guyana and be the country's future surgical leaders. The brain drain may reverse as local surgical infrastructure improves.[7]

The CAGS–Guyana surgical training project has formally ended after 8 years and has succeeded in graduating surgeons who continue to serve Guyana's needs. The

current challenges are to upgrade the Postgraduate Diploma in Surgery to a degree equivalent to other new local postgraduate qualifications, outline a career path for graduates that could include promotion to consultant or program director, and retain surgeons in regional hospitals. Canadian surgeons continue to support the development of surgical specialties in Guyana and serve as mentors to graduates as they assume local leadership positions. Some of the principles outlined in this commentary may be applicable to other training partnerships, recognizing that it is the individual relationships and commitment as much as the formal institutional affiliations that are critical to success.

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