Rural Perinatal Surgical Services: Time for an Alliance Between Providers

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It has become increasingly evident that rural women and families want access to maternity care as close to home as possible[1] and that planning such proximal care results in better health[2–4] and psychosocial outcomes.[5–7] This has been acknowledged at many levels of health planning and organization through ministerial commissions[8] and professional guidelines, with the leading the commitment to care "closer to home."[9] This commitment has become increasingly important in a medico-social context marked by Canada-wide attrition of small, rural maternity services over the past two decades and the expectation of further losses, despite growing evidence that suggests the deleterious effects of centralized maternity care.[10,11] We also have an increasingly widespread appreciation for the importance of locating birth in Aboriginal communities[12] and the consequent reverberations when it is lost.[13] What the policy and research efforts have overlooked, and why we need to build on the 1999 Joint Position Paper on Training Rural Family Physicians in Advanced Maternity Skills and Caesarean Section,[14] however, is recognition of the essential relationship between sustainable rural maternity services and vibrant local surgical care. In the Joint Position Paper on Rural Surgery and Operative Delivery,[15] these dependencies are now beginning to be uncovered and reconciled at a planning and professional level, prioritizing attention to rural surgical services in effort to fulfill the mandate of "closer to home" for maternity care.

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It is well known that the fundamental challenge to providing operative backup for deliveries in rural communities internationally is the lack of availability of surgical care providers.[16] This has become the reality across rural Canada, and attrition is a critical factor in the loss of services. Despite workforce planning and incentive efforts, we have not turned the tide of professional migration to larger centres among obstetricians and other specialist groups. During this outflow, however, the contribution of family physicians with enhanced surgical skills to rural services has remained constant, although shifted to concentrate more on larger rural surgical programs at the cost of the smaller.[17] Their role in providing perinatal surgical services has been supported by their obstetrical colleagues, who recognize the need for immediate rural access to perinatal surgical services.

The collegiality that exists between obstetrician-gynaecologists and FPESS has a historical precedent. Since the 1970s, obstetrician-gynaecologists in Canada have struggled to maintain local access to maternity care for rural populations because of the low number of care providers practising in rural or semirural settings. Currently, fewer than 4% of obstetrician-gynaecologists practise in communities with populations under 25 000,[18] necessitating local generalist surgical backup if surgical maternity services are to be maintained in the local setting. The SOGC has recognized the challenge of declining specialist interest in rural settings[14,19] and moved to address some of the underlying challenges through the National Birth Initiative for Canada, a strategy that identified rural care as a key priority. Concomitantly, key obstetrical practitioners have enabled rural FPESS perinatal surgical practice through those willing to train family physicians in performing Caesarean section and other key obstetrical and gynaecological procedures and to provide real-time consultation. In a comprehensive qualitative study on FPESS experiences of training in British Columbia and Alberta, Kornelsen et al. found that "[m]entors and role models were the most salient

influencing factor in the trajectory of training for participants."[20]

The JPP posits another way forward through the formalization of multidisciplinary care provider networks to ensure availability of safe and effective perinatal surgical care.[15] Although it provides a blueprint for fostering integrated practice as opposed to parallel practice, the JPP is more reflective than instructive of the larger trends. That is, a series of enablers has created the context for the JPP based on a national consensus that recognized the need to reconfigure organizational structures to support rural maternity care (and, by necessity, rural surgical care). Within this context, a key achievement has been the development and publication of a standardized core curriculum and evaluation framework for enhanced skills surgical training as developed by the Curriculum Committee of the National Enhanced Surgical Skills Working Group.[21] The standardized curriculum provides the clearest pathway to a Certificate of Added Competence for Enhanced Surgical Skills for physicians in Canada that we have seen to date.[22]

