

SPECIAL CONTRIBUTION

Guidelines for Safety of Trainees Rotating Abroad: Consensus Recommendations from the Global Emergency Medicine Academy of the Society for Academic Emergency Medicine, Council of Emergency Medicine Residency Directors, and the Emergency Medicine Residents' Association

Bhakti Hansoti, MBChB, Kate Douglass, MD, MPH, Janis Tupesis, MD, Michael S. Runyon, MD, Tracy Sanson, MD, Christine Babcock, MD, MSc, Gabrielle Jacquet, MD, Erika D. Schroeder, MD, MPH, David Hoffelder, MD, and Ian B. K. Martin, MD

Abstract

The goal of a global health elective is for residents and medical students to have safe, structured, and highly educational experiences. In this article, the authors have laid out considerations for establishing a safe clinical site; ensuring a traveler's personal safety, health, and wellness; and mitigating risk during a global health rotation. Adequate oversight, appropriate mentorship, and a well-defined safety and security plan are all critical elements to a successful and safe experience.

ACADEMIC EMERGENCY MEDICINE 2013; 20:413–420 © 2013 by the Society for Academic Emergency Medicine

Global health electives provide residents and medical students with unique educational experiences. Nearly 30% of all U.S. and Canadian

From the Department of Emergency Medicine, Johns Hopkins University (BH, GJ), Baltimore, MD; the Department of Emergency Medicine, George Washington University (KD), Washington, DC; the Department of Emergency Medicine, University of Wisconsin (JT, DH), Madison, WI; the Department of Emergency Medicine, Carolinas Medical Center (MSR), Charlotte, NC; the Department of Emergency Medicine, University of South Florida (TS), Tampa, FL; the Section of Emergency Medicine, University of Chicago (CB), Chicago, IL; the Department of Emergency Medicine, Providence Regional Medical Center (EDS), Everett, WA; and the Department of Emergency Medicine and the Department of Medicine, Division of General Internal Medicine, University of North Carolina (IBKM), Chapel Hill, NC.

Received June 26, 2012; revision received October 17, 2012; accepted October 20, 2012.

The authors have no relevant financial information or potential conflicts of interest to disclose.

Supervising Editor: Mark Hauswald, MD.

Address for correspondence and reprints: Bhakti Hansoti, MBChB; e-mail: bhakti.hansoti@gmail.com.

medical students have participated in global health electives.¹ Studies show that trainees who rotate abroad demonstrate more sophisticated physical examination and problem-solving skills.² International rotations also remain a source of resident satisfaction³ and a strong recruitment tool for residency training programs⁴; however, significant barriers remain to expanding opportunities for international rotations.⁵ Increased interest from trainees has placed more pressure on educational institutions to offer this unique experience as a significant component of training and therefore to ensure a more structured and safe experience abroad.

To meet this need, many institutions are providing programmatic structure and support for students rotating overseas.^{6, 7} Without structured institutional support, learners are more likely to have inadequate supervision, inferior educational experiences, and suboptimal safety and health planning while abroad.⁸

WHAT IS THE DEFINITION OF SAFETY?

Safety may be defined as freedom from the occurrence or risk of injury, danger, or loss.⁹ Numerous variables must be considered simultaneously to maximize safety while adequately preparing for potential problems. All

global health electives have some inherent level of risk; however, deliberate choices can be made to minimize risk for an acceptably safe experience. Significant differences may exist in the perception of safety from that of the learner to that of the institution. Institutional due diligence is required to ensure that the site is located in a secure geopolitical environment with institutional safeguards. The elective must also fit within an individual resident’s personal comfort zone. All of these elements contribute to the ultimate definition of a global health elective site as “safe.” In this article, we lay out common safety considerations for establishing and reviewing a safe clinical site, mitigating risk during a global health rotation, and ensuring the traveler’s personal health and wellness.

