

## Medical Elective at Kalene Mission Hospital, Zambia

by Heather Burghel (Medical Missionary News, Autumn 2012)

I am struggling to know quite how to begin to describe my time spent at Kalene Mission Hospital in North-Western Zambia, where I undertook my medical elective as part of my fourth year of study at Sheffield Medical School. Having only ever experienced a modern western healthcare system I had always wanted to see and experience something completely different for my elective, and visit a developing country to see how healthcare is delivered in such a resource-poor area. I hoped this would help me to appreciate the privileges of having access to the advanced investigations and treatments we have in the UK, and learn how different cultures view and approach health and disease. It was my first visit to Africa, and the experience I gained, both clinically, culturally and socially will undoubtedly have a huge impact upon my future practice of medicine.

After hearing about Kalene Mission through the Christian Medical Fellowship, I had spent almost a year preparing for the trip. Prior to entering university I had saved up a small amount of money from a Saturday job and put this into an "elective fund", but a generous donation from MMN made my visit to Zambia a reality. MMN works closely with the hospital and support the mission by sponsoring visiting nurses, doctors and students such as myself, and by sending them much needed resources and equipment via shipping containers from their warehouse in Wickford. Spending time at the hospital made me realise just how valuable their support is.

Kalene Hospital has a catchment population of 44,000 and the capacity for 150 inpatients, with men's, women's, paediatric and maternity wards in addition to an operating theatre and an outpatients department. Many patients also come from further afield, such as the DR Congo and Angola, walking for days in order to receive medical attention. Many would come and wait at the hospital, and be prepared to cook and sleep there too (photo below).

Whilst at the hospital I was able to spend time on all of the wards and helped assist in both major and minor surgeries. This allowed me to gain a vast amount of experience, and build upon previous knowledge from my medical degree.

There were three doctors present during my time at the hospital, in addition to an orthopaedic surgeon who was around for part of my stay. All of the doctors were extremely dedicated to their work and would spend long days in theatres and on the wards. Their work ethic was inspirational and I hope that in the future I can also practice with their same energy and enthusiasm. The hospital itself was very basic and had extremely limited resources compared to UK standards. For example, during my stay there was no supply of X-ray film. This meant that the majority of diagnoses had to be formulated on histories and clinical signs alone, which really stretched my skills and knowledge.

The range of diseases I witnessed at Kalene was very different from the UK. The majority of the patients had infections such as HIV, TB and malaria, but chronic diseases such as cardiovascular disease (heart attacks and stroke) and chronic lung disease were rare. Seeing these conditions helped me to develop knowledge in areas that I have had little exposure to so far in my medical training.

Two full days per week were dedicated theatre days, and there were often up to fifteen patients operated on in a single day. Some of the more common procedures included lymph node biopsies to investigate for TB, caesarean sections, female sterilisations and fracture repairs.

There were also some more complex cases such as thyroidectomies (removal of the thyroid gland—photo below) and leg amputations, which were fascinating to be involved with. It was amazing to see such complex surgery being undertaken with such limited equipment and resources and to be a part of some of the life-changing operations being done. A new theatre block and high-dependency unit has just been

completed, which will have a huge impact on the number of the operations and the complexity of procedures that can be undertaken. It will be a significant step forward for the hospital.

I could write pages about the cases I saw and the things I experienced during my stay but instead I will describe just some of the specific observations and stories which have had a particularly long-lasting impact..

Many of the patients coming would travel for days in order to get medical attention at the hospital. This in itself caused several problems and dilemmas for the staff and made it difficult to send patients home when they would need to return for treatment or follow-up just a few weeks later. To give an example of the kind of problems that distance would cause, one particular patient arrived on the ward having been brought in on a motorbike after she had suffered a stroke and unfortunately the length of the journey had caused severe burns to her legs from the heat of the engine. This story really touched me and brought home to me how privileged we are in the UK to be in such easy reach of medical care.

As the locals cooked over open fires I saw many cases where patients had sustained deep burns to their skin. Many of these patients had fallen whilst having epileptic fits or were children who had been playing too close to fires. In the UK, cases such as these would have potentially excellent outcomes as emergency skin grafts could be performed. However, due to the distances people had to travel to reach the hospital at Kalene, many of the burns wounds had become infected or begun to granulate before the patients reached the hospital. This meant that even once the wounds had been cleaned and grafted, that ongoing scarring would occur, meaning that some patients would be left with severe disfigurement and scarring. I found these cases particularly saddening. However, during my time at Kalene a plastic surgeon visited for two days to perform operations. Many of his patients were victims of burns which had caused the joints of their hands to fuse due to scarring. It was truly inspirational to see the surgeon operate and restore the patients' hands to some level of function.

