Using CanMEDS to guide international health electives: an enriching experience in Uganda defined for a Canadian surgery resident

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Background: Surgery residents who wish to travel during their residency will often seek an elective experience in a low- or middle-income country. Objectives for international health electives (IHEs) are often vague and poorly defined. Further, feedback to, and evaluation of, the resident after the IHE are often not specific because international preceptors are not familiar with the desired educational outcomes of Canadian residency programs. Residents who choose an elective in a low-income country usually anticipate that they will contribute some medical service to an existing impoverished health care system, and in this setting, they hope to gain exposure to a high operative volume with potentially fewer institutional and administrative obstacles. **Methods:** In this paper, we describe one resident's elective experience in Mbarara, Uganda. In addition to her clinical experience, the resident performed a retrospective audit of surgical admissions. After her elective, we asked the resident to reflect on her experience and to use the Canadian Medical Education Directives for Specialists (CanMEDS) framework to describe the challenges she encountered and to define the learning outcomes gained with respect to each CanMEDS role. **Results:** We discovered that the resident had a rich and insightful educational experience when discussed in this context. As a result, we have created a guide for structuring postgraduate IHEs around the CanMEDS roles, using them to ask pre- and postelective questions to develop relevant and practical IHE objectives. **Conclusion:** We propose that this guide has the potential to improve both resident preparation before international experience and also subsequent evaluation of resident performance in this ill-defined area. More important, we found that IHEs are a useful vehicle to evaluate resident achievement of the CanMEDS competencies in a way that is reflective, realistic and representative of the multiple challenges involved when working in international health.

Contexte : Les résidents en chirurgie qui veulent voyager au cours de leur résidence cherchent souvent un stage au choix dans un pays à revenu faible ou moyen. Or, les objectifs des stages au choix en santé à l'étranger (SCSE) sont souvent vagues et mal définis. De plus, les commentaires fournis aux résidents après le SCSE et l'évaluation sont souvent non spécifiques parce que les précepteurs étrangers ne connaissent pas bien les résultats de la formation que visent les programmes de résidence du Canada. Les résidents qui choisissent un stage dans un pays à faible revenu prévoient habituellement fournir des services médicaux à un système de santé appauvri et dans ce contexte, ils espèrent pratiquer de nombreuses interventions chirurgicales et connaître peut-être moins d'obstacles institutionnels et administratifs. **Méthodes :** Dans cette communication, nous décrivons l'expérience d'une résidente en stage à Mbarara, en Ouganda. Outre son expérience clinique, la résidente a effectué une vérification rétrospective des admissions en chirurgie. Après son stage au choix, nous lui avons demandé de formuler des réflexions sur son expérience et d'utiliser le cadre des compétences essentielles pour les médecins spécialisés canadiens (CanMEDS) pour décrire les défis qu'elle a dû relever et définir les résultats de l'apprentissage acquis en ce qui concerne chaque rôle CanMEDS. **Résultats :** Nous avons découvert que la résidente avait connu une expérience de formation enrichissante qui lui a ouvert des horizons dans ce contexte. C'est pourquoi nous avons créé un guide afin de structurer les stages postdoctoraux au choix à l'étranger autours des rôles CanMEDS et nous l'avons utilisé pour poser des questions avant et après le stage au choix afin d'établir des objectifs pertinents et pratiques. **Conclusion :** Nous sommes d'avis que ce guide pourrait améliorer à la fois la préparation du résident avant son expérience à l'étranger et aussi

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l'évaluation ultérieure de son rendement dans ce domaine mal défini. Il y a encore plus important : nous avons constaté que les stages au choix en santé à l'étranger sont un moyen utile pour évaluer l'acquisition par le résident des compétences CanMEDS d'une façon réfléchie, réaliste et représentative des multiples défis à relever en santé internationale.

