

Radiology Partnership in Global Health

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No disclosures

Introduction

- The opportunities for radiology involvement in global health are few. Limitations include:
 - Appropriate hospital setting in safe location;
 - Collaborative local team—staff, administration, physicians, and community—who can act on findings;
 - Access to medical imaging equipment; and
 - Need for specialized imaging interpretation.
- Kijabe AIC Hospital in Kijabe, Kenya has provided all of these things.



Advocating

- By enhancing access to modern radiology services with global health outreach, we not only improve patient care in rural settings but also promote the ACR and its core purpose:
 - **“To serve patients and society by empowering members to advance the practice, science and professions of radiological care.”**
- In doing so, international health organizations can benefit by modeling their radiologic services after the ACR .



Preparation

- Vaccinations: check with local/institutional travel clinic
- Cultural sensitivity training
- Forms! – passport & VISA, licensure, malpractice coverage, international health coverage, housing services.
- Bring any spare medical supplies
- Multidisciplinary team
 - Our team: multiple rads residents/attendings, surgical resident, medicine resident, bioengineering masters student
 - Rad tech and/or sonographer



Funding

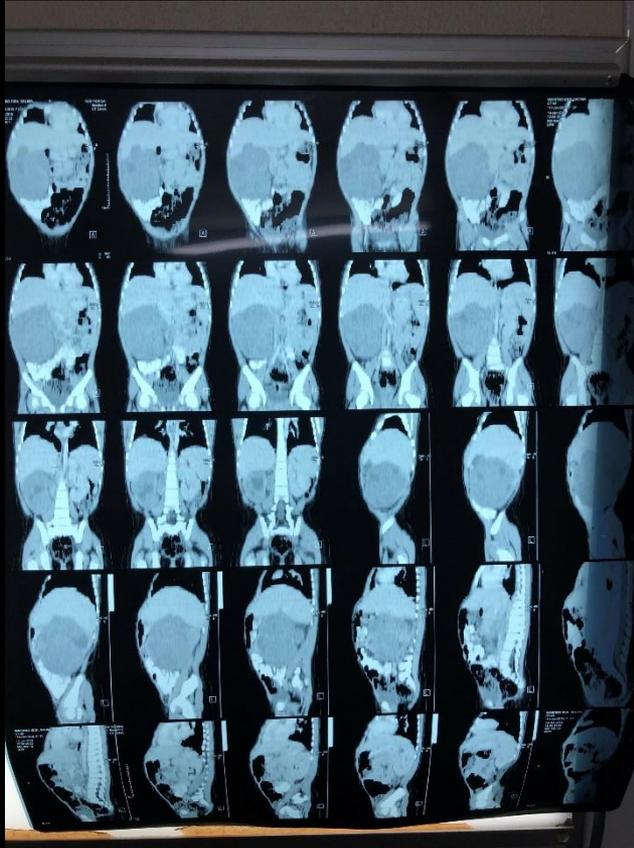
- Many institutions have their own global health funding resources.
- Departmental funding via Diagnostic Radiology residency program
- American College of Radiology, State Chapters may have global health fellowships (North Carolina).
- Funding via communities of faith or civic groups.
- Discuss formation of an alumni society at your program for prior graduates to give back for resident educational opportunities, such as global health efforts.

Need to have Equipment



- Kijabe Resources
 - 16 slice CT scanner, good quality images
 - Two CR x-ray rooms
 - Two CR portable x-ray units
 - Two mid-level US units
 - Two small portable US units
 - Small C-arm in OR

Be Flexible



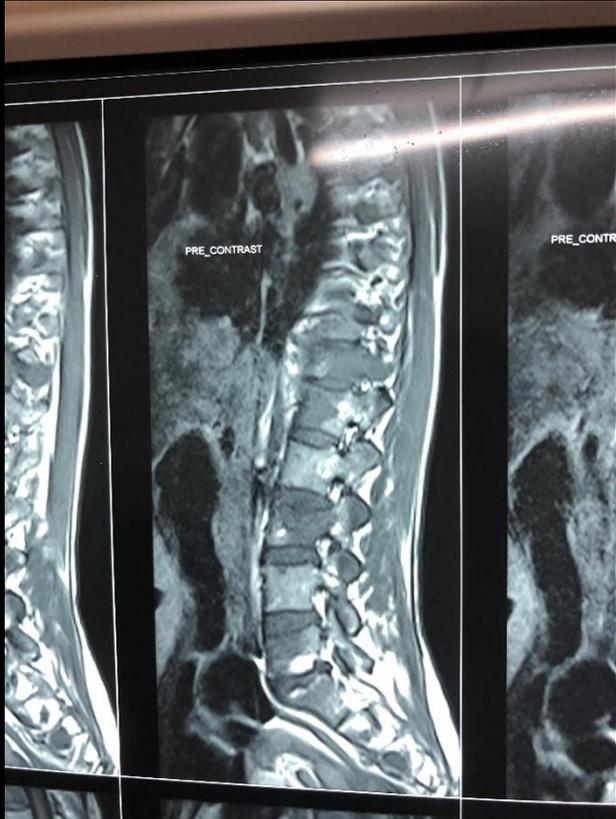
- Many CT and MRI films brought for consults.
- Patients and films without clinical information are common.
- The effort is to choose the one best imaging test for a patient to keep down cost and conserve resources.