I could go on and on describing cases which impacted upon me in particular ways. However, the events of one day in particular highlight just what an emotional rollercoaster and varied experience I had at the hospital. I was shadowing the doctor on-call, and we were contacted to review a man who had been brought a three hour journey from another hospital (which had xray film) by ambulance. He had been in a road traffic accident and had suffered severe fractures to his leg and had an open pelvic fracture. It became apparent that he was bleeding internally as his blood pressure was low. He had significant blood loss from his pelvis and fractures, but the rest of the abdomen was not distended and the chest was clinically clear. Without advanced CT scans or the ability to repeat X-rays it was difficult to know where the blood loss was occurring. Initial attempts to stabilise him included a pelvic splint to close the pelvis and a blood transfusion. Whilst we were still attending to this patient the doctor was called about a patient who had become unconscious (due to low blood glucose – which is relatively easy to treat) and was also called to perform an emergency caesarean section on a young lady who had failed to progress in labour. The mother was weak and the baby had 'distress' (due to low oxygen). After calling another doctor to attend to the unwell man, I went to assist in the caesarean. The lady had internal scarring from previous operations, and this made it very complex. She lost a lot of blood, however, the baby was delivered successfully and the bleeding halted. Thankfully both mother and baby survived, but unfortunately before the operation was complete we heard that the man in the accident had passed away. He had collapsed suddenly shortly after his blood pressure had improved. With no intensive care unit and limited equipment, the doctors had done all that they could. One of the doctors was concerned that the cause of the sudden deterioration was a bleed for the thoracic aorta. In a matter of minutes, three lives were saved and one life was lost; bringing home to me both how fragile and yet how strong life can be. It demonstrated what an amazing job the staff at the hospital do with such limited equipment, and how we should never take any of our hours and days for granted.

Although I learnt a great deal of medical and clinical knowledge during my stay, I think the biggest thing I gained from my time at Kalene was to see how different cultures view health and how this may alter a person's attitude to disease management. I saw how different cultures can respond and deal with death

and grief, which will make me consider more closely how I break bad news to family and friends of dying patients and will better prepare me for the different grief responses that may occur. In addition, as many of the local Zambians were Christians I was able to see first-hand how people's faith could alter their responses to a diagnosis. For example, I was present when an elderly man was told that he may only have a few weeks to live. To this he replied "God has been good to me". I found this very moving. It brought home to me how a person's belief may impact on how they wish their condition to be managed, and how important it is to ask patients whether they have a particular faith during consultations.

Whilst I gained such a vast amount from my time at Kalene, I hope and pray that I was also able to give something back to the hospital. During my stay I gained enough confidence to enable me to conduct some of the outpatient clinics, which I hoped would help relieve some of the pressure from the doctors. Alongside another medical student (Hayley) who was present at the hospital during my stay, I was able to be on the "on-call" rota for out-of hours admissions. This helped me improve my decision-making abilities whilst being helpful to the hospital.

When I was considering where to undertake my elective my prayers were that I would see the Christian faith being lived out in the workplace, that I would see true compassion, and that I would be able to see first-hand what life as a Christian missionary in the medical field looks like. I really feel my prayers were answered at Kalene. The doctors and staff would meet three times a week for a morning update meeting, which would always start and finish in prayer. I can think of no better way to start the day, and I hope that in the future I can incorporate such practice into my daily routine; praying that I would see all of my patients as God sees them and make good decisions regarding their care. On occasions the doctors would also pray with the patients, particularly before they underwent surgery and after they received diagnoses of terminal diseases or infertility. Seeing the comfort that patients received when they were prayed for helped me to appreciate the power of prayer, and the impact it can have. I feel that in this sense the time I spent at Kalene had a very real impact on my Christian life. It made me realise how far and wide God's word can reach and how we should never take for granted the amazing privileges he has provided us with. It strengthened my trust in God, that amongst suffering and poverty, his light still shines and is forever present.

Of course, although the days at the hospital were long, there was a bit of time to explore and relax. I challenge anyone who says that African sunsets and sun-rises are not more beautiful than anywhere else in the world! Several days I would travel up to the top of the aeroplane landing strip and sit and watch the beautiful event unfold. Hayley and I also walked up Kalene Hill, from which we could see the vastness of the African plain, and took a trip to the source of the Zambezi river. We had the chance to attend the local church where the singing was just mesmerising, visited the orphans at Hillwood village (cover photo) and also travelled to another nearby village one evening to deliver the "Jesus Film" to the local community. I estimate nearly 100 people gathered around the big screen and marvelled at the video, which is amazing!

So, there you have it. I cannot believe how fast my time at Kalene went. It truly was a life-changing and inspirational experience that I will carry with me for the rest of my career and I cannot thank the people at Kalene, and those that made this trip possible, enough. There really is something about Africa that "gets under your skin", and I'm sure that this will not be my last visit to the beautiful country of Zambia.