

Dr Kay North, reporting on a visit to Pothawira Clinic, November 2015

I went to Pothawira Clinic with Dr Anne Alaniz (gyn/onc from Texas and daughter of Dr. Maseko) and two US technicians from Colorado. Dr. Maseko had never had a radiologist there before for an extended period of time, that would be available to both teach and scan patients so our trip was exploratory on both sides. He had put the word out that there would be imaging specialists there so many patients did come just to be scanned and find out if all was well. Understandably, as they have been treated in the health care system there for so long without really knowing true diagnoses (Salima district hospital cannot do a CBC or BMP). So for a lot of patients the fact that we could tell them that their internal organs were normal was very reassuring.

Although it is a bit unconventional, we scanned patients prior to their evaluation with either Dr. Maseko, Dr. Alaniz, or the other clinical officer. Since most of the women traveled to the clinic specifically to be scanned, we found better patient flow when we could send them for evaluation with the Ultrasound results noted in their medical passports. However, we did not prescan the children, they were evaluated by Dr. Maseko first and if they required imaging, we worked them in as soon as possible.

We saw varying pathology. Renal stones with severe hydro, pelvic kidneys, cervical cancer grown into the bladder causing significant hydro, large thyroid mass compressing the airway, large ovarian masses, fibroid uterus, gall stones, inguinal hernias containing bowel (helped Dr. Maseko reduce at the clinic), cervical lymphadenopathy, ectopic (walked into our clinic for abdominal pain- saw what looked like intraabdominal pregnancy but no heart beat, decided to check pregnancy test even though she had prior BTL 3 years ago, sent her directly to the hospital with clear notes that she required emergent surgery--checked on her at SDH the next day and she was doing well, had 300 cc of blood in her pelvis), helped date several pregnancies, saw one pregnant woman with approx. 23 week fetal hydrops and rescanned her the second week we were there and she had a fetal demise (the fetus structurally looked good except for hydrops..mother did report severe viral illness a couple weeks earlier).

We also tried to make a trip at least every other day to Salima District Hospital. We brought the portable US machine from the Pothawira clinic with us and made ourselves available to the clinical officers over there as needed. We gave one lecture at morning report and did a couple quick hands on teaching sessions with the Xray/US tech at SDH. [As a side note, this transfer of the portable US machine may not be a possibility every time. SDH does have an older but working US machine available.]

We scanned a pregnant woman who was 10 cm dilated but no baby coming out..the clinical officer could not find heart tones. We saw that she had twins, both breech, with one in fetal distress. We recommended emergent c section for her and lucky for her the power came back on in hospital in time for her to have one and both babies made it! We were also asked to do an echo on an 11 year old girl for CHF. When she took her shirt off, it was clear she had pellagra and after further questioning of the accompanying adult, it transpired she had only been given nsimma for the last year. Anyways, her heart looked fine, she had abdominal ascites, but everything else ok...so we told them to stop the Lasix and start administering some protein...The girl was so severely malnourished (I thought she was about 6 years old). Saw another girl with pneumonia and empyema...showed them how they could follow the effusion on US (they were only giving her oral antibiotics...while she needed drainage, we at least secured her IV abx). I did spend some time with the xray/US tech showing him some additional skills. I also spent time with some of the clinical officers going over their chest and abdomen radiographs to help them come up with a systematic review..but this was really on a one on one basis...no real lecture. I am sure they would love to have "how to read basic radiograph" lectures at their morning report, but if any future visitors give one, have your power point ready on a jump drive and know that they do morning report in the main hospital entrance with no way to turn down the lights....so need to adjust images accordingly!

The mindray was satisfactory for most things we did. It does not have color or Doppler, which is a shame. The OB probe did work well for the pregnant women, we could see most everything we needed to see. Really the main question for OB is approximate dates (as most women don't know when they are due and just sit outside the hospital when they think it is time and wait...some sit for weeks!), fetal presentation..ie do they need a c section?, and any major abnormalities.

For future visits, I would recommend that a schedule is worked out with Dr. Maseko so that the visiting radiologist can have his/her own clinical/scan time and give Dr. Maseko much needed help seeing

patients and also teaching time so that when he/she leaves, onsite skills are strengthened too. There is a lot of eagerness to learn and improve onsite. Diagnosis and follow up of He was so excited to learn and he can diagnose and follow pneumonias is already happening. Dr. Maseko truly works sun up to sun down for his patients and worries about them 24/7. Right now most teaching/education would be best focused on Dr. Maseko, as he is currently the only permanent medical help at the clinic. That said, all skills temporary staff can learn can be used somewhere some day too.

Pothawira clinic continues to offer very good health care at a very discounted price (1000 Malawian Kwacha) so it available to everybody. The clinic is currently building a maternity ward which should be ready this coming June/July...however that will partly depend on fundraising in the United States to ship the containers of equipment, which will cost somewhere between \$25,000-\$50,000 US dollars. Dr Maseko is also hoping to get funding for more permanant staff, as currently the nurses and clinical officers are temporary. We are hoping to build housing for the staff sometime in the future. Dr. Maseko does so much with so little, he is truly an inspiration!

I saw definite value in the care that we provided while there and know the clinic and Dr. Maseko would greatly benefit from continued visits by traveling radiologists interested in ultrasound. I know he is very eager to continue to develop his imaging skills, but also loves the expertise that comes along with the visiting radiologist. We were able to show him various pathologies that he had never seen before. I think in the future, visits by imaging specialists would best be worked out individually with Dr. Maseko as to the best structure. I had 2 US techs available to me who were very fast and good, which did allow us to see/scan between 50-100 patients per day. If I was by myself, I would likely limit patients to 20-30 per day, primarily scheduled in the mornings to allow time in the afternoon for catching up and teaching Dr. Maseko. It would also be good to try to stop by Salima District Hospital and give a couple lectures on basic radiography interpretation, as they are always eager to learn as well. Currently they only have radiography and US available at the district hospital, they did not contrast for any fluoroscopic exams available at the time I was there.

For those wanting to visit....Lake Malawi is approximately a 10 minute drive from the clinic and offers many beautiful hotels. Dr. Maseko is also willing to host visiting physicians in his house (to help keep costs down). There is a school, church, and orphanage associated with Pothawira medical clinic as well, so if spouse or children would want to visit as well, there are additional volunteer opportunities!