Be Flexible – Setting



- May be asked to leave radiology area and perform imaging studies with limited equipment on the floor.
- Example: ultrasound request on a 1-week-old premature, 1 kilogram neonate with ambiguous external genitalia.
- No perfect probe, no perfect setting.
- Testicles identified, normal kidneys, adrenal glands, and bladder also seen (not shown).

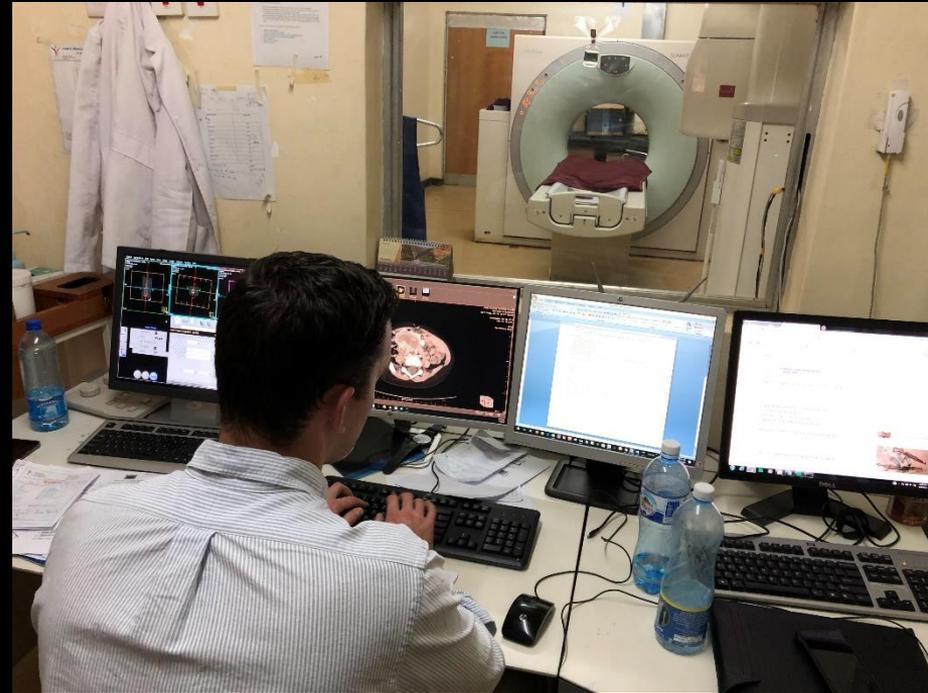
Be Flexible – Problem Solving



- 47 year old with history of TB now with back pain and chest radiograph opacity unchanged on antibiotics.
- Multifocal Pott's Disease? Extensive metastatic disease?
- Recommended CT CAP
- Infiltrative primary pulmonary malignancy with diffuse osseous metastases.

Workflow

- No dedicated reading room.
- Hospital has no on-site radiologist.
- We read studies and type reports as they are scanned and transferred into the PACS.
- Constant 1-on-1 relationship with CT tech allows education (for us and them).
 - Proper Tb airborne precautions
 - Arterial phase only for PE studies plus other timing and protocoling issues
 - Adequate contrast volume for diagnosis



Consults

- Many consults across multiple different specialties: OB, internal medicine, surgery, ENT, family medicine.
- Seek feedback from other specialists on how best to serve the patients and providers if you are new to the region/hospital.
- Teamwork and trust are critical.



Education

- Leave resources if possible to aid in overarching theme of sustainability
- Create lectures and educational resources before the trip (internet can be unreliable)
- Try to reach out beforehand to determine any specific educational needs/requests, especially for trainees



Key Points – Sustainability

- Relationship with the local community is critical--pick a location and continue to return there.
- Both service and education should be components of global health work. Learning is bilateral.
- Seek out global health interest groups and conferences (RAD-AID) to build a strong global health network for sharing ideas and experiences.
- Seek partners for funding. Not everyone can work in global health but many can support the work financially.
- Think strategically. Every outreach should seek to move the relationship and the work forward at the host site.

Future Endeavors

- Work to develop continuous presence in the hospital by enlisting other US partners and in country training programs.
- Develop permanent radiology housing in Kijabe.
- Help to modernize hospital and healthcare practice while respecting social and cultural identities.
 - Yearly lecture series
 - Radiology and biomedical engineering research opportunities
 - Improved communication and care pathways.
- Ongoing touch points to promote adoption of each improvement in medical imaging delivery from study selection to image acquisition and interpretation to results reporting.

Impact

- Recognize the growing global health emphasis.
 - Residents seek global health experiences for the educational benefit, global perspective, and the chance to see how they can use a high tech specialty in an underserved area.
- American College of Radiology has a real opportunity to globalize and expand access to resources. We are grateful to the NC chapter for its forward thinking in support of radiology global health involvement.
- Everyone involved benefits from this experience as we think, learn, serve, teach, and give together.