

# BMS EXCHANGE SCHOLARSHIPS

## *in collaboration with BHIVA and SAHIVCS 2014*



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**Dates and Programme:** 11–19 August 2014: Observational placements at Baylor International Paediatric AIDS Initiative and Princess Marina Hospital, Gaborone, Botswana.  
20–23 August 2014: Botswana HIV Clinicians Society (BHIVCS) Internal Conference

### Day 1–2:



Day one started in a small room off the male medical inpatient ward, crammed with doctors and medical students of different nationalities who cooperate in providing care to patients in Princess Marina Hospital, the main state hospital in Gaborone. Naturally most of the clinicians and students were from Botswana but there were also a few Italians, some Americans and some Brits. The topic of the presentation was an apt introduction to HIV medicine in Botswana; a critique of a paper written after a study performed at Princess Marina Hospital into the rates of tuberculosis in patients who had been discharged from the medical ward. The study found a high incidence of tuberculosis in patients in the first year after discharge from hospital along with high mortality rates. The presentation was followed by an enthusiastic discussion about the implications and how improvements could be made in the systems by which doctors identify those patients who present with a high TB infection risk to make sure that they are isolated. The key features of the discussion illustrated elements that were to be a recurring theme during the placement in Botswana; the high prevalence of TB, the high levels of motivation to provide quality care and the importance of the health infrastructure in terms of facilities available as a determinant of the care outcomes.



Next stop was a few minutes' drive down the road to the TB clinic. This is a prefabricated building on a different site with three consultation rooms and a covered waiting area outside with benches for patients. One of the first things you notice is just how cold it is as every room has a fan on full blast and all the doors and windows are open, great for ventilation and for limiting the risk of TB infection but not always ideal for patient confidentiality! Sitting in the room waiting for the first patients to arrive was a good chance to read through the various posters on the wall. Many of these were health promotion posters particularly around cough hygiene and ways to reduce TB transmission, as might be expected. However, a significant number were also about patient rights and the values of the healthcare system in terms of respecting the patient's right to dignity, information and to complain. I hadn't thought that this was common in Africa but the doctors informed me that in actual fact there had been a number of patients who had taken legal action against the hospital after they had gone deaf as a

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result of the amikacin used to treat drug resistant TB. They claimed that they had not been informed that this was a risk. The response to this was that now the TB clinic had a contract that every patient starting MDRTB treatment had to sign to confirm that they had been aware of all the potential risks of the drug regimen.



On the same site as the TB outpatients clinic was an inpatient ward where all the potentially infectious (smear and or culture positive) MDRTB patients who couldn't be isolated elsewhere were admitted. These patients were seen by doctors once a week and in the interim were taken care of by the nurses on site who would alert the doctors if they had any concerns. Most of these patients were stable but would be in the hospital for months. According to the doctors the most difficult issues were often around their difficult social circumstances and the impact of the prolonged isolation on their mental health. For example one patient was a girl who had come to Botswana from the Democratic Republic of Congo to participate in the youth games. She had been found to have MDRTB after she collapsed while trying to compete and subsequently had been isolated in the hospital. She was still waiting for the requisite amount of culture negative results in order to be able to return home. She had suffered from debilitating depression, all the worse as she was a native French speaker and therefore only had limited means of communication with the healthcare givers.



The patients we saw over the first and second day of the exchange, both of which were spent in the TB clinic, were a mixture of people with drug sensitive TB and drug resistant TB, some of these people were HIV co-infected, but not all. The patients with drug resistant TB were supposed to be separated from those with drug sensitive TB both physically and in terms of time as they were booked for clinic on different days. In practice this didn't seem to happen as patients tended to turn up on whichever day was convenient for them. The doctors talked a lot about the problems they had with infection control particularly with patients from a certain area of Gaborone which was very poor and overpopulated, they described one family from this area who had had four family members who lived in the same house all diagnosed with MDRTB.

