Sarah Garlick

Elective Report
Kilimatinde Hospital, Tanzania

For my medical elective I spent five weeks at a remote and rural hospital in central Tanzania. It is in the village of Kilimatinde, two hours drive from the city of Dodoma, and it has 140 beds, doctors, clinical officers and many nurses and nursing students. The hospital has no running water but has had mains electricity for several years now. It is no longer funded by the government, who decided instead to fund a bigger hospital in nearby Manyoni, so a charitable trust has been set up to help support the hospital, the church and the secondary school in the village. The people the area serves are among the poorest in the whole of Tanzania and they largely lead a rural life of subsistence farming. Over a third of the population of Tanzania is below the World Bank poverty line. This hospital in particular has scarce resources and reliable supplies of medications are difficult to get. Finances are extremely tight and difficult decisions are made on a daily basis as to where best to spend the money.

Objective 1: Describe the pattern on disease/illness in the rural central Tanzanian population.

During my time at Kilimatinde I worked on the children's ward, male and female wards and then spent a little time in maternity. I also spent time in the outpatients' department seeing new presentations – this acts like a GP surgery/A&E at home. The majority of the patients I saw over my five weeks had an infectious disease, particularly the children. Malaria was the most common diagnosis and one of the few with a specific diagnostic test. Gastroenteritis and pneumonia were also very common. The female ward had these diagnoses but also miscarriages (often due to malaria) and complications of pregnancy. The male ward had more presentations due to trauma and then conditions such as hernias and peptic ulcer disease. There was also a steady stream of patients suffering consequences of HIV infection. On the whole this profile of conditions is very different to that encountered in a typical UK hospital, which would be largely management of chronic conditions and their complications and far less infectious disease. This is due to many complex factors but presence of vector-bourne diseases, levels of food and water hygiene, living conditions and poverty, status of immunity in the population and access to healthcare all have a significant bearing. Having an interest in infectious and tropical diseases I have found this experience truly fascinating and have encountered cases that would not be seen in the UK.

Objective 2: Compare and contrast how healthcare is provided and delivered in Tanzania and the UK.

In Tanzania there are some services that are provided free at the point of access (such as HIV medication and counseling, the childhood vaccination program, malaria nets for children, antenatal care and child growth monitoring) but the majority of the healthcare must be paid for by the patient at government-run hospitals. A national insurance fund exists but is generally not affordable to many people. There are also private clinics and hospitals which are very expensive. For most of the population, each investigation, medication and the doctor's time must be paid for and this often results in people presenting only for what they perceive to be major illness or late on in the disease.

Traditional healers are widely used and much cheaper than visiting a hospital and getting licensed drugs. In contrast the NHS is free for all services and patients do not pay. The standard of care is not dependent on finances and so people seek healthcare when they need it without that extra pressure. Tanzania has various levels of hospital: specialized referral hospitals (4), regional hospitals (18) and many district hospitals. The district hospitals are often run by Assistant Medical Officers (equivalent to a doctor) and Clinical Officers. There are also dispensaries and village health workers which provide primary care in the first instance. This tiered system of healthcare shares the same theory as the UK system but the method of referring to specialist services is far more regulated within the NHS, with GPs being the gatekeepers of the hospital system.

Objective 3: Describe infection control measures in place at this rural hospital in the context of infectious disease being so common and compare with a UK hospital.

Infection control in NHS hospitals is seen as vitally important, not least because hospital acquired infections cost the country £1 billion per year. Members of staff specifically trained in infection control manage teams of nurses and cleaners to keep nosocomial infections at bay. I have not heard hospital-acquired infections mentioned in Kilimatinde at all but perhaps the risk is lower with patients spending most of their time outdoors off the wards or they do not stay long enough for it to be a major problem.

NICE advises infection control measures which include thorough handwashing between each stage of contact with a patient, being 'bare-below-the-elbow', keeping fingernails short, using gloves and sharps bins, disposable equipment and using PPE for particularly infectious patients. During my time on elective I saw some of these being implemented well and others being done to the best of the staff's ability given the extremely limited resources. While the nursing students (who make up a large proportion of the ward staff) were aware of certain things such as wearing gloves for procedures and the use of sharps bins, it was clear that the most simple and cost effective intervention of thorough handwashing, especially between patients on ward rounds, was not routine for them. On one occasion I was asked by a student what my alcohol gel was for and why I use it. However, nurses in Tanzania did seem to have less direct patient contact than UK nurses do. In general the infection control methods used in theatre matched those used in the NHS. Obviously reusing equipment is a necessity here, whereas so much of what we use is single-use, even as far as instruments are concerned. Realistically it is impossible to expect to maintain high standards of hygiene in a place where some of the year even water is scares and where disinfectants are yet another expense which competes with buying analgesics or cannulae, for example. I find it hard to admit, coming from a microbiology background, that in fact extensive infection control measures on the wards cannot be a priority.

Objective 4: Reflect on how my experience has affected my confidence in my clinical skills and how this may affect future practice. What have my experiences taught me?

Part of the reason for choosing to do my elective at a rural hospital in a resource-poor setting was in order to gain a lot of clinical examination experience without over-reliance on ordering investigations, be it blood tests or imaging. My elective certainly gave me that as there are only a limited range of lab investigations, not even the full range of observations that we use, and no imaging of any sort! I think I underestimated how

difficult this makes reaching a diagnosis and nearly every case is treated empirically throughout their admission. Physical examination is vital in practicing this sort of medicine, and especially when a detailed history is difficult to obtain due to language barriers. I have certainly gained confidence in approaching new patients and their complaints and have found that I gave the differential diagnosis a lot of thought and consider a wider range of conditions than perhaps I would if I was able to order lots of tests. Leading and attending ward rounds have been another learning experience that will be very useful to me in my upcoming work. On the other hand, I hope that in the future I won't neglect to do the investigations that have not been available here, when I am working back in the UK. I can see how working there for a long time might make a clinician very experienced in that way of working and the conditions encountered, but also they may find it difficult to stay up to date as it is an isolated place.

Overall I have very much enjoyed my time at Kilimatinde and it has been a truly eye-opening experience. It provided everything I hoped for in an elective and has pushed me out of my comfort zone on several occasion. I would like to thank the hospital and village community for making us so welcome during our time here.