Career planning . . . international EM?

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SUMMARY: An informal discussion of the possibilities of combining emergency medicine and international work during a residency program. A brief summary of emergency medicine related illness in the international setting is presented. An example of a successful combination of international work during residency is given. A list of tips and a starter's list of resources are provided.

RÉSUMÉ : Cet article discute de la possibilité d'associer la médecine d'urgence et le travail à l'étranger au cours d'un programme de résidence. Un bref résumé de maladies liées à la médecine d'urgence dans un contexte international est présenté ainsi qu'un exemple d'intégration réussie du travail à l'étranger au cours de la résidence. Une liste de conseils ainsi qu'une liste de ressources de base sont également incluses.

One of the strengths of emergency medicine lies in its diversity. When I entered the last 2 years of my residency, I began to explore the potential directions my career could take. After conversations with fellow residents, I realized there were many options: research, toxicology, administration, sports medicine, hyperbaric medicine. What could I do? Was there a discipline of "international emergency medicine"? Was there a need? Could I make a living out of it? In this report I outline my experiences with an international EM elective: the context, challenges, resources and tips I learned along the way.

International EM emerges

There are a few international emergency medicine interest groups, including: the SAEM (Society for Academic Emergency Medicine) International Emergency Medicine Group, ACEP (American College of Emergency Physicians), World Association of Disaster and Emergency Medicine, and SIAEMC (Society for International Advancement of Emergency Medical Care). All these began within the last 3 years, and interest has grown quickly. There are also US fellowships in international EM at Loma Linda University, Rhode Island Hospital, and the University of Illinois School of Public Health and Department of Emergency Medicine. Other options less specific to emergency medicine include the Masters of Public Health programs with the Centers for Disease Control in Atlanta or with Harvard University in Boston. Lately, the international section in *Annals of Emergency Medicine* (*AEM*) has provided information on EM in Hong Kong, Jordan and other countries. Some of my colleagues have worked with Médecins sans Frontières (MSF) or non-governmental organizations (NGOs).

In October 1997, a target paper[1] was published in *AEM* emphasizing the need for EM training in the international setting. Emergency curricula to be developed included prehospital care, trauma, disaster management, poison information, education, administration and research. EM is flexible, comprehensive, volume-based, episodic and outpatient-centered. Therefore, it is an important discipline for countries that deal with an increasing prevalence of acute care problems. Emergency intervention has been shown to decrease mortality rates from motor vehicle accidents

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and coronary artery disease. It is hypothesized that the presence of organized EM would help cut health costs. Ways of developing EM in another country include: educating foreign physicians, developing visiting faculty to foreign countries, providing exchanges between physicians, or establishing short training courses where North American physicians would establish the infrastructure for courses such ACLS or PALS.[1]

Given this emergence of international EM, if an EM *resident* went to another country, what could she or he accomplish? How could a resident do international work without a general licence and with limited experience?

The global burden of illness

Are the major determinants of world health EM-related? If so, what can emergency medicine do to help? The answers begin with a perspective of world health and the burden of illness.

There are approximately 50 million deaths per year worldwide; 80% are in developing countries, with the top 3 killers being infectious and parasitic diseases (41.5%), circulatory system diseases (10.7%) and external causes (7.9%). Over 33% of the deaths occur below the age of 5. Death rates are evenly distributed between the age groups 0 to 5, 6 to 65, and older than 65.[2] Public health and sanitation have an important role to play in the health of the developing world. However, there is a disturbing trend in many of the developing countries entering the global market economy (e.g., India, Taiwan, Tobago and Trinidad).[3,4] In these countries, the spectrum of health problems is entering a transition phase that parallels that of developed countries. Injury and violence are taking on epidemic proportions because of "social violence, inadequacy of safety measures in occupational health, and psychological stress in new economic and social conditions."[5] In fact, injury and violence constitute a persistent or increasing cause of death and incapacity worldwide, especially among young people. Suicide is increasingly prevalent. Poverty, unemployment, overcrowding, drug abuse, exposure to violence on the streets and in television, and hopelessness are suggested as reasons.[2] Mortality and morbidity from road accidents continue to rise; the number of vehicles on the road and inadequate road conditions are contributing factors. The numbers are staggering: every year, accidents account for about 4 million deaths, 3.1 million in the developing world.