The junior doctors who saw most of the patients in the clinic were supported by Dr Modongo, a tuberculosis specialist who oversees most of the TB clinics in Botswana, and writes the treatment guidelines. She encouraged me to see a couple of the patients who had been referred to the clinic in order to understand the way in which they reach clinical decisions regarding treatment. The patients had been referred as they had sputum results that either showed monoresistance or an unusual *Mycobacterium*. Two of these patients had *Mycobacterium intracellulare*; one was HIV positive but was clinically very well with a reasonable CD4 count and therefore the decision was made not to treat, the other was HIV negative but was symptomatic therefore was started on treatment. This was interesting for me to see as I had only seen *Mycobacterium intracellulare* in a few patients with confirmed immunosuppression. It was useful to get experience taking a relevant history, examining patients and thinking through the important features determining the clinical decision. TB is an important diagnosis in HIV patients in the UK but the number of patients is far smaller than in Botswana so there was a lot to learn from the vast experience of the doctors there.

The TB clinic was also the first place that I got to see the way in which patient's records are kept in Botswana. The majority of patients carry cards around with them on which the doctors document each clinical encounter whether at a local clinic with a nurse, at a general outpatient clinic with a hospital doctor or at a specialist clinic like the TB

clinic. For TB they also carry a treatment card that covers the whole of their 6 month (minimum) treatment and where the person that directly observes them taking the treatment signs every day. Dr Modongo felt that the importance placed on the DOT system in Botswana was one of the main reasons that the MDRTB rate there is relatively low compared to neighbouring countries like South Africa. It made me think back to working in Myanmar where the TB rates were also very high but there was no established system for DOT and where MDRTB seems to be an increasingly worrying public health problem.

The fact that the patients carry their own treatment cards for TB care seemed to be a potential vulnerability in the system. Not only is there potential for the patients to lose one or all of their cards and therefore for the doctors to have an incomplete picture of the treatment they have had before, there is also the concern about confidentiality and whether the patients have anywhere that they can keep this information securely. This issue came up again later on in the week when we were discussing taking sexual histories from adolescents.

In some settings where the documentation was crucial, the information was also kept at the clinic but that there wasn't a unified system for this. For example the doctors kept an ongoing record of all the MDRTB patients including their sputum microscopy/culture results on the computer as well as in a file at the clinic. In the HIV clinic the doctors took carbon copies of all their notes and kept these, while in the adolescent HIV clinic the documentation was all on an electronic medical record. One of the limiting steps in more universal electronic medical records seemed to be having access to the internet and reliable technology infrastructure. Frequently doctors were unable to access the records required because the system was down. This was a frustration to the doctors but when asked what they found most difficult about their job they answered that although they had good protocols for care, they also had frequent stock-outs both of drugs and reagents for tests. Looking through the notes of one patient with MDRTB there were two occasions when she went without one of her TB drugs due to stock-outs, on one time she didn't take amikacin for a month, on the other she missed 2 weeks of clarithromycin. The doctors were fully aware of the potential implications of this in terms of generating resistance, and felt a considerable amount of anxiety about it, but felt that the supply chain infrastructure was very weak and therefore that this problem was likely to continue.

### Day 3



Wednesday morning was spent in the HIV clinic (IDCC) with Ava Avalos, an American doctor, who sees the patients who have been referred for specialist input due to concerns about treatment failure or resistance. Botswana was one of the countries that invested in viral load monitoring of patients on ARVs early, a factor that Ava feels contributed in a significant way to the success of their antiretroviral programme. Having worked in a setting in Myanmar where treatment failure was identified either clinically or immunologically and then only confirmed with virological testing in certain cases, I have seen how difficult it can be and how much this can delay recognition of treatment failure.

This clinic was an opportunity to become more acquainted with the antiretroviral treatment guidelines in Botswana. At the moment, they are using a CD4 cell count of 350 as the cut-off for starting treatment; this is an increase from a CD4 cell count of 200 in line with WHO guidelines. They are still in debate about starting treatment at a CD4 of 500 cells/mm<sup>3</sup> and about option B+ for mothers (something that was discussed at length in the conference in the second week). The first-line treatment for all is Atripla as it is in the UK. In cases of treatment failure as identified by an increasing viral load the guidelines recommend switching the patient to second-line treatment with

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lopinavir/ritonavir and either abacavir or zidovudine. There is no testing for HLAB5701, which in the UK is mandatory prior to starting abacavir, but then the prevalence of this gene is low.

