



5 International Medical Graduates - Current Issues

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OF CANADA



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MÉDECINS DE FAMILLE
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Executive Summary

International medical graduates (IMGs) are a growing and increasingly diverse component of the trainee population in postgraduate medical education. Medical schools and governments must recognize IMGs as a permanent component of all health human resource planning by implementing necessary support resources for IMGs and cultivating their successful integration within the Canada.

On terminal examinations of both the College of Family Physicians of Canada and the Royal College of Physicians and Surgeons of Canada, there are problematic differences between the performance of IMGs and graduates of Canadian medical schools. Program directors in family medicine, where numerous IMGs do their training, feel they have inadequate resources to provide these learners with the necessary learning resources to meet the broad scope of requirements, and, in some cases, face training time limitations to meet those learning needs.

It is critical for teachers and program leaders to be well prepared to work with IMGs and recognize the tacit and unarticulated knowledge within the healthcare and medical education systems IMGs require in order to be successful in Canadian medical training. Dealing with cultural and language issues also requires specific training for faculty. Specific resources to cope with common areas of difficulty such as language, communication, and personal support need to be available.

Based on the literature review and key informant interviews, we have identified three key messages related to the successful training and certification of IMGs:

1. IMGs require orientation to provide them with the knowledge, both overt and tacit, required to integrate into the clinical and educational environment, as well as support programs for them and their families.
2. There is great diversity in the IMGs who come to Canada, which requires in depth assessment, both for proper placement and to allow postgraduate programs to adapt to their training needs. Resources are needed to meet this great diversity of learning needs.
3. Teachers need training in order to meet the specific needs of IMG residents.

Background

Definition of International Medical Graduate in Postgraduate Medical Education

In the Canadian medical education context, an international medical graduate (IMG) is a student or graduate of a non-North American (Liaison Committee on Medical Education/Committee on Accreditation Canadian Medical Schools) accredited medical school. This definition has no reference to citizenship or legal status in Canada. There are three distinct types of IMGs in the Canadian postgraduate system: immigrant physicians, Canadians who left Canada to attend medical school abroad, and visa physicians who obtain a visa for postgraduate training in Canada and return to their home country after completion. Both of the former groups ultimately seek licensure in Canada. Some immigrant IMGs may have the qualifications to be considered for entry to practice: however, many attempt to qualify for entry through postgraduate training programs. Canadians studying abroad generally have no previous postgraduate training. Visa trainees are physicians whose postgraduate education is sponsored by their country of origin. They are selected directly into the postgraduate system by the medical schools and do not compete with either the CSA or the immigrant physician for positions in Canada through the Canadian Residency Matching Service (CaRMS). All three categories of IMGs compete for precious training resources.

Immigrant IMGs

IMGs have always been a critical resource within the Canadian healthcare setting, comprising about 25% of practicing physicians in Canada. Immigration is the primary source for IMG physicians in Canada. In the past, the majority of immigrant IMG physicians came from countries with similar training and accreditation systems to Canada's, such as Britain, South Africa or Ireland. More recently, immigrant IMGs have been coming from a broader group of countries including, for example, Asia, the Middle East, Africa and Eastern Europe.¹ This diversity brings substantial variations in the medical training environment which include duration, content and process of training; as well as clinical experience and interpersonal competencies along with a differing practice environment -- issues common in other recipient countries of immigrant physicians.²

Canadians Studying Abroad

Since 2000, CaRMS has identified a subset of IMGs who were landed immigrants or Canadian citizens prior to studying abroad for their medical education. They apply to the CaRMS match as students in their final year or as recent graduates who have written or registered to write the Medical Council of Canada Evaluating Examination (MCCEE). In a recent study conducted in 2009/10 by CaRMS, this subset of IMGs has been identified as Canadians studying abroad (CSAs).³ Based on admission data provided by international schools and international Canadian student organizations, the report estimates there are 3,500 Canadian students currently studying medicine abroad.

In the CaRMS study, over 1,000 CSAs responded to a questionnaire about their reasons for studying abroad, their career intentions, and plans to return to Canada. While some CSAs have entered an international medical school directly from secondary school (usually at least a six-year program of study); most are enrolled in four-year programs. The majority of CSAs (77.6%) reported their reason for studying medicine abroad was due to the inability to obtain a placement in a Canadian medical school.

Given that the majority of these Canadian students are enrolled in programs of four years duration, the output of these international medical schools could eventually contribute almost 700 graduates per year (i.e., 3,500 students in a four- to six-year program), comprising 25% of the total Canadian medical school output. Furthermore, this study indicates that more schools are opening enrolment to international students each year. Approximately 80 schools in almost 28 different countries were identified as having Canadian students enrolled in their medical schools. When educators discuss CSAs, they are often most familiar with schools in Ireland, Australia, the Caribbean and, more recently, Poland. The Foundation for Advancement of International Medical Education and Research (FAIMER) has identified that, every year, new schools are emerging offering international students the opportunity to study medicine. The majority of these programs target North American students, who are prepared to pay high tuition fees for the opportunity to become physicians. The medical education they are receiving is as diverse as the countries themselves. Immigrant and CSA IMGs have studied medicine in education systems that have differing curriculums, resources and patient populations. Often, immigrant physicians and Canadians studying abroad are graduated from the same schools in Asia, India and Europe.

Over 90% of CSAs want to return to Canada for postgraduate training; however, they report the barriers to pursuing postgraduate education in Canada as: choice of discipline, return of service and high competition for positions. There are few, if any, opportunities to complete postgraduate training in the country where they are studying medicine. None of the for-profit schools in the Caribbean have postgraduate training opportunities, and the schools in Ireland, Poland and Australia that recruit Canadian students have little or no postgraduate training opportunities available for international students.