From a global mortality and morbidity perspective, EM training (with its strengths in primary care, cardiovascular disease, traumatology and toxicology) is well suited for countries in economic transition. With increasing centralization of populations, health care systems will follow. Established primary medical care facilities, including emergency departments and emergency medical systems, may become a priority for these mega-cities.

Currently, emergency medicine is established in North America, the UK, Australia and parts of Asia and Europe. There is great potential for EM to be developed worldwide. For some countries, developing an emergency medical system would not be practical (e.g., parts of Africa, Papua, New Guinea, or war-torn countries such as Afghanistan).[6,7] These regions do not yet have the health infrastructure or financial potential to be able to sustain an emergency medical system. However, in countries in economic transition, it would be prudent to aid their development of our specialty, if interested.

My experience

At the University of Toronto, Dr. Jay Keystone and my program director, Dr. Julie Spence, encouraged me to pursue international work as a resident. I decided to find an elective opportunity in an international setting. I went to visit the Sri Avattom Thirunal (SAT) Hospital, a pediatric and maternity centre in Trivandrum, Kerala, India, for 12 weeks, to complete a research project on the incidence of injury in a surgical pediatric population during 1996. The project was sponsored by a grant from the Canadian International Development Agency (CIDA). I was fortunate to have wonderful supervisors. In Canada, Drs. Andrew McCallum and Rob Alder were my mentors. In India, I was supplied essential data from the Chief of Pediatric Surgery, Dr. S. Hariharan, and was able to use the epidemiological unit of the SAT Hospital. I was also able to work in the surgery wards and operating room as an observer.

The SAT Hospital receives about 100 000 pediatric (ages < 12) visits per year. After I reviewed the 3971 admissions to the surgical ward, my preliminary research hypothesis was confirmed — injury does play a significant

Friendly smile from the backwaters of Kerala.

Pediatric emergency department entrance/waiting room at the SAT hospital.

role in the pediatric admissions to hospital; it accounts for 20% of all admissions and is the third-rank cause of in-hospital treatment. Injury was the second leading cause of mortality, with motor vehicle accidents being the major mechanism of injury. Head injuries, by far, were the main causes of morbidity and mortality. In addition to learning research methodology, I also became convinced of the potential utility of EM in the international setting.

Conclusions

Can emergency medicine and international work be combined? Yes, it can, but not without uncertainty. There is a global need for improved education and training in EM. However, international work in EM has thus far remained as an interest group, so if you are thinking of going overseas to do international work, keep a few things in mind.

1. Do not expect to change the world.
2. Be creative in providing solutions to a country's need for emergency services. The options must be commensurate with the host country's standards, not Canadian standards.
3. Realize that the work ethic in a foreign country is not the same as your home. Plans for research and clinical work may proceed much differently than expected, because of limited resources or differing agendas.
4. Persistence is the key! It took about a year of preparation and phone calls throughout North America to find a project and, ironically, the project was right under my nose!
5. Before making firm arrangements, make sure that your program director accepts your project, and plan. Your project should have comprehensive goals and objectives. Anticipate problems!
6. There are no set funding arrangements for such electives in the Canadian emergency medicine programs. Funding is important. Be creative, and be aware of international development agencies. Currently, there are no set positions for an "international emergency medicine" staff in Canada. Financial backup of this interest is tenuous.
7. If you want to do international work as a long-term career, consider your current situation, including family, spouse and financial obligations. Those who do long-term international work are often away for years at a time.
8. Choose wisely the country you want to visit. Your project goals must be compatible with the facilities available in your chosen setting. Remember, it's unlikely that you will learn about the sophistication of low-molecular-weight heparin for deep vein thrombosis in these settings.
9. Be committed.

Note: A great resource for ideas and funding is CIDA (www.csih.org /yintern.html), in Ottawa. I also recommend *A guide to Canadians for living and working overseas* (Hachey JM, Intercultural Systems, PO Box 588, Station B, Ottawa ON K1P 5P7; 800 267-0105; iss@magi.com).

Any questions, or need for contacts? Contact me at ivy.cheng@utoronto.ca. I look forward to hearing from you!

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