Joint Position Paper
Déclaration de principe commune

Joint position paper on rural surgery and operative delivery

This joint position paper has been endorsed by The College of Family Physicians of Canada, The Society of Obstetricians and Gynaecologists of Canada, the Canadian Association of General Surgeons and the Society of Rural Physicians of Canada

Stuart Iglesias, MD
Bella Bella, BC

Jude Kornelsen, PhD
Salt Spring Island, BC

Robert Woollard, MD
Vancouver, BC

Nadine Caron, MD
Prince George, BC

Garth Warnock, MD
Vancouver, BC

Randall Friesen, MD
Prince Albert, Sask.

Victoria Vogt Haines, MD
Revelstoke, BC

Bret Batchelor, MD
Vanderhoof, BC

Jenny Blake, MD
Ottawa, Ont.

Garey Mazowita, MD
Vancouver, BC

Roy Wyman, MD
Toronto, Ont.

Brian Geller, MD
Meadow Lake, Sask.

Braam de Klerk, MD
Inuvik, NWT

Correspondence to:
Stuart Iglesias;
siglesias64@gmail.com

Our professional organizations have prepared this paper as part of an integrated, multidisciplinary plan to ensure the availability of well-trained practitioner teams to sustain safe, effective and high-quality rural surgical and operative delivery services. Without these robust local (or nearby) surgical services, sustaining rural maternity care is much more difficult. This paper describes the "network model" as a health human resources solution to meet the surgical needs, including operative delivery, of rural residents; outlines necessary policy directions for achieving this solution; and poses a series of enabling recommendations.

OVERVIEW

The precipitous attrition of small-volume surgical programs in rural Canada over the past 2 decades has led to the need for rural residents to travel for even the most basic procedural care.[1–3] Simultaneously with local program loss, the increasing subspecialization of general surgery and the narrowing of the generalist platform of rural general surgery have further diminished surgical services to rural Canadians.[4] Although poorer health outcomes have been shown to be proportionate to distance to services in maternity care,[5–7] the effects of distance on the health outcomes of other procedural care is largely unknown.

There is an urgent need for a solution to the downgrading and loss of surgical services in rural Canada: these service populations, including the large majority of Canada's First Nations population, represent some of Canada's poorest, sickest and most vulnerable people.[8,9] Beyond equity in access, the intrinsic local benefits to local surgical programs include increasing community capacity to recruit and retain family physicians and other health care providers in rural settings; maintaining a high level of medical competence in the community, particularly in regard to serious illness and emergency services; and providing the context for rural education and research.

At a community level, this translates into ensuring the availability of a surgical first responder, trained to handle a variety of scenarios that require immediate intervention, such as trauma. The

professional team of anesthetic and operating room personnel supports both provider confidence and the inclination to offer high-quality care locally to acutely ill patients in a low-resource setting. The presence of generalist physicians trained in surgical and anesthetic care supports the recruitment and retention of generalist colleagues in sufficient numbers to maintain full-service local health care, including emergency services.

The College of Family Physicians of Canada (CFPC), The Society of Obstetricians and Gynaecologists of Canada (SOGC), the Canadian Association of General Surgeons (CAGS) and the Society of Rural Physicians of Canada (SRPC) have prepared this paper as part of an integrated, multidisciplinary plan to ensure the availability of well-trained practitioner teams to sustain safe, effective and high-quality rural surgical and obstetric services. Evidence on best practices suggests this care should be provided as close to home as reasonably possible.[5–7,10] This collaborative process was initiated by the executive leadership of the 4 organizations by teleconference in December 2013. This was followed by one face-to-face meeting in Banff, Alta., in March 2014. A writing group worked electronically, culminating in a face-to-face meeting in December 2014. A draft was submitted to the same executive leadership in January 2015 to be considered by the governance of these organizations. It has subsequently been endorsed by the executive leadership and is in the process of dissemination through their professional journals and websites. This position paper builds on the previous work done through joint position papers on rural maternity care and anesthesia.[10–13]

Based on a review of international literature and outcomes[14] and personal observations from services in Canada, we believe the most effective way to provide a robust rural surgical infrastructure is through a networked system of specialist–generalist surgical care. This model has been well-documented in other jurisdictions, including Australia, as a "hub and spoke" model.[15,16] Within Canada, networks of care that include community specialists and family physicians with enhanced training and bridge the urban–rural divide have demonstrated success in cancer care,[17,18] palliative care,[19] HIV care and psychiatric care,[20] among others. Some perinatal programs in Canada are examples of well-documented network models with positive outcomes.[21,22]

This paper describes the "network model" as a health human resources solution to meet the surgical needs, including operative delivery, of rural residents; outlines necessary policy directions for achieving this solution; and poses a series of enabling recommendations.

