



MEDICINE IN ACTION

How to Survive Your Medical Mission to Tanzania

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Some Background Information on the organization

Medicine in Action (MIA) is comprised of teams that provide free medical services to indigent patients with an emphasis on women's health, in the Mwanza area through the Nyakato Hospital/Clinic. MIA is a non-profit volunteer organization consisting of physicians from across the United States. MIA plans two trips to Tanzania each year, one in April/May and one in September.

International Health Partners (IHP) is a Non-Governmental Organization in Tanzania that has been working to construct and develop a small regional hospital in Nyakato, near Mwanza (the second largest city in Tanzania). It is run by Paula and Denny Lofstrom and Mary Ellen Kitundu. Originally from Minnesota, their volunteer work has moved them to Tanzania, where they currently reside. The Lutheran Diocese of Mwanza provided IHP with a small office building that functions mainly as a clinic, but also acts as the core of this project. The building has one small operating room that runs on a generator and a functional lab capable of processing blood, urine, stool and some surgical specimens for basic patient care. A new patient ward has been built adjacent to the clinic and the other buildings under construction consist of an operating suite with operating rooms, a maternal/child health center that will provide pre-natal care and some labor and delivery services. Presently, this clinic has one medical officer who sees about 40-50 patients a day.

Some helpful hints to make your trip run smoothly.

For some people who have not previously traveled to a developing country, seeing the poor sanitation, crowding, and severe illness caused by poverty can be disturbing and overwhelming. The apparent disorganization and chaos resulting from limited resources are almost always a challenge for volunteers. Things seldom go as planned. In fact, the one thing you can expect is the unexpected, particularly concerning practices that seem routine to you. In the United States, we place a premium on timeliness and orderliness, but this is not always the case in other cultures. Efficient scheduling is not as highly valued in Tanzania, and as visitors/guests, we must be the flexible ones. If you are able to approach the mission with flexibility, it may decrease your frustration with the cultural differences.

You should be aware that entering a resource poor setting with a different understanding of disease maybe stressful to you as the visiting health care provider. As you approach the mission, try to prepare for the emotional challenges ahead. It can often feel overwhelming as a health care provider when confronted with what you cannot provide in these situations. All things cannot be fixed. "Quality" can be relative and is not always comparable to your previous standards of "quality" at home. Replacing "quality" with "quantity" may

be tempting at times to bolster feelings of accomplishment. However, you must remember that overstretching your capabilities and pushing yourself to physical and/or emotional exhaustion will make you less effective and take the joy out of the work we do. Try to slow down, take a breath and *enjoy* your mission. By taking care of yourself, you will be better equipped to take care of others – and that is where true accomplishment lies.

We recommend that you be aware of any early signs of stress and address the issue immediately. Seek out someone who has more experience with working in these settings. As a team, we are working not only to provide the best possible medical care to our patients, but also to support each other. Furthermore, pushing the system to process more patients than it can accommodate increases the chance of error, which is detrimental to our mission.

What to bring:

- Malaria Prophylaxis
- Mosquito repellent
- Headlight (bright) for pelvic exams and times when the electricity goes out.
- Hand sanitizer
- HIV prophylaxis- As of July, 2009, the recommendation is to carry HIV needlestick prophylaxis with you. This can usually be obtained through your health insurance for your co-payment fee. In some cases, members of the mission team can share (there should be at least 2 individuals with a month-long regimen on each mission). Check the CDC website for more information.
- Stethoscope and other medical equipment you may need.
- Flip flops
- Scrubs,
- Spare batteries for your electronics
- Tea/coffee if you like.

What to wear:

Clothes that cover your shoulders and your knees are the norm. You can wear scrubs in clinic and in the operating theater.

What to expect in clinic:

Be aware that there are subtle differences in the way people speak with one another and communicate non-verbally. Though it is challenging to recognize what is a cultural convention, it is important to note that non-verbal communication cues differ from those of our own culture. In general, Tanzanians tend to be modest and shy. We must adapt to these differences. Women do not wear clothes that show their shoulders or their knees. Often times they also will not want to be seen by a male physician and may have trouble expressing themselves to a male provider.

