INTERNATIONAL OUTREACH IN PEDIATRIC RADIOLOGY EDUCATION

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Department of Radiology
The Children’s Hospital of Philadelphia
Perelman School of Medicine
University of Pennsylvania
Philadelphia
OBJECTIVES

International Pediatric Radiology Education Outreach

Background

CHOP outreach:

• *Ethiopia*
OBJECTIVES

International Pediatric Radiology Education Outreach

Background

CHOP outreach: Ethiopia
MEDICAL ADVANCES
Present and not going away!

- Part of modernization process
- Paradoxical
- Inequality of distribution
MEDICAL ADVANCES

How do they come about?

- Government initiated process
- Private business enterprises
- International donors
- Institutional support

BACKGROUND
How do they translate to radiology?

- Medical schools – radiology departments
- Radiology residency programs
- Radiologists
- Clinical subspecialties
  - Pediatric surgery, pediatric oncology, neonatology, etc.
  - Demand for a specialized pediatric imaging service
- Private radiology practices
BACKGROUND

DEMOGRAPHICS

19.4% 0 – 14 years  44.2%

DEPARTMENT OF RADIOLOGY, THE CHILDREN’S HOSPITAL OF PHILADELPHIA (CHOP)
2. DEMOGRAPHICS

- 60% of the population: <20 years
- 48% of patients in the main referral hospital of the country: children

Consequences:

Pediatric patients

1. Major patient population for diagnostic imaging.
2. Majority of radiologists confronted with pediatric imaging.
Teaching: in-person, distance learning, observership

Research: mentorship
CORE VALUES

Sustainability:
- NO “hit and run” action!

Win-win relationship:
- Assures sustainability and guarantees interest

Self-sufficiency:
- Train and empower independence
- Continue partnership without leadership

PEDiATRIC RADIOLoGY OUTREACH

DEPARTMENT OF RADIOLOGY, THE CHILDREN’S HOSPITAL
OBJECTIVES
International Pediatric Radiology Education Outreach

Background

CHOP outreach:
• Ethiopia
GOALS

1. Expanding PedRad during radiology residency
2. Conducting an international PedRad fellowship
3. Continuing medical education on PedRad for radiologists and pediatric subspecialties
GOALS

1. Expanding PedRad during radiology residency
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PARTNER

Department of Radiology
School of Medicine
College of Health Sciences
Addis Ababa University

- Tikur Anbessa Specialized Hospital [Black Lion Hospital]
- Largest and main referral hospital
- Teaching hospital with residency & fellowship programs
- 1st and oldest radiology residency program

International PEDRAD Education Outreach
PARTNER

_department of radiology_

Multi-institutional collaborations:

1. **University of Toronto, Toronto, Canada**
   - Department of Medical Imaging
   - Fellowship programs in body imaging, cardiothoracic imaging & MSK

2. **Emory University, Atlanta, USA**
   - Department of Radiology, School of Medicine
   - Fellowship program in neuroradiology; rotation for Emory residents

- Fellowships accredited by Addis Ababa University
PROCESS

Department of Radiology

CHOP rotating visiting professorships
- 1-3 attending pediatric radiologists
- Rotating
- 1-2 weeks/year
- Intensive pediatric radiology course and hands-on sessions

External partners’ visiting professorships
- Minimum 1 week
- National and international partners

International PEDRAD Education Outreach

2013 6 weeks coverage
**ACTIVITIES**

**Department of Radiology**

**TEACHING RADIOLOGY RESIDENTS**

- Didactic lectures
- Case reviews
- Supervising read outs
- US hands-on teaching
- Interventional procedures

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### SCHEDULE: CHOP Pediatric Radiology Visiting Professors

**Department of Radiology, Tikur Anbessa Hospital**

4. - 8. AUGUST 2014; Lectures: Orthopedics Building, 3rd floor

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td>End</td>
<td>Prof. KASSA</td>
<td>Prof. HIRSCH</td>
<td>Dr. VICTORIA</td>
<td>Prof. HIRSCH</td>
<td>Dr. MONG</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:00 AM</td>
<td>Lecture</td>
<td>Intussusception diagnosis &amp; management only with ultrasound</td>
<td>Neurosurgery &amp; Imaging of Pediatric Brain Tumors</td>
<td>Surgery &amp; Imaging of Fetal Surgery: Current Status</td>
<td>Orthopedics Joint Session: Imaging of Ewing Sarcoma</td>
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<tr>
<td>8:00 AM</td>
<td>12:00 PM</td>
<td>External</td>
<td>None</td>
<td>Dr. Victoria</td>
<td>Prof. Kassa</td>
<td>Dr. Mong</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>11:00 AM</td>
<td>PedRad</td>
<td>Prof. Kassa</td>
<td>Dr. Victoria</td>
<td>Prof. Hirsch</td>
<td>Prof. Hirsch</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>12:00 PM</td>
<td>Ultrasound</td>
<td>Prof. Hirsch &amp; Dr. Mond</td>
<td>Prof. Hirsch</td>
<td>Prof. Kassa</td>
<td>Dr. Mong</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>12:00 PM</td>
<td>X-ray/CT/MR</td>
<td>Dr. Victoria</td>
<td>Dr. Mong</td>
<td>Prof. Hirsch</td>
<td>Dr. Victoria</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>2:30 PM</td>
<td>Lecture</td>
<td>Dr. MONG</td>
<td>Dr. MONG</td>
<td>Prof. HIRSCH</td>
<td>Dr. VICTORIA</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>2:30 PM</td>
<td>Pediatric Case Reviews</td>
<td>Imaging of pulmonary hypertension</td>
<td>Pediatric Case Reviews</td>
<td>Imaging of Neonatal Chest</td>
<td>Pediatric Case Reviews</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>4:00 PM</td>
<td>PedRad</td>
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International PEDRAD Education Outreach
International PEDRAD Education Outreach
GOALS