PART I: BACKGROUND AND CONTEXT

Generalism in rural surgical care

Currently in Canada and internationally, there is interest in, and receptivity to, the role of generalists in the delivery of health care.[23] The return to generalism (see Glossary, no. 1) has been precipitated by rigorous evidence pointing to its effectiveness[24–27] and the attendant cost savings it suggests.[28,29] This trend has influenced current thought in surgical care and given renewed energy to the roles of generalist general surgeons[4] and rural family physicians with enhanced surgical skills (FPESS)[30] (see Glossary, no. 2). In part, this solution is a response to the significant attrition of Canada's small-volume rural surgical programs and the attendant closure of rural maternity services.[5,31] But it is also a response to the recognition of the serious challenges the loss of rural surgical care has to rural health care more broadly, including its capacity to sustain trauma, critical and emergency care; to recruit and retain a critical mass of care providers; and to deliver equitable access to health care.

Generalists, whether in surgery or family medicine, are characterized by their broad skill set and the additional acquisition of competencies across a range of functions or specialties.[32] For specialist surgeons, this may include the acquisition of competencies across a range of distinct specialty services, including obstetrics and gynecology (OB–GYN), orthopedics, ears, nose and throat (ENT), urology, plastic surgery and others.[33,34] Family physicians who are trained in procedural medicine and are able to perform an appendectomy and/or cesarean delivery have been described as having enhanced surgical skills in family practice,[35] which is now recognized as a program area with the Section of Communities of Practice in Family Medicine (CPFM) within the CFPC (see Glossary, no. 3). Similar CPFM programs exist in family practice anesthesia, emergency medicine, palliative care, and health care of the elderly.

Demographic scan

Historically in Canada, general surgeons have played a significant role in meeting the surgical needs of rural residents, if not locally, then in close

proximity to their home communities.[36] Their generalist nature was well-suited to the low-volume environments, which could not support multiple specialist practitioners.

The practice of general surgery differs in urban and rural settings.[4] The scope of practice of rural practitioners tends to be wider than that of their urban counterparts, with rural general surgeons performing a range of procedures that would ordinarily be taken on by other surgical specialties in urban settings.[32,37] Additionally, community and regional general surgeons provide both primary and back-up services outside the general surgical domain, whereas tertiary surgeons do not.[38] In 2014, the Task Force on the Future of General Surgery recommended that formalized training in areas of added competencies be available to ensure that the graduates of training programs were well prepared to deliver surgical care in all parts of Canada.[4]

In Ontario and eastern Canada, rural surgical services, including cesarean delivery, are provided almost exclusively by generalist general surgeons.[39,40] In western Canada, general surgeons are supported by about 150 FPESS providers, working either collaboratively with specialists, or, in the smaller programs, by themselves.[22,30,41,42] Currently, less than 4% of OB–GYNs practise in communities of less than 25 000.[1] The presence of outreach surgical services plays a large role in the sustainability of the rural programs by contributing to the threshold of procedure volume for the surgical teams at these centres. Their strategic role reaches beyond their procedural competence into their role in fostering communities of practice and networks of care.[2]

Historically, rural Canada has recruited international medical graduates, supplemented by a small population of Canadian-trained physicians, for its FPESS workforce. The Canadian-based training was largely through ad hoc mentorship by preceptors. Currently, one curriculum-based accredited training program for full-service FPESS is offered in Canada through the University of Saskatchewan at its Prince Albert site (graduating 2 FPESSs per year).[30] For those FPESSs whose surgical skill set consists exclusively of operative delivery, 3–6 month postgraduate training blocks are available through most medical schools. The training curriculum, evaluation and credentialling for this focused skill set are neither formalized nor always nested within mainstream medical education.

