

2. Generalism: Achieving a Balance with Specialization

A White Paper Prepared for the Royal College of Physicians and Surgeons of Canada, Future of Medical Education in Canada

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Summary of Key Points

- Generalism is a widely held, fundamental value in medicine and medical education, however the meaning of generalism is not well understood
- The plethora of definitions for the term generalism hampers discussions and decisions with respect to policy in medical education and healthcare.
- There is a need to train more generalist-specialists in order to meet societal needs, however there are multiple challenges to this, including the hidden curriculum, as well as remuneration of generalist-specialists, which has the effect of undervaluing generalism
- The proposed definition for generalism is: Generalism is a philosophy of care with acknowledgement by the physician that broad based comprehensive care is provided and the generalist physician is prepared and willing to reach across the existing gaps in the health care delivery system. A generalist specialist works directly with primary care providers, Family Physicians particularly. Generalists are able to develop their clinical practice to meet community needs and refrain from narrowing their practice.

Summary of Recommendations

1. The Royal College should work to enhance the accountability of residency programs and their sponsoring universities as they respond to the physician requirements for the population that they serve.
 - a. The Royal College Accreditation Committee should explore how social accountability can be built into the accreditation standards, with a focus on generalist principles.

- b. Similarly, specific questions on how the program responds to the generalist objectives of the OTR should be added to the pre-survey questionnaire.
2. The Royal College should advocate for enhanced exposure to generalism champions as part of undergraduate MD programs. Pre-residency experiences encourage residents to more broadly focus their career objectives and may predispose them to embark on more generalist practice after completing residency training.
3. The Royal College's Accreditation Committee should consider instituting mandatory, structured career counseling in residency training. This would offer the opportunity for residents to learn about the different careers within their specialties and what a practice that embodies generalism within their specialty might be able to offer them, particularly from a career flexibility perspective.
4. The Royal College should encourage flexibility in the PGME system in order to promote generalism.
 - a. Specialty Committees should enhance the generalist competencies within their disciplines.
 - b. Specialty Committees and the Education Subcommittees need to consider how to enhance flexibility within programs by permitting residents to spend more time in clinical rotations at non-accredited training sites.
 - c. Specialty Committees should consider how they can improve intra-specialty flexibility by allowing residents to tailor their training in their senior years to suit their future career environment.
 - d. The Credentials Committee should consider whether there are additional mechanisms that could be implemented to grant credit for generalist training.
5. The Royal College must support practicing physicians throughout their professional lives and support them to gain access to retraining programs to refresh knowledge and learn new skills. The areas of focused competence (diplomas) are one method to encourage physicians to learn new skills to adapt to community needs. In addition, the Royal College should:
6. The Royal College should enhance generalism by creating a competency rubric of generalist competencies acknowledged by all specialty programs.
7. The Royal College should promote academic skills for non-university based teaching physicians.
8. The Royal College should gather data on generalist specialist practice and help facilitate a more thoughtful discussion on generalism, In particular, focus on the dialogue between governments, which are often promoting generalism and universities that often resist. Where appropriate, the Royal College should use this data to advocate for the training of more generalist specialists.

2. Le généralisme: atteindre un équilibre avec la spécialisation

Livre blanc préparé pour le Collège royal des médecins et chirurgiens du Canada :
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Sommaire des principaux enjeux

- Le généralisme est une valeur fondamentale largement reconnue en médecine et en éducation médicale. La signification du généralisme est cependant mal comprise.
- La pléthore de définitions du terme généralisme gêne les discussions et les décisions sur les politiques en éducation médicale et en soins de la santé.
- Il existe un besoin de former plus de généralistes spécialistes pour répondre aux besoins de la société, mais il y a de nombreux défis à relever pour y parvenir, y compris le curriculum caché et la rémunération des généralistes spécialistes qui a pour effet de dévaluer le généralisme.
- La définition proposée pour généralisme est la suivante : le généralisme est une philosophie de soins avec une reconnaissance par le médecin que les soins généraux de large portée sont fournis, et que le médecin généraliste est préparé et accepte de combler les écarts qui existent dans le système de prestation de soins de santé. Un généraliste spécialiste travaille directement avec les fournisseurs de soins de santé primaires, les médecins de famille en particulier. Les généralistes sont capables de mettre en place leur pratique clinique pour répondre aux besoins de la collectivité et pour éviter d'avoir à restreindre son champ de pratique.