Currently, resistance profiling via genotype and phenotype is only done in very restricted situations in Botswana (failing second-line treatment prior to 'deep salvage' with darunavir/raltegravir) due to the significant costs involved in performing these tests. Dr Avalos discussed this and felt that this did not compromise care in the majority of cases and reported that in fact the resistance tests that they have performed have picked up very few mutations. Most of the time the failure was due to adherence and this has guided the treatment protocol, which places a strong emphasis on adherence counselling and support. In clinic, patients often brought along a person that they had nominated as their 'adherence partner', this was a person that they had disclosed their status to who would help to support them to take their medications. In many cases it was a sibling or a parent. Dr Avalos explained that she personally would not start anyone on antiretroviral treatment unless they had brought an adherence partner as they tended to have much poorer adherence. She cited as an example one patient we saw who was a 50 year old man with no siblings who described himself as having no family other than his elderly father. He had virological failure on second-line treatment. Her perspective was that the push to disclosure was also a push towards addressing and reducing stigma, which is still prevalent in Botswana.

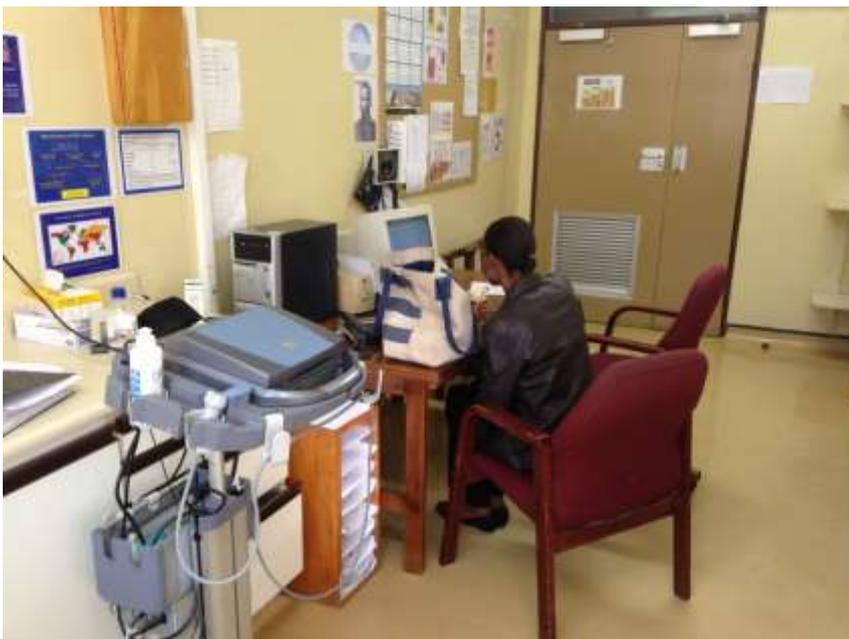
In this clinic I was struck by the case of two sisters, both of whom had been diagnosed HIV positive in the previous couple of months as young adults. Both of these sisters denied having ever had sex and were thought to have acquired HIV through vertical transmission. The elder of the siblings was 21 and had been diagnosed first on a test done when she was unwell, she had been found to have a CD4 count of 74. The other sister was 18 and stated that she had always been well but was tested because her sister had been, her CD4 count was 300. The two sisters had grown up with their grandmother as their mother had died early in their childhood but they did not know why. Prior to this my experience of vertical transmission had always been with people who had been diagnosed in their infancy or early childhood. During my time in Botswana I saw a few more young adults who had been asymptomatic throughout their childhood and teenage years, it was a good learning point and spur to remember to test all children of HIV-positive mothers including older ones. It challenged my assumption that if a child reached their teenage years without having had significant illnesses they were unlikely to have been infected. Watching Dr Avalos counselling these patients was also interesting, she started by impressing upon the sisters that the PMTCT did not exist in Botswana when they were born and making it clear that their mother was in no way negligent or culpable. It seemed that these patients had unique issues separate to those of the patients infected via vertical transmission who had been diagnosed during their childhood. Both groups have to face the fact that they have an infection that can be sexually transmitted while they negotiate their sexual debut, however the group diagnosed in childhood often seemed to have a supportive relationship already established with the Baylor centre clinicians, they have often attended the HIV teen club and therefore have a community of peers in their situation. The patients diagnosed as young adults did not have that background of support. The other issue that was raised in the consultation with these two sisters and with another young female patient was the lack of coordination between the HIV clinic and any reproductive health service. The doctors discussed contraception with the women but were unable to offer any methods in the clinic itself, they had to refer them to their local clinic. This seemed like a significant missed opportunity, it was a problem that I also identified at Baylor when I attended later in the week.

