

Medical Mission Basics: My experience with DOCARE

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Objectives

- Medical missions
- Travel Medicine
- Health Care in Guatemala
- Cases

DOCARE

- DOCARE a non-profit organization
 - Ernest A. Allaby D.O., founded DOCARE in 1961 to help provide care to areas of need. Early members flew their own planes to remote areas to provide medical care.
 - Members are from all health professions and others with special skills.
 - Student chapters at Osteopathic schools
 - Visit countries around the world
 - First continuity clinic in Guatemala open in 2011
- <http://www.docareintl.org/index.html>

Medical missions

- What to expect
 - Hard work
 - Poor facilities for clinics and accommodations
 - No modern testing equipment
 - Limited or no follow up facilities for patients
 - Communication difficulties
 - Inability to make a difference in some cases
 - A rewarding experience

A clinic- local school



Medical Missions

- Supplies to bring
 - Dx tools: weigh scale, Stethoscope, BP cuff, optharmo/otoscope, ear tips, tongue blades, vaginal specula, gloves, hand-sani
 - Lab tools: Glucometers, urine dip sticks and pregnancy tests, microscope
 - Tx supplies: bandages, basic surgical/suture supplies, glasses, sunscreen, hygiene items
 - Basic Medications: Pain meds, antacids, antibiotics, anti-parasitics, multi-vitamins
 - Other meds: HTN, DM, depression- (only if access to continued supply)

Work in teams and ensure all students are supervised.
Take time to teach and don't forget about OMT,
a free tool that is with you at all times!



Handy belt bag for
expensive diagnostic tools



Travel Medicine

- Causes of illness in the traveler
 - Traveler's Diarrhea
 - Insect born diseases
 - Accidents
 - STD's



Travelers Diarrhea

- Of the 20 million travelers each year, about 30% get ill from food or water
- Travelers diarrhea ususally resolves in 3-5 days
- Causes
 - Bacteria: Ecoli, shigella, salmonella, vibrio, campylobacter jejuni
 - Viruses: Rotavirus, norwalk, enteroviruses
 - Protzoa: Entamoeba histolytica, cryptosporidium, Giardia, cyclospora cayetanensis

Traveler's Diarrhea Cont.

- Prevention
 - Clean food and water practices
 - Bottle water, no ice, carbonated water
 - Avoid raw vegetables
 - Peeling your own fruit
 - Well cooked meats
 - Rule of P's- Peelable, packaged, purified, piping hot
 - Prophylactic drug options
 - Pepto-Bismol 2 po QID
 - Bactrim DS 1 po QD
 - Doxycycline 100mg po QD
 - Ciprofloxacin 500mg po QD

Traveler's Diarrhea

- Treatment of mild diarrhea
 - Immodium 4mg plus Cipro 750mg x1
 - Then immodium 2mg after each loose stool
- Treatment of moderate to severe diarrhea
 - Cipro 500mg bid x 3d
 - Bactrim DS bid x 3d
 - Doxycycline 100mg bid x 3d

Insect Born Diseases

- Malaria, Yellow Fever, Typhoid
- Malaria
 - Plasmodium Malariae, falciparum, vivax, and ovale
 - Mosquito born (anopheles)- present in most tropical regions
 - 1500 travelers infected each year
 - Sx: F/C, sweats, headache, N/V, abdominal and msk pain
 - 10d- 4wks after infection, possibly one year after exposure.
 - Prevention
 - Mosquito precautions: clothing and 30% DEET
 - Medications: Chloroquine, Mefloquine, Doxycycline, Primaquine and Malarone

Travel Vaccinations

- Routine immunizations
 - Hep B, tetanus, MMR ect.
- Travel immunizations
 - Tailored to specific locations on visit
 - Hep A, typhoid, yellow fever, japanese B encephalitis, meningococcus
- Special circumstances
 - Rabies, cholera, plague

Other Travel Advice

- Personal safety
 - Be aware of your surroundings
 - Keep money and passports in a secure place
 - Avoid bringing unnecessary valuables
 - Dress appropriately for their cultural norms and behave professionally to avoid attracting unwanted attention.
 - In many places this means keeping shoulders and knees covered.

Guatemala

- Population = 12 million
 - 43% age 15 or younger
 - 58% rural
- The people
 - Native Mayan
 - Live in more rural areas
 - Speak Cakchiquel
 - Mestizo
 - Live in more urban areas
 - Speak spanish



Guatemala Culture

- The Economy
 - Agriculture & export of coffee, bananas, sugar and tropical crops
 - Large divide between rich and poor
 - 75% live in poverty
- The government
 - Democracy
 - Dictatorship and longstanding civil war ended in 1996
- Education
 - School is compulsory for ages 7-14
 - 85% of eligible children attend primary school
 - 35% attend secondary school
 - Only 8% attend tertiary school
 - Literacy = 66%
- Religion- Catholic, and traditional Mayan





Healthcare

- Life expectancy = 66
- Mortality (death rate = 7.4/1000)
 - Pneumonia and influenza were the top causes
 - Then perinatal problems and intestinal infections
- Fertility rate is 4.4 pregnancies per female
 - Only 41% of births are by trained personnel
- Only 35% of people use contraception
- Infant mortality = 49/1000 live births
- 83% of infants <1yr are vaccinated

Healthcare Barriers

- Lack of money
- Access to adequate medical facilities
- Poor sanitation
 - Lack of clean water- in rural areas (50%)
 - Lack of plumbing- in rural areas (48%)
- Poor nutrition
 - Comida typica- Beans, rice, corn tortillas

Common Diseases and ailments

- Arthritis
- Gastritis
- Diabetes
- Hypertension
- Tropical diseases: parasites, malaria
- Snake bites

Traditional health beliefs

- Local healers
 - Curanderos- treat with herbs
 - Zahorin- treats with prayers and charms
- Illness & medicines are classified as hot/cold
 - Penicillin is cold so it is good for fever, but not pneumonia which is cold.
- Disabilities are due to status in society
- Ojo = evil eye

Cases

- 16 yo girl
- Dwarf like stature
 - Size of 3 year old
- Flat facies
- LE edema
- Aortic insufficiency



Cases

- Thyroid Goiter
 - 17 yo girl for one month who had a 20# weight loss, exophthalmos and palpitations



Cases

- Scoliosis
 - 42 yo female who had severe back pain and was unable to do her daily work



Cases



- Surgical removal of glass from a 50 yo man's hand that has been there for 4 years and makes it difficult for him to work in the field. He couldn't afford to have it removed.

Cases

Many old women with COPD, Diabetes and HTN



Other Cases

- Downs syndrome
- Alopecia
- Bells Palsy
- Trigeminal Neuralgia
- Paraplegic from GSW to spine
- Aortic Stenosis and other murmurs
- Lichen sclerosis in 9 yo girl
- Hydrocele in adult male
- Tibial mass in 12 yo girl for one year, painful
- Mastoid mass with firm lymphadenopathy
- CHF
- Many pregnant patients

Play Time

