RADIOLOGY RESIDENCY GLOBAL HEALTH PATHWAY

The formal elective is planned for 6 weeks: 1 week pre-trip, 4 weeks in country with DHMC faculty member(s), and 1 week post-trip, pre-and post-trip not necessarily consecutive (depending on departmental manpower needs)

LIST OF COUNTRIES

Haiti, (Tanzania, Serbia, Vietnam)

For 2014, the site will be Mirebalais, Haiti

SUPERVISORS

Course Supervisor and Co’ordinator:
Dr. Robert Harris

Distant site supervisors (potential)
Drs. Harris, Diflorio, Vaccaro, Guerin, Hoffer

ELECTIVE STRUCTURE

This elective has 3 major areas of focus

GLOBAL HEALTH ENVIROMENT, DISEASES AND TECHNOLOGICAL KNOWLEDGE

Learning objectives

• To develop knowledge of the local diseases and common presentations on low resource imaging systems (plain film, ultrasound)
• To learn how the economic, social, and cultural environment impacts the availability and acceptance of medical imaging and population health (I have Haiti –PIH personnel getting me some refs re this)
• To become familiar with low resource usage of radiologic ultrasound, e.g. diagnosing pneumonia in pediatric population, making diagnosis of pericardial effusion, the FAST scan, etc.

Assignments

Pre-trip

1. Read assigned radiology and socio-economic-cultural articles and texts
AIDS and Accusation by Paul Farmer
The Uses of Haiti by Paul Farmer
Brother, I’m Dying by Edwidge Danticat

1. Pre-trip short course (half day) on emergency use of US-chest, FAST scan, skull fractures 1-2 months before departure (arranged with Dr. Robert Hyde, ED ultrasound staff)

Post trip

2. Prepare 10 cases for submission to the global health interesting case teaching file

3. Prepare a teaching conference back at DHMC on interesting cases or a didactic lecture on a clinical topic related to the global health experience.

Evaluations

1. Examination or quiz on readings to be administered by RDH on Blackboard, On-site Staff Evaluation of interpretations: qualitative/quantitative

2. 10 cases submitted for international interesting case teaching file

3. Evaluation (staff and residents) of the post-trip conference at DHMC

SYSTEMS/IMPLEMENTATION

Learning Objectives

• To develop skills and creativity in implementing hardware, software, and teleradiology solutions in low resource settings

• To acquire a basic understanding of physical environment issues relating to the feasibility of imaging: power supplies, ultrasound gel, cleaning and sterilization of equipment, radiation concerns to patients and providers, etc.

• To understand differences between hospital archival systems (PACS-new at Mirebalais) and hard-copy patient-owned images (traditional) and the challenges and opportunities in transforming low-resource imaging from the latter to the former

Assignments

Pre trip

1. Contact PIH and distant site to identify a radiology-related systems issue that could be realistically addressed or at least examined during the time period at the site

2. Work with faculty members to develop an implementation plan, including what resources may be needed to identify and/or potentially resolve the issue.
3. Gather imaging resources as to take from DHMC/regional clinics such as US gel, cassettes, etc.

**During trip**

4. Work on the identified project at site

5. To initiate a QI program for improving image quality at the lowest radiation dose possible by education of radiography staff and MD’s

**Post trip**

6. Write a short paper summarizing the project and the progress achieved during the trip

7. Give a short presentation on the project to the department

**Evaluations**

1. Written Evaluation by IT personnel and radiology manager/chief tech on site

2. Evaluation of the submitted paper (Dr. Harris).

3. Evaluation of the departmental presentation

**EDUCATION AND TRAINING**

**Learning Objectives**

- To develop teaching skills to train local radiographers, sonographers, and physicians (radiologists or other)

- To augment and improve DHMC radiologist workflow in interpreting teleradiology images from Haiti (pre- and post-trip)-serving as liason /ombudsman knowing how the PACS system interfaces with DHMC.

**Assignments**

**Pre trip**

1. To participate in a basic radiographer’s course taught at DHMC by Jamie Mood, RTR (one day-positioning, operating the radiographic machine/C arm to acquire chest, abdomen and C arm films

2. Identify specific teaching needs through contact with PIH/distant site and develop one or more teaching resources to address it (e.g. to teach medical/paramedical personnel how to perform a FAST scan). This should be in a form that can be used by the local personnel after you leave.