Sommaire des recommandations

1. Le Collège royal devrait travailler pour améliorer la responsabilisation des programmes de formation des résidents et des universités qui les parrainent, puisqu'ils répondent aux besoins en médecins pour la population qu'ils desservent :
 - a. le Comité d'agrément du Collège royal devrait examiner comment intégrer la responsabilisation sociale dans ses normes d'agrément en mettant l'accent sur les principes généralistes;
 - b. également, des questions précises sur la façon dont le programme répond aux objectifs généralistes des objectifs de formation (ODF) devraient être ajoutées au questionnaire de présontage.
2. Le Collège royal devrait appuyer une exposition accrue aux champions du généralisme dans le contexte des programmes de baccalauréat en médecine. Les expériences préalables à la résidence encouragent les résidents à définir leurs objectifs de carrière de manière plus vaste et peuvent les prédisposer à choisir une pratique plus généraliste à la fin de leur résidence.
3. Le Comité d'agrément du Collège royal devrait mettre en place un service d'orientation professionnelle structuré et obligatoire pendant la formation des résidents. Ce service serait une occasion pour les résidents de s'informer des différentes carrières qui existent dans leurs spécialités et ce qu'une pratique qui inclut le généralisme dans la spécialité peut leur offrir, surtout dans la perspective de souplesse dans la carrière.
4. Le Collège royal devrait favoriser une certaine souplesse dans le système de FMPD afin de promouvoir le généralisme :
 - a. les comités de spécialité devraient mettre en valeur les compétences des généralistes dans leurs disciplines;
 - b. les comités de spécialité et les sous-comités de l'éducation doivent envisager de mettre en valeur la souplesse dans les programmes en permettant aux résidents de passer plus de temps en stages cliniques dans des milieux non agréés;
 - c. les comités de spécialité devraient étudier comment ils pourraient améliorer la souplesse interspécialité qui permettrait aux résidents d'adapter leur formation des dernières années à leur futur environnement de carrière;
 - d. le Comité d'agrément devrait analyser la possibilité d'ajouter des mécanismes supplémentaires afin de reconnaître des crédits pour la formation de généraliste.
5. Le Collège royal doit appuyer les médecins en exercice pendant toute leur vie professionnelle et les aider à obtenir l'accès à des programmes de recyclage professionnel pour mettre à jour leurs connaissances et acquérir de nouvelles compétences. Les programmes de domaines de compétence ciblée (diplômes) sont une méthode qui encourage les médecins à acquérir de nouvelles compétences qu'ils peuvent adapter aux besoins de leur collectivité.

De plus :
6. Le Collège royal devrait mettre le généralisme en valeur en créant une rubrique des compétences généralistes reconnues par tous les programmes de spécialité.
7. Le Collège royal devrait faire la promotion des compétences pédagogiques des médecins qui enseignent hors des universités.

8. Le Collège royal devrait recueillir des données sur la pratique des généralistes spécialistes et aider à faciliter une discussion plus approfondie sur le généralisme. En particulier, il devrait se concentrer sur les échanges entre les gouvernements qui favorisent souvent le généralisme et les universités qui offrent souvent une résistance. Le Collège royal devrait utiliser ces données, le cas échéant, pour encourager la formation d'un plus grand nombre de généralistes spécialistes.

Generalism: Achieving a Balance with Specialization

"Stones I will not remove, but leave them to those who are skilled..."
Hippocrates of Cos, ca 400 BCE

Introduction

From the dawn of the recorded era of Western medicine, there has been a dynamic tension between those who have provided a broad scope of medical services to their patients and specialists with a restricted scope of expertise. In one of the more frequently quoted segments of his oath, Hippocrates enjoined his acolytes not to cut for stone – directing that this clinical service be provided by those with special skills. By the late 19th century, the broad range of specialty services which we recognize in the 21st century was well defined. The science-based curriculum at Johns Hopkins Medical School and the organization of clinical services into specialties which supported medical education were held up as the ideal educational model by Flexner in his 1910 report.¹ This report had a profound impact on medical school curricula and the subsequent practice of graduates from North American medical schools. The issue of generalism and the impact of specialization was already a concern for Osler who acknowledged the inevitability of subspecialization with advances in medical knowledge. However, he thought that specialization was intellectually limiting and held up generalism as a fundamental value within medicine.² This value has been widely accepted and continues to permeate most discussions related to specialty practice. In spite of its importance, there have been limited attempts to describe what generalism means in the Canadian specialty medicine context.