In the last three CaRMS matches, the number of CSAs has doubled, and there are 514 Canadians studying abroad who have registered in the 2011 match. CSAs comprise 33% of the IMGs applying for postgraduate training through the match in 2011, and have been more successful than immigrant IMGs in matching to R-1 positions. In the 2010 match, 47% of CSAs matched, compared to 17% of the immigrant IMGs. The disparity in the match results in these two groups has raised concerns amongst educators, policy makers and IMG organizations that the CSA will displace the immigrant IMG by being chosen in preference by residency programs.

Visa Trainees

Visa trainees have been part of the postgraduate education system for over 30 years. They are primarily from the Middle East, particularly Saudi Arabia, and are selected directly into training programs through financial agreements with the country of origin. Although the majority of these physicians are in fellowship positions at senior levels, they represent a significant number of trainees in the postgraduate system. According to the Canadian Post-M.D. Education Registry (CAPER) 2009/10 IMG database (Appendix 3), there were 722 visa trainees in postgraduate training positions, with almost 50% in the first three years R-1 to R-3. This represents 30% of the current total number of IMGs enrolled in postgraduate training positions, excluding fellows. There is some concern among the general IMG population that visa trainees are taking positions and resources that could otherwise be available to IMG physicians to train and work in Canada.⁴ (All of the discussion and numbers presented in the remainder of this paper exclude visa trainees from the calculations).

Numbers of IMG Trainees in Canada

Access to licensure and practice in Canada presents many routes for IMGs. According to the CAPER IMG report, in 2008 over 830 IMGs obtained a license to practice in Canada. Of these,

128 had received some postgraduate training in Canada, while 698 had gone directly to some form of licensure. In 2009, 1076 (or 40%) of new entries to practice across Canada were IMGs, with 375 of that total having received some postgraduate training in Canada. During that same period, 1,765 Canadian-trained physicians entered practice.

As of March 2010, there were 1,916 IMGs in postgraduate training in Canada (excluding Visa trainees). In 2010, approximately 450 first-year postgraduate positions across Canada were available for IMGs to enter postgraduate training. According to CAPER, there were 617 IMGs in R-1 positions in 2010, the difference were American graduates (less than 30) and visa trainees. (Appendix 3).

Methodology

This paper is one of 24 commissioned papers commissioned for the Future of Medical Education in Canada Postgraduate (FMEC PG) Project. Each team member researched and wrote a sub section identified as relevant to postgraduate medical education. In addition, the lead author and the research assistant performed literature searches from 2000 to present within PubMed, ERIC, MedLine, reference lists and citations from relevant articles, grey literature (CaRMS, Royal College of Physicians and Surgeons), Google, Google Scholar, IMG websites, blogs, and personal interviews.

References of articles were scanned to identify relevancy. Key informant interviews were conducted with individuals possessing pertinent perspectives and unpublished information. Databases from CaRMS and CAPER were utilized, providing information about IMG numbers and trends. Finally, a survey was conducted of Postgraduate Education Offices across the country regarding orientation and preparation programs for IMGs and their teachers. Responses were received from all but one university (16/17).

Key informant interviews

Interviews were conducted with 6 key informants, including international medical graduates, a program director, and leaders of educational organizations.

Literature Search

Population Canadian postgraduate medical education and worldwide postgraduate medical education

Subject International medical graduates

Search Terms Postgraduate AND education AND medical OR medicine AND IMG OR International medical graduate OR resident OR immigrant OR Foreign OR residency OR CSA OR Student

AND

Assessment OR accreditation AND/OR barriers OR immigration OR migration pattern OR workforce OR foreign-trained OR healthcare OR general OR family medicine OR specialist OR teacher OR culture OR language OR training OR residency OR education model OR internal medicine OR selection criteria OR success rate OR certification OR Comparison

AND

Canada OR Australia OR Europe OR India OR USA OR Middle East OR UK OR global OR Canadian medical schools

Discussions and Results

Whether an IMG goes directly into practice or trains in the postgraduate system in Canada, criteria for licensure are established by the provincial medical regulatory authorities (MRAs). There are 13 provincial and territorial MRAs responsible for the registration and licensing of physicians in Canada. All MRAs rely on assessment processes to determine that the physician has the knowledge, clinical skills, reasoning and professional behaviours necessary for safe practice in Canada. The IMG must have an acceptable medical degree, appropriate postgraduate education and/or qualifications and evidence of professional practice in the country of origin.

Entry of IMGs into postgraduate training

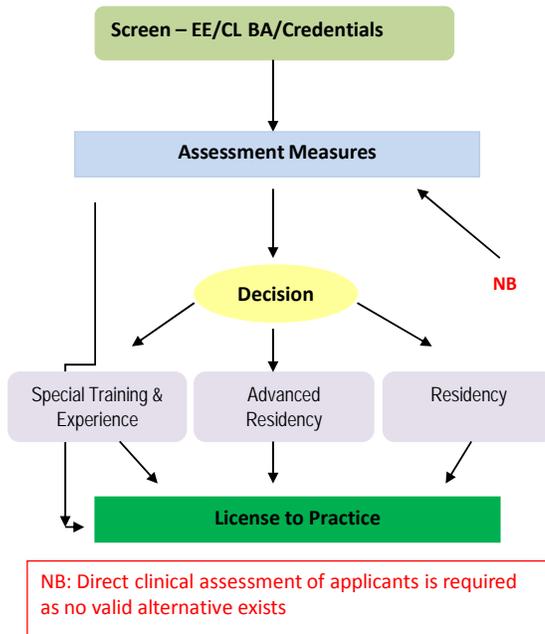
Between 1993 and 2004, there were few dedicated postgraduate positions for IMGs. In 1998, CAPER reported only 297 IMGs in postgraduate programs, and, by 2004, this number had increased to 900. In 2009, CAPER reported 1,915 IMGs in postgraduate training, signifying a doubling in five years, and an increase of over 500% since 1993.

