seattle anesthesia outreach

2012 Year-End Report
Progress, Projects, and Impossible Goals

1. Overview

This past October and November 2012, we made yet another three week long visit to the Black Lion Hospital (BLH) in Addis Ababa. The Black Lion is the main teaching hospital for the medical school at Addis Ababa University (AAU). This was the sixth trip that SAO has sponsored since we first started our Ethiopian work in 2009.

Since then, we have delivered close to 50 tons of medical equipment and supplies to this hospital and instigated some major projects, which have seemingly

been quite successful. We continue to regard "sustainability" as our cornerstone, and to place the highest value on local guidance and cooperation.

We have always asked the Ethiopians to define what types of assistance are most valuable. Similarly, we have only pursued projects they have requested or we have jointly devised.

SAO has been mounting, if you will, a full frontal attack against the problems at the Black Lion. This includes: helping to build efficient maintenance and technical departments; helping to improve the residency experience for as many physicians as possible; helping to improve patient care whenever possible; and performing strategic facility and equipment upgrades in cooperation with the BLH and AAU administration and teaching faculty.

Our lofty grand scheme is to help create the next generation of quality health care providers in this incredibly impoverished part of our planet. At the same time, we are trying to help upgrade the equipment where this teaching takes place.

Most recent data:

WHO- (2012): Population of Ethiopia 82,950,000

Health care expenditures per capita:
Ethiopia $16
Haiti $46
Mexico $604
United States $8,362

Physician density in Ethiopia (per 10,000 population):
Doctors <0.5
Nurses 2.4

World Bank (data from 2010-2012):
Life Expectancy at birth (f/m)-
Ethiopia 61/58
Haiti 64/61
Mexico 79/74
US 81/76

Number of actively practicing anesthesiologists in the US (based on state medical board data) = 35,000 i.e. 1 per 8,500 people

Number of actively practicing anesthesiologists in Ethiopia (country estimate)= 17 i.e. 1 per 4.8 million people

2. Facilities/Equipment Improvement/Maintenance

In 2012 we delivered another 16-18 tons of equipment. At the time of this writing, we have some 40 pallets sitting in the lobby of the Black Lion awaiting our next arrival on February 24th, 2013. We continue shipping equipment on delivery flights with the cooperation of Boeing and Ethiopian Airlines. SAO has been told that the next of these airplane delivery flights will leave Seattle in March 2013, and we hope to fill it.

Every trip thus far, we have had anesthesia technicians (Raeann Kreps, Forrest Krambrink, KC Collins, Zach Cross, Philip Cook) work diligently on tackling the enormous problems of upgrading, maintaining, and organizing the local anesthesia equipment. We have nine brand new anesthesia carts (purchased with money donated by the country of Norway) crated on pallets in the lobby of the Black Lion now, as well as five anesthesia machines awaiting reassembly.

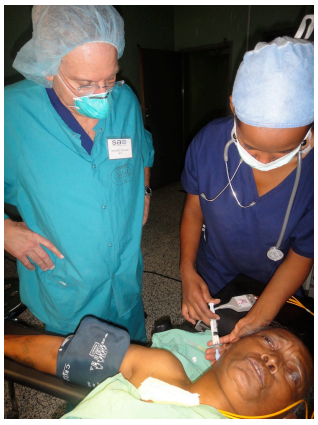
Steve Sands, our extraordinary bio-medical technician, will return to Ethiopia with us in February for his third time. Steve is clearly the hardest-working, and arguably most valuable member of our group, and for good reason, the Ethiopian technicians have gravitated to him.

On our October/November 2012 trip, we instigated and helped remodel the patient holding area outside of the surgical theaters. We helped create two patient changing rooms and a more efficiently functioning area. We're very proud of this recent improvement.

Douglas Thresher, a multi-talented builder in Seattle, was also on our fall 2012 trip. He was more than adept at the cultural and construction challenges, and undertook the enormous task of starting to reengineer the surgical scrub sinks. He was also our "go-to" man for all other construction requests (and there were lots of them).

Suffice it to say, we'll continue to do what we can in the above areas. In February of 2013 we'll install monitors and beds in the new ICU and perform significant and much needed maintenance on all the anesthesia machines and monitors.

3. Anesthesiology

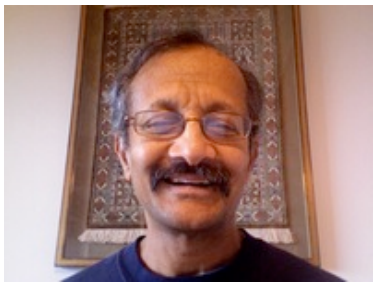


Our progress is visible, but the specialty and residency remain frustratingly fragile. Equipment is immeasurably better, no doubt, which helps. Access to anesthetic drugs is somewhat improved, but we are still missing some very basic medicines. It has been a persistent goal, and we will again highlight this issue to the CEO in 2013.