When the Royal College of Physicians and Surgeons of Canada was established in 1929, there were two specialties – Medicine and Surgery, however within eight years further specialties were added at the request of the Canadian Medical Association. From that time there has been an almost continuous increase in the number and variety of specialties and subspecialties, apart from two brief moratoriums when the application process was halted to permit an evaluation of the approval process and to slow the apparently inevitable fragmentation of medical practice and care delivery. Currently there are 67 specialties, subspecialties and special programs recognized by the Royal College. The most recently approved, General Internal Medicine, acknowledges the range and complexity of a generalist approach to clinical care.

With each new discipline approval, there have been concerns expressed by many involved in the organization of clinical services, especially government, that the fragmentation of care, the narrowing scope of practice and expertise are detrimental to health service delivery in Canada.

The College of General Practice of Canada was founded in 1954 to recognize and support the role of general physicians. In 1967 it was reorganized as the College of Family Physicians of Canada and in 2007 Family Medicine was officially recognized as a specialty in Canada. In the Canadian context then, there are no longer general physicians, as licensure requires certification by either the Royal College or the College of Family Physicians. Similarly, there is now no national organization that recognizes and supports generalists across the spectrum of medical practice.

There have been concerns expressed that generalism and specialization is a dichotomy, with generalists and specialists being at each end of a spectrum. As such, generalists have in the past been perceived as less complete physicians, when in fact a broadly focused practice demands more of practitioners than a limited scope of practice where only familiar, albeit complex, clinical problems are managed. There have been frequent reports that for particularly complex clinical problems and interventions, subspecialists have better outcomes although there is no apparent advantage for management of routine clinical problems. Subspecialists are frequently quoted in the media commenting on or explaining complex issues in health care. Subspecialists are recipients of awards and accolades for their focused expertise.

Generalists on the other hand are seen as toiling in the trenches and are infrequently held up as models for medical students and residents. Generalists tend to be at greater risks for work-life balance problems as they are willing and able to see patients with complex, undifferentiated problems. For recognition and promotion as a member of a university faculty, research publications and grants are the measure used to determine excellence. These activities may be more difficult for the generalist physician to achieve. As a consequence, academic generalist physicians tend to direct their interests towards medical education activities and health systems research which may not be as prominent in the public eye. However generalists are likely better placed to address the broad determinants of health of a population –

education, employment, environment, family income (to name a few) and to direct the future of the health care delivery system in Canada.

The purpose of this paper is to examine the concept of generalism, which has been held up as a quality that is lacking in current Canadian residency education programs and subsequently in specialty practice. Inherent in this dialogue is an assumption that generalism is a well understood term, when in fact there are multiple usages, which only results in increased confusion and misunderstanding. This paper will:

- Review current definitions of the term generalism and propose an initial set of generalist competencies for Royal College specialties for further development.
- Define some principles of generalism in the context of specialty medicine.
- Examine the possibilities for research opportunities to assist with the development of a generalist initiative in Canadian health care.
- Discuss the generalist-specialist physician supply in the Canadian context, including the international and domestic balance of generalist physicians.
- Review the issues related to the preparation of a balanced physician work force by Canadian medical schools to meet the needs of the Canadian population.

Definitions

There are a number of different definitions and concepts that have been used to describe generalism. Each of these definitions has inherent advantages but also significant problems which alters the utility of usage.

- *Generalism defined as a particular set of disciplines:*
 - Five generalist disciplines are recognized in the United States – Family Medicine, Internal Medicine, Obstetrics and Gynecology, Pediatrics and Emergency Medicine - where patients have direct access to all physicians, both specialist and generalist.
 - George Goldsand defined five generalist disciplines in the 1990's for Canadian usage – Internal Medicine, Pediatrics, General Surgery, Emergency Medicine, and General Pathology which restricts utility of the term to a narrow definition.

