Canadian Journal of Rural Medicine | Journal canadien de la médecine rurale

Fall 1998 Contents • Automne 1998 Table des matières

Shared skill sets: a model for the training and accreditation of rural advanced skills

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CJRM 1998;3(4):217-22

[résumé]

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This article has been peer reviewed.

See also:

- Rural medicine NEEDS advanced skills

A model of shared skill sets for the teaching and evaluation of rural generalist physicians with advanced skills is proposed. Generalists delivering advanced skills should be trained and assessed to meet national standards for a defined low-risk rural population, standards that do not differ from those expected for care by specialists. This model of shared skill sets stands in contrast to historical models of exclusive skill sets in anesthesia and surgery, which purport that optimum patient care requires specialist care and that rural generalists should be trained and licensed to deliver these skills as a second-best solution when specialist care is not available. A preliminary review of published evidence clearly supports the shared skill-sets model. Outcome studies in obstetrics, cesarean section, colposcopy, colonoscopy, cardiac stress testing and gastroscopy demonstrate an identical standard of care for both rural generalists and urban specialists. There is no evidence to support the model of exclusive skill sets. The authors speculate that the lack of a professional home for these physicians has served them and rural Canada poorly. They raise the question of whether a place can be found for rural generalist physicians within existing institutional arrangements or whether the time has come for a "College of Rural Medicine of Canada."

On propose un modèle d'ensemble de connaissances spécialisées communes pour la formation et l'évaluation des omnipraticiens ruraux qui ont des compétences spécialisées avancées. Les omnipraticiens qui utilisent des techniques avancées devraient être formés et évalués de façon à satisfaire à des normes nationales relatives à une population rurale à faible risque définie, des normes qui ne diffèrent pas de celles qu'on attend des soins dispensés par des spécialistes. Ce modèle de compétences spécialisées communes représente un contraste par rapport aux modèles historiques de compétences spécialisées exclusives en anesthésie et en chirurgie, où l'on suppose que le soin optimal des patients nécessite l'intervention de spécialistes et que les omnipraticiens ruraux devraient recevoir une formation et être autorisés à pratiquer ces techniques spécialisées comme solution de repli seulement lorsqu'un spécialiste n'est pas disponible. Un examen préliminaire des données probantes publiées appuie clairement le modèle des ensembles de compétences spécialisées communes. Les études de résultats d'interventions obstétriques, de césariennes, de colposcopies, de colônoscopies, d'épreuves cardiaques à l'effort et de gastroscopies démontrent que la norme de soin est la même chez les omnipraticiens ruraux et les spécialistes urbains. Il n'y a pas de données probantes qui appuient le modèle des ensembles de compétences spécialisées exclusives. Les auteurs posent comme hypothèse que le manque de foyers professionnels pour ces médecins a mal servi ceux-ci et le Canada rural. Ils demandent si l'on peut trouver une place pour les omnipraticiens ruraux dans les structures institutionnelles existantes ou si le moment est venu de créer un «Collège de la médecine rurale du Canada».

Rural medicine appears to be emerging as one of the newest specialties in medicine. Rural physicians tend to perform procedures more frequently than urban family physicians, yet models for training physicians to practise rural medicine are still new and not well developed.1-3 The World Organisation of Family Doctors (WONCA) produced a policy on rural training in 1995 that called for the development of appropriate training programs in advanced skills.4 The WONCA policy was adopted at a Society of Rural Physicians of Canada (SRPC) consensus conference on retention and recruitment in 1996, during which the need to develop advanced skills training programs for rural medicine in this country was emphasized.5

One of the difficulties in developing advanced skills training programs has been controversy from observers who feel that advanced procedures should be performed by specialists rather than generalists. In this paper we propose a solution based on a model we call "shared skill sets," which we believe better reflects the reality of rural clinical practice than the historical model of exclusive skill sets. We review the evidence supporting both models and speculate on ways to evolve advanced skills programs for rural Canada.

History

Historically, physicians with advanced skills have always provided procedural medical and surgical care in rural Canada. Although trained and practising as generalists, these physicians

have supplemented their training programs to include skill sets from the fields of anesthesia, obstetrics, general surgery and emergency medicine, plus a variety of miscellaneous skills: endoscopy, ultrasonography, cardiac stress testing and colposcopy.