The curriculum is drawn from the historical skill sets of enhanced surgical skills physicians[23,24] and augmented by findings from international research studies on procedures yielding good outcomes when performed by trained ESS physicians within an appropriate infrastructure (facilities and health human resources). Specifically, with operative delivery, the recommendations are similar to those found in the Joint Position Paper on Training Rural Family Physicians in Advanced Maternity Skills, Including Caesarean Section.[14] The scope of the present curriculum, created by an interdisciplinary working group of ESS family physicians and surgeons in equal measure, represents the progress made on issues that have in the past been lightning rods for interprofessional disagreement. This includes historical divisions around the overall appropriateness of nonspecialists performing surgical procedures, particularly in low-resource environments.[25] This historical divide has been mitigated in part by widespread recognition of the growing crisis facing rural maternity and surgical care alongside an international evidence base measuring safety of outcomes by provider type.[26] These advances have not happened in isolation, however, but with leadership from the professional organizations representing the membership involved, extending beyond obstetrics and gynaecology to include general surgery.

Attendant to the development of the curriculum is the second foundational plank of a mature FPESS program: a comprehensive and continuous evaluation program. The evaluation plan is based on principles common in other areas of surgical education, such as Objective Structured Assessment of Technical Skills. Embedded in the evaluation plan are the volume of clinical exposure (milestones) and an agreed-on process for verifying the residents' preparedness for clinical practice. Evaluation will include an external examination process not dissimilar to that of the surgical specialties. This will both provide objectivity that a practice-ready skill set has been achieved and remove the burden of responsibility for "sign off" from the immediate preceptors involved.[21] A written examination might include the principles of surgery examination to ensure competence in the essential over arching knowledge base that may not be directly covered by discrete training modules.

This standardized, systematic approach to training and evaluation lays the groundwork for the third plank in the FPESS program: continuous quality improvement. With the mechanisms for training and evaluation established within the regional network model of practice, continuous quality improvement can be developed as a natural output. The integrated alliances between rural and regional or tertiary centres create the framework for regional catchments, underscored by the assumption that care providers are working together as an integrated and highly functional interdisciplinary team and that outcomes can be evaluated as such. This requires evaluation at a population catchment level (outcomes for the population regardless of where they give birth, as opposed to at a facilities level) to reduce referral bias for the difficult cases and ensure appropriate triage is occurring.[27]

There is, possibly, a worrisome thread to all of this. There is a large cohort of FPESS with a skill set restricted to operative delivery. For the most part they work in larger rural programs where they sustain the local maternity care program, in part because the local specialist skill set excludes operative delivery.[28] Their skills have been obtained in shorter, focused, shoulder-to-shoulder training in somewhat informal programs at almost any of Canada's medical schools.[14,17] Our challenge is to preserve such unique and irreplaceable educational responses to specific community needs while attempting to position them within the framework of formal training and rigorous evaluation anticipated in the JPP. Future Caesarean section trainees seeking a focused limited

ABBREVIATIONS

ESS	enhanced surgical skills
FPESS	family physicians with enhanced surgical skills
JPP	Joint Position Paper on Rural Surgery and Operative Delivery

surgical skill set are unlikely to enroll in the more comprehensive FPESS programs described in the JPP. It is our opinion that the sustainability of rural maternity care is linked to the ability of the networks to preserve these focused skill sets through training that is integrated into a framework of formal curriculum, rigorous evaluation, and outcomes which are measured, reported, and examined. Existing credentialing processes have not succeeded in fostering this, but the National ESS Working Group has a clear vision of how this can be achieved.

In summary, the purposeful alignment of care providers and services within a network model of care will incur success if it is built on genuine relationships nested within a community of practice including immediate colleagues, mentors, and other teachers. In Canada, this can rest on the unprecedented collaborative commitment of the care providers involved within the larger political alignment of all of the "pentagram partners" necessary for health system change: policy makers, local administrators, health professionals, academics, and communities.[29] By addressing each jurisdictional level of accountability, these relationships may lead to what we strive for through the triple aim framework: optimal patient care underscored by satisfaction within a cost-effective framework.[30] Ensuring that the framework for formal training, rigorous evaluation and continuous quality improvement is embedded within the JPP can lead to a robust and mature model for ensuring that the maternity care needs of rural Canadians are met.

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