Sustainability of rural maternity care

It is public policy, supported by strong evidence and consensus recommendations, that women should be able to deliver as close to home as possible.[10–12,14,43] There is good evidence that women residing in communities with no local intrapartum obstetric services, and who are obliged to travel for care, have worse outcomes than those of the same clinical cohort who have access to at least some local services.[5–7,44,45] The evidence does show that limited local maternity care programs, offering intrapartum services to a select screened population, achieve safe outcomes.[46–48] However, the reality has been that, faced with very large maternity outflows (> 70%) and significant provider stresses, these programs are largely unsustainable.[14] We acknowledge that these observed closures are not a necessary phenomenon. There are a few examples of rural maternity care programs, without local or nearby operative delivery services, that have thrived while providing safe outcomes.[10,11] However, in the face of the significant attrition of programs in similar circumstances, these success stories are the exception, rather than the rule.

The link between sustainable rural maternity care and local operative delivery services has been appreciated at a systems level (i.e., through training programs). Without robust local (or nearby) surgical services, sustaining local operative delivery, and, with it, rural maternity care, is much more difficult.[2] The decline of rural surgical services and concomitant loss of maternity services in all jurisdictions across rural Canada have emphasized this relation.[2] Due to the low volume of procedures, with the attendant issues for staffing and continuous coverage, as well as recruitment of a stable supply of professional staff, efforts to sustain stand-alone local operative delivery programs have been largely unsuccessful.[2,3] Although emerging evidence points to the safety of maternity services without local capacity for cesarean delivery,[10,11,46,47,49–51] the human resources infrastructure is fragile.[14,21,26,31,49,52]

Maternity care programs occupy a strategic position in rural communities. Research into community health suggests that these programs are vital not only for health services, but also for the economic and social fabric of the community.[53]

Safety of rural surgical programs

Small- versus large-volume surgical programs

There is a large body of literature on the volume–outcome relation for complex surgical procedures.

Generally, the more complex the procedure, the stronger the relation between improved outcomes for higher volume.[54] None of these very complex procedures are performed in rural Canada. Of the less complex procedures, for which there is a weaker volume–outcome relation, only breast surgery and colectomy are usually performed, and then only in some of the larger-volume rural programs. In an exhaustive review of the international literature, the authors found no studies that document improved outcomes with larger volumes for the surgical procedures usually performed in the small-volume programs in rural Canada.[14,54]

Procedural safety, however, is only one dimension of patient safety that network models address. Although procedural safety is the starting point for decisions on the location of a procedure, a holistic approach to risk must be applied to the context of such decisions. This includes the risk of patient travel; the social costs of separation from family and community, including but not limited to the health and well-being of family members left behind and consequences of weakened ties to the community; and immediate and long-term financial implications for the family.[55]

Generalist versus specialist providers

In a comprehensive review of the international literature on operative obstetrics, Kornelsen and colleagues[14] found that "[t]here is no existing clinical, case study, or qualitative evidence that basic maternal surgical care, including caesarean section, is less safe when provided by GP proceduralists with enhanced surgical skills than when provided by specialist obstetricians." The report details further the current literature on safety and sustainability of small-volume surgical programs and, along with the earlier Australian report by Pashen and colleagues,[29] provides a comprehensive endorsement of the safety of broad-scope FPESS care. This safety and outcome history has been built on a practice profile of careful triage, risk identification and patient selection by FPESS providers, with referral of patients to the providers and centres most suited to their anticipated needs.[16]

We found no studies that compare outcomes for generalist specialist surgeons performing procedures in areas of added competence, such as cesarean delivery.

PART II: A NETWORK MODEL OF RURAL SURGICAL SERVICES

A robust model of rural surgical care is contingent on genuine and productive interprofessional relationships among care providers throughout all levels of the health care system. Each rural surgeon, whether specialist or generalist, should be nested within a supportive community of practice that includes his or her own colleagues (both generalist and specialist), his or her mentors, teachers, and those who accept referrals and patient transfers[56–60] (see Glossary, no. 4). These networks of care should also include the other professions on which surgical and obstetric care rely (e.g., anesthesia, pediatrics, nursing, midwifery, laboratory medicine, diagnostic imaging and transportation).[34,61,62] The networks should be highly integrated across geography where referral centres function collaboratively with the local rural surgical program and should be formal, with a defined structure, and form the platform for both continuing professional development and continuous quality-improvement activities.[2,63]