During their residency, some trainees pursue an elective in an international destination, which in this paper we call an "international health elective" (IHE). For these trainees, who typically have some previous travel experience and interest in international health, the arrangement requires significant preparatory planning. For residents who choose a low- or middle-income country, the challenges and differences in health care systems and available resources, compared with those of high-income countries such as Canada, are vast. At the outset of an IHE, the objectives for the elective are often broad and vague, unlike the objectives for residents in most surgical training, which are clearly defined by the surgical subspecialty or type of surgical disease. For example, the original objective for the resident's IHE that is described in this paper was "international surgery experience in Uganda." Vague objectives typically lead to nonspecific evaluation of the resident's performance by the international preceptor because the objectives of the surgical residency may not be clear or relevant to the international environment. Objectives for IHEs in general are not clearly defined because, owing to its locale, each IHE experience is considered unique in many respects. However, in seeking to further define the IHE experience for our surgical resident, we asked her to assess her learning within the context of the Canadian Medical Education Directives for Specialists (CanMEDS) roles. In this process, we discovered that this framework helped the resident to reflect at multiple levels on the educational outcomes she achieved, and these were found to be more robust than expected. We propose that this method could assist in standardizing the objective-setting process for IHEs and could also assist in refining resident evaluations.

The CanMEDS roles

The CanMEDS roles were introduced in 1996 and recently revised in 2005.[1] They have become an internationally recognized medical education framework outlining the core competencies that physicians in training and in professional development should strive to possess. The core roles include the central role of medical expert as well as the roles of communicator, collaborator, health advocate, manager, scholar and professional.[2] Each of these roles has key competencies, and Canadian postgraduate trainees are assessed throughout their training on the basis of their ability to demonstrate these competencies. Discovering innovative methods to teach and to assess the CanMEDS roles throughout residency training has become a widespread challenge and topic of increasing medical education research.

Using a Canadian general surgery resident's IHE experience at the Mbarara University Teaching Hospital (MUTH) in Southern Uganda, we will illustrate how an IHE can be organized and evaluated in a formative way within the framework of the CanMEDS competencies.

An IHE in Uganda

To gain surgical experience in a low-income country, a third-year general surgery resident from the University of Calgary dedicated 8 weeks from November 2004 to January 2005 to work with the surgical team at MUTH. The following is her description of the IHE.

Uganda is a low-income, landlocked country in East Africa with an estimated per capita gross domestic product (GDP) of about US$250 The estimated population for 2005 was 26.7 million, with 60.5% aged 10–59 years. The average life expectancy is 43 years, and the adult literacy rate (i.e., those ≥ 15 y) is 69%. About 80% of the population is rural, and the predominant occupation is farming.[3,4] In comparison to Canada, which ranks fifth in the Health Development Index, spends 6.7% of its GDP on public health and has 209 physicians per 100 000 people, Uganda ranks 144th on the Health Development Index, spends 2.1% of its GDP on public health and has only 5 physicians per 100 000 people.[5]

MUTH is a 350-bed hospital located in the Mbarara town and district, about 283 km southwest of the capital city, Kampala. The population of Mbarara district was 1 093 388 according to the 2002 census.[6] The hospital, however, has a much larger catchment area, nearing 2 million people, because it serves as a regional referral hospital for the neighbouring districts. MUTH is 1 of 2 teaching hospitals in Uganda. Mulago, the other teaching hospital, is located in Kampala and is the national referral centre. MUTH is the teaching hospital for Mbarara University of Science and Technology, which opened its medical school in 1989. The general surgery residency program was started in 2002. On average, 2 residents are accepted into the program each year.

Most of the patients treated at MUTH are from the surrounding rural communities, and patients often travel a great distance to obtain medical attention. Many of these patients speak local languages and do not speak English. Further, expatriate medical staff and indigenous medical workers often do not know the local languages.

At the time of the IHE, the surgery department at MUTH had 1 orthopedic surgeon and 3 general surgeons, 1 of whom had neurosurgery experience and 1 of whom had urology experience. Plastic surgery and

otolaryngology coverage was provided by visiting international surgeons. Obstetrics and gynecology formed a separate department and did not form a significant component of the IHE. In addition to running the surgical outpatient clinic, the general surgery residents participated in the management of patients on the emergency and surgical wards. Interns training to be general practitioners also rotated on the surgical service and assisted with patient care.

