MANGUZI,
SOUTH AFRICA

Kelsey Witherspoon – April 12th, 2016
KwaZulu-Natal Province

15 km South of the Mozambique-South African Border, near Kosi Bay
Kelsey Witherspoon, KU Wichita campus – Internal Medicine
Christina Munford, KU Kansas City campus – General Surgery
Meredith Pavicic, KU Kansas City campus – Obstetrics & Gynecology
Manguzi Hospital

Rural 280 bed district hospital

11 residential clinics

3 mobile teams visiting 35 points

Services include OB-Gyn, Surgery, Medicine, Radiology, Pediatrics, Outpatient Dept (OPD)
Manguzi Hospital
Educational Goals & Areas of Interest

- **Challenge my own cultural biases, perceptions of international & tropical medicine in a rural setting**
  - Hospital much better equipped to handle care than initially expected
  - Much more chronic disease there than anticipated

- **Explore how physicians adapt their plans of care in regards to medications, imaging, and other medical necessities in a resource-poor area**
  - Physicians themselves are resources as is their time; they come in early and work cooperatively with each other to best manage pt care
  - Pharmacy reports out at the end of the week what medications are low in stock
  - Physicians gave mixed reports on whether or not they were allowed to buy machines for the hospital personally or donate blood – some said they were allowed, some said they weren’t
  - Creativity required in certain situations
  - Patients tasked with taking active role in their care, as they often needed to be dismissed with precise instructions they must follow for coordinated care to be achieved successfully – language barrier
  - Referrals, specialist care is sometimes much harder to obtain, but pt expectations are lower there

- **Compare & contrast American medical education compared to South African medical students, International physicians**
  - Shorter training program for S.A. medical students, 6 yrs vs 8 yrs
  - Climate of medical training emphasizes physician independence, teachers harsher but physical exam skills superior
  - Also required to do one year of as a General Practitioner, working for the government
Examine the social, economic, and personal health burdens of communicable infectious diseases such as HIV & TB on the health care systems

- Some occasional stigma still present regarding HIV status, attempts to keep it private difficult (RVD+)
- For a long time, the government refused to acknowledge the immense health burden HIV was causing, despite urging from activists and physicians
- During MWs, at least 50% of the hospitalized pts were HIV+, although not all pts were there for HIV-related illnesses
- No HIV specialist in house, physicians instead call a hotline for their help
- Special clinic set up just for medication management – HAST
- Some physicians refused to see pts until they were tested for HIV first
- Not enough resources for TB+ patients on Male Wards
- Lots of billboards throughout South Africa urging people to use condoms and birth control to prevent both pregnancy and HIV transmission (Massive Public Health Issue)

Improve clinical proficiency with procedures, clinical skills prior to residency, as Manguzi Hospital known for hands-on learning opportunities
Profound Clinical Moments in Medicine

**Male Medical/Female Medical**

- Ward Rounds (Efficiency Required)
- Complexity, Variety of Cases – Many Advanced Diseases
- Little urgent blood available, difficulty with type & cross
  - Some anemias life-threatening
- Difficulty arranging for imaging, transport, specialists
- Impressive interdisciplinary health care team care
- Less oversight – if labs are critical, physicians may or may not get called
- Communication, language barrier significant
Male Medical
Profound Clinical Moments in Medicine

Resuscitation Unit (RU)

- Admitting TIA patient along with Meredith
  - Attempted to get access, inserted catheter, changed clothes, monitored sats and vitals, worked on getting medications started
- Stitching up Machete Victim right next to attacker; mob violence common
- Missing pneumothorax that returned the next day for chest tube placement, drainage
- Emergency Dialysis Lupus Nephritis ESRD pt
Resuscitation Unit (RU)
Clinical Zebras

Unusual Diagnosis

- Lymphomas, including retro-orbital lymphoma w/ proptosis
- Cryptococcal meningitis (2)
- Panhypopituitarism
- Adrenal crisis
- Erythema nodosum
- Dry gangrene
- Kaposi’s sarcoma
- Aplastic Anemia 2/2 TB bone marrow
- Pulmonary Tuberculosis
- Post-Tuberculosis Bronchiectasis
- Tuberculosis Meningitis
- Malaria
- HIV/AIDS complications
- Cachexia/malnutrition
- Alcoholic cardiomyopathy
- Trauma - with compound fx, machete attack
- Trauma - Pneumothorax (missed)
- Many, many psychiatric dx
- NO PATELLAS
## Opportunities for Hands on Medicine

<table>
<thead>
<tr>
<th>Witnessed</th>
<th>Performed</th>
</tr>
</thead>
<tbody>
<tr>
<td>◼ Thoracentesis x 5</td>
<td>◼ Lumbar Puncture x 3</td>
</tr>
<tr>
<td>◼ Therapeutic Paracentesis x 1</td>
<td>◼ Arm splinting</td>
</tr>
<tr>
<td>◼ Central Line Placement at Bedside (urgently)</td>
<td>◼ X-Ray reviews</td>
</tr>
<tr>
<td>◼ Lumbar Puncture x 2</td>
<td>◼ Cervical checks/Speculum Exams</td>
</tr>
<tr>
<td>◼ Multiple I&amp;Ds</td>
<td>◼ Suturing</td>
</tr>
<tr>
<td>◼ Steroid injection into keloid</td>
<td>◼ Catheter placement</td>
</tr>
<tr>
<td>◼ Multiple Nexplanon Removals</td>
<td></td>
</tr>
<tr>
<td>◼ Hand debridement with ring block</td>
<td></td>
</tr>
</tbody>
</table>
Profound Cultural Moments in Medicine

**Traditional Medicine (Muti)**

- Many pts believe in “Traditional Medicine” & see “Traditional Healers” – often barriers to care with disagreements between providers and healers as to what is wrong with a pt and how best to treat pts
- Some healers will recommend pts stop taking ARVs
- In some cases, illness is believed to have been brought on by swallowing a snake, and to become cured, pts must induce vomiting
  - One woman swallowed muti made of paraffin wax, toilet bowl cleaner in order to induce vomiting
- Many drug-induced liver injuries (DILIs) from Traditional Medicine
- One new mother brought in baby with extreme malnourishment, dehydration after giving infant Traditional Medicine for several weeks
- Ritualistic cutting for pts with edema, risk of subsequent infection
- Learned during Kruger Safari that people will also poach animals in order to obtain animal parts for muti
Profound Cultural Moments

- Turtle Hatching Tours at Kosi Bay
- Kosi Bay Snorkeling
- Kruger National Park
Table Mountain
Professional Takeaways

- Physical exams can be telling, and physical contact with patients can also be reassuring and therapeutic during such examinations.
- Identifying the utility of a test before ordering it forces one to consider both the financial costs and the risks or benefits to the patient.
- Learning the skills for self-reliance now in medicine may one day help for future travel to places without full time phlebotomists or nurses.
- Considering alternative solutions in times of crisis, even creative ones, allows for a more nuanced practice of the art of medicine.
- Future travel internationally will be a must.
Thank You!