Specifically, a network model is the formalization of interprofessional service networks between small surgical services and regional referral and tertiary services. Although there may be substantial variability in the structure of such models due to population size, distance from referral site, and transfer options, based on transportation and weather variables, the principles underlying the network model include the following:

- support of rural services by referral or regional centres in building professional capacity and confidence, competence and currency in practice;[57,59,64]
- functional and formal referral patterns from smaller rural services ("spokes") to larger rural services ("hubs") and finally to the highest-level regional metropolitan specialist and subspecialist services, according to risk or need;[46,47,60,65,66]
- effective and efficient mechanisms of patient transport for acute and subacute cases;[67]
- integrated referral, which includes documented discharge, with awareness of rural site capacity, improved through both relationship-building and formal asset mapping;[68]
- educational programs undertaken with referral hospitals at both a site- and system-level, linked to monitoring and quality improvement.[61,69]

A network model, properly conceived, increases the capacity for surgical care, simultaneously and significantly, in both the centre and the periphery. Improved access and utilization across the network by marginalized rural populations means the distribution of the clinical activity within the network is

optimized.

Approaching the surgical needs of rural residents from a network model perspective invests in preventive, upstream and recovery services as close to home as possible, in order to provide appropriate and efficient care, by avoiding unnecessary involvement of higher levels of care. Further, the formal integration of surgical care providers between levels of care lessens the opportunity for gaps in continuity often associated with health care transitions.

The benefits of taking a comprehensive view of a patient's journey through the surgical process and acknowledging health care transitions have been examined in the enhanced recovery after surgery (ERAS) model. The ERAS Society states that "ERAS is a multimodal perioperative care pathway designed to achieve early recovery for patients undergoing major surgery."[70] We believe that a network model of surgery, integrating and using local surgical resources, either by local provision of the procedure itself, or by skilled pre- and postoperative care closer to home, can contribute to the ERAS successes.

Fearon and colleagues[71] examine the often intersecting factors that prolong a patient's stay in care facilities, including the need for parenteral analgesia, intravenous fluids as a result of gut dysfunction and a lack of mobility requiring bed rest. The fundamental purpose of the ERAS pathway serves to address these factors by reducing physiologic stress caused by surgical procedures and promote rapid recovery.[72] According to the ERAS Society. "[t]he central elements of the ERAS pathway address these key factors, helping to clarify how they interact to affect patient recovery. In addition, the ERAS pathway provides guidance to all involved in perioperative care, helping them to work as a well-coordinated team to provide the best care."[70] A meta-analysis of 6 randomized controlled trials involving more than 400 patients undergoing colonic or colorectal surgery found that patients receiving ERAS protocols had a shorter stay by 2 days and an almost 50% reduction in postoperative complications.[72] In addition to improving patient outcome and recovery time by altering traditionally perioperative care, the ERAS protocol emphasizes the importance of patient-centred care and continuity of care through interprofessional collaboration.[71] Use of the ERAS pathway has been shown to reduce care time by more than 30% and reduce postoperative complications by up to 50%.[71]

This approach would complement the structure and intent of a network model of rural surgical care. To optimize this approach, focus and attention must be paid to 4 key priority areas: practice environments; education and training; continuous quality assurance and improvement; and credentialling and privileging. These priority areas must be framed within a culture of patient safety.

RECOMMENDATIONS: NETWORK MODEL

1) Whereas the formalization of interprofessional service networks between small surgical programs and those in regional and tertiary settings through network models of rural surgical care is the optimal health human resources solution to meet the surgical needs of rural residents, we recommend that network models of integrated rural surgical services be established and maintained by all key professions in rural Canada.
2) Referral specialists and rural FPESS providers should work together across the local region within inclusive departments of rural surgery and maternity care and within programs of measured outcomes and continuous quality improvement.
3) With deference to local geography, weather and transport, each patient should receive surgical care as close to home as possible by a provider and in a setting best suited to their anticipated needs. A model for this is the present regionalization of care models of the provincial perinatal programs.
4) Decisions on procedural care in rural communities should reflect the patient diagnosis, the complexity of the procedure, the patient comorbidities, the skill sets of the local and itinerant providers, and the resources of the local environment, including, but not limited to, nursing, anesthesia, laboratory (including blood banking), imaging, geography and transport.
5) Network models should be built on platforms of efficient, effective and safe transport.
6) When it is appropriate for a patient to travel for surgery, including operative delivery, to a higher level of care that is best suited to their anticipated needs, every effort should be made to integrate their local program into the preparation for, and the recovery from, their surgery.