#### Day 4:

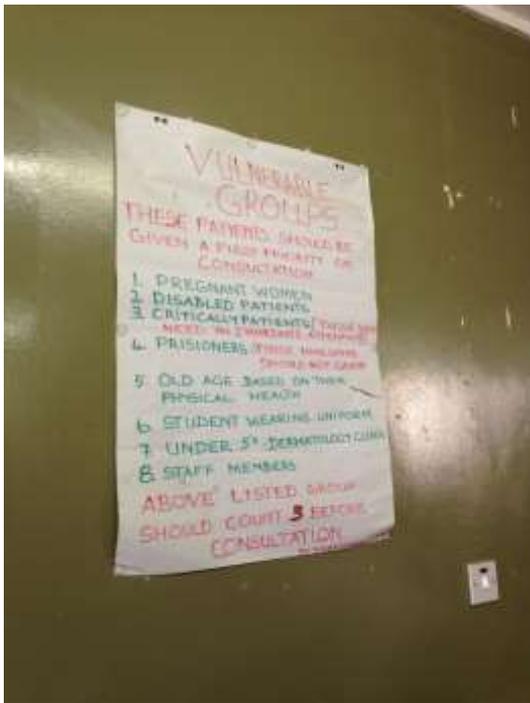


On Thursday I attended the hepatology clinic. This was a new clinic run by the head of the medical department, Dr Cainelli, an Italian doctor at the level of a registrar who worked alongside a doctor from Botswana. At this clinic we saw patients co-infected with hepatitis B and C but also patients with myriad other forms of liver disease including autoimmune hepatitis, systemic lypus erythematosus, drug-induced hepatitis, jaundice of unknown origin and a patient with oesophageal varices secondary to portal hypertension but no cirrhosis and no blood-borne virus.

It was interesting to see that the doctors had point-of-care tests for not only hepatitis B and C but also for hepatitis D and E. Few patients had any hepatitis serology done prior to referral. The clinic also had an ultrasound scan machine in the room so that the doctors could gather as much real-time information as possible.



The whole clinic set-up was quite informal with doctors and nurses wandering in with hand-written referrals that were then approved by Dr Cainelli and booked into clinic. This lack of formality might be good for getting prompt responses about patient referrals but it didn't always feel like it was good for the patients who were in the consultation at the time. There didn't seem to be much consideration given to whether the patient was being examined at the time. It also meant that on occasion there were a large number of people in the room during a consultation most of whom were not clinically necessary. One of the differences between this clinic and a medical outpatient clinic in the UK was that patients who had been booked into the clinic were seen on a first-come, first-served basis. There were no appointment times although there were certain groups of patients who were considered vulnerable and therefore would be seen first (see photo below). The doctors also encouraged the nurses to be thinking about triaging the patients in the waiting room according to need and would ask them how urgently they felt they needed to be seen.



Again in this clinic the way in which histories were taken and the patients counselled was interesting as the focus was often quite different to in the UK. None of the patients was asked about a history of injecting drug use; the doctors explained this was very uncommon in Botswana. There was also no sexual history taken, this was a striking feature of most consultation in all clinics! The patients were asked about alcohol but in many cases the patients were abstinent already. The counselling focused much less on the avoidance of alcohol than on food, obesity was quite common among the patients seen, so many were counselled about the risks of fatty liver disease and Dr Cainelli had a laminated sheet at the ready with photos of mouldy nuts and maize to counsel patients about the risk of aflatoxin and mycotoxin,

On Thursday evening I and the other scholars presented to the CME meeting. The topics were quite diverse: MSM, penicilliosis and the role of the pharmacy. I was surprised that many of the people attending were actually the students. (Maybe that had something to do with the refreshments though!) They were attentive and asked good questions.