The residency currently has five residents at the second year level, and one at the first year level. There were no applicants for the upcoming year, which is very disappointing. One senior faculty member, Dr. Mamo, resigned from the department in 2012 and moved out of the country, leaving three senior and two junior faculty in the department at this time. The anesthesia residents are bright and capable, and are doing extremely well, which is a huge glimmer of hope. Similarly, the new junior faculty (Drs. Rahel and Yizez) and remaining senior faculty (Drs. Assefu, Gebreyesus, and Manekuleh) are very able.

In February 2013, we will deliver a portable Sonosite ultrasound machine to the anesthesia department. This is a piece of equipment we have been trying to acquire for quite some time, and we have already planned multiple teaching sessions on its use.

3a. Cooperation with the University of Bergen, University of Toronto, and the University of Washington



We continue our commitment to working with the teams from Toronto and Bergen. This is a several years-old consortium, and all three groups appreciate that jointly we can help this department more than we can individually. Our relationship has been challenging, invigorating, and ultimately rewarding. On a personal note, I must recognize Dr. Asle Aarsland, an anesthesiologist from both Bergen, Norway and Texas (go figure) who now lives full time in Ethiopia. He has devoted many years to helping the anesthesiologists in Ethiopia. Thankfully, he remains our inspirational, insightful, and respected colleague.

In November 2012, Dr. Murali Sivirajan, a professor from the Department of Anesthesiology at the University of Washington came with us to Addis. This, we hope, will be the beginning of a great liaison. The UW can bring considerable teaching skills and global medicine

resources to our efforts. We have also recently met with Dr. Brain Ross and Dr. Sivirajan to discuss satellite teaching possibilities and, importantly, to begin discussions aimed at bringing a UW anesthesia resident on a regular basis to Addis with our group. We are guardedly optimistic that we can bring the first UW resident to Addis in October 2013.

4. PACU

The PACU (recovery room) creation was one of our earliest and now proudly self-sustaining projects. No one has been more instrumental in this project than Laura Adiele, RN. Laura's involvement from conception to execution is ongoing. We will meet her in February 2013 when she will be in Addis as part of the completion of her nurse practitioner's degree from Baylor University. SAO continues to provide both equipment and teaching to the PACU on every trip to the Black Lion.

5. ENT (Ear, Nose, Throat) Surgery

This is a project that SAO has merely instigated--the true success of the ENT project is due to the efforts of Dr Sandra Skovlund. Dr. Skovlund is an ENT physician from Minneapolis who has created a liaison with the department of ENT at AAU. She has done a phenomenal job, and her people, medical, teaching and administrative skills are superb.

In October of 2012, at her suggestion, we started a major remodel of the ENT clinic, and we will complete this in February 2013. This project includes new lights, paint, flooring, and cabinets. Additionally, we were able to buy some new oto-opthalmoscopes that will remain in this clinic. The U of M has now begun offering our project as a regular rotation for their ENT residents. In October, Dr. Skovlund brought along the chief resident from the ENT program at the University of Minnesota, Dr. Heather Weinrich. The next resident from Minnesota, Dr Farhad Ardeshirpour, will accompany Dr. Skovlund in February 2013.

Dr. Wayne Larrabee has also added ENT support and has been fostering a similar affiliation with the University of Washington ENT department.

In Addis, the ENT personnel have been going on rounds, giving lectures, and operating jointly on cases. As possible, they upgrade equipment. They have an excellent personal and professional relationship with their Ethiopian counterparts. The ENT group is currently exploring the creation of an

ENT 501(c)3 corporation that would be completely ENT-focused. SAO supports this effort and will do whatever we can to support this launch.

6. General/Colorectal Surgery

One of the most difficult parts of global medicine is defining realistic projects, specific goals, and long-term *sustainable* benefits. This is all much harder when one ponders the cultural and economic barriers. Drs. Rick Billingham and Andrew Ting have both jumped into this quagmire. Dr. Billingham is currently navigating a colonoscopy teaching project with his counterpart in Addis. We are hoping this will happen as part of our October 2013 trip.

Dr. Brant Oelschlager, a professor of surgery at the University of Washington (and incidentally a former resident of Dr. Ting), has similarly been working with the surgeons at the Black Lion. Of the Seattle surgeons, Dr. Oelschlager has been on this project for the longest time, and indeed he has made some significant contributions. His particular area of interest is endoscopic esophageal surgery. His approach and goals at the Black Lion have largely been teaching: lectures, skills labs, attending in clinics, rounding on ward patients, jointly operating on cases, etc. Dr. Oelschlager was last in Addis during the fall of 2012, and hopefully will overlap with us in 2013.

SAO has had discussions with Dr. Brian Ross, director of the satellite teaching program at the University of Washington Medical School. Drs. Oelschlager and Ross are interested in bringing satellite (ISIS) technology to Addis, and we are exploring a role for SAO in this project.