- *Generalism defined as a first point of access to the healthcare system:*
 - Generalists are primary care physicians who are accessed directly by patients – which would apply to Family Medicine and in the Royal College context would apply only to Emergency Medicine.
- *Generalism defined by the patient population:*
 - Generalist physicians are those who see and manage undifferentiated patients - which in the Canadian context would potentially exclude most Royal College disciplines as patients are seen by most specialists only on referral.
 - Generalists see broad-based clinical problems, see patients with multiple diseases involving more than one organ system which still may refer to several disciplines not normally recognized as generalist e.g. Medical Genetics which is not normally classified as a generalist discipline.
- *Generalism defined as a set of competencies/attitudes/philosophy or an approach to patient care:*
 - Generalists are integrative and cross several domains of clinical practice which could include several of the sub-specialties currently recognized by the Royal College e.g. Pain Medicine, Palliative Medicine, etc.
 - Generalism is defined by the non-medical expert CanMEDS competencies which are common to all physicians.
- *Generalism defined as foundational training or with direct entry from medical school:*
 - Generalists have less in depth training despite the observation that generalist physicians such as General Surgeons may require longer training periods to acquire the necessary skills in Orthopedics and Gynecology than may be required in community General Surgical practice.
 - Generalism is a fundamental competency upon which specialties and sub-specialties are built. This concept, adopted in the United Kingdom PGME system, if implemented in Canada may have an undesired impact of lengthening training for specialties and sub-specialties.
 - Generalist specialties are those with PGY-1 entry through the CaRMS matching process – which captures several disciplines which would normally be regarded as narrowly focused sub-specialties – e.g. Neuropathology, Pediatric Neurology.

- *Generalism defined as the antonym to specialization, which fails to capture the importance of generalist specialists such as Internal Medicine, and broadly focused General Surgery.*

Several of these definitions capture important concepts which inform the working definition for this paper. It is understood that any definition that is accepted will have an impact on the education of specialty physicians for Canada. Thus the following will serve as the working definition of generalism in the context of Royal College specialty residency education and is put forward for further debate and discussion.

Generalism is a philosophy of care with acknowledgement by the physician that broad based comprehensive care is provided and the generalist physician is prepared and willing to reach across the existing gaps in the health care delivery system. The principles of generalism are applicable to all Royal College specialties and subspecialties. A generalist specialist works directly with primary care providers, Family Physicians particularly. Generalists are able to develop their clinical practice to meet community needs and refrain from narrowing their practice.

Using this approach, nearly all Royal College specialties and subspecialties have generalist aspects and the Objectives of Training documents (OTR) incorporate the broad based knowledge and skills expected of every graduate of a Royal College accredited residency program. Maintaining the full breadth and depth of the discipline as defined by the OTR as opposed to hiving off a component of the OTR to narrow practice is an important aspect of generalism. Graduates of specialty residency programs in Canada need to be able to recognize (if not manage) any illness that they are likely to see in their practice even if it is outside the scope of their own discipline.

The generalist competencies expected of Royal College specialists and subspecialists need to incorporate the concepts of:

1. Direct consultation and collaboration with primary care physicians for patient –centred delivery of care.
2. The ability, commitment and mandate to accept in consultation, investigate and manage the entire scope of practice for a specialist/subspecialist as defined by that disciplines' OTR document.

3. Sufficient working knowledge of the practice of medicine, broadly defined, to integrate and collaborate effectively with primary care physicians and other specialists.

These three components can apply to virtually all Royal College specialties and subspecialties. Under this definition, non-generalist physicians are those who significantly restrict their practice within their discipline and typically are accessed by referral only through other specialists. This approach ensures that the concepts of generalism are valued and sustained throughout residency and into active specialty practice. Practice patterns evolve throughout a physician's professional life, driven by community needs, continuing expansion of medical knowledge and individual personal preferences. The apparent mismatch of specialty training with the positions currently available highlights the importance of ensuring that the educational system is responsive to societal needs. [See Addressing Societal Health Needs white paper]. It can be hypothesized that the drivers for subspecialization and subsequent restriction of scope of practice is more a function of internal academic health science centres, rather than a response to societal needs.