## Day 5

We started by repeating our presentations at the medical grand round in Princess Marina Hospital to between 30 and 40 doctors:



I then went back to the HIV clinic and sat with a doctor from Botswana who was doing a medical rotation. Many of the doctors had told me that in Botswana every doctor is a specialist in HIV because with the rate of HIV so high, everyone has a lot of experience of it. There was however a considerable difference in the interest shown towards the patients and in the engagement with these patients by this medical officer who had not had any specific training in HIV. Most of the time was spent filling in the forms and looking at the computer with as far as I could tell (much of the consultation was in Setswana) few questions about adherence and little interaction with the patients. It happened in this clinic that I saw the only patient who had a positive hepatitis C result of any of the patients I saw in Botswana. I don't think this had previously been recognised and as it was not common the doctor was unsure how to proceed. This did not seem to me unreasonable as it is rare in that setting, but what was worrying was how little explanation was given to the patient. The patient was an articulate 21 year old student who clearly was well informed and who asked me once the doctor was out the room "this is bad for my liver isn't it". It was clear that the doctor had not actually given the patient any information.

Another patient that she saw had recently been discharged from hospital and had a CD4 of 4. He had a history of multiple episodes of 'defaulting treatment' and was undergoing assessment for TB. I was quite shocked that the doctor did not take a history of current symptoms, did not consider specific questioning about possible opportunistic infections such as CMV eye signs and did not examine the patient at all. She also seemed to have a fairly brusque manner of approaching adherence and did not ask about side effects, concern about disclosure, job or any of the other potential reasons for poor adherence. She also did not seem to be aware of the need for close follow-up of the patient and seemed to be following the standard 1 month appointment guideline even though it did not seem clinically appropriate. It made me wonder if the fact that HIV is so common in Botswana means that some doctors who don't have a specific interest in it become blasé or bored by it and fail to actually offer the care required. When I discussed it with some of the other GPs they also pointed out that the courses offered by the Baylor unit in the management in HIV are becoming less frequent and that this might be having an impact on the care provided.

I was also struck by the fact that the consultations seemed quite paternalistic. We have tried to move away from this in the UK and to give patients more autonomy but the doctors I spoke to in Botswana thought that it might actually be of benefit in terms of promoting adherence. They felt that the fact that doctors in Botswana are held in a position of respect means patients are more likely to follow their advice.

**Day 6:**





I spent Monday of the second week in the Baylor Paediatric Unit which has a very different feel from the rest of Princess Marina Hospital with lots of attention paid to making it a welcoming environment for the children. Instead of the posters about TB infection control the posters in Baylor are motivational messages for the children to encourage them to have self-confidence in themselves despite their HIV diagnosis. The rooms have all been painted by an artist from Northern Sotho in the style of the houses there, they are all bright and clean and all have working, new computers. I found some aspects of the design of the rooms slightly odd, the desk for the doctor was unusually high so that they had to sit on high stools while the patient and their family member were on normal height chairs. This meant that the consultation was conducted with the doctor looking down on the patient from up above, the difference was even greater when the patient was a small child, and you can imagine even more intimidating. The computer was also on the other side of the room from the patient's chairs and although the room wasn't big this again seemed a barrier to a consultation that would invite confidences and building a good relationship.

Many of the patients I saw were in their early or mid teens and I was surprised by the fact that many of them were very good about taking their medications. I had imagined that a lot of the rebellion against the imposition of antiretrovirals and doctors would happen in early adolescence but the doctors told me that they thought it tended to happen later in Botswana. It was again noticeable that none of the patients were really questioned about their sexual activity during their consultation. The danger of this was illustrated when I examined one 16 year old girl and found a mass arising from her pelvis. I then asked her about her last menstrual period and she owned that it had been several months before and that this was unusual for her. At this point the doctor asked if she had sex with her boyfriend (another patient of Baylor that she knew through the teen club). The girl replied that they had split up. When the doctor asked if they had been using condoms the girl replied that she didn't know and on further questioning said that she had been at a party and that she didn't know what had happened although her friends had told her she had had sex with her then boyfriend. She denied drinking any alcohol and the doctor suggested that her drink had been spiked as this had happened to other girls. The doctor tried to set up a meeting for her with the psychologist and sent her for a pregnancy test.

The consultation with this patient highlighted a few weaknesses in the Baylor Unit. Firstly the fact that the doctors were uncomfortable with talking to their patients about their sexuality and discussing issues such as contraception and sex with them. It was not clear whether they had been prepared for this and presumably it is a relatively new issue as children who were vertically infected are only recently surviving to an age where it would be relevant. One of the doctors said that the reason he didn't ask about his patients' sexual histories was because he didn't think the patients would answer truthfully. The reason he gave was that they worried that everything that they said would be recorded on their notes which they take home and which in some cases their parents would insist on reading through.

Secondly there was the lack of access to contraception services within the clinic. Patients could get condoms but these were only available from a box right outside the pharmacy which was in full view of all the patients and parents waiting. If the girls wanted to get the contraceptive pill or injection they would have to attend their local

clinic, which the doctors thought they would probably be reticent about doing as many of them came from small communities where the confidentiality of their clinic visits could not be assured. Another issue was the lack of point of care pregnancy tests available. The patient I saw had to have a urine hCG test sent to the lab and the result was going to take another 2 days. This meant that the girl would have to come back and take more time off school which would be difficult both to explain and to catch up on. Furthermore if the result did come back positive, in Botswana terminations of pregnancy are illegal even in the case of assault and so there would be no connection to safe abortions, nor was there antenatal care or a PMTCT programme within the Baylor Unit so the girl would have to attend adult services. Another issue was the lack of care for victims of sexual assault. In discussion with the doctors later, they said that they thought this was probably under-recognised but that there were few services dealing with it. They recognised that their patients may well be at greater risk than others of their age as they were often HIV/AIDS orphans and didn't have parents to look after them.

This seemed to be an area where there might be the possibility of forming links. Overall, even though the doctors were dealing with HIV, which is a sexual disease, there was very limited discussion about sex in any of the clinics. This means that potentially doctors are failing to identify when patients are putting themselves at continued risk of other sexual diseases or are putting others at risk. The doctors claimed that the patients would not accept their doctors asking such intimate questions, but it often seemed to be the doctors themselves that projected their own unease. This would probably improve if the doctors had some training in how to approach taking a sexual history and if they started to do so voluntarily it would become normalised for the patients. This is an area that Lizzie and I thought we might be able to build a link, as our training in the UK has certainly made us feel confident about asking very personal questions in this area in a non-judgemental way. We hope to continue this discussion with the Botswana scholars when they are in the UK to see if they thought this would be helpful and if so if we could plan a way to take this forward.

#### **Day 7:**

On our penultimate clinical day Lizzie and I had the opportunity to go on one of the outreach visits to a hospital an hour-and-a-half flight away from Gaborone, near the border with Namibia, in a place called Ghanzi. Eight of us went; Dr Modongo, a paediatric specialist, two medical students, an occupational therapist, a gastroenterologist from Ireland and the two of us. We flew in a small 10-seater plane with all of us pressed knee to knee, and landed in an airport where the arrivals area was termed the 'passenger shed'. We had to go and see the complicated patients on the wards, the TB patients and the clinic patients that had been booked to see the 'specialists' all within the daylight hours as the airport did not have any runway lights, so no take-offs were possible after dark.

