What's It Like to Be an OTP Volunteer?

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Every year, the ASA Committee on Overseas Anesthesia Teaching Program recruits anesthesiologists to volunteer one or two months to go to Rwanda or Tanzania and teach in one of their teaching hospitals. One of the first questions interested candidates ask us is, "What is it like to be a volunteer?" Many of our volunteers are "repeaters," a few for three or more times. Perhaps the best way to explain it is to include some comments from the post-tour report of one of our volunteers to Rwanda last September.

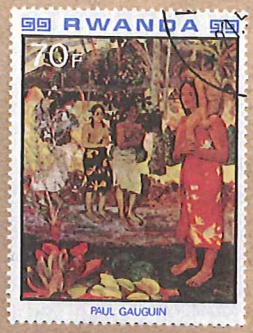
Notes From a Volunteer...

I will preface this report by saying that Rwanda was the most rewarding mission in which I have been involved. What I had to teach was eagerly received. Each and every member of the anesthesiology department was pleasant and welcoming. I fully intend to return to Rwanda annually.

Rwanda is an East African country with very few resources and a tumultuous modern history. It is thus no surprise that health care has suffered as a result. Infectious pathology accounts for about 85 percent of the diseases and consumes the lion's share of the health care funding. This climate is thus less than conducive to the practice of surgical specialties, including anesthesiology.

Rwanda has one medical school, which graduates about 60 physicians annually. After graduation, those physicians are required to work at district hospitals for a period of time, after which one of two pathways is open to them. They can apply for a residency in one of the medical specialties or apply for a job with one of the NGOs (non-governmental organizations). The latter pathway is twice as lucrative and requires no residency. This presents a major obstacle to recruiting physicians to anesthesiology. As a result, the bulk of the anesthesia workforce is composed of nurse anesthetists.

There are a total of nine residents in the only program in the country, NUR (National University of Rwanda). I have worked almost daily with two of them and found them to be very eager and intelligent. They were surprisingly computer savvy and contributed very useful information from anesthesiology-related Web sites. Historically, residents have been sent for a year abroad in Belgium or France. (Editorial note: French is their first language, but teaching is done in English.) The current thinking is to do away with this rotation for fear of brain drain.



Didactic teaching is based on a set of modules. I taught the respiratory physiology module, which I expanded to include the anesthesia breathing circuits and respiratory pathophysiology.

The chairperson of anesthesia is, to date, the only Rwandan fully qualified anesthesiologist. She did all of her training in Belgium. A number of non-Rwandan physicians staff the operating room. They come from Belgium, Burundi, Egypt, Madagascar and Uganda. The modus operandi is that all cases of the day are discussed at 7 a.m. at the staff morning report, including attendings, nurse anesthetists and the residents on the rotation. Patients are presented, and anesthetic plans are discussed. The nurse anesthetists carry out the bulk of the work in the presence of the residents, when available. The staff anesthesiologist, who is immediately available, is called upon when difficulty arises.

There are four O.R.s where elective procedures are performed. Some are familiar to North American volunteers — hernias, ENT work, fractures, etc. Many patients have badly neglected pathology rarely seen in the West: giant sarcomas and maxillofacial tumors, Kaposi sarcomas, and so on. One of the three O.R.s is dedicated to critically ill patients transferred from district hospitals. Those patients are usually transferred when they are in extremis and have a very high mortality.

ECG display is erratic, as some of the old ECG monitors tend

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procedures in highest-risk patients is focused against viridans group streptococci and consists of a single pre-procedure dose. No repeat dosing is advised. Recommended drugs and dosages are listed in Table 1.

4. Antibiotic prophylaxis solely to prevent IE is no longer recommended for GI or GU procedures. These procedures include diagnostic esophagogastroduodenoscopy, colonoscopy, vaginal delivery and hysterectomy. However, patients with established or suspected GI or GU infections undergoing a GI or GU procedure should receive, as part of routine infection management, an antibiotic active against enterococci. In these scenarios, IE prophylaxis is redundant. Infectious disease consultation is recommended if an infection is known or suspected to be caused by a resistant strain of enterococcus.

5. In highest-risk patients, antibiotic prophylaxis is recommended to prevent IE in procedures involving infected skin, skin structure or musculoskeletal tissue. Despite the polymicrobial nature of these infections, only staphylococci and beta-hemolytic streptococci are likely to cause IE; thus therapeutic antibiotic regimens need to be active against these pathogens, in addition to other potential site-specific organisms.

These changes may violate longstanding expectations of patients and practice patterns of physicians and dentists. As previous guidelines contained inconsistencies and were based on minimal published data, conflicting interpretations among patients, health care providers and attorneys often resulted. In the past, various interpretations may have resulted in unnecessary treatment by physicians and dentists who felt an obligation (professionally and legally) to protect their patients from IE.

In summary, the updated 2007 AHA Guidelines for Prevention of Infective Endocarditis recommend antibiotic prophylaxis for a decreased number of indications in fewer patients. These simplified guidelines are based on the best available, albeit minimal, data and should result in less confusion regarding appropriate therapy. Future studies will be necessary to monitor the effects of these changes.

References:

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to quit unexpectedly. Since pulse oximetry was not available in every O.R., some patients, mostly adults, went unmonitored. There is no capnography capability in the O.R. despite the presence of a capnograph, which is so old it is no longer serviceable. Gas analysis is not available. The Glostavents (anesthesia machines) have fully functioning FiO_2 monitors when supplied with fresh 9 volt batteries. They were never used until I started using them.

Drugs are in short supply. Fentanyl is infrequently used since it costs much more than MSO4. Thus head trauma cases are done with MSO4 and halothane. Besides morphine, ketamine and pentazocine are readily available. Succinylcholine and vecuronium are the only available muscle relaxants. Local anesthetics are very unpredictable, and some lots or individual vials seem to produce no clinical effect at all. The use of LMAs is rare despite their availability in most sizes. I was told that copious secretions in Africans make the LMA difficult to use.

Obviously there is much more to volunteering than what is described above. Each experience for each volunteer is different; and the way they adapt to teaching under very different conditions is challenging. The goal of our teaching program is to help them do a better job with what resources they have. Obviously, knowledge is the best way to maximize one's resources, and teaching is the best resource we can share. As our volunteer noted, "It's a wonderful experience, and I want to go back." Try it, you just might like it!