As in Canadian hospitals, the day began with rounds on the surgical wards followed by clinic, surgery or seeing patients in the emergency ward. The interns on the surgical service saw all patients who presented to the emergency ward. The surgeon had 1 or 2 operative days weekly, with 4–5 cases scheduled per day. However, that was where any similarity to the Canadian health care system ended. For example, operative procedures were not necessarily performed, owing to circumstances such as lack of electricity, anesthetic agents and/or blood products. On clinic days, patients who had often travelled many kilometres to the hospital would line up in the hall of the ward to be assessed by the senior surgical residents seated at a large table. Patients were afforded little privacy; if examination was needed, an examination table with a limited curtain was available. Two nurses who spoke the local language were also present to document the patient information and the presenting complaints. The nurses were very helpful in either identifying patients who spoke some English or acting as interpretors. Although nurses were responsible for distributing medications and providing wound care, the patients' families and friends were the providers of hygiene and nutrition. There were no prehospital emergency medical services: patients were brought to the hospital by family, friends, police or a passerby. Essentially, there was no capacity for services such as mechanical ventilation, electrocardiography or portable radiology. Plain film radiology, pathological and laboratory services were generally only available during the day. Ultrasound services were unreliable and provided by an off-site private clinic. Limited financial, human and medical resources posed significant restrictions on the care that could be provided.

A retrospective chart review of surgical admissions at MUTH

During the IHE, the Canadian resident sought to explore activities beyond clinical and surgical duties that would provide opportunities to understand and research her international centre further. Under the supervision of her Ugandan preceptor, the resident performed a retrospective audit of surgical admissions to MUTH in 2003. Patients' charts were organized in the MUTH medical records department by year and by the admitting service. In recent years, an Epi-Info 6.0 (Centers for Disease Control) database had been created to record patient demographics, admission diagnoses and procedures. From this database, the resident extracted information on all patients admitted to the surgical service in 2003 from the emergency department or direct to the ward. To assist in data analysis, admitting diagnosis and type of procedure performed were used to categorize patients into trauma and nontrauma groups. The resident further organized these data into more specific surgical categories (i.e., general surgery, orthopedics, urology, otolaryngology/dentistry or plastics). To gain additional information, she manually performed an in-depth chart review on 120 randomly selected general surgery patients.

Hospital charts at MUTH consisted of legal-sized white paper clipped into a preprinted heavier paper folder. A hospital number, patient name and admission diagnosis was written on the outside of the folder. Each time a patient was admitted to MUTH, he or she received a new number and chart. When discharged, patients received a discharge form indicating the chart number, admitting diagnosis, treatment received and discharge plan. If patients brought these forms to subsequent hospital visits, old records could be located. When patients were sent for any investigations, including blood work or diagnostic imaging, the requisition was written on one side of a printed investigation sheet. Once the test was completed, the result was written on the other side of the requisition and given to the patient to return to the physician to be inserted into his or her chart.

Information extracted from the detailed chart review included diagnosis, number and type of laboratory tests and diagnostic imaging conducted during the hospital stay, surgical procedure (if performed), training level of the primary surgeon and the use of pathology services. Surgical procedures were recorded in the patient's chart as a written operative note; there were no formal dictated operative reports. Procedures were recorded as "planned" if the patient left the hospital before a procedure was performed. This was a fairly common event owing to the limited financial resources of patients and/or a shortage of supplies such as drugs, blood and sundries. The primary surgeon was defined as the most senior surgeon attending the procedure according to the written operative note.

Results of the chart review

From January 1 to December 31, 2003, there were 2938 admissions to the surgical service. Of these records, 63 contained only a patient name and had to be excluded from further analysis. For the remaining 2875 records, the average age of surgical patients was 27 years, and 65% were male; 81% of admissions were from the emergency ward and 19% were elective. The overall operative rate for all surgical admissions was 32%, and the overall inpatient mortality rate was 4%; 29% (842)

of the admissions were classified as trauma admissions (Table 1).

Of the 842 trauma admissions, 77% of the victims were male, the operative rate was 20%, and the inpatient mortality rate was 5%; 28% (236) of the trauma patients had no mechanism of injury (MOI) documented. Of those recorded, the most common MOI was road traffic incident (45%), and the second most common was assault (15%). Among the patients with a recorded MOI, 26% did not have any documentation concerning their actual injuries. The most common recorded injury was head injury (34%).

Of the 2033 nontrauma surgical admissions, 63.2% (1285) were classified as general surgery admissions. Of these patients, 38% (488) were coded as having had a surgical procedure. Only 65% (317) had documentation describing the procedure performed. The most common general surgical procedures included soft-tissue procedures such as débridement, biopsy, incision and drainage of abscess (48%), abdominal procedures (22%) and hernia repairs (17%). Interestingly, there were only 30 (6%) cases of diagnosed appendicitis (of which 19 were managed nonoperatively), only 4 cases of cholecystitis and no cases of diverticulitis.

