



## University of Maryland Radiology Global Health Elective for Residents

**Global Health Advisors/Directors:** Omer Awan MD MPH CIIP, Jean Jeudy MD

**Elective Structure/Format:** This elective will be offered as a 2-week block in a foreign country to those radiology residents who have demonstrated a serious interest in global health, and furthering the cause of radiologic aid to third world and impoverished nations, with the help and participation of the RAD-AID Chapter, at the University of Maryland. Up to 2 residents per class can be eligible to participate in this elective. If more than two residents per class express an interest, the two residents that will eventually participate will be chosen internally by the class and the global health advisors. Residents will be expected to prepare for the elective prior to travel to a foreign country, participate actively in clinical, teaching, research, and quality endeavors while on site, and prepare post travel material and conferences as detailed below. Residents who wish to pursue this elective must give formal notice to the Global Health Directors as a junior resident (first or second year radiology resident) and participate in the longitudinal curriculum as outlined below. This unique opportunity will function as a longitudinal curriculum for radiology residents, with different responsibilities and milestones to be achieved for junior (first and second year) and senior (third and fourth year) residents. The expectation is for junior residents to achieve all the competencies necessary throughout their first two to three years of residency so that they may actively participate in a global health experience abroad in their third or fourth year of residency.

### Learning Objectives:

- Demonstrate knowledge of local diseases in third world countries, their clinical presentation, imaging findings on various modalities, and therapeutic options to treat them
- Develop and enhance communication skills in interpretation of clinical and imaging findings to peoples of various cultures
- Understand the importance of physical, economic, and cultural factors that impact on resources as they relate to diagnostic imaging
- Learn technical skills of performing diagnostic ultrasound such as FAST studies, as well as diagnostic biopsies to be performed in undeserved areas of the world
- Provide useful teaching resources, via didactic/case-based lectures, social media content, etc. to be delivered in educating students, technologists, physicists, and physicians abroad in various countries
- Develop a practice quality improvement program focusing on one specific issue that can be improved in the country to be visited.
- Complete a full post-trip assessment, which includes evaluation of the staff, the program, as well as creating and delivering a case conference to the radiology department about the experience. If appropriate, submission of an opinion piece to a radiology journal about the global health experience.

### Pre-Trip Preparation:

- Identify and develop needs assessment for visiting country of choice, in conjunction with RAD-AID resources (During the first two years of residency)

- Participate and attend required courses to develop and learn competencies in ultrasonography or other skills necessary, such as attending a course on the FAST exam from Emergency Medicine faculty at UMMC (During the first two years of residency)
- Create and collate basic core radiology lectures for delivery in countries abroad (During the first three years of residency)
- Attend annual Rad-AID conference in Washington D.C. to network and collaborate with other institutions to learn and enhance our own experience (During all years of residency)
- Network with other RAD-AID academic programs across the country to gain insight into how to make the trip successful (During all years of residency)
- Participate and develop fund raising activities to help fund the global health project (During all years of residency)
- Visit Employee health to obtain all necessary vaccinations and medications necessary for travel. Make sure Passport is recent and apply for VISA if necessary (Right before travel during the third or fourth year of residency)
- Obtain all clearance necessary from UMMC beginning with the Graduate Medical Education (GME) office and including malpractice through MMCIP (Right before travel during the third or fourth year of residency)
- Gather appropriate resources such as ultrasound gel, biopsy needles, etc that will be necessary for a successful trip (Right before travel during the third or fourth year of residency)

### **Responsibilities During the Trip: (As a senior resident, during the third or fourth year of residency)**

- Aid in interpretation of radiology cases in the visiting country.
- Track interesting cases via Google spreadsheet and save interesting cases to be shown to the University of Maryland Radiology department after the elective is over.
- Actively participate and perform FAST exams, ultrasound, or any biopsies as deemed necessary
- Deliver 1-2 daily didactic or case based introductory lectures on radiology. Residents should work with Drs. Awan and Jeudy to create a lecture schedule to avoid overlap and develop a comprehensive lecture program.
- Identify an area of improvement related to the science of imaging, and implement a basic practice quality initiative in the country that is sustainable. Ideally, the implementation should be measurable to assess if improvement really occurred. Ideally, this should be developed in theory prior to travel by the end of the third year of residency, and should be approved by the global health directors. This program should then be implemented in the country of interest during the global health experience.
- Educate local providers on imaging interpretation and assessment, as needed.
- Help all other members involved in the global health elective in any way deemed necessary.

### **Post-Trip Assessment: (As a senior resident, during the third or fourth year of residency)**

- Complete post-trip evaluation on staff, program, and entire global health elective experience
- Deliver a noon conference to the University of Maryland Radiology department on some topic related to the global health elective experience. This can be an interesting case conference, a conference on challenges experienced, or simply a conference detailing the practice quality improvement initiative implemented
- Collaborate with other institutions and network explaining what went well, and what could be improved for future trips
- Develop a sustainable avenue to remain in contact with the visiting country. This may be in the form of reading cases on a regular basis for the hospitals visited, or creating and distributing educational content via social media and Whats App.
- Prepare a manuscript on the global health experience, if appropriate, under the supervision of Dr. Awan and/or Dr. Jeudy

### **Additional Resources**

JACR column for radiology global health: <https://www.jacr.org>

RAD-AID website: <https://www.rad-aid.org>

Mollura DJ, Lungren MP, editors. Radiology in Global Health: Strategies, Implementation, and Applications. Springer New York; 2014.

<https://link-springer-com.proxy-hs.researchport.umd.edu%2fbook%2f10.1007%252F978-1-4614-0604-4>