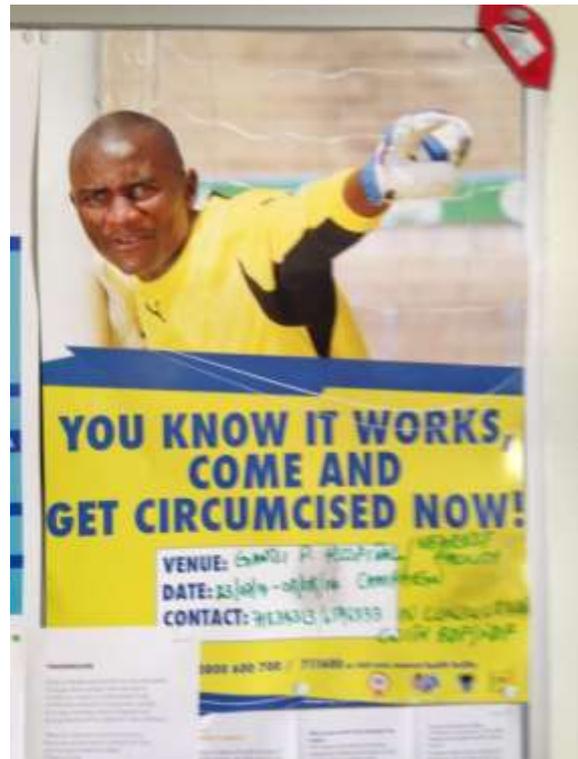


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We split into two teams and I went to see the patients on the male ward with the Irish consultant. The three patients we were asked to see were stable but sick, all of them were HIV positive. Two of them had presented with confusion, one with fevers and one without. Neither of the patients had had a lumbar puncture and nor had they had their syphilis serology checked. The only available CT scanner was in Gaborone so the doctors felt they had to wait for a specialist consultant to give them licence to transport the patient there for the test. It was clear that access to facilities and care outside Gaborone is very different to that within the city. The other feature that was very different for the doctors was the level of support and supervision. This meant that there were errors evident that would probably not have been made in a hospital with more senior assistance, for example one of the patients was on TB treatment with rifampicin and also on ritonavir-boosted lopinavir but the doctor was not aware of the guideline on how to dose adjust the antiretrovirals in this situation. This meant that the patient had, in effect, been receiving a dose that was less than the recommended dose for at least 3 weeks with all the consequent risks of resistance.

The patients that we saw in clinic had all had appointments made over the past month to come and see the medical specialist, as the outreach clinics happen once a month. Frequently it was hard to determine exactly why they were there as they each had a bundle of their previous consultation cards and many had been seen somewhere else in between the time of their appointment at the hospital previously and this follow-up. The breadth of cases was very interesting; from puerperal thyrotoxicosis to a suspected breast cancer in a male, Bell's palsy to a new diagnosis of TB, SLE to follow-up care after a mitral valve replacement. Only two out of the 21 patients seen in the outpatient clinic had HIV but there were high rates of diabetes, hypertension and obesity. The ward and the outpatient department together were a useful illustration of the double burden of disease faced in countries like Botswana.

#### **Day 8:**

The final day of clinical work before the conference was spent on the ward round at Princess Marina Hospital. The make-up of the clinical team was much the same as in the UK; a consultant, registrar, junior doctor such as house officer or SHO equivalent and a trail of medical students. However the nurses were notably absent from the ward rounds and didn't seem to be involved in providing information about the patients or in the process of clinical decision making.

The wards were all full, with at least one extra bed squeezed into the bays than they were designed for (and some more in the corridor). This meant that although there were curtains, they did not fit around the beds and so patients were examined without any privacy and with minimal confidentiality, although more than one doctor did make the attempt to lean in very close to the patient when asking about their CD4 cell count to at least try to prevent the

neighbouring patients from hearing. The patients on the ward mostly were HIV positive but not all. Two HIV negative patients had cancer, one of the lung and one of breast. There were a couple of patients with cryptococcal meningitis, a couple with suspected TB and a patient who had had two ischaemic strokes thought to be related to HIV. Each team kept a book of their patients, which they updated daily and looking through it we could see that three patients had died in the previous 5 days. Two of these had been HIV positive and both were in their early 20s. Neither had had post mortems, so the cause of death was never definitively identified. The doctors described considerable problems with patients diagnosed with cryptococcal meningitis, as there were many negative health beliefs about lumbar punctures. Patients felt that these were harmful, as many people they knew who had had them would go onto die. This was very interesting to me as we had had similar problems and prejudices arise in Myanmar, a very different culture. It showed that although details of working in different settings vary, similar health beliefs may be at work and that the principles of care such as providing the patient with full honest information and explanations remain the same.