Safety and the Elective Site

In choosing a site, the geopolitical status of the country must be evaluated. Media coverage and governmental resources will likely allude to whether there are current or recent conflicts or threats in the area. The greatest risk faced by the traveler is likely from kidnapping for profit, or blunt trauma,¹⁰ for which one will have to rely on local contacts for information. Invaluable resources are provided by the U.S. Department of State,¹¹ and the Centers for Disease Control and Prevention (CDC).¹² When navigating the U.S. Department of State website, one should be aware of the cautionary principles outlined in Table 1. These websites can be searched by individual country and are a useful resource for visa requirements, embassy locations, current security threats, crime statistics, medical facilities, general health information, and medical insurance options. While sometimes not completely up to date, these sites often provide the only source of objective health and safety data. Note that some institutions will

not permit learners to travel to countries labeled with Travel Warnings or Travel Alerts on the State Department site without a formal waiver stipulating that the learner takes responsibility for the increased liability associated with the international rotation.

Much of the day-to-day safety and security for the trainees depends on the clinical training site to which they are assigned. Even though the country in question may be peaceful and without ongoing conflict, a particular site may be lacking in hospital oversight or local provisions. Ideally, a local supervisor should be identified for the trainee, serving as a guide to facilitate logistics, help with cultural considerations, and navigate the nuances of clinical care. This person should be a primary contact, be easily accessible by the trainee’s home institution, and take responsibility should any complications arise. Housing is a key security concern at the elective site, and information regarding housing safety considerations is expanded in Table 2.

CHOOSING THE RIGHT ELECTIVE ROTATION

Global health electives have a potential for a wide scope of experiences, which can include direct clinical care, involvement in systems-based improvement, public health policy development, and research in the global health setting. It is imperative that the trainee not be expected to perform beyond the scope of his or her practice, and thus it would be unethical for an emergency medicine trainee to expand his or her scope of practice in the global health setting to involve major surgical or obstetric procedures. To avoid this, a trainee should try to mirror the level of responsibility and practice he or she is expected to perform at his or her home institution. This can be achieved with a formal sign-off from the faculty mentor delineating the trainee’s scope of practice.

Research and publication are strong motivators for those wishing to pursue academic development. Students can get into trouble by not understanding cultural issues and methods of getting institutional approval and consent. A research protocol must be developed in conjunction with an experienced faculty advisor prior to the global health elective. All potential research needs to be preapproved by the trainee’s home institutional

Table 1
U.S. State Department Definitions

<p>Travel warnings</p> <ul style="list-style-type: none"> • When long-term, protracted conditions make a country dangerous or unstable. • Include an unstable government, civil war, intense crime/violence, or frequent terrorist attacks. • Embassy/consulate closure, impeding the ability of the U.S. government to aid U.S. citizens. • Indicate that the State Department recommends Americans avoid altogether. • Travel warnings remain in place for years after the situation changes. <p>Travel alerts</p> <ul style="list-style-type: none"> • Issued to disseminate information about short-term conditions. • Either transnational or within a particular country. • Indicate significant risks to the security of U.S. citizens. • Include natural disasters, terrorist attacks, coups, anniversaries of terrorist events. • High-profile events like international conferences/sports generate a travel alert.

Table 2
Key Questions Related to Housing

<ul style="list-style-type: none"> • Will the trainee be housed on the hospital grounds or will he/she stay “off site”? • If staying “off site,” will safe and secure transportation be provided? • Will he/she be staying alone? • What security measures are provided (e.g., door locks, locked compound, security, etc.)? • How is safe food and water provided? • How will the resident or medical student be able to communicate? Is there reliable cell phone or internet service available?
--

review board and that of the visiting site, if applicable, prior to embarking on the elective. Research ethics must be considered: who benefits from the research and what is done with the results?¹³ Authorship of publications can be even more difficult to negotiate with international collaborations and thus should be addressed in advance to avoid misunderstandings and resentment as projects move forward.

CONTINUOUS REVIEW

The learner should be assigned a designated contact both in-country and at the sponsoring institution to ensure monitoring during the elective. Both should be alerted if any security or safety concerns arise, and the learner should have a pre-established escalation plan. Table 3 illustrates adverse events graded by severity and suggested response levels. Adverse events should be documented for review. We recommend a pre-established contact plan between the learner and the sponsoring institution via a weekly phone call, e-mail, or computer telephone (such as Skype, Microsoft Corp., Redmond, WA) to ensure both physical and mental health security and stability. An evacuation plan should also be prepared in advance, to be used if needed.

In addition to a safety and communication plan, a sustainable elective should be continuously monitored and evaluated. The trainee, the sponsoring institution, and a representative from the on-site host institution should participate in this process. All aspects of the rotation should be evaluated, including housing, transportation, supervision in the clinical setting, access to personal medical care, and any political or social changes within the country. Strategies for improvement that would add

value to the experience should be identified and evaluated for future implementation. This can be achieved by expecting each trainee to participate in a formal debriefing moderated by trained faculty from the sponsoring institution on completion of the elective. This may be enhanced by learner evaluation from the local staff, which would include topics such as learner preparation, cultural competency, on-site performance, and professionalism. Candid conversations to identify any safety or security issues, lessons learned, and a recommended skill set to acquire prior to the elective should occur. In addition, the trainee should complete a written, post-elective evaluation of the elective that focuses on the clinical and cultural experience.

Finally, a pre-established committee should complete an annual review of the elective with representatives from both the sponsoring institution and the in-country host institution. The committee should review all pieces of data, including trainee evaluations, host institution evaluations, debriefing sessions, and the trainee's personal reflection. In addition, current events that may affect the safety of the site for future trainees should be considered. Suspension of a global health clinical elective should be strongly considered during times of civil unrest, disease outbreak, and violence toward participants. The Offices of Graduate and/or Undergraduate Medical Education should be included in these discussions as well.

MITIGATING RISK

In this section, we will outline several strategies for mitigating risks for the medical student or resident rotating overseas. These include strategies that the institution, the faculty advisor, and the learner can implement to lessen the risk to health and safety during global health rotations.

Role of the Institution

Parent institutions sending trainees should develop policies for international travel. This allows for institutions to act decisively during times of crisis⁸ and is likely the single most important strategy for any institution sponsoring global health electives. Some institutions, particularly those whose trainee numbers are above the Medicare cap, have begun to embrace expansion of international clinical rotations by assuring resident salary, benefits, and even malpractice insurance while away. This clearly eases the way for residency program directors to send trainees abroad with full support of all stakeholders. This institutional strategy, which does have financial implications, helps to further mitigate risk by assuring all parties (hospital administration, Office of Graduate Medical Education, etc.) are aware of these global health experiences, although formal delineation with risk management as to the scope of coverage and acquired competencies may be necessary to ensure protection in the case of medical liability.

Role of the Faculty Advisor

The faculty advisor plays a central role in mitigating risk to both the traveling learner and the parent institution.

Table 3
Incident and Emergency Response Levels

- Level One: Minor illnesses or trauma, small-scale individual disagreements, discrepancies in attendance, minor lost or stolen property.
→ Incidents handled on-site by local and supervising staff, if recurrent, notify faculty liaison at sponsoring institution.
- Level Two: Incidents requiring emergency medical response, incidents involving local police, threats of violence, muggings, sexual assault, allegations of sexual harassment, political unrest, natural disasters, upgrade to Travel Warning status by the State Department.
→ Incidents or emergencies managed in conjunction with faculty liaison at home institution and possibly other university offices, depending on their severity.
- Level Three: Crisis situations involving the immediate well-being of students, faculty, staff, or significant university resources.
→ On-site leaders and faculty liaison will coordinate the response with appropriate offices across the university and beyond.

Table 4
Role of the Faculty Advisor

<p>Prior to departure</p> <ul style="list-style-type: none"> • Define his or her expectations for communication while overseas. • Outline a detailed plan in case of an emergency, identifying who the student or resident will call in-country (e.g., hosts, police, U.S. Consulate) as well as how the traveling learner will arrange evacuation (medical or political) during an emergency. • Ensure all rotators have medical evacuation insurance and travel health insurance. • Identify a family member or friend who should be notified in case of an emergency. • Identify an individual from the learner's home institution or residency training program (e.g., residency program director) who should also be notified in case of an emergency. <p>During elective</p> <ul style="list-style-type: none"> • Facilitate weekly contact via telephone, electronic mail, or in-person meetings. • Establish a centralized database of contact information for traveling learners in case of crisis. <p>Postelective</p> <ul style="list-style-type: none"> • Formal evaluation and debriefing.

Table 5
A Resident Predeparture Checklist

<ul style="list-style-type: none"> • Participate in a pretrip orientation session prior to travel. • Sign a professionalism agreement related to his or her conduct abroad. • Purchase or provide proof of emergency evacuation insurance coverage. • Attend travel clinic and follow all advised travel precautions. • Review the U.S. State Department Country Report website for travel advisories¹¹ and the CDC website for health-related advisories.¹² • Enroll in the Smart Traveler Enrollment Program (STEP).¹⁵ • Designate emergency contacts home and abroad. Establish emergency "call chain." • Complete all necessary paperwork and provide all necessary documentation to the residency program and the Graduate Medical Education office prior to travel (including a copy of his or her passport, travel itinerary, medical evacuation insurance card, and emergency contact form).

Faculty advisors act as mediators between student learners and institutional leadership to ensure that students understand and follow policies, that decision-making is collaborative and appropriate, and that the student's interests and safety are balanced.

Ideally, the faculty advisor should have detailed knowledge of the sites to which they are sending learners. They should be able to identify one or more local individuals to provide appropriate supervision in-country. They should be aware of in-country accommodations (for housing and meals), transportation means, and any potential safety or health threats. The role of the faculty advisor is further expanded in Table 4. Given the value of faculty advisors, parent institutions can additionally mitigate risk by finding mechanisms to support the time and responsibility required of them.

Role of the Traveling Learner

The trainee also plays an important role in mitigating his or her own risk. Despite the allure of global health rotations, students and residents must embrace and prepare for the unpredictable nature of these experiences.⁸ Overseas rotators must learn and comply with all institutional policies on foreign travel and international rotations. Noncompliance with institutional (university, hospital, residency training program, etc.) policies could mean forfeit of important support and benefits during a time of crisis abroad.

Much of the safety of a trainee on a global health rotation lies in predeparture preparation by the adult learner. Many institutions have predeparture checklists (see Table 5) to help assure that specific details have been addressed. A centralized database of emergency contact information and pertinent insurance informa-

tion should be kept onsite and at the home institution. A single contact number for the trainees to call should be established in case of emergency to avoid confusion.

In addition to meeting with their faculty advisor for the overseas rotation, each traveling learner should make every effort to gain a deep understanding of the health, safety, political, and socioeconomic realities of the country in which he or she plans to rotate.⁶ The traveler can garner this information through organizations like the CDC,¹² the U.S. State Department,¹¹ and the World Bank,¹⁴ just to name a few. Other resources include registering for the Smart Traveler Enrollment Program (STEP) through the U.S. State Department.¹⁵ This program is a must for all international travelers and ensures one remains informed of changing travel advisories. STEP will also enable consular officers in U.S. embassies and consulates around the world to contact the traveler in the event of an emergency. Note: trainees with dual citizenship rotating abroad should enter the host country on their American passport. This may make it easier for the U.S. government to assist troubled students and residents while overseas.

THE TRAINEE'S PERSONAL HEALTH AND WELLNESS

Financial Security

Day-to-day Finances. In general, cash money is usually not as ubiquitous as in the United States. It is important to check with your destination contacts to find out about the accessibility of cash and how much money is required to cover daily living expenses and then add on a generous stipend for sightseeing and personal travel. A site-specific strategy, with many contingency plans, should be developed in advance because

credit cards and ATMs may not be viable options. Learners should also check both fees and exchange rates on accounts they intend to use. Carrying a large amount of money with you is not safe, and one must be wary of black market transactions that subject you to terrible exchange rates and are often extremely dangerous.

Emergency Funds. Access to emergency funds may be obtained via U.S. governmental support, money wiring, and travel or rescue insurance. The U.S. Department of State can establish a secure account so that friends and relatives can safely wire money to help. The traveler can then contact the embassy to make an appointment to receive the money. Monies can also be transferred by wire using commercial vendors. Travel insurance is invaluable at minimizing the financial consequences of loss. Prior to departure, a traveler should check with his or her domestic insurance company and confirm that he or she is covered abroad and has evacuation insurance. Supplemental coverage will likely be an institutional requirement.

Health

Students and residents planning global health rotations should be sure to consult with travel health specialists and establish strategies for managing acute or chronic injury or illness during the period of travel and after returning home. Especially in the pre- and posttravel phases, travelers should resist the urge to serve as their own physicians. Faculty advisors are also discouraged from taking on this role, unless they have particular expertise in travel medicine, as care should only be rendered within the confines of a formal physician–patient relationship. Consultation with a travel health specialist should begin several months in advance, as many times travelers are required to get multiple immunizations over weeks to months in preparation. Referral to a travel health clinic may be available from the traveler's primary care provider, the home institution, or the local health department. Additionally, the International Society of Travel Medicine (ISTM)¹⁶ and the American Society of Tropical Medicine and Hygiene (ASTMH),¹⁷ maintain searchable online directories of private travel clinics throughout the world. The CDC maintains a comprehensive online resource addressing various travelers' health topics.¹⁸

Vaccines. Vaccine recommendations vary depending upon the specific region of travel and the health status of the traveler. Attention should be paid to ensuring that the traveler is up to date on any routine vaccinations in addition to those recommended for a specific region abroad. Some, such as the yellow fever vaccine, may be required by law in order for the traveler to enter a given country, while others, such as the typhoid vaccine, may be considered optional based on the region of travel, planned activities during the trip, and the baseline health status of the traveler. While most vaccines are highly effective at preventing the target disease, none are 100% effective. Therefore, it is important that the traveler is educated on the signs and symptoms of these diseases. Some vaccines consist of a

single dose; others require multiple doses over several days, weeks, or even months. Insurance is unlikely to cover the cost of vaccines, and thus compliance may be improved if the home institution offers to subsidize the cost. All travellers should be required to be up to date with appropriate vaccinations as mandated by the travel clinic at the home institution.

Prophylactic Prescriptions. Pathogens that should be considered as potential targets for prophylactic medications or contingency prescriptions include malaria, HIV, and bacterial enteritis.

Malaria. For those traveling to areas where malaria is endemic, chemoprophylaxis should be taken before, during, and after travel. The choice of a specific medication regimen will depend upon the local susceptibility patterns, side effect profile, and cost. As with vaccination, adherence to a chemoprophylaxis regimen is not 100% protective against the development of malaria. Of note, there is a substantial increase in the possibility of false positive malaria tests and the tendency of medical providers to overdiagnose malaria in endemic areas; thus the traveler should continue his or her malaria prophylaxis regimen during treatment. Additional measures to protect against mosquito-borne illnesses are listed in Table 6.

HIV Postexposure Prophylaxis. Travelers delivering direct patient care and those who are otherwise at risk for blood and body fluid exposure should have a predefined strategy for preventing, risk stratifying, and treating such exposures.¹⁹ The risk of HIV transmission is estimated to be 0.3% after a percutaneous exposure to HIV-infected blood and 0.09% after a mucous membrane exposure. Methods to prevent blood and body fluid exposure include the use of standard, universal precautions with gloves, gowns, masks, and protective eyewear as indicated; careful handling of needles and other sharps; and the proper use of devices with safety features. Percutaneous exposure sites should be immediately washed with soap and water, and exposed mucous membranes should be copiously irrigated. When postexposure prophylaxis is indicated, the medications should begin as soon as possible. The exact reg-

Table 6
Mosquito Avoidance Measures for the Traveler

- Use insecticide on clothes and in living and sleeping areas.
- Limit exposed skin, covering with long sleeves and pants.
- Use mosquito repellent on exposed skin.
- Apply mosquito repellent after sunscreen.
- Stay in well-screened areas when possible.
- Sleep under an insecticide-treated bed net.

Adapted from *CDC Health Information for International Travel: The Yellow Book 2012*.¹⁸

imen should be determined, preferably in advance of travel, in accordance with the most recent expert recommendations. The potential for exposure to other blood-borne pathogens, including hepatitis B and other viruses, should be considered as well.

Bacterial Enteritis. Traveler’s diarrhea is the most common travel-related illness, affecting 30% to 70% of travelers. Contaminated food and water sources are the most likely culprits. Prevention begins with food selection. The traveler should avoid raw or undercooked meats and seafood and unpeeled raw fruits and vegetables. Consume only bottled water or water that has been boiled or treated with iodine, chlorine, or UV light. However, even meticulous preventive methods often fail. Antibiotics must be tailored to the location, and thus it is important to know the sensitivities from local sources and the CDC. Prophylactic antibiotic therapy is not recommended. Consider initiating antimicrobial therapy for the treatment of three or more loose stools in an 8-hour period, especially if associated with fever, nausea, vomiting, abdominal cramping, or bloody stools.

Chronic Medical Conditions. Travelers with chronic medical conditions should plan for any necessary ongoing medical treatment. In addition, they should have preplanned strategies for identifying and managing acute complications or decompensation. A supply of any required medications or medical supplies sufficient for the period of travel should be brought along by the traveler, due to substantial evidence highlighting the advent of substandard or counterfeit medications,²⁰ especially in low-resource settings.²¹

Medication Considerations. Table 7 provides a summary of medications that travelers should consider taking with them. As the available supply and quality of medications acquired abroad is often in doubt,²⁰ the traveler should plan to take any necessary medica-

tions with him or her while traveling. All medications should be carried in their original, clearly labeled containers along with a copy of the prescription and the generic name of each medication. Local laws may limit the ability to import specific medications, even with a prescription (e.g., controlled substances) and the traveler should inquire about such laws in advance, if in doubt.

After Returning Home. Approximately 15% to 70% of returning travelers develop a travel-related illness.²² Most are mild and occur within 12 weeks of returning. However, some severe and potentially life-threatening illnesses, such as malaria, can occur up to a year after returning. Common symptoms that should prompt medical attention in the returning traveler include fever, persistent diarrhea, and skin or soft tissue infections. As with the pretravel assessment, self-diagnosis and self-treatment are discouraged. The traveler should once again seek out a medical professional with expertise in travelers’ health and provide an accurate and complete travel history to ensure optimal evaluation, management, and outcome.

Injury. According to the World Health Organization (WHO), injuries are the leading cause of preventable death in travelers.¹⁸ Tourists are 10 times more likely to die as a result of trauma than of infectious disease. Table 8 provides a summary of strategies recommended by the CDC to reduce injury while traveling internationally.

Wellness

International electives offer a unique opportunity for the learner to work in a resource-poor or underserved setting. Trainees may encounter a broad range of ethical issues in these placements. The conflicts usually manifest in the difference of practice patterns when compared to the American standards of care, in part governed by laws such as HIPAA²³ and EMT-ALA.²⁴

Table 7
Medications to Consider Taking Abroad

<ul style="list-style-type: none"> • Antimicrobial—antimalarials, HIV postexposure prophylaxis regimen, a fluoroquinolone or macrolide. • Gastrointestinal discomfort—loperamide, bismuth subsalicylate, packets of oral rehydration salts, antacid, laxative, especially if local diet is low roughage. • Respiratory discomfort—cough suppressant or expectorant, decongestant, throat lozenges. • Treatment of pain or fever—acetaminophen, aspirin, ibuprofen. • Allergic reaction—antihistamine, epinephrine autoinjector, especially with a history of severe allergic reaction. • Medication to prevent or treat high-altitude illness. • Any medications, prescriptions, or over-the-counter medications taken on a regular basis at home.

Table 8
Recommended Strategies to Reduce Injuries While Traveling Internationally

<ul style="list-style-type: none"> • Road traffic crashes: always wear seat belts, avoid travel at night, check the Association of International Road Travel website for driving hazard and risks by country, avoid alcohol and cellular phones while driving, avoid overcrowded buses and minivans. • Travel by air: avoid using local and unscheduled aircrafts. • Travel by water: avoid swimming, wear life jackets. • Assault: avoid unfamiliar environments at night, do not travel alone, if confronted give up all valuables and do not resist attackers.

Adapted from *CDC Health Information for International Travel: The Yellow Book 2012*.¹⁸

The most common dilemmas seem to be those regarding the issues surrounding fee for service and the temptation to practice beyond the scope of what would be acceptable for the level of training and specialty back home. Iserson et al.²⁵ further discuss the unique problems and dilemmas faced in international emergency medicine using a case-based approach. When exposed to these situations, being ill-prepared may result in considerable stress and guilt over the actions taken.²⁶ Because large-scale health policy changes are probably beyond the scope of the learner, predeparture awareness regarding the political/financial situation of the clinical site is likely to promote acceptance.²² A deeper appreciation for global public health issues can increase cultural sensitivity.²⁷

As the number of emergency physicians practicing in international settings increases, it becomes necessary to provide trainees with practice guidelines. Little has been written about the ethical implications of medical trainees working abroad. The *Declaration of Alma-Ata* establishes the conceptual basis for established global health.²⁸ Given that no academic consensus exists, an institutional code of conduct or ethical guidelines may go some way to fulfilling this need. The ethical dilemmas may also be addressed in real time by providing adequate supervision at the elective site by experienced global health faculty.²⁹

A number of wellness issues relate to the physical environment and geographical location of the elective site. These can broadly be divided into wellness issues secondary to cultural differences, attributes of the physical environment, and the geographical distance from home.

Cultural differences can cause frustrations in understanding. Trainees must assess their own comfort with the cultural differences in areas such as sex and religion. In choosing to participate in a global health elective in a specific location, the resident or medical student must feel comfortable assimilating to a great extent with local laws and customs. Learners may feel impotent in their attempts to respect the cultural variations. As a text on all the different cultures in the world is impractical and would be prone to stereotypes, advisors may provide guidance and teaching on how to perform the cross-cultural review of systems.³⁰

Elective sites will most likely not be able to accommodate the trainee's usual lifestyle. Exercise and physical wellness should be promoted. Institutions should make every effort to ensure secure and easy access to water and basic foods. For those residents with dietary restrictions, it is imperative to preplan what foods are available and what supplements they should take with them.

The physical distance from loved ones back home can cause significant distress and may even be exacerbated by social isolation. In our current society we are used to multiple media outlets and rely heavily on mobile and internet technologies. Providing learners with information on how to access the Internet and providing a local mobile phone will help ensure that a resident or student can close the communication gap.

Last, the issue of wellness does not stop when the resident or medical student returns home. Electives can

be wonderful eye-opening experiences; however, in some cases, the learner may leave with many lingering concerns and questions. It is imperative that residents in their postdeparture briefing are offered psychosocial services should they have any unresolved issues. To help reduce anxiety, debriefing should be conducted with someone with whom learners can mirror that experience. Faculty and institutions should schedule formal debriefings of the experience through reflective exercises or other educational activities to help students appropriately process their feelings and prepare them for future service.⁸ The key component to wellness is ensuring that participants in international emergency medicine electives mentally and emotionally prepare themselves as much as possible for cultural and language differences in travel areas, separations from family members and other loved ones, and potentially witnessing tragic or traumatic events.³¹

CONCLUSIONS

The goal of a global health elective is for residents and medical students to have safe, structured, and highly educational experiences. In this article, we have laid out considerations for establishing a safe clinical site; mitigating risk; and ensuring a traveler's personal safety, health, and wellness during a global health rotation. Adequate oversight, appropriate mentorship, and a well-defined safety and security plan are all critical elements to a successful and safe experience.

References

1. Association of American Medical Colleges, Division of Medical Education. Medical School Graduation Questionnaire Report. Washington, DC: Association of American Medical Colleges, August 2009.
2. Thompson MJ, Huntington MK, Hund DD, Pinsky LE, Brodie JJ. Educational effects of international health electives on U.S. and Canadian medical students and residents: a literature review. *Acad Med.* 2003;78:342-7.
3. Miller W, Corey G, Lallinger G, Durack D. International health and internal medicine residency training: the Duke University experience. *Am J Med.* 1995;99:291-7.
4. Dey C, Grabowski J, Gebreyes K, Hsu E, VanRooyen M. Influence of international emergency medicine opportunities on residency program selection. *Acad Emerg Med.* 2002;9:679-83.
5. Drain P, Primack A, Hunt D, Fawzi W, Holmes K, Gardner P. Global health in medical education: a call for more training and opportunities. *Acad Med.* 2007;82:226-30.
6. University of North Carolina. The UNC Office of International Affairs. Available at: <http://global.unc.edu/>. Accessed Jan 6, 2013.
7. University of Wisconsin Emergency Medicine. Global Health Documentation. Available at: <http://www.emed.wisc.edu/content/global-health>. Accessed Jan 6, 2013.
8. Steiner B, Carlough M, Dent G, Peña R, Morgan D. International crises and global health electives: les-

- sons for faculty and institutions. *Acad Med.* 2010;85:1560–3.
9. Dictionary.com, LLC. Safety. Available at: <http://dictionary.reference.com/browse/safety?s=t>. Accessed Jan 14, 2013.
 10. Centers for Disease Control and Prevention. Injuries and Safety. Available at: <http://wwwnc.cdc.gov/travel/yellowbook/2012/chapter-2-the-pre-travel-consultation/injuries-and-safety.htm>. Accessed Jan 6, 2013.
 11. U.S. Department of State. International Travel. Available at: http://travel.state.gov/travel/travel_1744.html. Accessed Jan 6, 2013.
 12. Centers for Disease Control and Prevention. Homepage. Available at: <http://www.cdc.gov/>. Accessed Jan 6, 2013.
 13. Angell M. The ethics of clinical research in the third world. *NEJM.* 1997;337:847–9.
 14. The World Bank. Data. Available at: <http://data.worldbank.org>. Accessed Jan 6, 2013.
 15. U.S. Department of State. Smart Traveler Enrollment Program (STEP). Available at: <https://step.state.gov/step/>. Accessed Jan 6, 2013.
 16. The International Society of Travel Medicine (ISTM). Homepage. Available at: <http://www.istm.org/>. Accessed Jan 6, 2013.
 17. The American Society of Tropical Medicine and Hygiene (ASTMH). Homepage. Available at: <http://www.astmh.org/>. Accessed Jan 6, 2013.
 18. Centers for Disease Control and Prevention (U.S.), Brunette G. *CDC health Information for International Travel: The Yellow Book 2012*. New York, NY: Oxford University Press, 2012.
 19. Merlin JS, Morrison GG, Gluckman SS, et al. Blood and body fluid exposures among US medical students in Botswana. *J Gen Intern Med.* 2011;26:561–564.
 20. Kelesidis T, Kelesidis I, Rafailidis PI, Falagas ME. Counterfeit or substandard antimicrobial drugs: a review of the scientific evidence. *J Antimicrob Chemother.* 2009;60:214–36.
 21. Nayyar G, Breman JG, Newton PN. Poor-quality antimalarial drugs in southeast Asia and sub-Saharan Africa. *Lancet Infect Dis.* 2012;12:488–96.
 22. Miranda J, Yudkin J, Willott C. International health electives: four years of experience. *Travel Med Infect Dis.* 2005;3:133–41.
 23. U.S. Department of Health and Human Services. Health Information Privacy. Available at: <http://www.hhs.gov/ocr/privacy/>. Accessed Jan 6, 2013.
 24. Center for Medicare and Medicaid Services. Emergency Medical Treatment & Labor Act (EMTALA). Available at: <http://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/>. Accessed Jan 6, 2013.
 25. Iserson KV, Biros MH, Holliman CC. Challenges in international medicine: ethical dilemmas, unanticipated consequences, and accepting limitations. *Acad Emerg Med.* 2012;19:683–92.
 26. Crump J, Sugarman J. Ethical considerations for short-term experiences by trainees in global health. *JAMA.* 2008;300:1456–8.
 27. Campbell A, Sullivan M, Sherman R, Magee W. The medical mission and modern cultural competency training. *J Am Coll Surg.* 2011;212:124–9.
 28. World Health Organization. Declaration of Alma-Ata. International Conference on Primary Health Care, Alma-Ata, USSR, 6–12 September 1978. Geneva: WHO, 1978. Available at: http://www.who.int/publications/almaata_declaration_en.pdf. Accessed Jan 6, 2013.
 29. Ackerman LK. The ethics of short-term international health electives in developing countries. *Ann Behav Sci Med Educ.* 2010;16:40–3.
 30. Kleinman A. Concepts and a model for the comparison of medical systems as cultural systems. *Soc Sci Med.* 1978;12:85–95.
 31. Morton M, Vu A. International emergency medicine and global health: training and career paths for emergency medicine residents. *Ann Emerg Med.* 2011;57:520–5.