Tanzania is a resource-poor country. Many things that we take for granted here in the United States in our clinics and ORs are not readily available in Tanzania. Oftentimes, these can be unexpected things. For example, certain medications, gasoline for the generator to run the anesthesia machine or extra OR lights may not be readily available. We also do not have access to radiology services other than a small transabdominal ultrasound machine. It is also possible that we run out of certain reagents to run basic lab tests, making these tests unavailable for a few days.

It is also important to keep in mind that the clinic's infrastructure is not used to supporting so many healthcare providers. We can easily "overload" or overwhelm a system that is already strained due to lack of resources. For example, our team usually provides free HIV testing for all the patients we see. Normally the lab functions with two techs. Ordering an extra 50 HIV tests on top of the usual days work can be very stressful for techs who are not used such volume. Anecdotally, we had an instance where we were trying to cross-match blood for an HIV positive patient. We were unable to find blood to cross-match, leading one of lab techs to spend hours trying to match the blood. This resulted in only one lab tech left to perform all the duties required of a job that usually two people perform. MIA tries to alleviate this burden by hiring temporary nurses and translators.

Pointers for Clinic

Clinic Flow

Patients check in at the front and pay the equivalent of approximately \$2 US to be seen. When our team is present, we cover the cost of all their lab work (with money from our donor funds) but the patients still must pay the \$2. This helps to keep the clinic operating.

Prescriptions/Medications: After being seen, if a patient needs medication, there are two ways of acquiring it. Firstly, if our team has the medications then we give it directly to the patient. Secondly, if this is not the case, prescriptions can be filled at the pharmacy on site. On the prescription order, please write "charge to MIA" so the staff will know not to charge the patient. ***Please see the addendum for instructions on how to write prescriptions in Tanzania.***

Laboratories: To order labs, please fill out a lab slip. Again, be sure to indicate on the slip that this patient is being seen by our group, MIA, so he or she is not charged. We offer all of our patients HIV and RPR testing. Furthermore, it is important to be very liberal when ordering hemoglobin levels as severe anemia is common. All lab tests are free. Please write "MIA" on the top of the lab slip to ensure this. **Do not remove the lab slips with results from the lab until the results have been logged into master Log Book in the Lab**

Other pointers for clinic

- Go slow and spend ample time with each patient. Quality over quantity is important. Ask questions more than once in different ways as the patient (and possibly the translator) may not understand the first time around.
- STDs- the only tests available are RPR and HIV. Therefore if either of those are positive, we empirically treat for gonorrhea and Chlamydia (with cipro and doxy; or treat with ceftriaxone and doxy if PID). *Please note that when testing someone for HIV this needs to be done by a counselor and the results, even if negative, must be given by the counselor as well. Dr. Bonn and Miriam are registered HIV counselors in the clinic and there may be others as well.*
- Infertility and pelvic pain are common. Many adnexal masses may be hydrosalpinx. We often treat pelvic pain with antibiotics before pursuing surgery. If the pain is still present on our next medical mission, we can then do surgery. You can expect to see many patients complaining of infertility during your visit in Mwanza. We realize that we cannot often help them but it is still important to see these patients. It is understandable that it is frustrating but please try to help in any way you can. Remember that fertility is vital for most women and even providing reassurance, acknowledgement and sympathy is helpful. Since 30% of infertility is due to the male factor, if possible, you can ask the partner to donate a sample that can be read by Denny in the lab. Denny is not in the lab every day so please let him know and coordinate with this with him. If the patient would like to have further testing, referrals can be made and patients sent to Bugando hospital for further evaluation. There is a referral form that is to be filled out for this process.
- Pre-oping patients for the OR: Please take the patient's phone number before letting them leave the clinic. Ensure that the following labs have been ordered: Hb Urine Pregnancy test, HIV and VDRL. Also for any major case, ensure that we have blood available for the patient. Please be sure to fill out the **inpatient H&P packet** as completely as possible prior to surgery. In addition to being good medical practice, this also helps us to double check that we are being complete in what can often be a chaotic environment.