Drivers for Change

The mismatch between specialist and generalist physicians has been pointed out by government, health care planners and physician groups alike. The responsibility of the medical education system to prepare physicians to meet societal needs was recognized in the FMEC–MD report which highlighted four specific recommendations pointing out the importance of generalist competencies in medical education:

1. Ensuring that the health human resource planning process aligns the mix of generalists and specialists in the physician workforce with the needs of populations.
2. Identifying and addressing elements of the hidden curriculum that devalue generalism and family medicine.
3. Increasing representation of generalists within faculties and among preceptors.
4. Providing learning opportunities for students to experience undifferentiated patients and early presentation of illness in natural contexts.³

The Canadian model of health care delivery is based on a strong primary care system with secondary access to specialist services by referral. However, the health of the Canadian population is dependent on several well defined social determinants including education, employment status, a healthy environment including access to clean water and air, decent housing and reliable and good nutrition. The Royal College, as certifying body recognizing individual specialties, has a particular responsibility to respond to these needs.

The current system appears to train physicians who closely mirror their clinical teachers working at the academic health science centres (AHSCs). These centres have a large number of physicians who are able to practice a restricted range of their specialty and subspecialty. Residents learn in this environment, using their preceptors as role models, to emulate their own practices to this restricted model of clinical activity. In addition, at the end of their residency program, many residents pursue fellowship programs. A number of reasons have been offered for this phenomenon, including; insecurity on the part of the residents as they begin independent practice, increased opportunities for good non-academic positions as some larger community hospitals are looking for specific skill sets for their new physician staff, and the interest in obtaining positions at the AHSCs, which almost invariably require additional training and research expertise prior to recruitment.

In an era of inadequate physician human resources, residents had the luxury to access an unlimited range of job opportunities. With the enhanced output from medical schools and residency programs in the last ten years, this deficiency is being addressed and indeed in some specialties has resulted in a surplus of graduates, for example Radiation Oncology, Cardiac Surgery and Neurosurgery. A rebalancing of residency positions to respond to real health human resource needs will provide opportunities to redress the balance between generalists and the subspecialists using only a restricted scope of practice.

The lack of clear understanding between stakeholders regarding the need to produce, nurture and sustain generalist physicians leads to funding issues, including reduced remuneration for generalist physicians which has a negative impact on recruitment. Family Medicine has seen a drive towards enhanced career flexibility which is a draw for medical students⁴ and the Royal College disciplines will need to

ensure that there are opportunities for specialty residents to develop and evolve their own practices to meet societal needs once training is completed. The restructuring of the organization of Family Medicine has seen the development of team-based care which has also increased the appeal of Family Medicine as a career option for Canadian undergraduate medical students.

Most specialist physicians have some practice activities that are hospital-based. Over the last twenty years, the hospital system in Canada has seen virtually a continuous restructuring. Smaller hospitals, particularly those close to larger centres, have seen their clinical services re-organized, rationalized and in many cases centralized to the larger community hospitals. Specialty programs within these centralized institutions have furthered the drive to restricted practice. Although most regional hospitals are well served by the graduates of the residency programs, there are still a number of rural and isolated hospitals that struggle to maintain a range of basic specialty services in the face of a limited population base. Although almost a quarter of the Canadian population may be defined as rural, only 9.4% of physicians are rural according to the National Health Strategy. According to this report, rural Canadians have a higher burden of illness and have a shorter life expectancy. The need for the medical educators to respond to the challenge is obvious.⁵

Barriers to Change

Generalism seems to be a concept that is in direct opposition to the trend in most domains of human endeavour which has been, from time immemorial, towards increasing specialization. Reversing, let alone stabilizing this trend in medicine will be challenging. However, since the fundamental objective of the medical educational system is to provide the correct number and variety of physicians to meet the health care needs of Canadians, there is a strong impetus to consider how postgraduate medical education (PGME) can begin to turn the tide towards generalism.