By 2004, Canadian medical educators recognized that teachers were inadequately prepared to educate IMGs. The Report of the Canadian Task Force on Licensure of International Medical Graduates published in 2004 contained six recommendations promoting better integration of IMGs into the Canadian healthcare system; two of the six referred specifically to IMG postgraduate training. The first recommends an increase of capacity to assess and train IMGs, while the second proposes to assist faculty by providing orientation.

Postgraduate education programs, like the MRAs, have often had to rely on only candidate credentials and the MCCEE to make the decision about entry into postgraduate education programs. The National Assessment Collaboration (NAC), funded through Health Canada, brought together principal assessment programs, the MRAs and the Medical Council of Canada to develop a single pan-Canadian assessment process that meets the selection needs of the MRAs and postgraduate training programs. The NAC established the need to assess not only knowledge and clinical skills, but also formal observation in clinical practice. The provincial assessment programs agreed that the minimal knowledge assessment would be the MCCEE, though many also require the MCCQE Part I. Programs have also agreed that there should be a centrally coordinated provincially based clinical assessment program rather than the individual programs that currently exist. The NAC has begun implementing the nationally coordinated, regionally delivered objective structured clinical examinations (OSCEs), which provide standardized, reliable and psychometrically sound assessments of IMGs' clinical skills for entry into supervised practice. The goal of the NAC is to have one standardized set of assessment processes and to avoid the current duplication of programs and resources. While this assessment is to enable entry into postgraduate medicine, it can also be a filter prior to practice assessment of IMGs who might be eligible for entry into unsupervised practice. Figure 1 displayed the NAC collaboration process.

Figure 1: Figure 1 displayed the NAC collaboration process

NAC Approach



- **Evidence weak re clinical assessment:**
 - Suggest using CQI approach via common terms, decisions, formats, etc.
- **Basic model to assess IMG**
 - Detailed version in final report
- **Emphasis on:**
 - Common assessment points
 - Common blueprint
 - Common forms/formats
 - Common scales & scoring
 - Common decision pathways
 - Bodies apply own standards-interpretation
 - **CONCEPT OF VALIDITY:** assess validity and reliability with each use (APA-AERA standards for high stakes assessment)
- **Designed to be transferable but to be monitored and improved as gain experience or until better evidence**

MRAs, faced with the revised Agreement on Internal Trade (AIT), are promoting the need for Canada to adopt one standardized set of assessments for IMGs instead of a number of provincial programs that duplicate resources and create complex and diverse set up criteria for access to training and licensure that is confusing IMGs. Many of these assessment processes are being developed in parallel to the faculties of medicine and formal community-based learning environments. Therefore, they compete for educational resources in an environment of undergraduate and postgraduate expansion. Faculties of medicine must find mechanisms to balance their commitment to undergraduate and postgraduate students with the continuing societal need to support IMG physicians' entry into the Canadian health system.

The continuing refinement of assessment processes and the standardization of licensing requirements, both goals of NAC and the MRAs, may increase the number of IMG physicians unable to enter directly into practice and who, therefore, will require remedial education. Thus, there is a need for public policy to match and stabilize the number of PGME positions for IMGs to the number required by Canada so as to meet both the current population need and the growth through immigration.

Orientation and Integration of IMGs for postgraduate education

Many barriers exist for IMGs entering the postgraduate education system, such as capacity and funding issues. However, within the past five years, most provincial governments have increased the number of postgraduate positions available to IMGs. Of the 1,915 IMGs in postgraduate training in 2009, 25% were in family medicine programs, while the remainder (75%) was distributed across all other specialties. Since family medicine is the shortest training program, and IMGs represented 21% of all family medicine trainees; the impact of the increases is significant.

There are a variety of orientation programs offered across Canada. Some Faculties of Medicine offer no particular preparation, while others offer a range of pre-residency preparation programs spanning from a few days to 12 weeks. Family medicine programs appear to have some of the best-developed orientation and preparation programs. However, in most provinces after the orientation program, the IMGs enter a regular training stream alongside their Canadian medical graduate (CMG) colleagues. The only example of a specific IMG residency program is at the University of British Columbia, which does not provide personalized learning programs for individual residents. It does, however, identify specific needs and existing strengths of IMG residents.⁵ These are addressed by providing appropriate electives.

Orientation was identified by the 2004 IMG Task Force and continues to be identified by both IMGs and those who teach or supervise them as a critical part of the acculturation process to the Canadian healthcare system.⁶ While IMGs and faculty often agree on the issues faced by IMGs, the availability and clarity of approaches to these identified issues may be perceived differently⁷. Medical leaders felt that access to resources addressing identified issues were straight forward, readily available, and related to deficiencies in previous training rather than aspects of the current environment. IMGs found little guidance from medical leaders and teachers in accessing information to address learning issues, deeming those in charge as not understanding how much of this knowledge was tacit and not articulated.

There is broad agreement about the basic components of an orientation process. It should address both professional and personal issues including: information on the Canadian healthcare system; the organization and delivery of medical care within this system; the principles of Medicare; the federal and provincial healthcare systems; licensing requirements and policies and procedures specific to the training environment.⁸ Practice checklists, scheduled appointments with resource people, relevant policies and procedures, as well as more didactic presentations can help to address these issues.⁹ Other professional issues, including information on common disease patterns and patient presentations, investigation and treatment options, evidence-based medicine, and medical references require different and more straightforward educational approaches.

Four foundational orientation issues have been identified. First and most common is related to concerns about both oral and written English or French language skills.¹⁰⁻¹¹ Currently, linguistic analysis and training assessment processes unreliably identify and address the language skills required to function in a clinical setting.¹²⁻¹³ The language support programs specific to medicine have not yet been developed.