- Systems based practices can be challenging. Trying to create and adhere to a "system" or "method" for seeing patients efficiently rarely works. Often not everyone will be "on board" with the system resulting in everyone doing things their own way. It's best to go slowly to avoid missing anything important and remember to keep track of your own patients.

The Database

MIA keeps track of all of the patients we see in a database. The purpose of the database is several fold:

1. to keep good medical records.
2. to help keep track of the number of patients we see and the types of illnesses so that we can improve our patient care on future medical missions.
3. keeping track of our numbers helps increase our donations by providing information for future grants as well as providing information to past donors who often give continually
4. In case patients need further follow up on future missions.

It is the responsibility of all volunteers to keep up the database during the mission. It is best to try to enter the data as we go along in clinic each day so we are not doing it at night after a long day in clinic. We can assign 1-2 persons each day to be in charge of the database. This is usually a medical student, resident, non-medical volunteer or anyone else.

Ultrasound

A sono-site ultrasound with an abdominal probe is available. The machine and its parts cannot be easily replaced in Tanzania, so it is important to exercise extreme care with it. Time permitting, consider sharing your knowledge of pelvic ultrasound techniques with the medical officers. Remember, part of our mission is to provide sustainable improvement to the clinic's services so they are able to continue smooth operations in our absence.

What to expect in the OR

At the present time, we are the only US based team that uses the operating room. We have trained Maria Seleman, a local Tanzanian to take care of the OR and sterilize equipment. She is also learning how to become a scrub tech. There is no other OR staff and we must ensure that we thoroughly prepare the OR and the patient ourselves before surgery. Mary Ellen is also with us during surgery overseeing and helping us with whatever needs to be done in the clinic.

The OR is run by electricity from a generator. It is the responsibility of the staff to ensure there is enough gas in the generator. After surgery, Maria will wash the instruments and sterilize them for the next surgery. This decreases the time we must wait for the sterilization process to be complete. At the current time we have one TAH tray and one BTL tray.

Our team is responsible for ensuring:

(1) It is the correct patient and correct procedure- we have implemented our own time out.

(2) Our own counts- we keep track on a counts sheet.

(3) Ensuring that the patient's labs are in order before surgery, the H&P is done, and the patient understands the procedure. (We have created a pre-op checklist to confirm that all important elements are completed and reviewed, e.g., pregnancy tests, heparin, antibiotic prophylaxis.)

(4) The staff is responsible for ensuring that there is enough gas in the generator, *but it is also our responsibility as surgeons to ensure before we start the day that the generator is full.*

(5) Blood: At the start of our mission Paula obtains approximately 12 units of blood from the blood bank in Mwanza and this is stored in the fridge in the lab. If indicated, please check that there is at least one crossed unit in the fridge BEFORE starting surgery. If we start running low on blood then we need to ask Paula to get more units from the blood bank. It takes her one day to obtain the blood so we need to plan ahead.

We take some of this for granted in the United States as we have a support staff of nurses and other OR personnel to help us. At Nyakato, we must do most of this for ourselves.

Night Call: Because we are in a foreign environment, we can sometimes forget about our patients in the hospital after our work is done for the day. We have a cell phone with which the nurse can call us if there are any problems with our patients overnight. We can all take turns to keep the phone overnight to take calls from the nurse and if needed see the patient. NEVER walk at night alone over to the hospital. ALWAYS go in pairs.

Group Dynamics

MIA is staffed by a diverse group of volunteers with varied professional, educational and ethnic backgrounds. Our volunteers range from first timers to seasoned veterans, but we all share a serious commitment to providing urgently needed care to our patients in underdeveloped countries. It is important to remember that we are a team. As our roles change often depending on the needs of the day, it is extremely important to remain flexible. One can never be sure what to expect next, and the group can be an invaluable source of support in a challenging environment. It is crucial that each of us takes the responsibility of doing his/her part to enhance the group, whether it's by doing surgery or doing the dishes. If this is your first mission, please seek out a more experienced volunteer to whom you may address your concerns. If you are a veteran, please take notice and extend a hand when you see someone struggling. If we all

remember to think not only of our own needs, but of the needs of the team, the mission should prove to be a rewarding and often life changing experience.