3. Start to develop a collection of basic imaging talks suitable for this audience using sources such as DHMC student talks, AMSER shared resources etc.
**During trip**

4. Implement a weekly Haitian technologist/sonographer teaching session to improve their practical skills in acquiring images and image interpretation.

5. Using the collated and developed resources, educate local providers in clinical imaging interpretations as requested by the distant site.

6. Institute radiology rounds with clinicians daily (1 hour).

**Post trip**

7. Write a one page summary of the challenges that you faced in teaching in this environment and your recommendations/suggestions for future residents.

**Evaluations**

1. 360 feedback from learners (techs, sonographers, MD’s).

2. Review of clinical teaching material developed by Dr. Harris or other onsite DHMC faculty.

3. Written evaluation from the medical and surgical house staff on teaching skills.

4. Written evaluation from DHMC radiologic tech supervisor (J. Mood).

**OTHER ASSIGNMENTS RELATED TO TRAVEL TO A DEVELOPING COUNTRY**

These need to be completed at least 3 months before travel.

- Ensure your passport is up to date (some countries will deny entry if a passport expires within a few months of planned exit from country).

- Apply for permission for elective time from Global Health Initiative/ACGME.

- Contact employee health and complete the pre travel questionnaire (Travel Clinic-5-6060), make an appointment with them for screening and vaccinations.

- Coordinate travel plans with the accompanying faculty member(s), local travel to be organized in Haiti by PIH, future sites to be determined by RDH and NGO.

- Book travel and submit to Marie O’Quinn for reimbursement.
APPENDIX: LEARNING RESOURCES

Most available in resource folder

READING LIST


- Donation and Training of Medical Personnel in Compact Ultrasound in Low-Resource Settings, Harris & Marks. Ultrasound Quarterly, 2011; 27:1, 3-8

- Compact Ultrasound Donations to Medical Facilities in Low-resource Countries: a Survey-based Assessment of Current Status and Trends. Journal of Ultrasound in Medicine, Harris, Cho, & Deneen 2012;31:1255-1259


- Ability of Emergency Ultrasonography to detect Pediatric Skull Fractures: A prospective, observational study, Parri et al. Journal of Emergency Medicine, 2012; 44:1, 135-141,

- Geographic-pertinent chapters from The Radiology of Tropical Diseases, Reeder and Palmer, Williams and Wilkins, 1981) (Personal copy-can loan)

- Ultrasound: The Basics; 2012 W. Marks. Amazon (personal copy-can loan)

WEB RESOURCES

http://www.pih.org/library#search/0/all/10/10

AMSER Shared Resources (for teaching materials) http://www.aur.org/Secondary-Alliances.aspx?id=140
The following individuals have extensive experience working in Haiti and are willing to talk with you before you leave to help prepare you for the cultural and medical challenges that you may meet.

Helen Heneghan, M.D.  hheneghan@cheshire-med.com, Robert A. and Catherine L. McKennan Postdoctoral Teaching Fellow of Anthropology, Dartmouth College, 2013

What to Read Before Traveling to Haiti

“*” for the top reads in each category!

Colonialism and the Revolution


An eloquent account of why the Haitian revolution was “silenced” by the West and why this still matters for Haiti.

Political History


A stunning memoir tracing the lives of two brothers through a century of political conflict in Haiti and immigration policy in the U.S.


A thorough account of Haitian history with unmatched analysis of race and class dynamics. It goes far beyond explaining the rise of Duvalierism to account for centuries of political instability.


A page-turner that captures the radical hope of the post-Duvalier era and the rise of Jean Bertrand Aristide.

Health and Healthcare in Haiti


Religion and Culture


A wonderful ethnography that traces the life (and death) of a man sent abroad by his peasant family, and teaches us about the ritual practices and ritualized aspersions that bind their transnational community. A rich account of the troubles migrants face abroad and at home.

Development and Community Organizing

*Smith, Jennie. When the Hands Are Many.

An account of everyday solidarities and political organizing among the peasantry in Haiti. The intro and conclusion offer a compelling argument for how Haitians conceptualize democracy in social rather than procedural terms—as a way of life based in “respect (reSpé).”

Grateful acknowledgement to Chelsey Kivland, PhD for her reading list

June 2013