Of the 120 charts reviewed in further detail, 1 was excluded because it only contained a patient name. Table 2 summarizes the data extracted from the 119 charts. Perioperative investigations were routinely used in less than one-half of the patients. Further, only one-third of patients received any diagnostic imaging. Of the patients admitted to the surgical ward, 61% underwent an operation, with a staff surgeon performing over one-half of these procedures. Of the 73 patients who underwent a surgical procedure, only 24 (33%) had specimens sent to pathology, with 13 being fine-needle aspirates and 11 being tissue specimens.

In the review of patient records, a fair amount of data were missing: 2% of the data in the Epi-Info 6.0 database contained no information except the patient's name. Among the trauma patients, the database frequently did not record injuries and MOI. Among the nontrauma patients who underwent surgery, documentation describing the procedure performed was missing in 34% of the records. Information was more complete in the actual written charts, but information regarding the primary surgeon for a surgical procedure, for example, was missing in 12%.

Table 1

Surgical admissions at Mbarara University Teaching Hospital, Uganda, in 2003

Surgical category	Admissions category; %	
	Nontrauma *n* = 2033	Trauma *n* = 842
General	63.2	84.0
Orthopedics	17.7	14.4
Plastics	7.4	0.1
ENT/dentistry	4.9	1.1
Urology	4.3	0.2
Unable to categorize	2.5	0.2

ENT = ear, nose, throat.

Table 2

Detailed review of 119 surgical charts at Mbarara University Teaching Hospital, Uganda, in 2003

Chart details	No. of cases (%)
Laboratory investigations	
Yes	55 (46)
If yes, 1 lab test only	30
If yes, CBC only	21
Diagnostic imaging	
Yes	38 (32)
If yes, plain films done	12
If yes, ultrasound done	28
Surgical procedures	
Performed	73 (61)
Planned	13 (11)
None performed/planned	33 (28)
Primary surgeon (of procedures performed)	
Staff	42 (58)
Surgery resident	14 (19)
Other resident	6 (8)
Intern	2 (3)
Not documented	9 (12)
Pathology (of procedures performed)	
Yes	24 (33)
If yes, fine needle aspiration	13
If yes, tissue specimen	11

CBC = complete blood count.

Exploring CanMEDS roles in the IHE

The experience at MUTH in Uganda provided an excellent opportunity for a Canadian surgical resident to gain a new appreciation of the very different methods of health care employed in a low-income country. In particular, this IHE challenged the resident in the following areas:

1. Clinical decision-making with minimal or no diagnostic tests.
2. Less resident supervision by senior surgeons.
3. Limited record-keeping, with large amounts of data missing from hospital charts.
4. Considerable financial constraints among patients, who could not therefore afford suggested treatments.
5. Limited hospital material resources, which restricted medical services that could be provided.
6. High patient volume with few available physicians and health care workers.
7. Cross-cultural communication barriers.

Below, the resident's reflections on her learning experiences are summarized within the context of the CanMEDS roles.

Medical expert

This role was found to be particularly challenging because there was less supervision by senior medical or surgical staff, less support staff capacity, less laboratory and radiology diagnostic capability and greater breadth of clinical and technical skill required to treat

the vast spectrum of patient disease. Canadian residents are accustomed to regularly discussing important medical decisions with a supervising physician and usually operate with a senior surgeon present. This was not consistently the case during the IHE. At MUTH, residents operated without direct supervision at least 30% of the time. In addition, only 46% of patients had preoperative blood work, and only 32% had imaging studies. Clinical diagnosis relied more heavily on history-taking and physical examination skills. This experience was valuable for developing more refined clinical skills and was obviously a very different experience from that obtained in a Canadian tertiary care centre, where multiple laboratory and radiologic investigations are readily available and almost invariably used in preoperative assessment.

Communicator

The communicator role was challenged on many levels in this international surgical elective. In Uganda, the official national language is English, but most patients encountered had little or no knowledge of the English language. This made communication with patients and their families a significant challenge. Communication in this context required the use of interpreters; this was a skill that gradually improved while the resident worked at MUTH. As a foreigner, understanding cultural differences and having awareness, sensitivity and humility while communicating with patients and their families was crucial.

Collaborator

Limited written documentation was notable and quantified in the chart review performed. This is likely a common finding in hospitals in low-income countries. As such, effective and thorough verbal communication skills were required and mandatory when interacting with health care staff to ensure that patient care was maximized.