Training physicians to meet the needs of Canada's diverse and widely distributed population demands that the PGME system consider these demographics when selecting and training residents. Rourke has summarized a number of obstacles in the training of the undergraduate medical student within our programs,⁶ some of which also apply to PGME. Furthermore, postgraduate training is also impacted by selection biases and opportunity, among other factors.

Organization and Structure of PGME

One of the challenges for increasing the focus on generalism is the organization of residency training. Currently, many residency programs consist of rotations through a variety of subspecialty services which is unlikely to be the most effective way to prepare physicians for generalist practice, particularly given the important role that mentors appear to play in career choice.⁷ It harkens back to the organizational structure of the rotating internship which ultimately became unsuitable to prepare physicians for general practice.

Further to this, there is little opportunity for residents to interact with regional or community-based specialist physicians, let alone experience alternative models of care delivery. [See Diversified Learning Contexts white paper]. To the contrary, many residents are given the impression that specialist physicians working outside of large university centres are of “lesser quality.” This subtle process, which is part of the hidden curriculum devalues the contributions of generalist physicians and can be further enhanced by the observation that many regional or community centres are staffed by internationally trained specialist physicians, who may have less than the “gold standard” Royal College certification.

Post-residency fellowship positions are offered to enhance clinical service delivery without necessarily having well defined educational objectives for the individuals in these programs. While there is an imperative to provide for the service needs of large institutions, there are already many professionals working to support such care. In order to better understand how these fellowships might impact on generalism, more research should be done to look at the number of fellowship trainees, the locations of training as well as the training objectives and skills being acquired.

Furthermore, support for generalist physicians in practice who wish to maintain competence in a broad range of practice is limited. Re-entry to postgraduate training is difficult to achieve and is usually financially punitive when available. Instead of shorter periods of retraining – retooling programs, physicians are expected to retrain by entering into formal residency programs of several years duration.

Health care system, delivery and government

The development of inter-professional and intra-professional team based care, while being patient-centred, has further balkanized the organization of clinical services. Graduates of Royal College specialty programs may not have the wide range of specialty and subspecialty colleagues available in the regional hospitals and may believe that they are poorly prepared for clinical practice in these centres, where more broadly based skills and knowledge may be required. It is therefore not surprising that the regional and smaller centres have had and continue to have difficulty recruiting new Canadian graduates.

Recently certified specialists who have trained alongside other specialists are more comfortable in the larger metropolitan hospitals where their limited, but highly skilled expertise is more appropriate to their scope of practice. The subspecialization of services seen in the large cities is not possible in the smaller regional hospitals, let alone in the remote or rural areas. The observation that many of the specialists who have a broad range of expertise and who practice in rural areas are largely international graduates has raised concerns that the curricula and training environments of our domestic graduates are not meeting the needs of Canadians.

The service needs of the academic health science centres (AHSCs) demand the ready availability of a significant cadre of residents. This limits the possibility of residents going out further afield to experience other models of care. However, when residents are able to spend time away from the AHSCs, they often experience the challenges and opportunities available in a generalist practice, which can stimulate an interest in pursuing a more generalist practice and working in a wider variety of settings.

Provincial and territorial medical regulatory authorities have jurisdiction over the practice of medicine by physicians in Canada. Increasingly the regulatory authorities are defining scope of practice for physicians to ensure that members are competent to provide defined clinical services. This trend to define specialties and scope of practice may be counterproductive to the goal of producing more generalist physicians who, of necessity have a broader range of skills and knowledge than a narrowly defined subspecialist.

Governments often consult with universities on matters related to residency training of specialist physicians. The opinion leaders on this matter are usually the senior faculty of university academic departments. When direction is sought on matters of health service delivery including funding, expert advice is sought from these opinion leaders who may have competing interests. Governments should therefore be advised to hire or seek out alternative expertise in order to gain a more well-rounded perspective on matters related to residency training.

Remuneration of specialist physicians is quickly becoming a challenge in many provinces. The tendency to support university-based academic groups through special contract arrangements has changed the playing field in a significant manner and has created further tensions between academic (focused practice physicians) and non-academic (generalist) physicians.