Language skill overlaps the second foundational issue; the lack of communication skills underpinning an effective patient-physician relationship.¹¹ In particular, IMGs may have difficulty understanding nonmedical, colloquial language, recognizing and interpreting body language cues and using a patient-focused vocabulary to explain medical issues to patients.¹⁰⁻¹¹ Formal

training in communication skills is a recognized critical component of all IMG orientation programs.

Hall and her colleagues identified an additional set of specific communication skills required by IMGs, which form the third foundational issue - culture¹¹. The influences of an IMG's own cultural beliefs on medical practice, as well as an understanding of the cultural background and beliefs of the Canadian patient population, have been highlighted as an important consideration.¹³⁻¹⁶ Cultural conflicts are identified as a basis for some of the common struggles observed in the learning environment. These include a tendency to not ask for clarification or disagree with an attending physician; difficulty in giving and receiving feedback; poor listening skills and problems with negotiation of treatment plans and the reluctance to accept knowledge gaps¹⁷. Orientation needs to include opportunities for IMGs to reflect on their own cultural values and biases as well as learn about the cultural background and beliefs of the patient population.⁹ Faculty also need to have a similar reflection on their cultural beliefs and biases with respect to IMG learners.¹¹ Patient presentations and expectations may also highlight differences in IMG beliefs and practices around concepts such as patient autonomy, gender roles, confidentiality, substance use or abuse, care of the elderly, sexuality and mental illness. In one study, videotape review of IMGs seeing patients with these concerns appeared to be more effective in changing behaviors than observation of faculty approaches.¹⁸ Strategies to facilitate socio-cultural connections with other IMGs from a similar background, both peer and faculty, appeared to aid in acquisition of this skill set.

The fourth significant yet difficult professional orientation issue is the exploration of expectations around behavior, attitudes and relationships especially in team-based environments. Teachers have difficulty articulating how things get done in the healthcare setting including an understanding and appreciation for the roles of allied health professionals.¹¹ The lack of participation in educational discussions, often due to an unwillingness to appear disrespectful, may be interpreted by teachers as lack of knowledge and/or curiosity.¹⁸ In addition, there may be a struggle to transfer and apply basic sciences and medical knowledge to clinical settings and decision making due to limited previous clinical exposure.¹² It has been suggested that in addition to observation, structured educational experiences related to professionalism are important.¹² The use of IMG faculty often facilitates this skill development and is recognized and utilized in most IMG orientation programs. Mentoring relationships with ongoing support and discussion throughout the training process including faculty and peer mentoring, psychosocial counseling and educational orientation activities were important factors in IMG orientation.^{9, 19} However, effective mentoring programs require training and substantial time commitment on the part of mentors, which may be difficult to achieve in the current healthcare environment.

Finally, there are also important personal and family issues to be considered. In one Canadian study, the IMGs were 10 years older than the CMG residents and may have more social and financial obligations including partners and children.⁵ IMGs also tend to lack a strong personal and professional support system, which can lead to social isolation and loneliness.⁶ Studies suggest that lack of community may impact the willingness of IMGs to practice in particular settings, especially remote and rural settings.⁹ Lack of systematic attention to an IMG family's needs and concerns may also impair successful integration. IMGs may also be unsure about their rights and the suitable people to approach regarding professional and personal issues. Personal issues were ameliorated through support from designated faculty mentors, peer support from other IMGs in training, and sufficient time within the training program to transition into the Canadian system.¹⁹ However, most programs have limited capacity to provide training beyond the length of a traditional residency program.

Other countries face similar problems integrating their immigrant physicians into the healthcare workforce. In addition to Canada, the countries most commonly receiving IMGs are: the United States (USA), Australia, New Zealand and, until recently, the United Kingdom (UK). There have been a number of orientation and integration programs developed internationally. In other countries other than the USA, most programs for IMGs are directed at integration into practice, rather than into postgraduate training. Commonly, IMGs are identified as having similar issues to those identified with immigrant IMGs in Canada: social and medical cultural adjustment; differences in medical practice and health systems; communication issues; and teaching and learning styles.^{2,12,14} Lower pass rates on examinations have also been identified.^{20,21} Recommended approaches include supporting clinicians in their teaching roles, providing an orientation program for the IMGs, and peer mentoring programs.^{2, 21-23}

Faculty Development

As a result of the 2004 Task Force report, and in recognition of the need to prepare teachers to work with IMGs, the Association of Faculties of Medicine of Canada developed a Faculty Development Program for Teachers of International Medical Graduates. Funded by Health Canada, they released a series of online modules in 2006 (Appendix 4). Subsequent Health Canada grants funded the dissemination of this work in faculties of medicine across Canada. Virtually all faculties participated in these train-the-trainer workshops in 2007 and 2008, with occasional use made of the materials since this time. Sustainable faculty development to address the specific needs of IMG trainees remains an issue despite many postgraduate offices commenting that they are developing, or would like to use these online materials for their teachers.