How were these skill sets acquired? Some were acquired in rotating internships before the new family medicine residencies replaced them. Some were acquired by physicians who trained overseas and brought the skills with them when they immigrated to rural Canada. Others were acquired by rural physicians standing "shoulder to shoulder" in the operating room or delivery room with a specialist colleague. More recently, a few family medicine departments have initiated a third year (PGY3) for advanced skills for rural physicians.

The problem

Access

For very complicated reasons, rural Canada has less access to the skills of foreign-trained physicians than urban areas. The rotating internship no longer exists, and the 2-year family medicine graduates feel unprepared to practise many of the most basic procedures required in rural medicine. Specialty departments, constrained by funding and burdened with their own residency programs, are reluctant to support the "re-entry" applications of rural physicians seeking advanced skills. In addition, some of the reluctance by specialty groups to share the skill set with rural generalists is motivated by their concerns that optimum patient care can only be assured through specialty care. Consequently, as the present population of rural physicians with advanced skills ages and leaves practice, their communities face a crisis in how to replace these generalists with others having advanced skills.

Accountability

The informal ad hoc training programs that have served rural Canada well seem out of date and inappropriate today. Critics have suggested, quite correctly, that formal programs are required to provide formal accreditation and promote continuing education, maintenance of competence and quality improvement. These specialty groups have a legitimate concern that they are asked to provide training and certify competence without due regard for the maintenance of rural practice standards, peer review and audit. Advanced skills programs do need to become more accountable.

Shared skill sets

The generalists in rural practice have a historical claim to a range of skill sets in anesthesia, obstetrics, general surgery and emergency medicine. With appropriate training standards and in a screened low-risk uncomplicated population, they believe they deliver a standard of care that is identical to the one provided by a specialty group to the same population. The skill set is shared; standards of care are identical. The rural generalist, properly trained, becomes an expert in recognizing the boundaries for those procedures and patient selection beyond which s/he will transfer care. What distinguishes the specialty group is their ability to extend the skill set to

include more complicated procedures in a population at higher risk.

The most visible example of a shared skill set is maternity care. It is formally recognized by both the Society of Obstetricians and Gynaecologists of Canada (SOGC) and the College of Family Physicians of Canada (CFPC) that for a carefully-defined low-risk parturient an identical standard of care is provided whether the woman is attended by a specialist or a rural generalist.6

Exclusive skill sets

This model of a shared skill set with an identical standard of care has not been accepted by all of the specialty organizations. An alternative view is one of exclusive skill sets. This view is that the skill set is indivisible. Proponents believe that those procedures now performed by rural generalists could only be performed safely by those with a broader training base in an extended specialty residency training program. Within this model the only acceptable justification for supporting generalists to acquire the skill set would be as a second-best option because transport to a qualified specialist would be impractical or inappropriate.

The most visible example of an exclusive skill set is anesthesia. Although GP anesthetists have staffed rural operating rooms for years, the official view of their role is that of a second-best solution: "Anesthetic services should be provided by certified anesthetists when possible."7

What does the evidence say?

We performed a MEDLINE search from 1978 to 1998 inclusive, using the key words procedures, outcomes, family physicians. The search was supplemented by Dr. James Rourke's bibliography.8,9 We found 102 relevant references. Although this was a preliminary literature search, evidence clearly exists that outcomes of procedures performed by family practice physicians with advanced skills meet or exceed national standards. We found evidence supporting this claim for cesarean sections,10,11 colposcopy,12 colonoscopy,13 cardiac stress testing,14 fracture reduction15 and gastroscopy,16,17 to name a few. There is no published peer-reviewed evidence that measures outcomes of GP anesthesia or GP surgery. However, there is no evidence at all to support the belief that outcomes of advanced procedures by rural generalists are inferior to those achieved by specialists.

There is good evidence that the obligation to travel for medical care is more than an inconvenience.18,19 Studies from the United States have shown that women who live in communities with poor local access to maternity care programs (what Nesbitt and colleagues called high outflow communities18) are more likely to bear premature infants or have prolonged hospitalization with higher costs, or both.18 Larimore and Davis19 showed a quantifiable increase in infant mortality due to a lack of maternity caregivers in rural Florida.

