

## Gastroenterology in Eldoret: Make the Journey; Share the Knowledge

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In 2006, my daughter Sophia, then a 4th year medical student at Brown, jumped for joy when there was a sudden opening and she was accepted to go to Kenya with Dr. Jane Carter, our program director. "I'm going to Kenya," she exclaimed, jumping up and down. "Not without me," said I. And so we went together on a life's journey into another world and culture that changed us forever. We spent a month there on that first trip and ended it on safari.

Since then I have returned several times. Our last trip was canceled because of political unrest regarding presidential elections there.

What does the Kenya Program offer in gastroenterology?

Moi University Teaching and Referral Hospital represents a huge medical facility located in Eldoret, Kenya, in the middle of the Great Rift Valley. It is a sprawling, beautifully landscaped assortment of specialty buildings connected by covered walkways surrounded by flowers and filled with the broad smiling faces of the always friendly Kenyans, patients, workers, nurses and physicians in motion.

Each specialty of medicine has its own building complex: surgery, gynecology, obstetrics, psychiatry, urology, medicine, and others. So it is easy to interact with colleagues and share in their experiences. The medical wards are a separate, large complex of beds with men and women separated into two wards of 48 beds each. This number does not reflect the number of patients as there are often two in each bed lying head to foot, side by side.

Each 48-bed ward is divided into open eight-bed rooms, three on each side, with large open windows giving ample light and ventilation. The beds now have curtains and some privacy. Three sets of eight-bed rooms are called a "Firm" and that is the teaching unit. When I first appeared at Moi, I was assigned to Ward 1, Firm 1, as an attending and consultant; which meant that I had the women's side (Ward 1) and three rooms of eight beds each (Firm 1).



PHOTOS: BROWN KENYA PROGRAM

Dr. Nicholas Califano and daughter, Sophia, at far right, and other Brown medical students upon their arrival in Kenya, where they spent a month working at the Moi Teaching and Referral Hospital.

### DAILY ROUTINE

We began medical rounds daily at the very civilized hour of 9 a.m. with the Kenyan registrars and medical students, the U.S. residents and students, pharmacy and nursing students and nurses – at times a crowd! We rounded, going from bed to bed, until 11:30 a.m., when the ward doors flew open and hoards of visiting family and friends bringing food and clean bedclothes would inundate the space. That ended the serious rounding. We would go back to the IU House for lunch at noon, always an exciting gathering of stimulating people sharing world experiences. I would return to the wards in the early afternoon to discuss GI cases of particular interest, see new GI consultations from there or from other specialty

wards, or give a core lecture to Kenyan medical students on various subjects.

When they learned that a GI consultant was available and ready to work, then the requests came in. Most of what we did was based on clinical presentation and our physical examinations. We could get basic lab tests (often with delays) but most of the testing that we so depend upon here was just not available. We did have ultrasound and CT scanning and these services are improving.

However, even though this is a government hospital, all patients are charged something for their daily stay and for every test or procedure ordered (a colonoscopy or EGD cost 1,000 KS then, about \$14). This was paid to the hospital; doctors' services were gratis; they are paid by the state. These fees could be onerous for the Kenyans. If they could not pay up front then the test or procedure would be delayed and they would have a family member go back to their village to try to raise funds. And patients were kept in the hospital and not allowed to leave until fees were paid. So we had to severely limit requests for testing and rely on clinical skills.

At times we would have a morning report about an interesting GI case (we had excellent computer services so all info was right at hand). In the afternoons we could relax, study, jog, wander about the town or travel.

### DAY 1 DIARY

From my own diary during my very first day of my first visit to Moi in 2006 I saw:

1. Tb meningitis
2. Bacterial meningitis
3. DVT in calf of a man failing HIV therapy
4. Renal Cell CA with IVC invasion and edema
5. AML?
6. Hepatomegaly w. huge nodular liver and no ascites
7. PCP pneumonia
8. Active pulmonary Tb
9. Malaria, Tb, and ? toxoplasmosis
10. Advanced rheumatic heart disease, multiple murmurs, huge globular heart
11. Peritonitis of pelvis
12. Cachexia, wgt. loss, anemia
13. Megaloblastic anemia, Hgb 4
14. DKA Type I diabetes
15. Tb, malaria, hypotension...



The Moi hospital in Kenya is a sprawling and interconnected complex of general and specialty wards and labs.

### ESTABLISHING AN ENDOSCOPY CENTER

As a gastroenterologist I was able to help establish an active Endoscopy Center and, on subsequent trips, was able to bring over good scopes and equipment. But, as in all Third World countries, when they are not fixed, they eventually stay broken and get discarded; and there follows a frantic quest to re-equip. There is no sustainability as of yet.

We worked side-by-side with trained surgeons and GIs there and they certainly appreciated the teaching. On the mornings that we had cases booked, we would start in the "Operating Theatre" at 8 or 9 a.m., then break for tea (chai, the real thing) and continue till finished. We gave the anesthesia and used only diazepam. The Kenyan patients are very stoic and they tried to smile and never complained. We set a record there of 10 cases done in one day, very unusual as scheduling was spotty. Some patients travelled for days from very faraway villages to be seen.

Colonoscopies were rare; they don't seem to have much colon CA nor polyps and there is no screening. There is no diverticulosis but the young Kenyans do get serious sigmoid volvuli that present emergently and usually need surgery. Most cases were EGDs – there was no capability to do ERCPs. We saw lots of esophageal CA, strictures, GERD, H. Pylori gastritis and ulcers, gastric CA, varices due to the usual things but also due to Schistosomiasis and Kala-Azar (Leishmaniasis). We saw many undiagnosed diseases, a lot of toxicities (gastritis and bleeding and death) from herbal remedies, leptospirosis, aflatoxin toxicity and liver diseases, and complications of Tb and HIV – these will be seen much less now with the excellent care provided by AMPATH. We also started a GI clinic to see outpatients and prisoners; I am not sure if and how it is working now.

So our basic activities were divided on a very irregular





Pediatric patient at Moi Teaching and Referral Hospital.

basis and included consultations, rounding on the medical wards (always with lots of help and back-up), endoscopy service, and GI clinic. I also gave core and other lectures on GI subjects as requested. I did bring some Power Point slides and prior talks with me.

The Department of Gastroenterology is growing and there is some great news. Dr. Fatma Some is the chief of GI and is an excellent endoscopist and physician, and other medical and surgical colleagues contribute. We will be greatly aided there by the addition of an onsite, superbly trained (Duke) gastroenterologist and medical informatics expert, Thomas Carr, MD, who is just readying to leave. He will bring his family and will stay there; his support will be from Duke, and there are wonderful opportunities for the program to favorably explode with his onsite supervision and continuity of care.

We are working in a resource-constrained country that is developing. There is a huge ability to help upgrade their services, their endoscopy equipment, their disinfection/

sterilization of scopes, and computerizing it all and making it all sustainable. We can offer what we do here routinely and apply it there as something new. So please join us in Kenya on a mission that will help change their lives and will certainly change yours. It will be a mind-expanding experience of a lifetime. And bring along a friend, partner, or family member while you're at it. ❖

#### Author

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