PRACTICE ENVIRONMENTS

For maximally effective processes and outcomes, networks of rural surgical and obstetric care should

be made up of a nexus of colleagues and organizations that are linked and interreliant through professional and personal relationships, training pathways, referral pathways, and distant and local collaboration. Network members should be within easy and immediate communication. They should engage together in continuing professional development, quality enhancement and advocacy for and with communities for improved health outcomes.[63] The culture should be patient-centred and considerate of the community. It then follows that rural surgical programs should be nested within a regional program. Local providers should deliver surgical care within an integrated network where they are supported by regional staff who are available for consultation. Learning occurs in a continuous, seamless model.

Within this model, the intrinsic health and social risk of isolation needs to be recognized. A complete assessment of a program should consider not only quality and safety, but also the risk of not providing a service. This complete assessment should be done preceding any decision to restrict a rural surgical service or program.

RECOMMENDATIONS: PRACTICE ENVIRONMENTS

1) Integrate rural and regional surgical and operative delivery programs within a defined catchment area, across regional geography into the same departments that are inclusive of the rural specialists and the FPESS surgeons together with their regional colleagues. This provides a common platform for continuing medical education and continuous quality improvement activities and anticipates some mobility by some physicians across urban and rural locations for purposes of service delivery, training and mentoring.
2) Structure rural surgical programs around a range of procedure options, based on provider and institutional capacity, as well as population needs.
3) Plan decisions regarding local surgical services to include the financial and social costs, and health care outcomes, as well as the risks of not providing the service.
4) Consider all decisions on surgical, maternity and endoscopic care within the framework of safety and holistic risk. This includes the risks and costs of patient travel, timeliness, operative safety, family separation, nondelivery of service and avoidance of presentation.
5) All of our recommendations in this joint position paper are intended to apply equally to the provision of endoscopic services for rural Canadians.

EDUCATION AND TRAINING PROGRAMS

To support a robust network model of rural surgical care, educational programs reflecting the realities of rural practice and the needs of rural communities need to be built with the participation of the generalist specialist surgeons and FPESS providers. These educational programs, both entry-level and continuing professional development, should reflect the importance of a generalist workforce to rural health care. Doctors who are trained and have credentials to provide rural surgical services are an essential requirement for health service delivery in rural communities.

RECOMMENDATIONS: TRAINING PROGRAMS

1) Deliver a core, competency-based curriculum, reflective of the required skill set of FPESS providers, in recognized programs for training, evaluation and certification.
2) Develop a distinct core competency-based curriculum, reflective of the required skill set of operative delivery, in recognized programs for training, evaluation and certification.
3) Develop pathways for the training, evaluation and certification of added competencies across disciplines for rural general surgeons, with particular attention to the strategic role they play in rural maternity care.
4) Develop pathways for the training, evaluation, and certification of added competencies across disciplines, for rural OB–GYNs, with particular attention to the strategic role they play in rural surgical care.

CONTINUOUS QUALITY IMPROVEMENT PROGRAMS

The network model of rural surgical care rests on documenting, reporting and examining risk-adjusted surgical outcomes, through an iterative process, to ensure safe and effective care. Because of the practical difficulties of measuring quality and competence, using risk-adjusted outcomes, there has been an attraction to using numbers of proce-

dures performed, either by programs or by health professionals, as a surrogate for competence. This approach to competency is derived from the volume–outcome literature. Methodologically, it has some attraction in an urban context, where care is delivered within a model of high-volume specialization and subspecialization, and for those procedures where volume has been shown to be linked to outcome (e.g., pancreaticoduodenectomy or esophagectomy).[73,74] However, when extrapolated to rural health care, in which care is delivered within a low-volume generalist model, and which offers few procedures where volume has been linked to outcome, it is lacking.[14,41]

If low volumes are used as a convenient, but inappropriate, alternative to outcome measures, then many rural surgical services and programs will be forced to close, not because they do not provide quality care, but because they do not perform as many procedures as their urban counterparts.