IMG Outcomes in Postgraduate Education

There is an increasing number of IMGs taking the CFPC certification examination, and they now represent about 30% of the candidates. There are two routes to the CFPC certification examination for IMGs, one through practice eligibility and the other through a residency program. There is a complex and detailed selection process for IMGs into family medicine residency programs and detailed requirements for the practice eligibility route. Despite this, the success rate for all IMGs in Canadian family medicine residency programs on the College of Family Physicians of Canada (CFPC) certification exam is significantly lower than for CMGs, and has been decreasing over time. In 2007, CMG's overall success rate on the CFPC exam was 90.4%, whereas the success rate for IMGs was 66.0%. In 2008, the pass rate was 74% for residency-trained IMGs. In 2009, it was 64%, and, in 2010, there was a 51% success rate on this examination. A similar pattern was reflected in IMGs coming from a practice eligible route (non-residency trained) but with much higher failure rates. Notably, the failures were triggered by both the written and the oral components of this examination equally.²⁴ The reasons for this discrepancy are not well understood but may include: the heterogeneity of the IMG candidate population; the different routes (practice eligibility and residency programs) by which an IMG can enter the examination process; learning and adjustment issues during a relatively short two year residency program; the inability of programs to remediate within this time frame; and other factors yet to be determined.²⁵ When IMG's in-training evaluation reports (ITERs) were compared to CMGs in a family practice residency program in British Columbia, the IMG residents were not significantly different to their Canadian-trained counterparts.⁵ More recent results from this program in British Columbia demonstrated a marked increase of up to 82% in the pass rate on the family medicine examination in both 2009 and 2010. The reasons are not entirely clear; however, the IMG residents in this program have specific needs-designed electives and receive intensive preparation for the examinations. These candidates also have a very low failure rate on the communication skills component.²⁶

On the examinations of the Royal College of Physicians and Surgeons of Canada (RCPSC), the relative success rates between IMGs and graduates of Canadian medical schools is less striking, but still different. From 2005 to 2009, for candidates on their first attempt, the CMG pass rate for primary specialty examinations was 95%, while the IMG pass rate was 76%; for subspecialty examinations, the success rates were 96% and 75% respectively. There are a number of differences between the two specialty colleges. The training time for the RCPSC is at least double that of the CFPC programs and the RCPSC includes graduates of US LCME accredited medical schools in their IMG numbers, although there are only a small number of US graduates.²⁷ This latter group of candidates have undergraduate curricula which are completely compatible with the CMG.

Neither of the interviewed experts were sure why some IMGs were performing poorly on their College examinations while others performed very well.^{24,27} The examinations are an assessment at a point in time, while in-training evaluation, with multiple observations of multiple competencies by multiple assessors is a more valid way to determine the performance of an individual. There is ongoing work by MacLellan, Brailovsky and colleagues suggesting that a period of time similar to clerkship improves performance on the certification examination. Perhaps this different learning environment or additional time provides the necessary adjustment to a new clinical and learning environment with less clinical responsibilities prior to residency training. These researchers postulate that it is during this learning phase that an IMG learns to translate and integrate the knowledge with clinical decision-making - a skill usually acquired during clerkship.²⁵

This differential success rate in examinations is not a Canadian phenomenon: it is found in the USA and in the UK as well.^{20,28-30} Different hypotheses have been proposed for the lower success rates for IMGs: difference in medical education and variable length of training²⁰, length of time since medical school graduation and clinical experience; financial and family obligations; traumatic experiences and different cultural beliefs about gender roles, as well as communication difficulties.³¹ In addition, native English speakers unsurprisingly do better on high stakes clinical skills examinations conducted in English.³² There seems to be a fair consensus that recent clinical experience, performance on standardized examinations, as well as younger age and recent graduation from medical school are all reasonable predictors for success of IMGs' performance as residents.³²⁻³⁷ It has been speculated as well that older IMG residents may find it harder to adapt their work habits and change to the unique expectations of the US medical system.³⁵ American residency program directors also found international medical school grades and reference letters particularly difficult to assess due to differences in nature, quality, and methodology. Generally, they value standardized testing, personal interviews, and characteristics notes (i.e. age, length of time since medical school graduation and language proficiency).^{35,36-37} In the UK, one study demonstrated that no matter what their ethnicity, UK graduates were more likely to be selected for general practitioner training positions than graduates of African or Asian medical schools.

Special factors for IMG residents and ethical issues

It is common for IMGs to be required to provide a return-in-service commitment to an underserved region in exchange for a residency position. Unfortunately, this seldom allows the IMG to provide service to his or her own community, which may also be underserved. The IMGs interviewed for this project accept the return of service obligation as part the requirement for licensure to practice in Canada. However, the reality of leaving their ethnic community for an underserved area often holds more challenges than it does for someone raised in Canada. IMGs are extremely vulnerable when signing these contracts since this is often their only route to becoming a physician in Canada.³⁸

Summary

The Canadian social contract requires that IMGs be incorporated into postgraduate medical education. There is a social responsibility to integrate immigrants into the Canadian workforce; and they bring a diversity of experience and cultures to training programs and to patient care.

Growing numbers of IMGs are admitted to residency programs in Canada; however, the numbers of applicants remain high relative to those that can be accommodated.

Tools to assist with the selection of IMG candidates most likely to succeed during Canadian postgraduate training are needed. A nationally administered assessment process is welcomed, and research into assessment outcomes will be critical.

The failure rate for IMGs in terminal (end of residency) examinations is significantly higher than for Canadian medical school graduates. Many IMGs require special programming during residency. It is uncertain whether this is due to difficulty in selecting the right applicants, providing the orientation and training needed, inadequate support through the training programs and the terminal examinations, if the exams are adequately testing their competencies – or perhaps a combination of the above. It is clear that there are major problems that must be addressed.

There is greater diversity amongst IMGs in the level of competencies that they bring to the start of their residency training than there is in graduates of Canadian medical schools; yet there is little flexibility in their training programs to take this into account. There are multiple programs across Canada to address the needs of IMGs within specific residency programs, or provinces. However, there does not appear to be a national systematic approach that would allow the integration of all the identified components in a thoughtful way that would incorporate the knowledge and experience of various IMG programs across Canada.

There is an exponentially increasing number of Canadian students studying medicine abroad and returning to seek postgraduate training. While their issues are somewhat different than immigrant IMGs, they compete in the same system for postgraduate training. The impact on the system and the integration of immigrant physicians is potentially enormous. Without planning, there is a risk that immigrant IMGs may be displaced from the training positions that would allow them to work as physicians in Canada. The large number of visa trainees in the system, who also require training resources, must also be taken into account.