Recycling

THINK BEFORE THROWING SOMETHING IN THE GARBAGE: Many things that we are used to considering disposable in the US are actually reusable. Re-usable items include: the blue paper sheets that are used to wrap instruments for sterilization, blue or green towels, and lap tapes (which are washed and bleached before reuse). Some plastic items can be reused as well. When in doubt, you can ask Mary Ellen or any physician who has already worked there. (Any MIA board member should know.)

Things you would never think are recyclable include: blue paper that is used to wrap the sterilized equipment, bovie pens, plastic suction and blue towels.

Electricity

In the OR the electricity is either 110 or 220V. Be careful when plugging equipment in to the wall sockets. If you plug something requiring 110V into a wall socket that delivers 220V - it will burn out and we will be unable to use the equipment. In extreme circumstances, this can prevent a surgery altogether. Again, go slowly and think carefully when working in the OR.

Daily Life:

Room and board

Our guest quarters are either in small guest houses or in hostels, depending on each person's assignment. Breakfast is at 7:30am at the house of Paula and Denny (they run IHP). We arrange our lunch and dinner meals with Lucy, a local chef. The cost of a room and breakfast is approximately \$10/night. Lunch and dinner are approximately \$5 per meal.

Water

Brush your teeth with bottled water. (This will be provided by Paula.) Some volunteers also choose to wash their fruits and vegetables in mildly chlorinated water – but for the most part our meals are provided for us, and you will not need to worry about this.

Hot Water for Showers

The heaters for warm shower water are in the bathrooms and should be turned on 15 minutes before you shower. Please also remember to turn them off when you are done. Do not leave them on during the day or overnight!

Flushing the toilet

Yes, flushing the toilet. If it's yellow, let it mellow, if it's brown, flush it down. Do not put toilet paper in the toilet. It goes in the trash bin. There is a place to put this trash on the grounds of where you are staying and it is burned every so often. Organic trash is also in a separate bin.

Internet

There is one dial-up guest computer that is at Paula and Denny's house that works intermittently. Internet in Tanzania is not a flat rate like in the United States- it is pay as you go. Therefore guests are expected to contribute to the "pot" to keep the Internet running. At your discretion payment should be approximately \$5-\$10 or 5,000-10,000 Tanzanian Shillings (Tsh).

Money

You should bring US dollars and your ATM card. We do not recommend that you use your credit card as this is not frequently done in Tanzania and may incur a 5% charge. The money in Tanzania is Shillings and the current exchange rate is about 1300:1 USD. (You should always check the exchange rate before leaving, as well all know how quickly these change nowadays.) You will be required to purchase a VISA which typically costs about \$100 USD. You can get money from the ATM at the airport upon arrival into Tanzania or Mwanza.

Converters

Electricity is 220V- MIA supplies one converter but you may want to bring your own.

Cell phones

We are usually supplied with a local cell phone in Tanzania. You can have your family call on this if you want. Receiving calls is free on a cell phone, but making calls requires us to use pre-paid phone cards.

Night-Life/Going out

There are a few bars and restaurants around town. If we want to go, we are required as a group to buy the gas and pay the drivers (either Sele, Magola or both). Petrol is very expensive in Tanzania but this can be mitigated by splitting the cost within the group. If we each pay our share, it usually works out to a few dollars each. Sele and Magola work for IHP and typically have the nighttime off. Therefore we must always ask them first to see if they are willing to drive us. Paula does not like us to take taxis from people we don't know.

Buying Souvenirs

You can purchase a wide variety of souvenir items of high quality in Paula's store at the health center. The proceeds from her store help support both the health center and the local craftspeople. In the past, many volunteers have used the suitcase originally containing medical supplies and filled it with souvenirs to bring home. Hand-made baskets, jewelry, African print material and sculptures

are very popular. The prices at the store are very reasonable and I have not found anywhere cheaper in Tanzania.

A bit about Tanzania...

History

East Africa is extremely important to the early development of our species. Many archaeological remains have been found in East Africa, ranging from 3.6 million year old hominid tracks preserved in volcanic ash (those of our earliest ancestors, Australopithecines) to 10,000 year old rock paintings.