Health advocate

During this elective, local epidemiologic data were gathered from available records to describe prevalent patient care and public health issues. Local physicians are overwhelmed by huge patient care volumes and often do not have the opportunity or guidance to audit their outcomes. The information for the chart review was gathered with assistance from the local staff and could be used to develop local strategies to improve patient care and potentially develop preventative health care interventions. For example, it was discovered that, of all trauma-related injuries presenting to the MUTH, one-third were head injuries. It was observed that both drivers and passengers of the commonly used "boda-boda" (a local motorcycle taxi), as well as cyclists, rarely wore helmets. This chart review could serve as the starting point for the development of prevention strategies (i.e., helmet laws, road safety education) and treatment guidelines (i.e., head injury management protocol).

Manager

In an environment with limited resources, including limited laboratory, radiology and pathology capacity, the need for investigations had to be carefully evaluated on an individual patient basis. Unlike Canadian hospitals, where admission routinely involves blood tests and radiologic investigations for patients, use of perioperative investigations was found to be severely limited at MUTH. Multiple reasons contributed to this finding, such as limited availability of test reagents, temporary loss of electricity and patients' inability to pay for the tests. Ordering such tests required significant consideration of their necessity to the patient's outcome and care. This also led to clinical decision-making challenges, many of which had ethical overtones. For example, the decision regarding which patient(s) would undergo a much-needed procedure on a certain day was based on the availability of blood or anesthetic agents. Such difficult yet necessary decisions had to be made daily; these were emotional but practical decisions not normally encountered in Canadian health care.

Scholar

The epidemiologic review identified limitations in health information systems and resources at MUTH. Sharing the chart review process with MUTH staff may lead to a local initiative to make simple and inexpensive changes to improve their record keeping. The resident also exercised the role of scholar by teaching local residents and medical students.

Professional

In the setting of an international elective, the role of professional proved to be a unique challenge for an expatriate resident. Not only is the culture different from that in Canada, medical standards are also vastly dissimilar. Working as a professional in this environment necessitated flexibility. The experience required adapting to other equally legitimate approaches to surgical care owing to the pervasive lack of medical supplies and to the poverty of the general population. The practicalities of providing ethical and culturally sensitive surgical care in this setting were eye-opening. For a foreign surgical trainee visiting a low-income country, the role of professional went far beyond simply gaining clinical experience in a tropical environment: it illuminated the complexities of enabling basic surgical care for all while struggling with the global disparities that exist in surgical care.

Discussion

IHEs have been recognized previously as providing educational benefits to North American residents and medical students.[7] Beneficial effects include increased interest in primary

care and underserved community settings, improved clinical skills, improved knowledge of tropical diseases and valuable attitudinal changes such as a greater appreciation for public health issues, cross-cultural communication and health service delivery methods. As interest in this area increases, other studies have observed that residency programs offering electives or curricula in international health are considered more attractive to applicants, in particular, to students and residents who have prior international travel experience.[8,9] International electives have also been cited as a means to restore medical students' idealism by promoting increased interest in volunteerism and humanitarian efforts along with more compassion toward the underserved. Students participating in an IHE have been shown to gain heightened awareness of social determinants of health, a broadened global perspective and improved self-awareness.[10]

Jacobs and colleagues[11] have described numerous benefits arising from surgical experience in a low-income country during residency. In particular, a senior surgical resident working on an international surgery team serving villages in the Dominican Republic learned surgical approaches to advanced pathology, the rational limitation of critical surgical procedures in the absence of advanced technology, resource use skills when medical supplies and finances are inadequate, essential organization skills and sensitivity to cultural and linguistic differences. This group suggested that an IHE could be used to prepare a surgeon to practise in rural and underserved areas.[11] Further, Ozgediz and colleagues[12] argue that an IHE should be an essential component of surgical training programs. Learning amid constrained resources, exposure to a broader scope of surgical conditions and pathology, greater reliance on history-taking and physical examination skills in a low-technology environment and understanding the sociocultural aspects of care provision were identified as positive outcomes of a pilot clinical surgical elective in Uganda for American surgical residents. Other issues recognized from developing the IHE

Box 1. A guide to structuring an international health elective (IHE): questions based on the CanMEDS roles*