Teachers of IMGs need to be well prepared for their role. While the educational principles are universal, the cultural aspects of medical education differ. Much of what needs to be taught is tacit knowledge.

Possible directions

A critical first step is to ascertain the starting-point competencies of IMGs and, thus, differentiate those IMGs who are able to enter practice directly after some orientation, and those who require residency training. The National Assessment Collaboration is an important step in doing so.

For those IMGs who are found to require residency training, a pre-residency period would allow IMGs a period of time to become acclimatized to the Canadian environment prior to taking on the level of responsibilities expected of a resident. The pre-residency period could include a systematic and comprehensive orientation to the healthcare system, the medical education system, and patient care activities. The level of responsibility would be somewhat analogous to a clinical clerk: the focus would be on education, through clinical care. This would allow IMGs the

opportunity to integrate their learning, freed of high-level clinical responsibilities. A pre-residency program and assessment period would be best situated external from the responsibility of a designated residency program. This would allow for a more objective assessment of the IMGs individualized learning needs.

Residency programs require the flexibility to adapt training programs to meet the needs of individual IMG residents. This is a challenging task, particularly for large residency programs that have large numbers of IMGs such as family medicine. Nonetheless, as much as possible, residency programs must be supported to individualize programs to meet the diverse needs of these learners. The success of the UBC IMG family medicine program provides an innovative approach with some success.

Resources are desperately required to support the training of IMGs. These include faculty and clinical teachers who are well prepared to work with IMGs, as well as language and communication skills assessment and intervention resources, personal and career counseling, and skilled assessors and remediators in clinical management and decision making.

The increasing numbers of Canadians who are returning from studying medicine at overseas medical schools without an option of postgraduate training in those countries require attention. Immigrant IMGs recognize the need for these physicians to apply for training, but fear that they as immigrant physicians are disadvantaged by reasons of social prejudice. This situation will require monitoring of training numbers to determine if this displacement is, indeed, occurring.

IMGs frequently have considerable stresses during residency training which are not experienced in the same way by CMGs. Support systems involving other IMGs (both residents and faculty) such as mentoring programs and study groups may be helpful. These activities could be directed at both academic and clinical learning, as well as social and cultural activities. Appropriate training for mentors will need to be provided.

Key Messages

1. IMGs require orientation to provide them with the knowledge, both overt and tacit, required to integrate into the clinical and educational environment, as well as support programs for them and their families
2. There is great diversity in the IMGs who come to Canada, which requires in depth assessment both for proper placement and to allow postgraduate programs to adapt to their training needs. Resources are needed to meet this great diversity of learning needs.
3. Teachers need training in order to meet the specific training needs of IMG residents.

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Appendix 1: About the Authors



Dr. Allyn Walsh MD, CCFP FCFP is Professor of Family Medicine and Department Education Coordinator at McMaster University. She is presently Chair, Student Affairs for the Michael G. DeGroot School of Medicine at McMaster, and has held portfolios in postgraduate education and faculty development in her university as well as nationally and internationally. She was the co-editor of the AFMC's Faculty Development Program for Teachers of IMGs and has spent many years as a clinical teacher working with IMGs as well as preparing teachers to work with these learners. Her research interests are in diverse aspects of medical education. Dr. Walsh is the lead for this paper.



Sandra Banner has served as Executive Director and CEO of the Canadian Resident Matching Service since 1986. Ms. Banner has made the CEO position of CaRMS a pivotal position in medical education with involvement in a wide range of medical education activities and an organization which offers bilingual services to over 6,000 applicants and 650 programs nationally. Ms. Banner's research initiatives in medical education include contributing to a series of complementary publications and studies relating to such topics as: Canadians Studying Medicine Abroad, The Barriers to Integrating International Medical Graduates into the Canadian Health Care System, and Trends and Influences on the Career Choices of Graduating Medical Students. She was a co-lead of this paper.



Dr Inge Schabort (MB, ChB, CCFP) is an IMG and Associate Professor of Family Medicine and IMG Coordinator at McMaster University. She practices as a full time academic family physician at the Stonechurch clinical teaching unit at McMaster. She also teaches in and developed curriculum for the provincial IMG program in Ontario. As an IMG who completed postgraduate training in OB/Gyn, Internal Medicine, Immunology, Endocrinology, Biochemistry and Pathology before she was recruited to Canada, she had to compete for an IMG position in Ontario and then repeat her clerkship as well as complete a family medicine residency in the Ontario IMG program. Her clinical and academic interests include medical education, IMG education and advocacy, disease prevention and health promotion, global health, inter-professional care and education, refugee health, women's health, chronic disease management, evidence-based medicine and primary care research.

Dr. Heather Armson (MD MCE CCFP FCFP) is an Associate Professor in the department of Family Medicine at the University of Calgary. Clinically, she practices at the U of C family medicine teaching clinic where she supervises medical students, clinical clerks and family medicine residents including IMGs. She was a co-author of one of the modules developed for the AFMC Faculty Development Materials for Teachers of IMGs. She is the interim faculty development coordinator for the department of family medicine. Her research interests include physician learning, and self-assessment, facilitating practice change and exploring the role of

community in enhancing knowledge translation. She is the research director for the Practice-Based Small-Group Learning Program, a continuing medical education program for family physicians across Canada.



Dr. Michael Ian Bowmer is Executive Director of the Medical Council of Canada (MCC). He is Professor Emeritus and former dean in the Faculty of Medicine at Memorial University in Newfoundland and Labrador. He joined the faculty in 1975 and still practices infectious disease and HIV care at Eastern Health in St. John's. Dr. Bowmer was President of the MCC in 1991 and member of the Royal College of Physicians and Surgeons of Canada (RCPSC) Council and a past Chair of the Accreditation and Credential Committees of the RCPSC. In 1994, he became the first Chair of the Board of the new regionalized Community Health St. John's Region. He was one of the original non-government members of the Health Council of Canada and its vice-chair until July 2010. He is a recipient of Canada's 125th Confederation Medal and in 2003 he was elected to the Royal College of Physicians,

London. He also received the Medical Council of Canada's Louis Levasseur Award in 2004 for contributions to medical education.