Politically, Tanzania won its independence from the United Kingdom in two waves: first, the region of Tanganyika in 1961, and second, the region of Zanzibar in 1964. The two regions were united months later and are presently led by President Jakaya Mrisho Kikwete, and Prime Minister Mizengo Pinda as a sovereign state. Although the capital of Tanzania is officially Dodoma, currently, the largest city is Dar es Salaam. Swahili and English are both designated as official languages.

Tanzania is populated by over 40 million people and home to over 100 different cultural groups, the largest of which include: Sukuma, Haya, Nyakyusa, Nyamwezi, and Chaga. Many of these cultures descended from the Bantu people. The majority of Tanzanians work in Agriculture, while the rest take jobs in industry, commerce and government.

Culture

Women in Tanzania dress modestly, and we ask that you too attempt to follow these customs to avoid offending the locals. Generally speaking, Tanzanian traditions are more strongly adhered to in areas less exposed to Western culture than in city and tourist locations. In the rural parts of Tanzania, showing extreme emotion or losing one's temper is frowned upon, and displaying physical affection in public during daylight hours is not done. Men, however, may walk hand-in-hand as a sign of friendship. Also in rural areas, women do not typically speak loudly, smoke, or cross their legs (either sitting or standing). These laws are frequently broken in urban centers.

In small towns, tipping is not generally practiced as frequently as it is in the United States. In larger towns and tourist areas, however, many expect to be given tips for their services. Like in the US, some establishments add a service charge to the bill, so check before adding more of a tip. General practice suggests gratuity of 10% of the bill.

Finally, it is very important to be aware that Tanzanian culture is not as acclimated to constant picture taking as our own. Some Tanzanians feel very uncomfortable with having their picture taken and it is of the utmost importance that you ask before taking pictures of your patients. You will come across situations in which the balance of power is clearly tilted and some patients may be too afraid to say no to you, even if they wish to. Please try to be aware of these situations and not pressure the people we are there to help. We certainly

don't want people to think they must submit to this practice if they are to receive treatment!

Tanzania is full of vibrant cultures and we hope you enjoy learning about the people and country itself. For more information, please see www.lonelyplanet.com/tanzania or www.everyculture.com.

Appendix:

Instructions on filling out the H&P form and database:

Please try to fill out all fields in the H&P form and the database. General terms can be used for the database since the actual medical record is a paper chart. For example if the chief complaint is "right sided abdominal pain" you can simply write "abdominal pain" in the database. The paper medical records will capture all the detail. As another example, if the diagnosis is "large fibroid uterus", you can simply write "fibroid uterus". When filling out the treatment section for example, list only the medication, doses are unnecessary.

The database is done on an excel spread sheet which is then imported into the Microsoft Access at the end of the mission.

If a patient needs further follow up on a future mission, highlight the entire row in the excel spreadsheet and describe the need for follow up in the comment section. Also you can try to take the patient's phone number for us to get in touch in the future.

When using the laptop to fill out the datasheet, try to keep it as charged up as possible. On occasion, the electricity goes out and keeping it charged will allow us to continue entering data without power.

Writing Prescriptions: There are slight differences in the directions for taking prescribed medications. Please try to follow the local practice. It is important to go over the directions with the translator present to insure patient understanding.

Sig: Number of tablets x Frequency x Number of days to take/7

Example: To prescribe Amoxicillin, with the patient to take 2 tablets twice daily for 7 days, you write: 2 x 2 x 7/7 **OR** 2 x BID x 7/7

For same prescription for 30 days: 2 x 2 x 30/7

For 6 months duration: 2 x 2 x 6 months

For PRN medications: Paracetamol 2 x Q6hr PRN

When giving the prescription **directly to the patient**, write on the envelope:

Sig: Number of tablets x Frequency x Number of days.

Example: to prescribe Amoxicillin, with the patient to take 2 tablets twice daily for 7 days, you write: 2 x 2 x 7 days

For same prescription for 30 days: 2 x 2 x 30 days

For 6 months duration: 2 x 2 x 6 months.

For PRN medications: Paracetamol 2 x 3 unapokuwa na maumivu tu (unapokuwa na maumivu tu = PRN). Then write the number of tablets on the envelope and circle it.