Universities

University faculty is promoted on the basis of academic productivity including publications and research grants. Patient care does not usually enter into the evaluation of those applying for promotion and tenure. A significant driver that influences trainees is the observation that future career advancement within a university atmosphere demands attention to research and publication, more so than patient care. Provincial departments of health subsidize universities to sustain the academic mission of teaching and research. The balance between clinical service delivery and the academic mandate has therefore been altered from the traditional model where clinical delivery directly subsidized teaching and research.

Communities in Canada recruit general specialists from all over the world. Saskatchewan is widely recognized to have approximately 75% of their regional/rural areas staffed by International Medical Graduate (IMG) physicians, including 'generalist specialists.'⁸ Many of our Canadian trained general specialists choose to remain within large centres and are often encouraged to take on positions as hospitalists, educators, or specific positions such as in emergency rooms or in other specialty clinics. Most of these positions are salaried or contract based and negotiated as part of alternative funding arrangements for academic departments. They soon become quite restricted in their skill set and are then not available to

work as true “general” specialists, even for the purpose of locum support in struggling communities.

Restricted Scope of Practice

Specialist physicians often develop areas of expertise, with a corresponding tendency to restrict scope of practice. Such narrow areas of focus can further restrict patients’ ability to access specialists and can limit the availability of physicians to provide ‘on-call services.’ On the other hand, generalist practice which encourages at least some degree of breadth of practice can be seen as more difficult, particularly in regards to maintenance of competence. The maintenance of skills and competence for generalists requires a broadly focused approach to the rapidly expanding knowledge base for every specialty and subspecialty.

Recommendations

1. The Royal College should work to enhance the accountability of residency programs and their sponsoring universities as they respond to the physician requirements for the population that they serve.
 - a. The Royal College Accreditation Committee should explore how social accountability can be built into the accreditation standards, with a focus on generalist principles. For example, one outcome of the accreditation process should be having programs provide information in the pre-survey documentation on the types of practice that their graduate residents have entered including numbers who entered post-residency fellowship programs and the drivers for those decisions.
 - b. Similarly, specific questions on how the program responds to the generalist objectives of the OTR should be added to the pre-survey questionnaire. Specialty Committees will need to develop specific questions for their own disciplines.

2. The Royal College should advocate for enhanced exposure to generalism champions as part of undergraduate MD programs. Pre-residency experiences encourage residents to more broadly focus their career objectives and may predispose them to embark on more generalist practice after completing residency training.

3. The Royal College's Accreditation Committee should consider instituting mandatory, structured career counseling in residency training. This would offer the opportunity for residents to learn about the different careers within their specialties and what a practice that embodies generalism within their specialty might be able to offer them, particularly from a career flexibility perspective.
 - a. The Accreditation Committee should consider adding questions to the pre-survey documentation about what formal career counseling a program offers their residents. Specifically, programs should be required to introduce residents to the full breadth of career options within that specialty, not only the options within the university. Programs should be encouraged to provide residents with firsthand experience to a variety of career options, including generalist specialist practices within the discipline. This counseling should have formal structured components and be distinct from a routine discussion at the 6 month meeting with the program director.

4. The Royal College should encourage flexibility in the PGME system in order to promote generalism.
 - a. Specialty Committees should enhance the generalist competencies within their disciplines by adapting the STR's to encourage more rotations that are directed at generalist practice patterns and generalist competencies. This may be through elective or selective rotations, but they must have a generalist focus.
 - b. Specialty Committees and the Education Subcommittees need to consider how to enhance flexibility within programs by permitting residents to spend more time in clinical rotations at non-accredited training sites which is currently limited to six months in a five year program. Given that most health care institutions in Canada are now involved in medical education, and with the improvements in learning technology, it is time to re-consider the utility of this limitation.
 - c. Specialty Committees should consider how they can improve intra-specialty flexibility by allowing residents to tailor their training, particularly in their senior years to suit their future career environment. An example

