Hot Topics for the Hot Tropics: Tips for Volunteering Overseas

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Overview of today’s talk
[A] Why get involved in global health?
[B] How is practicing overseas different than at home?
[C] Preparation before you leave
[D] Personal care overseas
[E] Finding the right organization

Why get involved in global health?
- poverty
- drinking water
- sanitation
- malnutrition
- droughts and climate change
- displaced refugees
- increased travel
- drug resistance
- aging populations

How is practicing overseas different than at home?
- “Everything is different”
- Cultural differences
- Medical history
- Language barriers & Interpreters
- Exams may be challenging
- Lab, X-ray & Ultrasound
- Referrals & follow-up
- Acceptance of death
- Tension between local customs and Western medicine
- Finances
- Role of men in decision making
Preparing to volunteer overseas (Part 1)
- Primary Care, Peds, OB
- Courses & seminars

Professionals Training in Global Health
Common Pediatric Conditions & Treatment (2 sessions)
Surgical Triage in the Field
Malaria
Trauma Overview
Resuscitation Review
Water, Sanitation & Water-borne Illnesses
Evaluation & Management of Disorders of the Mouth & Teeth
Hemorrhagic viruses: Dengue and Ebola
Basic Applied Epidemiology
Meningitis, Tick Borne Fever & Myiasis
Tropical Dermatology

PTGH Cont.
EM Procedures Lab: Splinting, Lacerations, Intubation
Clinical Diagnosis & Tx of HIV/AIDS & TB & TB/HIV Co-infection
Obstetrics: Overview & Demonstration
TB & Leprosy
Skin & Soft Tissue Infections
Abdominal Emergencies
Respiratory Disease in Children
Occupational Risks
Security Training by Medical Teams International (MTI)

Ultrasound Demonstration & Lab
Trachoma, the Red Eye & Other Common Eye Conditions
Epilepsy Diagnosis and Treatment
Orthopedics for Generalists
Orthopedics Practicum – casting
Ketamine Anesthesia
Regional Block Anesthesia & practicum
Water-borne Infections: Cholera, Typhoid, Amoebiasis & Shigella; Rickettsia
Vaccines
PTGH Cont.

IMCI - Integrated Management of Childhood Illness IMCI
Schisto, Leishmania, Tropical Phagedenic Ulcer; Chickungunya & Yellow Fever;
Encephalitides: Tick borne, West Nile & Japanese; Rabies & HSV
Nodding Syndrome & Other Environmental Neurologic Disorders
Mental Health in Worn-Torn Libya
Relief Team Mental Health & PTSD
Laboratory Identification of Ova & Parasites; Preparation of Stains; Point-of-care
Testing with Hand-held Chemistry Analyzers
Red Cross Code of Conduct
Stages of Disaster Response

PTGH Cont.

Essential Medications in the Field & WHO Formulary
Ethics & Global Health
Obstetric Fistulas, Female Circumcision, & Pelvic Organ Prolapse
Malnutrition in Low Income Countries; Feeding Programs for Malnourished
Children, & Anthropometry
Family Planning
Sexually Transmitted Infections: Syndromic Management in Resource-Challenged
Settings
Field Radiology & Ultrasound
Tropical Travel: Risks & Recommendations
20 years experience in Cote d'Ivoire & Mali: “What I wish they'd told me”

Books and references
- Oxford Handbook of Tropical Medicine, Michael Eddleston et al, Oxford U. Press
- Tarascon Global Health Pocketbook, Amit Chandra, Jones and Bartlett Pub.
Preparing to volunteer overseas (Part 2)
- Passport and visas
- Vaccinations
- Anti-malarial prophylaxis

Anti-malarial prophylaxis
- **Malarone** (250 mg atovaquone/100mg proguanil) 1 tab daily with food, starting 1-2 days before travel and continuing for 1 week after leaving. Avoid in pregnancy.
- **Mefloquine** 250 mg 1 tab once/week, starting 1-2 weeks prior to travel and continuing for 4 weeks after leaving. Not approved for use in pregnancy, but may be safe especially in 2nd & 3rd trimesters. Side effects include nausea, vomiting, diarrhea, dizziness, disturbance in balance, nightmares, panic attacks and seizures.
- **Doxycycline** 100mg daily, starting 1-2 days before travel and continuing for 4 weeks after leaving. Contraindicated in pregnancy. Side effects include photosensitivity, GI disturbances and vaginal moniliasis.

Preparing to volunteer overseas (Part 3)
- Invitation from Ministry of Health
- Medications and supplies
- Cash and credit cards
- Cell phones and laptops
- State Dept. and CDC websites
- Permethrin treatment of clothes
- Water bottle and water purifier
- Plane ride items
- Gifts
- Travel trunks

Personal Care Overseas (Part 1)
- Adapting to heat
- Food
- Insecticide
- Mosquito net
Personal Care Overseas (Part 2)

Emergency supplies:
- toilet paper
- sunblock for skin and lips (apply first, before insecticide)
- DEET insecticide
- Pepto-Bismol chewable tablets, 2 qid for indigestion and diarrhea
- Cipro 500mg, 2 stat and one q 12 hours for non-bloody diarrhea until gone.
- Immodium (loperamide) 2mg, 2 tabs initially, then 1 tab after each loose stool.

Personal Care Overseas (Part 3)
- Clothes
- Toilet paper and quick trying towel
- Snacks and coffee
- Mental & emotional health
- Special items
- Flashlight & headlamp
- 2 handouts by Dr. Tom Hoggard

Criteria for choosing an organization with which to work. As a minimum it should have:
- an in-country medical contact, i.e. a permanent resident (national) of the country to be visited
- a good relationship with the Minister of Health with written invitation from MOH
- good communication with in-country health professionals for patient referrals and follow-up care
- no more than 15% of donations spent on administration, overhead and publicity
- a credible track record for overseas missions
- a signatory of the Red Cross Code of Conduct
- an emergency medical evacuation plan provided to volunteers in writing in advance of the mission
[slide 19]
Finding the right organization; a few suggestions:
Cardiostart
Child Family Health International
Doctors Without Borders/ Medecins Sans Frontieres
Footsteps to Healing
Health Bridges International, Inc.
Health Volunteers Overseas
Medical Teams International
Seattle King County Disaster Team
TERREWODE

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[slide 21]
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MY TRAVEL KIT AND ADVICE
Tom Hoggard, MD, FAAFP, DTMH
Updated November 9, 2012

- I carry a number of plastic zip lock bags, handy for organization and keeping things dry
- A LED flashlight that mounts on your forehead. Allows hands free nighttime use. I also carry a spare small flashlight, and spare batteries
- Small ball of heavy string. I have used this many times to hang up my mosquito tent in odd places
- Several screw and eye hooks to hold up your bed net and for other reasons
- Small roll of duct tape
- Camp suds for washing clothes (small bottle available at REI)
- Several clothes pins
- 4-5 plastic wall mounted hooks with sticky backs so I can hang clothes when there is no other way.
  - I keep all the above, in a small zip lock for organizational reasons
- Leatherman tool
- I carry a few 3”x5” cards on which I write peoples names, #’s, addresses. You’d be amazed how many people you meet, and wished you had a way to contact them. Also I have one such card with important phone numbers (for my family and other contacts back in the States). Take several pens, a small pack of yellow sticky pads, and an old fashioned solid back notebook to record names, places, and in one part can use as a diary.
- Recently, I’ve taken a small micro cassette recorder to dictate at the end of each day.
- Ear plugs
- Electrical converter
- Water purifier.

CLOTHING

- For PJ’s: Permethrine impregnated surgical scrubs. Take 2 pair. The Permethrine comes in a squirt bottle (REI) is an insecticide and I usually spray my clothing one week before travel to allow it to thoroughly dry Permethrine also comes as a dip. It’s easiest to spray while the clothing is on a hanger. It’s good for at least 6 washings.
- Take lightweight, cotton or easily breathable clothing. Long sleeves and pants, for use from dusk till dawn. Avoid blue - attracts Tsetse flies.
- If you do your own laundry and hang it outside to dry, you should iron the clothing to avoid the Tumbu Fly larva (warbles). Africa only.
- Hat, cap, sunglasses, high UV protection water resistant sunscreen to be applied 30 minutes before mosquito repellant.
- Sandals only in certain situations…less opportunity for day biting mosquitoes.
FOOD AND WATER

- Use bottled water exclusively, avoid ice. Many dirty hands touch your food, even in great restaurants. I always take iodine tablets to purify water, but rarely need to use anymore. Bottled water is everywhere. Buy a lot and store it.
- We take powdered Gatorade which has both salts (K and Na) and sugar for dehydration when we really need it.
- We also take a bit of crystal light (downsize into zip lock) to give us an occasional flavored beverage.
- Water purification device (ie steripen)
- Because we have frequently been in areas without a meal, we carry beef jerky, trail mix, peanut M and Ms. We take these in our backpacks every day.
- The axiom: “cook it, peel it, or forget it” rings true, but is hard to follow. Studies show that 50% of people traveling for one or two weeks to the developing world develop traveler’s diarrhea, in spite of trying hard to only eat and drink safely.

DIARRHEA

- Carry a Zip lock baggy on your person at all times with a small roll of TP (REI), and Imodium AD (can take 2 tablets up to 4 times a day). CIPROFLOXIN (will be prescribed). When I take this, I wait till at least 2 pretty loose stools or one hard to control loose stool. Then I take CIPRO 500 mg tablets: 2 right away, then 1 tab 2 times a day for a total of 6 tablets. Also Take Pepto-Bismol tablets. 2 tablets 4 times a day helps with the diarrhea. If the diarrhea is severe, start using Gatorade to restore the lost electrolytes. The extra sugar has been shown to reduce the severity and duration of diarrhea. Don’t get dehydrated…even if vomiting; your body will absorb swallowed liquids. We’ve saved many a life when people have severe dehydration due to diarrhea/vomiting with just ORS (similar to Gatorade). If no associated fever, as an adult you can use Immodium AD and or Lomotile (Loperamide).

FLYING

- Studies have shown that many people get blood clots in their legs if flying for 8 hours or more. The same studies show that using 20 gauge knee high support hose markedly reduces this problem. 20 gauge require an Rx and time. Therefore I use and recommend going to a surgical supply store or your pharmacy, and getting 18 gauge hose…These are available without Rx. The other advantage for wearing these is that your legs are not so puffy when you reach your destination. Also move around, get up and walk the aisle.

MOSQUITOES, FLIES, AND OTHER THINGS THAT BITE

- There are day and night time biting insects, the main one being mosquitoes
These nasty creatures carry all sorts of diseases, that we don’t have to deal with in the USA (except for returning travelers)
  o The diseases include Dengue Fever (day biting mosquitoes), Filariasis (a very serious disease that causes elephantiasis…marked permanent swelling of the legs and other body parts), and Malaria (deadly to westerners who are non immune)
  o An ounce of prevention is worth a whole lot of treatment later
  o Always use mosquito repellent (DEET is best)
    ▪ Use it when you get up in the AM, and just before dusk
      • We usually use Ultrathon, or a spray bottle of DEET
      • Mosquito repellent does not repel mosquitoes, it only make the skin invisible to them.
      • Close your mosquito net when you get up at night. Otherwise they may be an unwelcome intruder on your return.
      • Your bed net should be impregnated with Permethrin
    ▪ Check your mosquito net for any holes
      • Mosquitoes are attracted to movement, any body moisture, and your exhaled carbon dioxide
      • They will find the smallest hole in your net and if they get in, all it takes is one bite to cause disease.
      • Patch any hole with duct tape.

When in Tsetse fly country, i.e. in the game parks, protect your self well with DEET, long sleeved shirts and pants. Wear shoes, not sandals…Tsetse flies cause African Sleeping sickness, hard to treat, and deadly. This fly is ubiquitous to the Northern and Central part of Sub Saharan Africa, and is attracted to moving big things, like you and your vehicle…also the color blue.

When you are very hot, and see a nice cool lake which seems too good to be true…. you’re right! There is a potential problem….Schistosomiasis. This is a disease passed on by snails, and present in much of the tropical world and you catch is by being in the water. Especially avoid slow moving or still water. This disease can be treated but can cause a lot of harm. Don’t swim!

Snakes are not your friend, and there are many in much of the world, stay alert, and if up at night always use your flashlight.

MEDICAL ISSUES

• Be prepared: Carry a list of your medical conditions, drugs, doses, and take extra medicine and put it in a safe place so you will have an extra supply should the need arise.
• There are lots of counterfeit drugs being sold as the real thing all over the developing world (esp. SE Asia and Africa). These are either pure “sugar pills” or watered down version of the real thing. Best to rely on your own from the USA.
• One of the most common medical problems is your old friend, the common cold. Take along some decongestants or Afrin nasal spray if you can take it safely.

• Carry a few band aids, Mupirocin (bactroban), tape, Aspirin. These things may save you a trip to a doctor.

