

Orotta Hospital , Asmara Eritrea
Ministry of Health , Asmara, Eritrea

Project: Clinical Partnership Program

Report: Ultrasound Course

Objectives: Implementation of ultrasound as a part of clinical examination in Eritrea.

Activities: Donation of an ultrasound device to Orotta Hospital, Eritrea
General and specific ultrasound teaching courses with theoretical and practical training

- Basics/Emergency protocols (FAST, FATE, RUSH-exam)
- Abdominal ultrasound
- Echo (Ultrasound of the heart)
- Lung, Neck, Vessels, Nerves
- Gynecological ultrasound

Time period: 26.02.2018 – 2.3.2018

Course Content: Basic principles of ultrasound

- Basic physics
- Artefacts
- Introduction of the Ultrasound device (Hardware)

Emergency protocols

- FAST
- E-FAST
- FATE
- RUSH-Exam

Practical training in groups

- Healthy volunteers
- Patients from different departments

Instructors:

Dr. Sibyl Mittler, MD, Msc, MBA
 Specialized in Anaesthesiology and Intensive Care Medicine
 Senior Consultant Dpt. For Anesthesia and Intensive Care
 Klinikum Würzburg Mitte, Germany
 Norbert Pfeufer, MD, MBA
 Specialized in Anaesthesiology, Intensive Care and Emergency
 Medicine
 Head of Emergency Dpt., Kliniken Heidenheim, Germany

Participants:

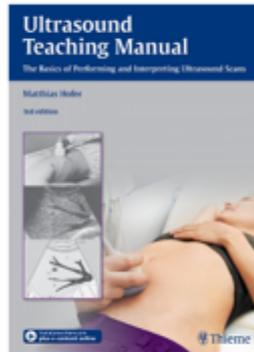
Dr. Yemane Seyoum
 Dr. Goitom Hagos
 Dr. Yoseph Tewolde
 Dr. Haregu Mehari
 Dr. Habteselassie Zerezhgi
 Prof. Abdu Mohamed Taha
 Dr. Woldu Asmeron
 Prof. Tsegereda Ghebrehiwot
 Dr. Senay Iyassu

Schedule:

	Monday	Tuesday	Wednesday	Thursday	Friday
8 – 10:30		History Basic principles	Artefacts	Questions Cases Practical training in groups	Measurements Calculations Cases Practical training in groups
Tea break					
11:00-13:00		Hardware Protocols Practical session: First contact with ultrasound machine	FAST E-FAST FATE RUSH Practical training in groups	Practical training in groups ICU Screening of patients	Practical training in groups ICU Screening of patients Certificate of participation Feedback
13:00 – 14:00		Lunch	Lunch	Lunch	Lunch
14:30 – 17:00	Introduction				

Teaching material:

- Hardcopy



- FATE/FAST-Pocket cards
- USB-Flash with all presentations and a sample of teaching videos

Teaching device: 2 Sono site M-Turbo

- Curved probe
- Sector probe
- Linear probe

Summary:

The ahead organization of the course and the support provided by Orotta Hospital (Dr. Habeteab and his team) was perfect. We could immediately start on Monday afternoon with our introduction round, where each participant was asked to present their expectations and individual experience. As a result, an adjustment of the primary time schedule has been made, because all participants wanted to be off in the afternoon in order to take care of their regular other duties and responsibilities for their departments. As a result, we rearranged the daily schedule to 8:00 to 13:00 to achieve 5 contact hours per day.

We first started the course with a block of basic theoretical topics (Basic physics, normal tissue view, artefacts) to bring everyone to the same level of knowledge. The second block covered the introduction of all the necessary emergency protocols in theory, supplemented with video demonstrations.

After the practical introduction of the ultrasound machine with all functions, the hands on training on healthy volunteers was started to repeat the taught ultrasound protocols in their practical use. This was performed in two groups to have the advantage of the two devices. (Thanks to the College of Health Sciences Asmara to give us the opportunity to use the machine from the College additionally)

The following two days have been used to perform multiple ultrasound examination in different patients. These patients were presented by the participants. Thereby a broad

spectrum of medical indications and different areas of interest has been covered and pointed out the impact on diagnostic advantages for the local setting. Additionally, we performed ultrasound examinations on the adult and pediatric ICU to guide interventions and confirm diagnoses.

During the practical training we were able to show and pass on skills and tricks to the participants. They quickly formed a very interested, highly motivated group exchanging their broad medical knowledge amongst each other in vivid interdisciplinary discussions.

At the end of the course we offered a feedback paper for quality control and open questions to improve the course have been discussed.

Feedback evaluation: 9/9 = 100% return

Grade	A	B	C	D
Organization	9(100%)			
Time Table	9(100%)			
Amount of theory	8(89%)	1(11%)		
Presentation of theory	9(100%)			
Practical training	8(89%)	1(11%)		
Knowledge of the trainers	8(89%)	1(11%)		
Relevance for daily practice	7(78%)	2(22%)		
Absolut	58	5		
Percentage	92%	8%		

Suggestions/comments of the participants:

- more practical training
- very eye opening
- more ultrasound on patients with various diseases
- user-friendly, good information in short time, very stimulating, for the future more contact time with the ultrasound machine is needed
- well done, appreciate the consolidating of theory with practical on hand training
- make the next schedule soon, so that we will not loose what we have gained
- we need to manage the time table fort he next course to adjust it to our buys daily schedule, thank you very much for your assistance
- the participants should be free completely from their daily duty, otherwise it was very good
- grateful for your help, we need to have more time for practice otherwise waiting for more education about the non emergency ultrasound examination, thanks a lot for your help."

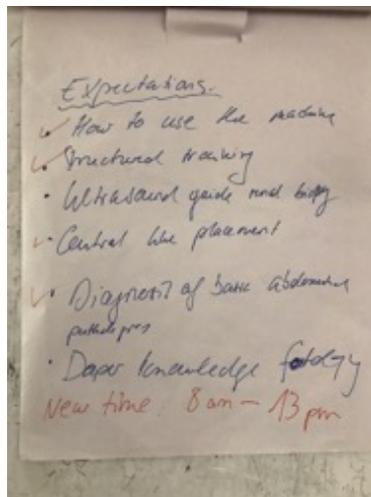
At the end of the week we are sure this introduction course for ultrasound teaching was a very important kick off event for the whole project. We have been able to get the participants excited and really interested in bedside ultrasound.

Pictures of the course:

Teaching material:



Result of the introduction round:



Classroom picture:



Discussion and mutual exchange in the lunch and tea breaks:



Impressions of the practical scanning with patients:



Lively exchange between the course participants:



Group picture at the end of the course:

