Resident Elective in Rural Guatemala:

Developing Global Health Curriculum

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Our Team

Kelly McConnell, MD; Julia Boster, MD; Andrew Krack, MD; Robin Ortenberg, MD; Edwin Asturias MD
**Need Identification**

Residents are demanding increased global health education and international experiences.

Patients at the Center for Human Development deserve high quality medical care.

Residents who have rotated at the site report good experiential learning but lack clinical support.

**EXPERIENTIAL LEARNING**

1 month rotation
- Assessing and Treating Patients
- Pediatric cases with the ability to see pregnant women & adults if comfortable
- Support / Precepting by Medical Director

**GAPS REPORTED**

Per surveys, discussions and post-rotation debriefs
- Difficulty communicating chronic disease models
- Lack resources for unique clinical situations; especially easily accessible in the clinic
  - Malnutrition, Infectious Diseases
  - Healthcare system in Guatemala
Memorandum of Understanding
– Pediatric Residency

- Experience in diagnosis, treatment & care of patient inflicted with infectious disease in a global setting like Guatemala
- Exposure of systems of healthcare in low & middle income countries & and learn how to approach and advocate for the safety and care of patients under limited resources.
- Experience to carry out clinical research in the global context, especially for prevalent and important problems that define the burden of childhood illnesses in low and middle income countries like Guatemala
- Experience of interaction with physicians and trainees from low and middle income countries allowing them to incorporate a culturally sensitive approach to patient care.
Entrustable Professional Activities

- Tropical (emerging) and common infectious diseases in children
- Non-communicable diseases and injuries in children in low income countries
- Nutritional deficiencies in children in low income countries
- Appropriate use and decision making for diagnosis and therapies for children in low income countries
- Community and health system organization and access to health care
<table>
<thead>
<tr>
<th>Clinical</th>
<th>Trifinio Region Culture</th>
<th>Health Care System in Guatemala</th>
<th>Public Health Implications</th>
</tr>
</thead>
</table>
| **Infectious Disease** | - Antibiotics from local Pharmacies  
                             - Beliefs                                      | - Available Medications  
                             - Pharmacy Procedures                | - Bed Nets  
                             - Antibiotic Resistance                 |
| **Malnutrition**       | - Feeding Practices  
                             - Breastfeeding                               | - Therapeutic Feeding Centers               | - Developmental Potential  
                             - Community Development                 |
| **Injuries**           | - Care Seeking                  | - Emergency Centers                          | - Safety                            |
ACGME Competencies

Patient Care
- Clinical Skills
- Assessment of severity
- Barriers to Healthcare
- Cost effective plans in low resource setting

Medical Knowledge
- Tropical Diseases
- Emerging Chronic Disease
- Maternal, Perinatal & <5 year mortality
- Vulnerable Populations

Practice Based Learning & Improvement
- Evidence Based Clinical Decisions
- Standardized Guidelines (MoH, WHO, IMCI)
- Collaboration

ACGME = American Council on Graduate Medical Education
MoH = Ministry of Health
WHO = World Health Organization
IMCI = Integrated Management of Childhood Illnesses
ACGME Competencies

Interpersonal Skills
- Cross Cultural Communication
- Chronic Disease Models
- Teamwork in new setting

Professionalism
- Health & Human Rights
- Ethics of international learners
- Recognize Personal Biases
- Collaboration

Systems Based Practice
- Global Health care trends
- Multinational efforts (MDG, SDG)
- Community Healthcare in low resources
- Guatemala’s system

ACGME = American Council on Graduate Medical Education
MDG = Millennium Development Goals
SDG = Sustainable Development Goals
Implementation

Preparation → During Rotation → Debriefing
Preparation

- Travel assistance, coordination
- Welcome video
- Shared document by learners for learners
- Outlines
- Videos
- Resources in Clinic
- Communicate chronic disease models
- Diarrhea/Dehydration/Dysentery
- Respiratory Distress
- Fever
- Malaria
- Pneumonia
- Measles
- Schistosomiasis
- Neonatal Infections (including tetanus)
- HIV/AIDS
- Tuberculosis
- Typhoid Fever
- Dengue Fever / Chikungunya

- Meningitis
- Seizures / Altered Mental Status
- Malnutrition
- Gender dynamics of the region
- Ethics in Global Health
- Local Vaccination Schedule
- Vaccine Preventable Diseases in Guatemala
- Health Care system in Guatemala
- Center for Human Development
  Community Health Care Nurses, Care Groups, care guidelines & referral criteria
- Integrated Management of Childhood Illness

Outline & Video Topics
Outline Format

Title
Authors
1 Affiliations

Brief Introduction (1-2 Sentences)
Regions affected
Epidemiology (age, sex, ethnicity, SES, etc.)

Pathophysiology
- Brief, summary sentences (infectious agent, triggers, etc.)

Diagnosis
- Clinical findings
- Testing (specific to low & middle income / resource poor settings)

Treatment
- International Standard of care
- Locally Accepted
- Alternative Options
- Home treatment / culturally accepted / used & safety / effectiveness mentioned

Follow Up
- If necessary
- Specific testing, timeline, etc.

References
- Guidelines, textbooks, studies, etc.
## During Elective Rotation

### Resources
- Outlines
  - Digital & Physical
- Videos
- Textbooks in clinic
- Additional colleagues

### Reflections
- Weekly
- Select from a list of prompts regarding the abstract competencies

### Experience Log
- Medical / Psychosocial
  - Grouped by EPA
  - Weekly Submission

### Teaching
- Vidyo presentation to residency
- Community Health & Clinic Nurses
Resident Evaluations

Pre-Rotation
◉ Demographics
◉ Prior Experience
◉ Knowledge
◉ Expected Gains

Post-Rotation
◉ Demographics
◉ Prior Experience
◉ Retrospective Pre/Post Assessment

Entrustable Professional Activities:
1. Tropical (emerging) and common infectious diseases in children
2. Nutritional deficiencies in children in low income countries
3. Appropriate use and decision making for diagnosis and therapies for children in low income countries
4. Non-communicable diseases and injuries in children in low income countries
5. Community and health system organization and access to health care
Faculty Evaluations

Post- Rotation

- Level of proficiency per each EPA

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5. Community and health system organization and access to health care
Plan

Act

Do

Study
Credits – Thank You!

Faculty Guidance
- Edwin Asturias, MD
- Lindsey Lane, MD
- Janice Hanson, PhD, EdS
- Julia Boster, MD
- Andrew Krack, MD
- Robin Ortenberg, MD

Resident Team
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