**MISCELLANEOUS ISSUES**

• Passports: Make a copy of yours, and give it to a travel mate. This can be a major time saver if yours is lost.

• Your personal safety is an issue nowadays. Kidnappings and robbery are common. Be alert, and go to the State Dept website to check on the area to where you will travel.

• You might want to buy insurance to get you out of Dodge should you have a critical medical problem. I know SOS provides that insurance, and there are several other companies that do so as well. A small run on a leer jet may cost $35,000 US Dollars. SOS has a web site, so just Google it.
  o I use DAN (Divers Alert Network) Insurance about $100 per year, and covers up to $100,000 for emergency evacuation. A real bargain

• Pack light, and take only the essentials, we only take 2 changes of clothing

• Depending on circumstance we will take the small “walkie talkies” to communicate.

• If I’m going to a critical area, and know I’ll be relying on a village chief or village/tribal leader, I will frequently present a small gift such as a Leatherman tool. Nothing like a gift to instill cooperation and support.

• If traveling into a hostile area, register with the local US Embassy or their representative. Also see if there are armed forces to rescue you, and how you can contact them. Take a GPS and give them coordinates as to where you will be staying and traveling.

**WEB SITES**

• CDC.gov a great web site for travelers, you can drill down to any country and see what the CDC recommends for immunization, lots more about water and food safety, general safety, diseases possibly encountered in that country etc.

• www.Lonelyplanet.com to find out interesting things about your destination.

• State.gov is the state dept web site, handy to see what they say about your area of travel

• Volunteers.org a list of many agencies

**HAVE A FABULOUS JOURNEY**
Travel Meds for Personal Use during Disasters or Prolonged Visits to the Developing World
Tom Hoggard, MD DTM&H
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Think Review of Systems, and meds that treat common ailments in those systems. The most likely medical conditions you will encounter are URI and Travelers Diarrhea.
Most drugs can be downsized into small labeled plastic containers

HEENT:

Otitis Externa:
- Cortisporin ear gtt: i.e. 4 gtt tid prn otitis externa.
- Ciprofloxin .2% suspension 4 qtt bid or Floxin Otic .3% soln 3 gtt bid
- Rubbing alcohol and white vinegar 50/50% an a little H20 (Use a squirt bottle) when exiting from the water to prevent swimmers ear (dive trips).

Otitis Media:
- Amoxicillin 875mg bid x 7days or
- Azithromycin 250mg , 2 tabs on day one, then 1 tab qd x 4 days

Eyes: Conjunctivitis and corneal abrasion: Tobramycin ophth gtt:
- 1 gtt q 2-4 hours (Andy Harriss)
We take drug samples: i.e. Ciprofloxin ophth soln. or Tetracycline ointment and use qid if needed. Can use Gentamycin oph. Soln qid instead. We use whatever is available
- Saline or Lubricating eye gtt for dry eyes (especially during flight)
- Antihistamine:
  - Loratidine (Claritin) 10 mg/ day a great non sedating antihistamine. The generic form is now available for $4 for 30 tabs at Fred Meyers and a few other pharmacies.
  - Benadryl 25mg. Use 25-50 mg for a severe allergic reaction and pruritis. Can use q 4-6 hours. Max 400mg/day

Decongestant:
- Pseudophedrine 60mg can use every 4-6 hours. No more than 240mg/ 24 hours. A great decongestant. The OTC form of Sudafed is not Pseudophedrine, nor as good. Both can cause palpitations, and increase your BP. I don’t use before bedtime….insomnia
CHEST: Think bronchitis and pneumonia:
  o **Azithromycin** 250 mg, 5 tablets. 2 on day one, and 1 daily for the next 4 days. Also works for Sinusitis or
    o **Trimethoprim/Sulfa DS** 2 tabs bid for 7 days or
    o **Doxycycline** 100mg bid for 7 days.

GI: Travelers Diarrhea: 50% for 2 weeks travel in the developing world!
Use antimitotility drugs for non bloody diarrhea only! Carry these with you at all times!
- **Cipro 500mg** #6, 2 stat and one q 12 hours till gone. This usually stops diarrhea within 2-3 loose stools. (Think ETEC is everywhere. In SE Asia and Asia, the most predominate bug causing TD is Campalobacter.
- **Azithromycin 250mg**: 1 bid for 3 days if in Asia/SE Asia.
- **Immodium (loperamide)** 2mg. 2 tabs start, then 1 tab after each loose stool: Max 16mg/day. Or
- **Lomotile (diphenoxylate/atropine)**: 1 or 2 tabs PO bid-qid Max 8 tabs /day. DC after diarrhea controlled. Use no longer than 48 hours.
- **Pepto-Bismol tabs**: 2 tabs qid
- **Prilosec** (Omeprazole) 40 mg: 1 qd or bid prn heartburn.
- **Toilet Paper**: Use the cellophane wrapped sheets from REI.