Continuous quality improvement, however, is built on protocols for risk identification and risk management, measured outcomes, systems support for individuals in the context of a health care team, and the recognition that quality measurements should be applied to teams and to the systems in which they work. The concept of continuous quality improvement recognizes that most quality "failures" are due to the context or setting in which individuals are, or are not, supported to do their best work. Continuous quality improvement moves an entire staff and program toward targeted and measured results. The MORE^{OB} (Managing Obstetrical Risk Efficiently) program is an example of well-developed and well-assessed continuous quality improvement built on a platform of team competence and a culture of patient safety[75,76] (see Glossary, no. 5).

In a rural context, continuous quality improvement can be done through tracking and examining the outcomes of population catchment areas surrounding a facility: that is, the outcomes of the population within a reasonable (1 h) travel time, regardless of where they receive care. Outcomes data become the organizing principle rather than the by-product at both an individual practitioner and health system level. In the former, audit reports can be directly provided to practitioners for continuous monitoring. System-level reporting would involve building a quality-of-care framework for providers and hospitals to provide feedback on performance for the catchment area and benchmarked against other communities with similar service levels.[75]

RECOMMENDATIONS: CONTINUOUS QUALITY IMPROVEMENT

1) Make the principles of team competency and patient safety foundational to continuous quality improvement programs.
2) Create population catchment areas around each individual facility and each network of facilities such that outcomes of both can be tracked. This recognizes the interprofessional and interjurisdictional ownership of discrete health outcomes.
3) Embed a formal quality improvement process in the network (e.g., the National Surgery Quality Improvement Program of the American College of Surgeons [ACS NSQIP] and MORE^{OB}; see Glossary no. 5 and 6).
4) Provide timely feedback on risk-adjusted outcomes for purposes of continuous quality improvement.

APPROPRIATE CREDENTIALLING AND PRIVILEGING

Many rural surgical procedures are shared among several generalist disciplines. General surgeons perform cesarean deliveries. Some OB–GYNs perform appendectomies. Family physicians with enhanced surgical skills remove tonsils. Credentials for these procedures will take many forms, such as a Fellowship of the Royal College of Physicians and Surgeons (plus, possibly, a subspecialization), a potential Certificate of Added Competence (for either general surgeons or FPESS providers), individualized training for specific procedures or recognized training from other jurisdictions. In all of these, the underlying expectation is that there exists some verifiable evidence that the professional has received training to perform the procedure. Included in an applicant's credentials for privileges are the documentation of training, relevant evaluation where it exists, reference letters attesting to training and skills, and, where appropriate, reports from either mentors or practice assessments.

There are procedures that may be performed by more than one specialty. It is the responsibility of the medical staff to ensure that a single level of care is provided, regardless of which specialist is performing the procedure. This is important, as many areas of care fall within the scope of more than one discipline, and thus physicians representing several disciplines can and should be privileged to perform

the same procedure, if they meet the criteria of a single standard of care.

A major vulnerability in the provision of surgical services to people in remote communities results when seasoned FPESS and specialist doctors transition out of practice and replacement doctors transition into practice. A network approach can reduce the risk of lack of coverage by providing mentorship to the newly recruited surgeons and facilitating privileges to promote seamless, sustainable care.

RECOMMENDATIONS: PRIVILEGING

Privileging should reflect the following:

1) all of the applicants' education and training, accumulated practice experience, measurement and examination of risk-adjusted outcomes and participation in both professional development and continuous quality improvement;
2) appropriateness of the procedure within the local human resources environment;
3) access to high-quality procedural care as close to home as possible, across the regional network;
4) linkages to the sustainability of other services, including local maternity care programs;
5) the regional planning infrastructure for the individual procedure, the associated clinical services and the linkages to other clinical services.

SUMMARY

The network model positions surgical care, including operative delivery, as a regional rather than institutional phenomenon, where small operating rooms are recognized as extensions of core referral hospital programs and therefore care programs can be provided through a well-integrated and balanced surgical team, including outreach surgeons and local surgical providers. It recognizes the desire for surgical procedures to be provided in the closest operative facility to the patients' residence, respecting the complexity of the procedure, the risk status of the patient, and the availability of surgical providers with procedural competency. Further, it allows surgical providers to be used to the extent of their competencies where possible and practise within supportive interdisciplinary teams. These core principles underscore an effective, efficient and sustainable network model of collaborative rural surgical care.