Bonnie Granata (BA) is an honours graduate in Sociology from York University with a concentration in Political Science. During her academic career, she co-chaired the Sociology Undergraduate Student Association representing over 1500 undergraduates as the student voice in the Faculty of Sociology. As a former political assistant to a Toronto City Councillor, Bonnie has extensive policy research experience with interests in education, health, government, law, and socio-cultural studies. She is an author of this paper and performed literature searches as well as provided editing, annotating and referencing support to the lead.

Appendix 2: Annotated Bibliography

Hall, Pippa; Kelly, Erin; Dojeiji, Suzan; Byszewski, Anna; Marks, Meridith. Communication skills, cultural challenges and individual support: challenges of international medical graduates in a Canadian healthcare environment. *Medical Teacher* 2004; 26(2):120-125.

Hall et al conducted a needs assessment to assess Canadian IMGs communication skills needs through focus groups, surveys and interviews with IMGs, program directors, allied health professionals, and experts in communication skills. They concluded that IMGs required a combination of language skills, teaching on how to get things done in the healthcare system, opportunities to practice specific skills, support systems, and faculty and staff education on the cultural challenges faced by IMGs.

Curran, Vernon; Hollett, Ann; Hann, Scarlett; & Bradbury, Catherine. A qualitative study of international medical graduate and the orientation process. *Canadian Journal of Rural Medicine* 2008; 13(4):163-169.

This qualitative study conducted telephone interviews of IMGs and senior administrators of medical services in Newfoundland and Labrador. The importance of reflecting on one's own cultural bias and learning and integrating into a new community were key findings. Orientation and mentoring were felt to be important to this, as well as in reducing professional isolation.

MacLellan A, Brailovsky C, Rainsberry P, Bowmer A, Desrochers M. Examination outcomes for International Medical Graduates pursuing or completing Family Medicine Residency training in Quebec. *Can Fam Physician* 2010; 56:912-8.

This study examined the success of IMGs in postgraduate family medicine training on the pre-residency Collège des médecins du Québec medical clinical sciences written examination and objective structured clinical examination, as well as the post-residency College of Family Physicians of Canada Certification examination. Although IMGs were screened prior to entry, and provided with orientation and other supports, their performance on the post-residency certification examination was very significantly lower than that of Canadian and American trained residents, with only slightly more than half passing the terminal examination. The authors suggest a number of reasons for the IMGs' poorer performance including variability of their undergraduate training, how and when they have learned to integrate their knowledge with clinical decision-making, or the diversity of IMGs as a group. The study is on going.

Pilotto LS, Duncan GF, Anderson-Wurf J. Issues for clinicians training international medical graduates: a systematic review. *The medical Journal of Australia* 2007;187:225-228.

A systematic review by Pilotto and colleagues identified key issues for clinicians training IMGs for their medical workforce. Five areas were identified as high level for the clinician teacher: the need for IMGs to adjust to a change in status; for clinicians to understand the high level of language skills required by IMGs; the importance of developing IMGs' skills in communicating with patients; the need to understand IMGs' expectations about teaching and learning; and finally the need for IMGs to be able to interact effectively with a range of people.

Appendix 3: Numbers of International Medical Graduate in Postgraduate Training – 2009-2010

**IMGs in Canadian Post-M.D. Training Programs, 2009/10
Canadian Citizens/Permanent Residents Only
FIELD OF POST-M.D. TRAINING BY TRAINING LEVEL**

Field of Post-M.D. Training	Residents		Fellows		Total	
	Count	Row %	Count	Row %	Count	Row %
Family Medicine	486	99.8%	1	.2%	487	100.0%
Emergency Medicine (CFPC)	16	100.0%			16	100.0%
Care of the Elderly (CFPC)	2	100.0%			2	100.0%
Enhanced Skills: Other Fam. Med. Training	16	76.2%	5	23.8%	21	100.0%
FAMILY MEDICINE SUBTOTAL	520	98.9%	6	1.1%	526	100.0%
Palliative Medicine	2	50.0%	2	50.0%	4	100.0%
TRAINING FOLLOWING FAMILY MEDICINE OR SPECIALTY SUBTOTAL	2	50.0%	2	50.0%	4	100.0%
Anesthesiology	92	84.4%	17	15.6%	109	100.0%
Public Health and Preventive Medicine	43	100.0%			43	100.0%
Dermatology	6	85.7%	1	14.3%	7	100.0%
Diagnostic Radiology	31	63.3%	18	36.7%	49	100.0%
Neuroradiology			2	100.0%	2	100.0%
Pediatric Diagnostic Radiology			1	100.0%	1	100.0%
Emergency Medicine (RCPSC)	20	100.0%			20	100.0%
Critical Care (Emergency Med.)	1	100.0%			1	100.0%
Internal Medicine	215	98.2%	4	1.8%	219	100.0%
Cardiology (Int.Med.)	16	50.0%	16	50.0%	32	100.0%
Clin. Imm./Allergy (Int.Med.)	1	50.0%	1	50.0%	2	100.0%
Clin. Pharmacology and Toxicology (Int.Med.)			1	100.0%	1	100.0%
Critical Care (Int.Med)	5	62.5%	3	37.5%	8	100.0%
Endocrinology/Met. (Int.Med.)	5	100.0%			5	100.0%
Gastroenterology (Int.Med.)	9	90.0%	1	10.0%	10	100.0%
Geriatric Medicine (Int.Med.)	3	75.0%	1	25.0%	4	100.0%
Hematology (Int.Med.)	1	33.3%	2	66.7%	3	100.0%
Infectious Diseases (Int.Med.)			1	100.0%	1	100.0%

