East African sojourn – imaging in Tanzania

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One day I was looking at the world map pinned to the department wall, the next day my flights to Tanzania were booked. Those who know me would agree that I have a tendency to do highly spontaneous things, however, this decision was rash, even for me. Unlike most young people who dream of travel, my destination of choice was not Europe, America or even Canada. I had the noble yet ignorant intention of making a difference in Africa... via irradiation.

After a long and tedious flight from Brisbane to Bangkok and then on to Nairobi, I was laden with many misconceptions – Lonely Planet calls Nairobi "Narobbery" and the Australian government warns citizens of terrorist attacks – I was certain to be robbed and left to die in the gutter. Yet first impressions of this dry, dusty city were to the contrary. Though Nairobi was scatted with broken glass and barbed wire guarded compounds, which was slightly disconcerting, English widely and well spoken, and the staring and harassment was kept to a minimum, making me far more comfortable then I ever felt travelling throughout South America.

Lonely Planet calls Nairobi "Narobbery"

From Nairobi I made my way by bus to Arusha, Tanzania. Arusha, appearing much like Nairobi but on a much smaller scale, is the central hub for Aussie volunteers, Saint Judes School is well known. I eventually arrived to see my substantial African residency for the month. It was located within a UN compound, where I met the project director and many other like minded student nurses and doctors from Australia and the UK.

Monday was spent "disorientating" ourselves with Arusha and the hospital. Brian being the second in charge squeezed the six newbies onto a dala-dala, which is basically a mini bus designed to fit eight to 10 passengers but often picks up 20 or more. It was hot, smelly and squishy yet the quickest and cheapest mode of transport. We were

then given a quick run down of where to go, where not to go, what to do, what not to do etc. and then began one of our first of many Swahilli lessons, a great idea as a little knowledge of the local language gets you a long way.

The Hospital

I do not want to dissuade those who are interested in undertaking volunteer work and what follows is not intended as judgement or criticism. However disheartening, the truth was I felt totally useless and the hospital did little in my eyes to help those who needed it the most. Being young, just out of study and mzgungu (white) with little Swahili, it was very difficult to make people take me seriously. I learned very quickly that the best way to deal with things was to enclose myself in an impervious bubble, pretend it wasn't real and continue to offer all I could.

The hospital reminded me of an old decrepit army compound surrounded by barbed wire upon which unsuspecting victims often caught their clothing and skin. Lines of people, some with gaping wounds, waited patiently outside casualty, so called because everything happens so slowly and casually. A person may be coding and dead before a staff member has put on their gloves. There is no electronic monitoring, no oxygen (wall or cylinder) and needles are haphazardly disposed of by sticking them into the patient's mattress.

ICU consists of three beds in each ward where the only determining feature is a masking tape sticker labeled ICU. People just don't live long enough to be tubed and bagged; there is not enough electricity, staff training or equipment to sustain a critical patient.

In the surgical ward, patients are left untreated with compound tibial fractures (not commonly operated on due to infection risk) NOFs and vertebral dislocations are treated by traction. There are two patients per bed, head to toe with sand bags hanging off the end. Orthopedic cases are all elective, there is no such thing as an emergency case board. The only things considered emergency worthy are caeserian sections, appendectomies and "life threating cases".

Unlike Australia and other western countries, primary health care is provided by family members. They clean the patient, change

Sand bags used as traction devices

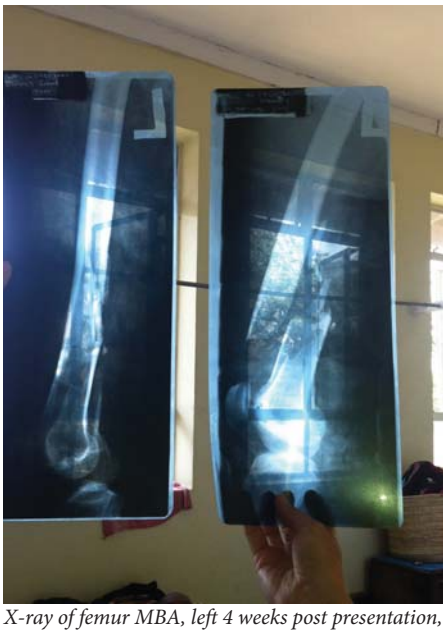
the bedding and go to the pharmacy for basic medication. If not for family you wouldn't survive an African hospital as the doctors rarely show up and the nurses believe observations are just as easy to obtain by looking at the patient and guessing their blood pressure. Into my second week, a febrile child was carried into the paediatric ward, placed on a bed by the parent and later died that afternoon because no staff attended her. I decided that every moment I had spare or when I became too frustrated with x-ray I would amuse the children giving the parents a break. The other nurses and I would paint their nails, draw and play with them. Having Ester and Armani run up to me at the beginning of each day full of smiles and hugs really made me think I was doing something worthwhile.

X-ray

Starting work in a new department is always daunting, an African imaging department unnerving. I had imagined dilapidated machines, mayhem and compound fractures left right and centre, yet the equipment was better than some of the units at home. Things happened "pole, pole" (slowly) as is the African way. If a patient presented with a compound fracture after 2 pm, the department was open 10 am to 2 pm, they had to wait for it to open the following day.

My first hour was spent in heated argument with the senior radiographer as to why we are not writing reports in Australia. I tried to explain the concept of red dot reporting and the benefit of having a radiologist on site. He argued that radiographers have the capability

Ester and Armani, 5 and 3, burns caused by hot cooking oil are the most common reason for paediatiric hospitalisation



X-ray of femur MBA, left 4 weeks post presentation, right on presentation. Traction used as patient could not afford surgery

and are passing up their responsibility. This debate surprised me. It appeared that the African system was more mature, allowing for a higher skill set and greater radiographer responsibility in plain film interpretation. This was until I actually read the reports and talked to the western doctors receiving them. The senior radiographer's argument had merit, however. Radiographers do not undergo the additional training, which in my opinion is fundamental to accurate and specific reports.