CanMEDS role[1,2]	Before	After
Medical expert	• What spectrum of disease might I encounter in this IHE? • What medical knowledge can I prepare for and read in advance? • What technical skills (i.e., procedures) might I encounter that I should familiarize myself with?	• Did I encounter the spectrum of disease I anticipated? If not, why? Describe examples. • What diseases did I learn more about? • What procedures did I learn that are different from my home centre?
Communicator	• What is the first language of the city/country of my IHE? • How will I communicate with patients and families that do not speak English?†	• How well did I communicate with patients and families that did not speak English?† • How did I overcome communication barriers that arose (give examples)? • What cross-cultural communication skills did I gain?
Collaborator	• What other health professionals will I be working with? • How could their roles potentially differ from my home centre? • Do/will they speak English† as their first language?	• How well did I communicate with the health care team during my IHE? • What skills/methods did I learn from collaborating with the health care team in the IHE?
Manager	• What are some potential differences in medical and/or hospital practice that I might encounter (i.e., resource management, record keeping)?	• How did the management of the clinic or hospital differ from my home centre? What did I learn from these differences?
Health advocate	• What public health issues are prevalent in the city/country of my IHE? • How might these public health issues affect my elective experience?	• Did I encounter the public health problems I anticipated? If so, how did they affect my experience and how did I approach these problems (give examples)? If not, explain why. • Can I propose any methods that could be initiated to address a public health problem I encountered? Please describe.
Scholar	• What opportunities do I anticipate where I can either teach or do research, or both? How could these activities potentially benefit the centre I will be visiting? • How can I prepare for these possible activities?	• At the centre where I worked, what opportunities were/are now available for me to teach or do research? • What teaching or research did I begin or complete during the IHE (give details)?
Professional	• What ethical challenges do I anticipate I might encounter when working in the city/country I have chosen? • Does the income status of the country pose any moral/ethical dilemmas to consider before departure (please list)?	• What moral or ethical challenges did I encounter during my IHE? • How did I deal with and respond to them (give examples)?

CanMeds = Canadian Medical Education Directives for Specialists.
*It is suggested that these questions be reviewed in collaboration with the international preceptor of the IHE and the program director of the resident training program.
†Or, alternatively, the first language spoken by the resident using this guide.

were greater questions of global health equity, the limited relevant access to information for southern partners and the role of surgery in public health.[12]

Despite the recognized benefits to residents, there is currently no guide to developing a meaningful educational structure for an IHE within postgraduate training programs. Through our efforts in assisting our own surgical resident to evaluate the learning outcomes from her IHE, we developed a set of questions based on the CanMEDS competencies that can be asked by residents, ideally in collaboration with their international preceptors, before and after embarking on an IHE.

Developing a CanMEDS-based guide for IHE objectives

By using the CanMEDS roles to define the learning outcomes achieved from an IHE, we discovered educational outcomes that went beyond typical knowledge and skill competencies (such as exposure to rare tropical diseases, large numbers of surgical procedures and surgical techniques used in low-income country settings). Also captured were broader learning issues, including how to provide care within severe resource limitations, how to cope with limited record-keeping practices and how to approach ethically challenging clinical decision-making; as well, our resident gained knowledge of basic public health concerns in low-income countries and awareness of global health disparities. Many of these learning experiences would not have been formally identified without referring to the CanMEDS roles but are appreciated both by the faculty and resident as critical learning issues for residents who undertake an IHE. The guide we developed (Box 1) may therefore assist residents, international preceptors and program directors to develop meaningful objectives for resident IHEs. Suggested questions are outlined in reference to each CanMEDS role and should be asked before the resident embarks on the elective, and again after the elective, as a self-assessment exercise and as a reflection on the experiences acquired during the elective. The guide should be used in collaboration with the international preceptor to adjust for unique differences in each locale and institution. The questions can be used by the international preceptors to assist in resident evaluation and to attain more specific feedback on resident performance — not only in terms of medical knowledge and surgical technique but also in terms of the many other important factors that are crucial to learn and appreciate when working in international health collaboration.

By basing IHE objectives on the CanMEDS roles, we propose that a more meaningful and robust assessment of the resident's experience abroad can be elicited. This guide can direct the resident to appropriate preparatory work before the elective and can also deepen the value and scope of the evaluation the resident obtains. If objectives can be standardized, IHEs can be identified as excellent assessment tools for many CanMEDS competencies in postgraduate training, and the rich and profound experience of working at an international centre will be recognized for the immense learning it confers.

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