Field of Post-M.D. Training	Residents		Fellows		Total	
	Count	Row %	Count	Row %	Count	Row %
Medical Oncology (Int.Med.)	8	53.3%	7	46.7%	15	100.0%
Nephrology (Int.Med.)	10	76.9%	3	23.1%	13	100.0%
Respirology (Int.Med.)	4	57.1%	3	42.9%	7	100.0%
Rheumatology (Int.Med.)	16	84.2%	3	15.8%	19	100.0%
Medical Genetics	12	85.7%	2	14.3%	14	100.0%
Neurology	40	81.6%	9	18.4%	49	100.0%
Neurology (Pediatrics)	13	86.7%	2	13.3%	15	100.0%
Nuclear Medicine	2	100.0%			2	100.0%
Occupational Medicine	2	100.0%			2	100.0%
Pediatrics	77	92.8%	6	7.2%	83	100.0%
Adolescent Medicine (Ped.)	1	100.0%			1	100.0%
Cardiology (Ped.)	2	40.0%	3	60.0%	5	100.0%
Clin. Imm./Allergy (Ped.)	1	100.0%			1	100.0%
Clinical Pharmacology and Toxicology (Ped.)			4	100.0%	4	100.0%
Critical Care (Ped.)	4	50.0%	4	50.0%	8	100.0%
Endocrinology/Met. (Ped.)			4	100.0%	4	100.0%
Gastroenterology (Ped.)			1	100.0%	1	100.0%
Developmental Pediatrics			1	100.0%	1	100.0%
Pediatric Emergency Med. (Ped.)	2	40.0%	3	60.0%	5	100.0%
Hematology/Oncology (Ped.)			2	100.0%	2	100.0%
Infectious Diseases (Ped.)			1	100.0%	1	100.0%
Neonatal-Perinatal Med. (Ped.)	9	50.0%	9	50.0%	18	100.0%
Nephrology (Ped.)	1	100.0%			1	100.0%
Rheumatology (Ped.)			1	100.0%	1	100.0%
Physical Medicine & Rehab.	17	100.0%			17	100.0%
Psychiatry	147	94.2%	9	5.8%	156	100.0%
Radiation Oncology	20	87.0%	3	13.0%	23	100.0%
MEDICAL SPECIALTIES SUBTOTAL	836	84.9%	149	15.1%	985	100.0%
Laboratory Med. (Undifferentiated)	4	100.0%			4	100.0%

Field of Post-M.D. Training	Residents		Fellows		Total	
	Count	Row %	Count	Row %	Count	Row %
Anatomical Pathology	78	96.3%	3	3.7%	81	100.0%
General Pathology	20	100.0%			20	100.0%
Hematological Pathology	6	100.0%			6	100.0%
Medical Biochemistry	11	100.0%			11	100.0%
Medical Microbiology	4	80.0%	1	20.0%	5	100.0%
Neuropathology	2	100.0%			2	100.0%
LAB MEDICINE SPECIALTIES SUBTOTAL	125	96.9%	4	3.1%	129	100.0%
Cardiac Surgery	6	46.2%	7	53.8%	13	100.0%
Critical Care (Cardiac Surg.)	1	100.0%			1	100.0%
General Surgery	64	88.9%	8	11.1%	72	100.0%
Colorectal Surgery	1	100.0%			1	100.0%
Critical Care (Surgery)	1	100.0%			1	100.0%
Gen. Surgical Oncology	1	100.0%			1	100.0%
Pediatric General Surgery	1	100.0%			1	100.0%
Thoracic Surgery	1	33.3%	2	66.7%	3	100.0%
Vascular Surgery	3	100.0%			3	100.0%
Neurosurgery	12	80.0%	3	20.0%	15	100.0%
Obstetrics/Gynecology	37	84.1%	7	15.9%	44	100.0%
Gyn. Oncology			2	100.0%	2	100.0%
Gyn.Rep.Endocrin./Infertility	1	100.0%			1	100.0%
Maternal-Fetal Med. (Ob.)	2	66.7%	1	33.3%	3	100.0%
Ophthalmology	6	46.2%	7	53.8%	13	100.0%
Otolaryngology - Head and Neck Surgery	7	63.6%	4	36.4%	11	100.0%
Orthopedic Surgery	55	82.1%	12	17.9%	67	100.0%
Plastic Surgery	7	87.5%	1	12.5%	8	100.0%
Urology	6	50.0%	6	50.0%	12	100.0%
SURGICAL SPECIALTIES SUBTOTAL	212	77.9%	60	22.1%	272	100.0%
Total	1695	88.5%	221	11.5%	1916	100.0%

Appendix 4: Relevant Websites

A Physician Human Resource Strategy for Canada
www.physicianhr.ca

CAPER Annual Census of Post MD Trainees
www.caper.ca

The Centre for the Evaluation of Health Professionals Educated Abroad (CEHPEA) Information about the Ontario assessment centre.
<http://www.cehpea.ca/>

Canada's Health Care Providers. Information about health human resources in Canada
<http://secure.cihi.ca>

The National Assessment Collaboration. A description of this initiative.
http://www.mcc.ca/en/research/national_assessment_collaboration.shtml

Association of Faculties of Medicine of Canada. Faculty Development Program for Teachers of International Medical Graduates 2006. Materials prepared for faculty developers and individual teachers working with IMGs
<http://www.afmc.ca/img/>

Society of Teachers of Family Medicine Web based courses for teachers of IMGs
<http://www.anfammed.org/cgi/content/full/8/3/275>