7. Nephrology

This work is very new for us. We were asked in February 2012 if we would consider examining how renal failure is treated in this significantly impoverished environment, and importantly, if we could see a role for our type of assistance. To this end, Dr. Diana Perkinson came on our October 2012 trip. Dr. Perkinson is both a general internist and renal subspecialist. In brief, she came, she saw, and she's thoughtfully deliberating.

Out of the gate, the nephrologists in Addis have asked if we could bring a surgeon to teach creation of arterio-venous dialysis fistulas. Swee Tan, MD, PhD, a Seattle vascular surgeon, has enthusiastically agreed to jump into this work, and she will come with us to Addis in February 2013.

Dr. Perkinson was recently able to facilitate a donation of some 15 dialysis reclining chairs from Northwest Kidney Centers, which we will send to Addis in March of 2013. We will continue to evaluate how we can best help the nephrologists and renal failure patients in Ethiopia. Treating renal failure is both technical and expensive, which presents significant barriers. Nonetheless, our immediate project

is to help launch a new ten-patient dialysis unit (ten new dialysis machines have been donated by a group from Japan).

We are grateful to have the addition of Dr. Perkinson as we evaluate what we can do to improve the treatment of renal failure in Ethiopia.

8. Urology

Again, a very new project for SAO. We responded to a request from the urologists at AAU and the Black Lion for involvement and help. Like most departments, they are overwhelmed with their clinical demands, teaching commitments, and failing equipment.

Our initial response was to seek a donation of urological equipment to help upgrade their endo-urological capabilities. We approached Cook Medical, who ultimately donated $25,000.00 worth of new ureteral/ urethral catheters and accessories. However, this donation only came to be only after Dr Laura Hart, a Seattle area urologist, joined the effort. (Thank you, Cook Medical and Dr. Hart!) We delivered these catheters to Addis in October 2012.

9. Orthopedics

Again, a first for SAO. If you're reading the entirety of this too-long epistle, the following commentary on the orthopedic situation mimics #6 and #7 above. The orthopedic department in Addis asked SAO to jump in, and we have. We brought them Dr. Alexis Falicov.

Dr. Falicov was with us in 2012 for a full immersion in the Black Lion's situation. He worked with their faculty and residents in both clinics and the ORs. He too has been deliberating the situation. We hope he will continue to throw his formidable energy into the challenges of teaching orthopedic skills given the significant cultural, administrative, and financial issues.

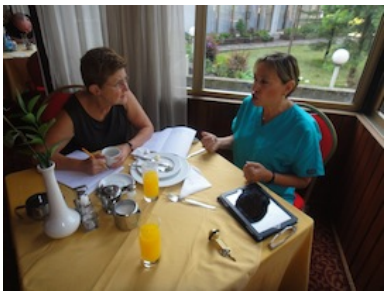
Dr. Falicov has very actively been helping us gain momentum in Seattle for our projects. Orthopedics is a new project for SAO; we see our role here as supporting Dr. Falicov in his efforts.

10. Administrative/NGO organization

Again, we responded to their inquiry. There is a long recognized major problem with both governmental and NGO aid to the Black Lion and Addis Ababa University. Briefly, there is very, very limited coordination of the various foreign aid groups. This lack of coordination and communication begets chaos,

which in turn begets enormous inefficiencies. These inefficiencies are realized as: duplication of efforts, misdirected energy, wasted opportunities, wasted resources, and cultural misunderstandings.

The physicians at AAU clearly recognize this problem, and there is some momentum now to organize these supporting groups. The Dean of the medical school, Dr. Mahlet, met with us several times to discuss this.



Gail Fisher, an organizational consultant from Washington, D.C., generously agreed to come to Addis to assess and to help jump-start the process. Gail planted many seeds at the Black Lion in October of 2012 and we're currently waiting to see if any will sprout.

SAO recognizes this particular issue as an "elephant in the room" problem, which is to the detriment of both the Ethiopian people and the altruism of the supporting agencies, and can no longer be ignored.

11. Summary

SAO has been quite active. Besides continuing our existing endeavors, we initiated several new projects in 2012. We expect to continue our existing efforts in 2013. However, we are now close to outstripping our resources, and the board of directors feels that at this time, further expansion is not an option. We will support our existing programs, with the understanding that nurturing a smaller number of dynamic projects is preferable to our being spread too thinly.

Our goals are: to continue to sponsor two trips per year; to focus on improving the teaching capability of AAU; to purchase and acquire equipment as possible; and to facilitate strategic infrastructure improvements when feasible.

Raising money for our efforts remains a daunting task. We will continue to search for stable funding that will allow us to focus more on our work and less on raising money. We take, as a strict responsibility, a determination to spend our donors' money both efficiently and thoughtfully.

SAO at this time is largely comprised of a diverse group of health care providers allied with a group of supportive donors. We sincerely and gratefully thank our donors for allowing these efforts. These donations go directly to helping improve healthcare for some of the most impoverished people on this lonely planet.