- would be a resident wanting to practice in a particular rural or community setting who may need specific skills to meet the needs of this population.
- d. The Credentials Committee should consider whether there are additional mechanisms that could be implemented to grant credit for generalist training. This would of necessity need to be specific for each discipline but would assist with the generalist initiatives. This would help promote re-entry into the PGME system and as well as increase the generalist perspective in specialty training programs.
5. The Royal College must support practicing physicians throughout their professional lives and support them to gain access to retraining programs to refresh knowledge and learn new skills. The areas of focused competence (diplomas) are one method to encourage physicians to learn new skills to adapt to community needs. In addition, the Royal College should:
- a. Encourage Specialty Committees to include a continuing professional development plan in their specialty training requirements (STRs). This is particularly important for generalist specialties where practitioners often have a wide breadth of skills to maintain over the course of their professional careers. This will need to be coordinated with acknowledged societal health needs and require the cooperation and involvement of the national specialty societies.
 - b. Actively support generalist specialists in practice by maintaining an up-to-date list of learning opportunities and contacts for skills enhancement programs. This should be available to all Fellows and housed in the Office of Professional Affairs.
6. The Royal College should enhance generalism by creating a competency rubric of generalist competencies acknowledged by all specialty programs to include"
- a. An understanding of what the societal health need is for their discipline and how the healthcare system works outside their training program.
 - b. Enhancing the CanMEDS roles of Manager (to include hospital structure and function, physician regulation, and structure of the Canadian health care system), Professional, Health Advocate, Collaborator, and Scholar.
 - c. Emphasis on generalist competencies within the evaluation systems both in training as well as certifying examinations.

7. The Royal College should promote academic skills for non-university based teaching physicians.
 - a. The Royal College's Office of Professional Affairs should work with their CPD Educators to consider how the scholar role could be emphasized through CPD programs, and specifically for non-university based physicians.

8. The Royal College should gather data on generalist specialist practice and help facilitate a more thoughtful discussion on generalism, In particular, focus on the dialogue between governments, which are often promoting generalism and universities that often resist. Where appropriate, the Royal College should use this data to advocate for the training of more generalist specialists.
 - a. Building on the research that has already been undertaken on generalism, the Royal College should take on research to help clarify the term "generalism" in the context of specialty medicine.
 - b. The Royal College should take on a leadership role in bringing together key players in collecting health human resource data. Specifically, monitoring specialty healthcare delivery over time and gathering more data on generalist specialist practice, and the needs for such service, in order to better plan for healthcare needs.
 - c. The Royal College should undertake a national census of specialist physicians currently working in smaller communities and isolated hospitals. This information will be needed to determine the specialist physician human resources needed in the future in addition to the generalist-specialist requirements particularly in view of the continuous evolution of the hospital system in which most specialists practice.
 - d. The Royal College should develop a repository of information on generalism in specialty medicine and make this information available to governments in order to better inform health human resource planning and health policy. This repository could later be expanded to include other areas of specialty medicine.

References:

1. Flexner A. (1910). *Medical education in the United States and Canada*. New York, NY: Carnegie Foundation for the Advancement of Teaching.
2. Osler W. (1932) *Aequanimitas*. United States: McGraw-Hill.
3. AFMC. (nd). *The Future of Medical Education in Canada (FMEC): A Collective Vision for MD Education*. Retrieved January 28, 2011 from: http://www.afmc.ca/fmec/pdf/collective_vision.pdf
4. Jordan J, Brown JB & Russel G. (2003). Choosing family medicine: What influences medical students? *Canadian Family Physician*, 49, 1131-1137.
5. Canadian Institute for Health Information. (2006). *How Healthy Are Rural Canadians? An Assessment of Their Health Status and Health Determinants*. Retrieved January 28, 2011 from http://secure.cihi.ca/cihiweb/products/summary_rural_canadians_2006_e.pdf
6. Rourke J. (2010). How can medical schools contribute to the education, recruitment and retention of rural physicians in their region? *Bulletin of the World Health Organization*, 88, 395–396.
7. The Royal College of Physicians and Surgeons of Canada. (2009). *Directions for Residency Education, 2009: A Final Report of the Core Competency Project*. Ottawa: The Royal College of Physicians and Surgeons of Canada.
8. Saskatchewan Ministry of Health. (2010). *Physician Recruitment Strategy*. Retrieved January 30, 2011 from <http://www.health.gov.sk.ca/adx/asp/adxGetMedia.aspx?DocID=1633ff92-37fa-4ece-b798-1b8144d21420&MediaID=3712&Filename=physician-recruitment-2010.pdf&I=English>