GLOSSARY

1. Generalism: The Cairns Consensus Statement on Rural Generalist Medicine defines rural generalist medicine "as the provision of a broad scope of medical care by a doctor in the rural context."[22] For family physicians, this has meant integrating comprehensive primary care with a range of focused secondary care in maternity care, anesthesia and surgery.[22] For specialist surgeons, this can include the acquisition of added competencies across a range of distinct specialty services, including general surgery, obstetrics–gynecology, orthopedics, ENT, urology and others.[35]

2. Enhanced surgical skills: Family physicians with significant training and appropriate skill sets in operative delivery and/or surgery have been described as family physicians with enhanced surgical skills (FPESS).[35] In operational terms, an FPESS provider is a family physician trained and able to perform an appendectomy and/or a cesarean delivery, often from within a broader skill set. Enhanced skills surgery has been recognized as a program within the Section of CPFM within the CFPC.[76]

3. Section of Communities of Practice in Family Medicine (CPFM) within the CFPC: This section, previously termed the Section of Special Interest of Focused Practice (SIFP), was introduced to give an opportunity for members to become linked to colleagues with similar practice interests. The Section of CPFM comprises 19 programs, "each of which addresses a particular area of special interest [to] members. These programs cover a range of areas [that may be part of] comprehensive care practices or in some cases major or full-time commitments. The CFPC remains committed to comprehensive continuing care."[76] Enhanced Surgical Skills (ESS) is a newly recognized program area within this section. The CFPC Board of Directors has approved in principle the awarding of Certificates of Added Competence (CACs) with special designations to recognize family physicians who have achieved a recognized level of skill and experience in a specific program area of the Section of CPFM. Five areas are currently being considered for the awarding of CACs: emergency medicine, palliative medicine, care of the elderly, GP anesthesia, and sports and exercise medicine. Work is underway to better define the enhanced skills competencies in these areas, and to confirm when and how CACs and special designations will be implemented.[76]

4. Community of practice: According to cognitive anthropologists Lave and Wenger,[78] a community of practice is a group of people who share a craft and/or a profession. The group can evolve naturally because of the members' common interest in a particular domain or area, or it can be created specifically with the goal of gaining knowledge related to their field. It is through the process of sharing information and experiences with the group that the members learn from each other and have an opportunity to develop themselves personally and professionally.[77,78]

5. MORE^{OB}: "Salus Global's Managing Obstetrical Risk Efficiently (MORE^{OB}) Program is a comprehensive performance improvement program that creates a culture of patient safety in obstetrical units. Founded on High Reliability Organization principles, the MORE^{OB} Program integrates professional practice standards and guidelines with current and evolving safety concepts, principles and tools."[79] "A professional development and performance improvement program that unfolds over three modules, it puts safety in the DNA of the birthing unit — including physicians, midwives, nurses and all other stakeholders in the unit. The MORE^{OB} Program focuses on the review of No Harm Events to find the root causes. It does not assign blame. The emphasis of the review is on understanding why certain decisions were made and how organizational systems affected the event."[80]

6. National Surgical Quality Improvement Program (American College of Surgeons) (ACS NSQIP): Each hospital assigns a trained surgical clinical reviewer to collect preoperative through 30-day postoperative data on randomly assigned patients. The number and types of variables collected will differ from hospital to hospital, depending on the hospital's size, patient population and focus of quality improvement. The ACS provides training for surgical clinical reviewers, ongoing education opportunities and auditing to ensure data reliability. Data are entered online in a secure, Web-based platform that is compliant with the Health Insurance Portability and Accountability Act, and can be accessed 24 hours a day. A surgeon champion assigned by each hospital leads and oversees program implementation and quality initiatives. Blinded, risk-adjusted information is shared with all hospitals, allowing them to nationally benchmark their complication rates and surgical outcomes. The ACS also provides monthly conference calls, best-practice guidelines and many other resources to help hospitals target problem areas and improve surgical outcomes. Currently, most of British Columbia's large hospitals are participants. There is a project under development to pilot NSQIP in one or more of the smaller rural hospitals.[81]

Acknowledgement: The committee that prepared this paper, and the organizations they represent, wish to acknowledge the extraordinary skills, commitment and leadership brought to the table by Dr. Robert Woollard.

Competing interests: None declared.

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