Ostensibly, African radiographers undergo the same training as we do, I had difficulty believing this however. I often experienced exasperation with the local staff, my angled tube for things such as AP C-spines, lateral knees, shoulders and ankles would result in strange looks and straightening of the tube. My tight collimation would be opened out and my split cassettes would turn into single ankles on a 24 x 30. I tried many times to explain why I did such things, especially splitting cassettes. Film in Africa is rare commodity and the department would often run out bringing a halt to x-ray many days at a time. I indicated that once good exposures were determined and learnt there was no need to check each projection, film usage would be much more efficient.

I often found escape from the local frustrations by hiding out in the dark room. I learned how to wet develop film and absolutely loved it, there was something

therapeutic about the dark and dipping your film first into silver nitrate waiting for the picture to appear, fixing it, washing it then hanging it to dry. Not being something taught at university this was a novelty and honestly made me take more care with positioning and exposures while also instilling pride in my work. DR and CR are admittedly faster but do not produce a material product (unless printed) you can hold and think you have created a work of art. Computerisation of the industry has taken away the physical existence, the reality of it all. This, I think, now leads to the increased number of repeats and sloppy imaging in some departments.

If I had the arrogance to tell the locals that they weren't exercising best practice I was certain to face a great deal of resistance, who was I to say. So I would explain why I did certain things and what the benefit was, often showing textbook diagrams. I found that Africans struggle with change and have difficulty deviating from the "norm". I remember ordering a sandwich at a local cafe. The power went out so the waitress came out frazzled saying I could have a burger but not the sandwich as the toaster didn't work. I told her that was fine that all I wanted was some meat and salad between two pieces of bread, not toasted. She could not comprehend this and refused to serve it to me, eventually she agreed, yet an hour later my sandwich came out toasted.

Finally on my last few days I was approached by the department director, he sat me down thanked me for coming and then continued to tell me that the best thing I could have done was donate equipment. I was a little taken aback, in my opinion they had good equipment. My offer to organise a delivery of film was turned down and was told CR or DR would be more ideal as film expires. I said that I thought differently as the power regularly shut down and did not think the single-phase power of the hospital could support a triple phase machine.

I feel the only thing I achieved was an improvement in radiation awareness, which I suspect has since reverted. The local radiographers would x-ray with other family members in the room. I did not mention anything at first, but when I got a patient with a family member, I would always make them

I felt like I was back in time by a couple of hundred years

stand behind the lead screen. When asked why I did this I would explain that it was not necessary to irradiate a family member who would not benefit from the imaging. I then continued to explain why I would collimate. Following my example family members were since lead behind the screen when I was present (I don't think it was done when I wasn't there).

Theatre

A Tanzanian operating theatre is like nothing I had ever seen before. It is hot and sweaty, the air being so thick that it is difficult to breathe. It is no wonder mzungus are known for passing out mid-case.

The theatre bore a stark difference to those I am used to in Australia. It contained a simple table covered by a sheet placed at the center if the room. The lights hung by threads from the ceiling while there was a strange absence of beeping monitors or puffing of anesthetic machines.

I walked in part way through a humeral shaft ORIF to find the patient semiconcious looking at his arm sliced from shoulder to elbow screaming blue murder. Ketamin (Special K) recently famous for its recreational use in the UK is IV injected, tranquilising the patient. Often used in war zones, this drug knocks the patient out providing a stupor that does not need intubation or breathing assistance but regularly causes hallucinations leaving behind traumatic memories. There was no suction or cauterisation with the excess blood removed by spotting the site with gauze, wringing it out and reusing it. I felt like I was back in time by a couple of hundred years. HIV was tested for once all staff were mottled with blood and the final screws inserted.

Femoral nails are considered elective and are not often done with the excuse being they don't have a theatre radiographer. I offered my hand however I was then told they did not have enough nails, anesthetics etc. Frankly, I got the impression that they couldn't be bothered. This may sound like a generalisation, but after visiting Tanzania I feel as if the people themselves are not doing all they can to improve their standard of living.

Patients would have to share beds, often non infectious next to infections or HIV positive patients

Doctors, labour workers, kitchen staff seem to come and go as they please. There is little to no organisation or forward planning. People work to earn money and then stop turning up to work. It is a self-centered culture where the people tend to believe that money should come easily. Those of us who were volunteering filled our luggage with medical supplies such as stethoscopes, blood pressure cuffs and basic medication to be used by the ward however when given to a doctor or nurse manager these items were either treated as trinkets, disappeared or pawned off.

There was a particular instance when the project manager informed me that each location was given a donation for having us I just needed to let him know whether I wished to spend more time in a private clinic or public hospital. Needless to say, I was not consulted and my money was handed over to the private clinic run by a friend of the manager where I was expected to stay for my remaining three weeks (in the end I befriended an orthopaedic surgeon who would text me his operation list and ward round times and I would just come and go as I pleased). This was not an isolated case, talking to other volunteers within the company and from elsewhere informed me that this happened quite regularly. You pay thousands of dollars for this experience and the money just disappears, unfortunately there is no escaping corruption even in health care and volunteer work.

Although my experiences were not the ones I expected and I didn't make what idealist would call a "difference". Spending a month in an African hospital sure does change your perspective. I will never again take for granted our way of life and truly appreciate how lucky I am to be Australian and work in an Australian hospital.