

New & noteworthy

Updates on activities in the profession

Medical students can learn much from international health electives

Increasingly, US medical schools are encouraging students to go abroad during their clinical years as a way of exploring the healthcare systems of other countries. As such, opportunities for US medical students overseas are increasing, and students might do well to give such options serious consideration.

In some cases, medical students can obtain some form of financial assistance from their colleges. For example, the dean's office at Washington University in St Louis provides travel grants for final-year medical students doing overseas electives, and the American Society of Tropical Medicine and Hygiene offers travel scholarships for medical students. In addition, the Michigan State University College of Osteopathic Medicine (MSU-COM) offers a faculty-supervised elective option in Central Africa for final-year students—here are some comments by MSU-COM students reflecting on their experiences at the Queen Elizabeth Central Hospital in Blantyre, Malawi:

- "We take so much for granted at home—efficient systems; ease of communication and transportation; availability of drugs, supplies, and diagnostic tests; and the luxury of taking a history in a familiar language."
- "It's so simple over there—they need help, we provide help."
- "It was a humbling experience. I gained far more than I contributed."
- "I had not appreciated the limits of the human condition before. My threshold for panic is much higher now."

What are the stories behind these reactions? Why is the experience so special? First, here is a brief description of the program itself.

"Warm heart of Africa": MSU-COM's Malawi elective

More is involved in an overseas elective than merely expressing an interest and hopping on a plane. Significant preparation for the trip to Malawi is necessary. For example, the program has a prerequisite class: a two-credit elective in clinical tropical medicine. This course is offered as part of the preclinical curriculum, and students who successfully complete the course are eligible to apply for the Malawi elective during their fourth year.

For those accepted into the elective program, logistical details are discussed during an orientation meeting. Students are responsible for their own airfare, which runs between \$1500 and \$2000, and for a fee charged by the University of Malawi College of Medicine for participation, which is \$150 a month per student. A faculty home is available for students' accommodations while they are in Malawi, and students pay \$50 per week for groceries. In addition, Michigan State University provides evacuation insurance for all of its students and faculty living and working abroad.

Students are encouraged to undergo a regimen of malaria prophylaxis during the elective, but they cannot protect against every infectious disease contingency, of course. For example, while in Malawi, students

may well be exposed to material that is infected with the human immunodeficiency virus. In this instance, students would be provided with postexposure prophylaxis on-site. Serious illnesses have, however, been rare among the students, and traveler's diarrhea is among the more common afflictions. Of a total of 70 students, three students became PPD-positive, one student had malaria upon his return to the States, and two spouses contracted myiasis as a result of wearing unironed clothes during their stay.

Students must spend at least six weeks in Malawi. Longer stays are possible, but the Malawi College of Medicine frequently cannot accommodate such requests because of the demands placed on it by other elective students from around the world who also wish to take part in the program.

Queen Elizabeth Central Hospital, where the students work during their stay, is a 1100-bed teaching hospital. While there, the students rotate through one of the four clinical departments: pediatrics, medicine, surgery, or obstetrics and gynecology.

A typical day

American students work alongside their Malawian counterparts, under the supervision of Malawian interns, "registrars," and "consultants." Such terminology, which may sound odd to American healthcare workers, is a part of the Malawian healthcare system because of the British, who colonized Malawi—formerly known as Nyasaland—for some time until departing in 1964.

That is not the end of the "language lesson" for MSU-COM students. Each department requires a "hand over" (morning report) every day, followed by ward rounds or surgery (in the "theatre"). Afternoons are spent in various outpatient clinics, and students are often included in "district visits," which provide an opportunity to see how healthcare is provided in the more peripheral areas of Malawi. Then, of course, there are spellings like *paediatrics* and *gynaecology* to which students must become accustomed.

Queen Elizabeth Central Hospital can be a busy place. Approx-



Gule Wamkulu dancer. (Photo by F.M.I. Johnston and courtesy of Central Africana Ltd.)

imately 15,000 babies are delivered there annually, and during the rainy season, 40 to 50 children are admitted every day to the pediatrics department. The adult wards are largely filled with patients with infectious diseases, such as HIV/AIDS, malaria, sepsis, and tuberculosis. Surgeons tend to be busy with traumatic injuries, including such exotic ones as hippo and crocodile bites. They also deal frequently with congenital anomalies and tumors. Overall, the level of work often outpaces the number of hands available to do it, so MSU-COM students enjoy as much hands-on experience as they would like—and can handle.