1. Expanding PedRad during radiology residency
2. Conducting an international PedRad fellowship
3. Continuing medical education on PedRad for radiologists and pediatric subspecialties
1. What
- Focused training
- Defined goals
- Set timeframe
- Curriculum
- Accredited program
- Recognized subspecialty

2. How
- On-the-job training
- Teaching the teachers
- International faculty
- Local fellowship
- Final examination
- Certification
Prepare a curriculum [42 pages]
Process accreditation
2-year program
Clinical and research
Establish a dedicated pediatric service
Select 2 faculty members
Initiate training process
TRAINING FORMATS

1. Focused pediatric practice
2. In-person hands-on
3. Distance learning
4. External observership
5. External mini-fellowship
International PEDRAD Education Outreach

FELLOWSHIP

FORMATS

- Recorded lectures
- Cleveland pedrad modules
- Cases – DICOM format
- Images – email
- CME articles
- Journal club
- Log book
STRATEGIES

- PedRad focused
- Clinical research
- Target local issues
- Grant applications
- External mentorship
- External collaborators
- Requirement for promotion

International PEDRAD Education Outreach

CURRICULUM

Department of Radiology
Faculty of Medicine
Addis Ababa University
Addis Ababa, ETHIOPIA

Department of Radiology
The Children’s Hospital of Philadelphia
University of Pennsylvania
Philadelphia USA

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4.2 Technical, Communication and Decision-Making Skills
4.3 Conduct
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6.0 PROCEDURES AND EXAMINATION FOR ADMISSION
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6.2 Entrance Examinations
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6.4 Training Duties
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DEPARTMENT OF RADIOLOGY, THE CHILDREN’S HOSPITAL OF PHILADELPHIA [CHOP]
GOALS

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Radiological Society of Ethiopia [RSE]

ACTIVITIES

Continuing Medical Education [CME] in Pediatric Radiology

- Pediatric imaging a substantial part of radiological imaging
- An annual national CME course with a focus on pediatric imaging
- Close the pediatric technical know-how gap
- 1-2 days course; attendance 80-140 radiologists, radiology residents, pediatricians and pediatric surgeons
- Strengthen the pediatric radiology fellowship program
- Started in 2011; CHOP and external faculties
International PEDRAD Education Outreach

1st and 2nd Annual Pediatric Radiology CME 2011/12

Program
Radiological Society of Ethiopia
Second Annual Pediatric Radiology Continuing Medical Education
Saturday, December 8, 2012
8 a.m. - 4:30 p.m.
Addis Ababa Hotel, Addis Ababa

In collaboration with
The International Pediatric Radiology Outreach Program of the Department of Radiology at The Children's Hospital of Philadelphia, Philadelphia, PA, USA

Department of Radiology, The Children's Hospital of Philadelphia
International PEDRAD Education Outreach

2013/14 3rd and 4th Annual Pediatric Radiology CME
CME course

- Organ-based; disease-based; procedural; technical
- Basic and advanced topics
- Didactic lectures; case-based reviews
- Poster: Unknown Pediatric Cases [award]
- CME credits for participants [compulsory]
PARTNERS:

1. International PEDRAD Education Outreach
2. The Children's Hospital of Philadelphia
3. International Medicine
4. Global Health
5. WFPI: World Federation of Pediatric Imaging
6. Department of Radiology, The Children’s Hospital of Philadelphia (CHOP)
PARTNERS:

USA
- Weill Cornell Medical College, NY
- University of Michigan, MI

Germany
- University of Leipzig

United Kingdom
- Great Ormond Street Hospital for Children

South Africa

P. Renjen
SUPPORT:

Minimal cost undertaking

- VOLUNTEER PERSONAL engagement & financing
- CHOP Department of Radiology
  - Volunteer experts
  - CME time
  - CME travel budget
  - The Soroosh Mahboubi International Medical Fund for Higher Education
- CHOP Global Health Center
- Radiological Society of Ethiopia
Major need for pediatric imaging
Fellowship a model for self-sufficiency
Volunteer engagement
Win-win arrangement
Sustainable model
Practical goals
Global contribution of CHOP Radiology
Thank you for your attention!

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