### **Days 8–10**

The remainder of the placement was spent at the Botswana HIV Clinician's Society Conference, which takes place every 2 years. This had been the most tangible opportunity for us to get involved and provide a service. Each of us was rapporteur for two of the sessions meaning that we had to document the important points of the session and compile a summary for the report the next day. We also extended our role by setting up a twitter account for the conference so that we could report real-time via tweets and also communicate the discussions to people outside the conference. We each advertised it to colleagues in the UK so that some individuals and organisations in the UK started following the tweets and therefore the debates as they were happening at the conference. This link is something that we can then build on when the scholars attend the BHIVA conference in October and we can make sure that the Botswana HIV Clinicians Society twitter followers can follow what is happening in the UK.

The conference was interesting as the important themes that the clinicians were debating in some ways mirrored those in the UK and elsewhere, although sometimes they were framed differently. For example much of the debate was about how to sustain funding for HIV treatment. This is an issue faced worldwide particularly with HIV now a chronic disease so that some people will be on treatment for decades. It was interesting to see how Botswana is approaching it, such as looking at evidence for lower antiretroviral doses and looking at management guidelines, for example how often to test someone's CD4 cell count and viral load. This latter debate is a familiar one from the UK.

Other topics under discussion were; treatment as prevention, pre-exposure prophylaxis and marginalised groups such as MSM, sex workers (CSW) and young people. The debate about MSM and CSW was interesting as in Botswana homosexual activity and sex work are illegal. The ex-president Hon Festus Mogae made a bold move by standing up at the conference and saying that he felt Botswana needed to legalise both homosexuality and sex work. Although many people at the conference agreed that this needed to change and that more work needed to be done to provide inclusive accessible care to these groups, there were others who felt that this was a step too far. One man went so far as to stand up and say that he felt stigma had its role in preventing people from undertaking behaviour that was harmful and wrong, and that doctors did not need to be non-judgemental as this served a purpose in moderating society.

It was great to see that many of the issues that had come up in discussions we had had with doctors over the previous two weeks came up in the conference. There was recognition that doctors needed to start being open about sex and sexual risk given the incidence of HIV had increased in 2013 compared to the previous year. There was also much discussion about young people and about providing reproductive services for young people. There was also a session all about the risks of exploitation of young people and about the phenomenon of 'sugar daddies' and 'sugar mommies'. One of the interesting events was a debate led by the students at the University of Botswana about sex at university. Although the debate perhaps didn't get as deeply into the issues as the organisers would have wanted, watching the debate gave a fascinating snapshot of the way in which the structure of Botswana society and culture might prevent advances in promotion of sexual health. The students sat on the floor while the other attendees, who the students themselves termed 'the grown-ups' sat on chairs around them. The elders often spoke down to the students and patronised them. The students called on the older women to be proactive as mothers and to discuss with their daughters condoms and safe sex alongside promoting their confidence to negotiate safe sex. Unfortunately some of the older parties seemed to want to focus the debate back on the promotion of abstinence. At one point one of the older women who was a midwife warned the female students that if a woman had too many partners this would affect her vagina and the rugae would be "flattened out"

so that the vagina would be stretched out, as she described it; 'like the Gaborone dam'. It felt a little like watching a medical myth being created, and sadly there didn't seem to be many of the Batswana women objecting to this.

Overall this exchange provided a great opportunity to compare and contrast HIV care in two different settings; the UK and Botswana. The UK has strengths in terms of a robust health infrastructure with strong logistics to prevent stock-outs of drugs and reagents, it also benefits from comprehensive HIV services that have good links with sexual and reproductive health services. Botswana with its low rates of treatment failure and emphasis on adherence partners provides an interesting lesson in the importance of seeing the patient as part of a community or family and of using them to support HIV treatment. An understanding of this may be something that I can bring back to the UK and employ in the care of my patients to try and improve adherence and outcomes.

After discussion with Lizzie and several doctors in Botswana, the area that we felt we could be most helpful in was sexual and reproductive healthcare for HIV patients in general, and possibly adolescents in particular. Unfortunately one of the flaws in the exchange this year was that the Botswana scholars had not been selected when we were in Botswana and therefore we did not have the opportunity to really form relationships with them, which would be necessary to establish links. However, we would like to use the opportunity when they come over to the UK to discuss possible links further and to explore their ideas.