Does the obligation to travel for surgical care adversely affect outcomes in similar high outflow communities without local surgical or anesthesia services? The research has not been done.

However, we must appreciate that the loss of advanced skills for rural communities may well be associated with worse health outcomes for the population served, even when patients travel to obstetrical and surgical centres with an excellent standard of care.

In addition, lack of surgical service leads to potential isolation and compromise of rural citizens who do not have the financial means to travel to other communities. Local physicians might be less qualified or confident to handle emergencies. Without a continuing surgical and anesthesia program, communities might experience diminished competence in the anticipation, diagnosis, stabilization and subsequent postoperative patient care.

Faced with similar issues of rural health care, in 1991 the Royal Australasian College of Surgeons (RACS) made the following statement to all specialist colleges:

Evidence exists that the diminution of GP procedural skills in rural areas has in fact reached the point where critical care in surgery and obstetrics has begun to decline in quality and the balance of well-trained emergency surgery versus resuscitation has swung the wrong way. Emergency surgical skills cannot be expected to be maintained without the constant practice of elective surgery. This vital practical rule applies to emergency care in all core services in a town big enough to need a hospital.20

Clearly, additional research is needed, especially on outcomes of GP anesthesia, GP surgery and GP emergency medicine and on the consequences for communities that lose these services. We anticipate that, as we move toward training programs that include audit and continuous quality improvement (CQI), at least some of this research data should become available. Until this research is done, and with all of the existing studies confirming the appropriateness of a shared skill set/identical standards of care model, it would be regrettable not to continue with training programs in all of the advanced skills that have belonged to the scope of rural practice, including anesthesia, general surgery and advanced emergency skills.

What needs to be done?

Define the skill set
It is time for us as rural physicians to formally define the skill sets that belong to our scope of practice. In doing so, we need to listen to the counsel of those with whom we share the skill set. We need to consult with those in the universities who must continue to teach us. We also need to hear the views of the registrars who will grant us our privileges. But it is foremost the responsibility of rural physicians to identify and lay formal claim to our historical scope of practice.

This was accomplished some time ago in Canada for anesthesia. The results can be found within the core content of the GP anesthesia curriculum. More recently in Canada, this has also been accomplished in obstetrics. The document, a position paper on training family physicians in

cesarean section and other advanced maternity care skills was produced by the SRPC and the Maternity Care Committee of the CFPC in consultation with representatives of the SOGC (see Can J Rural Med 1998;3[2]:75-80). It delivers the skill set, provides the evidence to support the outcomes and proposes a formal accreditation, maintenance of competence and CQI program for the practitioners of these advanced skills. Similar cooperative efforts in Australia produced results for a rural curriculum design for surgery, anesthesia and obstetrics.21

As we have shown, the evidence needed to support a shared skill set for endoscopy, colposcopy, colonoscopy, fracture management and cardiac stress testing exists in the literature. A more thorough review of published evidence is needed.

The most work needs to be done in the field of general surgery. Historically the delivery system for appendectomy, tonsillectomy, herniorrhaphy, and the management of testicular torsion, ectopic pregnancy, miscarriage, abscesses and breast lumps has always been through the rural GP surgeon. There is no research to document how well this has worked. However, there is no cultural memory of problems.22 Clearly, there is a historical scope of practice claim for GP surgery. Rural physicians need to define that skill set and put in place the audit mechanisms to demonstrate that outcomes meet or exceed national standards.

How to teach advanced skills to a generalist?

A generalist seeking training in an advanced skill has educational needs that are significantly different from those of a resident in a specialty program. Issues of risk management, patient selection and scope of practice clearly need special attention.

Many rural family physicians are very well trained in the knowledge base and the indications for the use of advanced skills. What is required, for some, is training in these procedures, which can be performed by rural generalists with good outcomes. This can only be achieved through appropriate and accredited training programs available to those family physicians who wish to practise in a rural setting and provide these expanded roles of practice to the community that they serve. The knowledge base taught in any such program should be of the same rigour as currently exists within the training programs of the family medicine and the relevant specialty departments.

