

Alexandra Drought, superintendent ultrasonographer, West Middlesex University Hospital, London and Gill Harrison, ultrasound programme leader, City University, London, report on three weeks they spent as volunteers in Uganda training doctors and clinicians in ultrasound.

First impressions

Uganda is a landlocked country in East Africa bordering Kenya, Tanzania, Rwanda and the Congo. Forty per cent of the country lives in poverty, 80% of people live entirely off the land and the average life expectancy is just 43 years.

We spent the first two weeks in a rural hospital in a small township called Kumi, 400km from the Ugandan capital, Kampala. The area is prone to drought and seasonal famine with resultant rampant poverty and extremely low standards of living.

The drive from the airport was long and arduous but we reached Kumi to a warm welcome from our students, other hospital staff and the local villagers.

Our accommodation was basic but comfortable. The bathroom left a lot to be desired but we soon realised what a precious commodity water is in Uganda. It became a competition to see how few buckets of water we could use to wash ourselves, our clothes and flush the toilet. We managed as few as three small buckets a day.

Ultrasound against the odds

Our trip was part of an ongoing 18 month project led by the British Medical Ultrasound Society to increase the imaging capabilities of two Ugandan hospitals. We focused on only one of these – Kumi Hospital – where we taught for two weeks.

Kumi was originally founded in 1929 as a leprosy hospital but today it is a general hospital, serving a population of 400,000. The hospital receives 15% of its income from government funding and the remainder from donations. They have 300 beds and 210 staff, including seven doctors, and offer a range of services from orthopaedics and

surgical wards, to obstetrics and paediatrics. Histopathology and cytology services involve a trip in the truck to Kampala.

An ultrasound service has been available at Kumi Hospital since 2004, following the donation of

“The use of the ultrasound machines was sporadic, based very much on when and if electricity was available.”

machines by the company, Keymed. As there is a great deal of poverty in the region and scans cost 10,000 Uganda shillings per scan (£3.50), symptoms are often

severe before patients present to the hospital. This can make the ultrasound examination difficult, as it is often very hard to know from where the pathology is arising.

We expected to see a range of

tropical diseases like schistosomiasis and hydatid cysts in patients, but we actually saw more diseased livers caused by hepatitis, infection, HIV and splenomegaly secondary

to HIV, malaria and other infections. Pelvic inflammatory disease was also prolific amongst the women and lymphoma was almost as common as gallstones are in the UK.

The department was equipped with two Aloka 1500 machines – robust machines which were in good working order. The image quality was good and, ironically, this was helped further by the fact that the patients were so slim – malnourishment is still a major problem for rural Ugandans.

Both machines had a transabdominal and transvaginal probe. Unfortunately, the transvaginal probe on one was



Ultrasound in



and cooking on the floor in the out-patient clinic.

At the end of our visit, we tested the students with a quiz, covering everything that we had taught them and to help them prepare for examinations on the final day. Team prizes of a gynaecology ultrasound book and an abdominal ultrasound book

Scanning in Kumi is a challenge. It was very hot, there appeared to be no systems or protocols in place, and it did sometimes feel like organised chaos. It was especially difficult when the electrical supply was so sporadic.

On the other hand, the patients were not at all demanding, despite having travelled miles to reach the

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helped ensure that all students attended, but bribery was not necessary as they (and we) all enjoyed the quiz. On their last day, the students sat two exam papers – an obstetric and gynaecology paper and an abdominal paper.

Visiting an HIV clinic

Our third week was spent at the Mildmay HIV clinic in Kampala. Mildmay operates as an out-patient service with day care facilities. The machine available there was an Aloka SD 500 and the majority of the patients had scans for HIV related ailments.

Whilst at Mildmay we had the opportunity to visit Jaja's home, a hospice for children with AIDS. It was an extremely poignant place and yet the home was beautiful; the children very well cared for and amazingly resilient and happy.

A unique experience

The trip to Uganda was an amazing experience. We were made to feel so welcome and when you witness life in Uganda you appreciate life back home.

hospital only to have to wait for hours on hard wooden benches for their scan and then pay for the privilege.

The learning process was not just one-sided. We learnt so much, not only about ultrasound pathology but also about human spirit and how to overcome adversity. It was an experience that couldn't be replicated.

The motto in the patients' waiting area in Kumi really summed up the spirit of the place: “We seldom think of what we have but always of what we lack, this tendency has caused more suffering than all the disease and illness in life.”

Alexandra and Gill are planning on returning to Uganda. There is a great need in the hospitals there for ultrasound probe covers, probe wipes, lubricating gel, gloves and ultrasound gel. Please email Alexandra.Drought@wmuh.nhs.uk if you have donations.

Uganda

affected by crystal drop-out, so this machine became a dedicated abdominal machine.

In general, the use of the ultrasound machines was sporadic, based very much on when and if electricity was available. A lot of diplomacy and bartering had to be used with the man in charge of the generator to get scans done!

In the classroom

We ran daily training for hospital staff covering most ultrasound topics, including early pregnancy, obstetrics, gynaecology, abdominal and small parts. We covered both clinical and academic teaching for a range of healthcare

professionals, from doctors and radiographers to the hospital dentist.

Our day would begin with lectures, in a hall we shared with a range of visitors, from children to chickens! Despite the lack of running water and electricity we were often able to convince the generator man to supply us with some electricity so that we could then present using PowerPoint.

The afternoons were spent teaching ultrasound, which was carried out in a systematic fashion to try and counteract the usual chaos that seemed to be all around us, with patients, relatives and their children sitting, sleeping