Basic x-rays are available at QECH, but waits of two to three days are common. The most common laboratory test ordered is “blood film for malaria parasites,” but the lab can also run complete blood counts, measure blood glucose, check stools for ova and parasites, and—most importantly—group and cross-match blood. The blood bank is almost always chronically short of blood; patients who have received transfusions may not be discharged until they have arranged to “replace” the blood given to them.

Because of American Red Cross restrictions on individuals who have visited malaria-endemic areas, MSU-COM students are not able to donate blood for some time after their return to the United States. Knowing this, many of the students offer to contribute to the stores in the blood bank at QECH before they head home.

Outside of the hospital

“No nights, no weekends” is the mantra chanted by the MSU-COM students in Malawi. Time-wise, the demands of this elective are much less than would be experienced in most electives pursued in the States. Still, the QECH staff is typically impressed with the diligence of the MSU-COM students—perhaps in large part because the

people at the hospital are so accustomed to getting other medical students for whom “overseas elective” is a euphemism for “vacation.”

Nevertheless, weekends tend to be occasions for exploring Malawi rather than for working. Students may explore on foot, on mountain bikes, in rental cars, or—when finances are tight and the legs are sore—on local buses. Favorite destinations include game parks in Malawi and in neighboring Zambia; the shores and islands of Lake Malawi; and Mulanje Mountain, which is 10,000 feet high at its peak.

In short, this elective experience brings to mind a quote by the late British author G.K. Chesterton, who noted, “An adventure is only an inconvenience rightly considered.” This quote takes on particular significance when one considers the case of a recent group of MSU-COM students who experienced a unique form of culture shock.

These students had been hiking along the main highway in Malawi when they noticed three figures who were clad in leather and feathers, wearing masks, and brandishing pangas (machetes). These “armed” Malawians were coming toward them. Casually at first, the students reversed course and continued their hike in the opposite direction—with the occasional backward glance. Suddenly, the three mysterious individuals began jogging and chanting, whereupon the students picked up their own pace.

At that point, a car pulled over onto the side of the road approximately 100 yards ahead of the students, and the two Malawians inside the vehicle turned around to watch the spectacle. The students interpreted this as a show of concern by the couple in the car. One of the students shouted “Run!” and all of them, fearing that their worst African nightmare was being realized, dashed to the car, opened the doors, jumped inside, and locked themselves in securely.

Panting heavily, they exchanged the customary greetings and introduced themselves to the Malawian couple. By this time, the three masked figures had surrounded the car and were dancing and whooping. The Malawian couple calmly rolled down their windows and paid the kwacha equivalent of twenty-five cents to the street actors. The couple, chuckling at the Malawians outside the car, explained to the students, “They think you’re scared! Imagine that!”

Lasting benefits

Experiences such as the Malawi elective are more than merely another clinical rotation or an exotic adventure vacation. Overseas electives, especially those in developing countries, can actually serve several valuable functions, including the following:

- Physical examination skills of students tend to improve in settings where patients frequently present with advanced disease and where diagnostic facilities are limited. Pallor is readily recognized in a child with a hemoglobin of 2 g/dL, for example, and the gallop associated with the accompanying high output cardiac failure is unmistakable. When a chest x-ray can take two to three days to obtain, one is required to pay more attention to the auscultatory findings.

- The original reason for pursuing a career in medicine—to heal people—is reinforced and reinvigorated in a setting where care is unfettered by insurance companies and malpractice attorneys, and where disease is largely related to poverty. There is little secondary gain associated with being ill, and most patients are highly motivated to recover. Most of these patients rarely complain and are appreciative of any care provided to them.

- Gaining an awareness of the quality of healthcare—or perhaps lack thereof—available to most people in developing countries permanently alters perceptions of the American system. Many students are simultaneously humbled and

emboldened, and a few subsequently choose careers in international health and tropical medicine.

Medical students’ elective experiences abroad can be a valuable component of undergraduate medical education. This example from MSU-COM is just one of many; programs based at other osteopathic medical schools will be highlighted in future issues.

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