

Providing an ultrasound and training in basic obstetric ultrasound in Mbarara, Uganda

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My great passions are global health and women's health. So as a fourth year medical student, I arranged to conduct a medical rotation in the Department of Obstetrics and Gynecology at Mbarara University of Science and Technology (MUST) in Mbarara Uganda. In conjunction with Drs. James Campbell and Janie Zuber from the University of Maryland School of Medicine, I raised funds to ship a donated ultrasound to Mbarara and developed a curriculum to teach residents and midwives in the basics of obstetric ultrasound. Receipt of the AWHs Overseas Assistance Grant helped make this project a reality.

Mbarara Regional Referral Hospital (MRRH), the hospital associated with MUST, is a 600 bed government hospital that serves as the only referral center for the 8 million people in southwest Uganda. Every year there are 12,000 deliveries in the department which is staffed by 12 attending physicians and 35 residents. Most women at Mbarara go through pregnancy without ever receiving an ultrasound. There is a great need for improved antenatal diagnostics. In 2015, the maternal mortality rate for the hospital was 270/100,000 and the perinatal mortality rate was 56/1000.

I knew these statistics before I arrived, but actually seeing the incredible patient load that the residents and midwives cared for was staggering. Moreover, since it was a regional referral hospital many of these pregnancies were complicated. I was able to observe how residents and midwives cared for women with eclampsia, hemoglobin levels of 1.9g/dL, pregnancy-associated malaria, syphilis and many other challenging cases. Despite these demands on their time, the residents and midwives were generally very eager to learn obstetric ultrasound. I did one week of didactic lectures on the principles of ultrasound, then spent three weeks doing hands-on training with groups of roughly five residents and midwives. It was incredibly rewarding to see my students learn how to determine the fetal position, gestational age and the number of gestations. However, the most rewarding part was towards the end of the month when I was no longer necessary and my trainees were lecturing each other on the best angle to hold the probe, or the importance of scanning the entire uterus when looking for twin gestations.

Students at MUST are required to do a research thesis during their residency and I was delighted to have one of the students approach me with a proposal to examine the impact of introducing basic obstetric ultrasound in the first stage of labor on time to decision making on definitive mode of delivery. He is designing a randomized controlled trial to test whether or not this new technology will improve patient outcomes and satisfaction. I am honored to be one of his research mentors and I cannot wait to learn the results of his study.

I also had a lot of fun outside of the work. I was deeply amused to find that maribu storks were nesting on top of the labor and delivery ward. My attempts at explaining the Western myth that babies are delivered by storks, sadly got lost in translation. However, my Ugandan colleagues were able to explain to me the local lore that if it rains while the sun is shining it means that a leopard just gave birth. In which case, a lot of leopards gave birth during my time on the wards.

I had an amazing experience in Mbarara and hope to find a way to return during residency to maintain the relationships I developed and see the long-term impact of the ultrasound training. I am truly grateful

to AWHs for supporting my rotation and providing the funding to make it a reality. This experience has helped shape who I hope to be as a physician scientist and introduced me to incredible colleagues who I will stay in contact with for years to come.

Photos from the trainings:



