POLICY BRIEF

Rural Health Human Resources Issues

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Rural General Practitioner Surgeons—Supporting Sustainability

Centre for Rural Health Research

SUMMARY

The current human resource shortage in rural health care in Canada demands innovative solutions. One solution to meet the surgical needs of rural residents is to support general practitioners (GPs) with enhanced surgical skills. Current evidence suggests that these GP Surgeons have positive clinical outcomes and their contributions are crucial to sustaining rural services. However, there is a lack of formal, structured, well-supported training programs in Canada. Suggestions for GP Surgical training programs have been informed by a qualitative study with practicing GP Surgeons in western Canada and include 1) the importance of positive interprofessional relationships between GP Surgeons and their preceptors; 2) creating a structured, evidence-based curriculum and evaluation framework for training; and 3) establishing accredited training programs within the departments of Family Medicine at Canadian medical schools.

The Problem

Rural Canada is currently facing challenges to the sustainability of rural surgical services due to an array of factors, including difficulties with

→ Recruitment and retention of practitioners;
→ Maintaining practitioners' procedural skills in low volume settings;
→ Balancing competing planning priorities; and
→ Restoring the confidence of administrators and patients in local rural services.

Underscoring all of these factors is the challenge of gaining the support of decision makers and specialists for generalists who provide enhanced surgical skills (GP Surgeons).

What Is a GP Surgeon?

A GP Surgeon is a non-specialist physician who has advanced training to provide, at minimum, cesarean section[1] (*see "In Brief" on p. 4*). A significant number of rural surgical services in Canada are supported by GP Surgeons. In a 2002 western Canadian survey, there were 76 rural hospitals with surgical programs with the majority in Alberta (40) and BC (20).[1]

A *generalist* approach to rural health care is the most sustainable solution to provide patients with care close to home. Emerging evidence indicates that GP Surgeons have excellent outcomes[2] and are an appropriate alternative to specialist surgical care in small rural communities, where the low prevalence of conditions requiring surgical intervention makes it undesirable for specialists to practice.

For GP Surgery to be sustained, steps must be taken to ensure that practitioners receive appropriate and safe training, within accredited training programs, and have access to appropriate opportunities for Continuing Professional Development (CPD) and Continuing Medical Education (CME).

Where Do GP Surgeons Train?

→ Currently, approximately two-thirds of rural Canadian GP Surgeons are International Medical Graduates (IMG's) with a foreign fellowship.[3-5]
→ The remainder are Canadian Family Physicians trained in Canada or internationally with at least 12 months of surgical training.

GP Surgery training in Canada has been accessible in a number of provinces (Alberta, BC, and Saskatchewan), however these programs are in flux. Individuals who graduated from the Alberta program, which is currently on

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hold, were provided with a standardized, "portable" surgical skill set. The University of Saskatchewan recently began offering a training program that is funded by the provincial Ministry of Health through federal dollars aimed at developing enhanced skills in GP Surgery and Anesthesia. The BC program, which is not housed in an institution, requires trainees to participate in six months of prescribed learning in general surgery, another six months in operative obstetrics, and is "learner responsive." Students complete the BC program with a custom-built or individualized surgical skill set that typically reflects the surgical needs of their home communities. Key stakeholders are involved in discussions to develop an accredited training program at the University of British Columbia.

GP Surgeons' Training Experiences

A qualitative study of GP Surgeons' practice and training experiences reveals the characteristics of the existing training models.[6] For GP Surgeons trained in Canada (BC or Alberta), certain *resources* are necessary for acquiring an expanded scope of surgical skills:

→ Formal financial support for training (i.e. from the BC Rural Education Action Plan);
→ Formal guidance and support for trainees undergoing advanced skills education;
→ Positive mentorship and support from surgical preceptors; and
→ A high level of involvement in a wide scope of surgical procedures.

Barriers to a successful GP Surgery training experience include:

→ Limited access to training seats (2 per year) in the Alberta program;
→ Lack of a structured training program in BC;
→ Non-supportive teaching environments where preceptors are resistant to GP Surgery or rural surgical practice;
→ Competition with general surgical residents for operating room time and mentorship;
→ Conflict between the professional philosophies of generalist and specialist physicians; and
→ Limited access to training opportunities due to lack of mentors, limited time and money, and the lack of an organized framework for GP Surgery.

GP Surgeons experienced an increase in confidence and competence in rural practice after completing advanced skills training. However, the specific outcomes of each GP Surgeon's training varied, depending on their volume of cases, support from mentors, training location(s), and what procedures were available in those locations.

GP Surgeons who trained internationally (South Africa, England, and developing countries) typically had training in both medicine and surgery, as well as anesthesia in some cases. They trained in high-volume environments, which led them to have great confidence in their procedural skills.

Where Do GP Surgeons Practice?

It is unusual for communities with a population catchment of less than 15,000 to have local surgical services provided by resident specialist surgeons. For larger communities, typical staffing of the surgical unit suggests the follow practice patterns:

Population	Surgical Service
5,000-15,000	GP Surgery led service (1 or more GP Surgeons)
15,000-25,000	Mixed Model (1 Specialist + 1 or more GP Surgeon)
25,000+	Specialist led service (no GP Surgeons)

In the mixed model communities the GP Surgeons provide on-call relief and back up for the specialist operative delivery program.[1,5]

Safety of GP Surgery

There are a growing number of studies demonstrating the safety of GP Surgery,[6] particularly in the context of low volumes of given procedures. For instance, the number of procedures one needs to perform to maintain competence in caesarean section in a given year has been shown to be as low as 5 procedures per year.[7] It is clear that the good outcomes of GP Surgeons in part reflect their ability to identify and to refer the more complicated patients to specialists and depends upon the support of specialist colleagues.

The Importance of GP Surgery

GP Surgery plays a crucial role in the sustainability of rural maternity care. Without local caesarean section back up, rural hospitals typically do not provide maternity services. In communities that do choose to provide primary maternity care without local surgical back up, approximately 70% of birthing women will give birth elsewhere.[8] In these high outflow communities limited local services are difficult to sustain and the stress level for practitioners is high.[9,10]

There can be significant health, economic, and social consequences for communities associated with the erosion of GP Surgical services. These effects occur because:

→ Rural surgical services, including GP Anesthesia, support critical care, trauma, and emergency medicine programs; and
→ Recruitment and retention of medical staff is challenged by the absence of a rural surgery program.[9,10]

Rural surgical services are foundational to comprehensive health services in rural communities and hence are integral to the sustainability and economic development of rural communities.[11]

Challenges for GP Surgery

In services with low volumes of surgical cases there are significant challenges to sustainability, including:

→ Maintaining skills and competence for the professional staff;
→ Lack of support from regional centres and regional specialists through integrated planning and outreach collaborative care;
→ Small care provider teams leading to vacation and on-call relief problems; and
→ Higher unit costs for maintaining the operating room and new standards of care demanding new equipment (e.g. CT scanner).

GP Surgeons also face difficulty getting hospital privileges in the absence of 1) a formal, accredited training program for GP Surgery housed in a Canadian medical school and 2) a professional college responsible for regulation and certification.

These barriers mean that fewer practitioners are interested in pursuing GP Surgery training and those who have advanced surgical skills are less likely to practice them. Ultimately, the attrition of GP Surgical programs leads to an undermining of the sustainability of rural communities.

Recommendations: A New Training Model

To ensure the sustainability of GP Surgery in Canada, an effective and sustainable training program must be developed.[6]

Recommendation 1: Providing a supportive context for training in GP Surgery. This would include:

→ Local training of new medical students in communities currently served by GP Surgeons; and
→ Endorsement of training from the Canadian Association of General Surgery to lessen the environment of competition with General Surgery residents, and resistance from General Surgeon supervisors/teachers. This endorsement might take the form of a Joint Position Paper similar to those published by the Canadian Anesthesiologists Society and the Society of Obstetricians and Gynaecologists of Canada directed to training programs for rural Family Physicians.

The *Issues in Rural Maternity Care* policy brief series addresses current issues in the provision of maternity care in British Columbia and provides timely recommendations for improving the quality and safety of rural intrapartum care. Targeted at policy makers and maternity care providers, it is produced by the Centre for Rural Health Research.

IN BRIEF

This policy brief was based on a qualitative study[6] consisting of telephone and in-person interviews with 40 GP Surgeons, 67% of all those practicing in Western Canada. A program logic-model framework was used to analyze in GP Surgeons' training and professional practice the connections between resources, activities, outputs, and impacts. Such frameworks are helpful for program evaluation and improvement.

- *In BC, in 2000, there were 30 GP Surgeons in 20 rural surgical programs.*
- *These GP Surgeons provided 71.9% of caesarean sections and 61.8% of appendectomies performed in these 20 hospitals in BC.*
- *Each GP Surgeon-only program in BC performs approximately 200 surgical procedures per year.[5]*
- *In Alberta, GP Surgeons perform a significant number of procedures for the province's entire rural population: 28% of appendectomies, 28% of carpal tunnel releases, and 21% of herniorrhaphy.[12]*
- *GP Surgery programs typically offer the following procedures, by order of frequency: endoscopy, hand surgery, herniorrhaphy, cesarean section, tonsillectomy, peri-anal surgery, dilation and curettage (D&C), appendectomy, and laproscopic tubal ligation.[2,13,14]*

Recommendation 2: Creating a structured, evidence-based curriculum and evaluation framework for GP Surgery training. This would include:

→ Involvement of experienced GP Surgeons in program development, implementation, and evaluation;
→ Collaboration of General Surgeons and Obstetricians in curriculum development;
→ Development of a defined skill-set to standardize training for GP Surgery;
→ Specification of procedures relevant to rural environment within the context of feasibility (i.e. responsive to prevalence in population); and
→ Training of GP Surgeons for case management (i.e. selection and management of complications).

Recommendation 3: Administrating an accredited training program within the Departments of Family Medicine at Canadian medical schools. This can be modeled after the successful Family Practice Anesthesia training programs over the past decade.

Recommendation 4: Establishing a formal accreditation and regulatory framework for training program graduates that is recognized by the College of Family Physicians of Canada and is suitable for the credentialing and privileging process of regional Health Authorities.

Recommendation 5: Creating a formal support program for GP Surgeons to promote their professional sustainability through continuing professional development, on-call and vacation relief, and reduction of professional isolation.

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