With family practice physicians trained through these accredited programs, privileges allowing them to practise their expanded roles in the rural setting should be granted without question. This position that privileging is competency-based is supported by the American Academy of Family Physicians and the American College of Obstetricians and Gynecologists who have advocated that "privileges should be granted on the basis of education, experience, and documented competence, not solely on the basis of board certification, fellowship in ACOG, membership in other organizations, or the physicians rank or tenure."23

University tertiary care hospitals with their historical commitment to specialty training and their

patient selection anomalies might not be the most appropriate teaching centres for all advanced skills training. Physicians leaving their homes and families need to be able to access training within some reasonable geographic proximity to their own communities. Mentorship with a colleague already providing the skills should be encouraged.

Accreditation of advanced skills

It is clear that family physicians will be required to seek their education from specialists outside family medicine. It follows that the accreditation of these educational programs requires collaboration between the CFPC and the appropriate specialty committee of the Royal College of Physicians and Surgeons of Canada (RCPSC). Applicants to these programs would be assessed on issues of previous training, concurrent skills, experience and community support. In particular, membership in either the RCPSC or the CFPC should not be a factor in the assessment of an application for training.

The universities — keepers of the skill sets

The universities have been the keepers of the skill sets. Their training programs for these skill sets have served the specialty groups well. So well that there is a perception, however erroneous, that the interests of the two — the universities and the specialty groups — are identical. This view is simply wrong. The universities exist to serve a much broader clientele. They have an obligation to rural Canada, which depends on access to the safe practice of these skill sets. The rural generalist has the same rights to university-based teaching and certification programs for an established scope-of-practice skill set as does the urban specialist.

In fairness, the universities require that the advanced skill sets that belong to the scope of rural practice be defined and that the evidence base to support this definition be demonstrated. Once done, however, the university has an obligation to become a driving force to develop the formal accredited programs to deliver these skills. In particular, although consensus among those who share the skill set is the preferred model, no individual claim to exclusive ownership of a skill set should ever be allowed to block access by others without good evidence to support an exclusive skill set claim.

A professional home for rural physicians

The rural physician who acquires advanced skills, from a professional point of view, is homeless. Although specialty departments provide the training, graduates have no base in the department or in their professional societies or in the RCPSC. Once trained, they are "orphaned." Continuing medical education is improvised. Maintenance of competence and CQI programming doesn't exist. Although trained in family medicine, their practice profiles set them outside the scope of the departments of family medicine. When professional issues related to training standards or competence are on the table, there is no professional or academic group to which these

physicians with advanced skills belong. Equally important, no one has the responsibility to stand up for the rural communities served by these physicians.

Where might these rural physicians find a professional home? Either of the 2 colleges — CFPC and RCPSC — could expand its mandate to include rural physicians with advanced skills. For the CFPC to bring us into their home would require that the College broaden its focus to include procedural medicine and to assert the historical scope of practice right of rural family medicine to advanced skill sets. In previous years, when faced with the challenge of defending rural medicine's scope of practice rights, first with the specialty anesthetists7 and then with the general surgeons,24 the CFPC has not been successful. Should we trust that the future would be any different?

For the RCPSC to include us would require an accommodation with the specialty groups on our rights to a shared skill set. This will not be easy to achieve.

A third possibility is the creation of a separate "College of Rural Medicine of Canada" responsible for the teaching and accreditation of all rural physicians, including those with advanced skills. Although it is beyond the scope of this paper, rural physicians are concerned that existing 2-year training programs fail to prepare the graduates for rural practice. They lack the basic elementary procedural skills and, consequently, the confidence and disposition to work in rural Canada. Would a "College of Rural Medicine," freed from the obligation to also train the larger majority of physicians destined to be office-based nonprocedural urban physicians, be more successful training rural physicians in both basic and advanced skills? The concept of a third college in Canada will remain a potential alternative unless existing organizations change significantly.

The way forward

At the annual general meeting of the SRPC in St. John's in May 1998, the Society adopted resolutions to develop national curricula for surgical and anesthetic advanced skills (see news item on page 229 of this issue for resolutions). A multidisciplinary consensus conference on advanced skills held during that conference produced a strong sense of cooperation among Canadian medical institutions with leadership roles in medical education and practice standards. To be effective, the colleges and universities must now collaborate effectively to produce programs for advanced skills for rural Canada. Our model of shared skill sets can assist that process.

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