GU: UTI: **Cipro** 500mg 1 bid for 5 days for UTI or
**Tri/Sulfa DS** 1 bid for 5 days for UTI
Yeast Vaginitis: **Diflucan** 150 mg tab po

SKIN: **Bactroban** cream or ointment or **Neosporin** ointment for abrasions & cuts.
**Skin Infections:**
- Best is **Trimeth/Sulfa DS** 2 bid x 7 days (MRSA)
- Macrolides or cephalosporins: i.e. **Azithromycin** 250mg 2 stat and 1/d x 4 days, or
- **Cephalexin (Keflex)** 500 mg qid x 7 days.
- **Cipro** 500mg 1 bid x 7 days for infections below the belt (esp. in groin or buttocks area.)

**Cuts and Abrasions:** band aids, dressings, tape, a few 4x4’s, small betadyne container.
Suture set, and a few 4-0 nylon sutures

ORTHO:
**ACE Wrap**, 4 and 6
GENERALIZED/SYSTEMIC MEDS/OTHER

Steroids: We take Prednisone 20 mg tablets. 60mg/day for 3 days for severe allergic reactions, acute herniated disc etc, and then taper to 40mg/day x 3 days.

Sleep: Ambien 10mg ½ tab hs generally keeps you asleep x 6 hours. Great for jet lag and sleeping through noise. Don’t use with alcohol, and don’t expect to drive or make rational decisions when on this med. Also take ear plugs.

Pain: Ibuprophene 400mg q 4-6 hours or Naproxyn 500mg bid or Celebrex 100mg bid (longer acting) Tylenol 500mg q 4hours (not as effective, but no associated gastritis) ASA 325mg Vicodin for more severe pain

Nausea/Vomiting: can use Tigan 300mg qid. We usually don’t use drugs. Gatorade for dehydration. Take the powder in zip lock bags.

Take your own personal specific medicine and antimalarials.

Sunscreen and Repellant.
Support hose, 18 gauge: prevents edema and clots when flying

Summary: Drugs taken
Ambien 10mg tabs
Amoxicillin 875mg
Azithromycin 250mg tabs
Bactroban ointment or cream, or Neosporin ointment
Benadryl 25mg tabs
Betadyne soln
Cephalexin (Keflex) 500 mg tabs
Claritin (Loratinine)10mg tabs
Cortisporin ear drops
Ciprofloxin 500mg tabs
Ciprofloxin ear gtts
Diflucan 150mg
Doxycycline 100mg tabs
Floxin (Ofloxin) ear drops if perforated TM
Ibuprophene (Motrin) 400mg, Naproxin 500mg, or Celebrex 100mg
Imodium AD tabs
Lomotile tabs
Peptobismal tabs
Prednisone 20mg tabs
Pseudophedrine 60mg tabs
Saline or other lubricating eye drops for flying
Tobrimycin ophth gtts: 1 q 2-4 hours prn
Trimethoprim/Sulfa DS (Septra, Bactrim)
Vicodin (acetaminophen/hydrocodone) 500/5 tabs
Some common side effects from our drug list:

- Doxycycline can cause severe esophagitis. Don’t take just before bedtime. Drink 8 oz of H2O with it to get it beyond your esophagus. There is also a 10% risk of photosensitivity with this med and a significant incidence of yeast vaginitis.
- Tri/Sulfa can cause a pretty severe skin rash and photosensitivity.
- Prednisone can cause insomnia, anxiety, mood swings, HA, dyspepsia, edema. Best taken in the AM as one dose
- Cipro can cause GI Sx, HA, restlessness, and photosensitivity.
- Benadryl does cause sedation, commonly: dizziness, blurred vision dry mouth.
- Azithromycin can cause GI Sx, vaginitis.
- All Antibiotics can cause C Diff. colitis. If severe diarrhea/blood/cramping after using ABX, this is in your Diff Dx. (Along with Shigella, other forms of dysentery, Campylobacter, and Amoeba).