I was lucky enough to be part of the BMS/BHIVA/BHIVCS Botswana Exchange Scholarship programme in August this year, which was a great chance to experience healthcare in a different setting and in particular HIV care in a country with such a high prevalence. Here are some highlights and interesting issues and cases from my daily diary out there.

**Wednesday 13th**
I arrived at lunchtime on Wednesday and spent the afternoon at the Botswana Health Professions Council (the equivalent of the GMC), which involved a lot of waiting to have forms signed off! A little bit frustrating as I was very excited to start seeing the clinics and hospital but a reminder that I was on ‘Africa time’!

**Thursday 14th**
My first clinical experience in Botswana was at the TB Clinic (pictured), which is in a different area of Gaborone away from Princess Marina Hospital. It is in an enclosed area with the clinic as well as the national TB reference laboratory and an inpatient facility for people with TB. One of the first things I noticed was that the TB clinic was very open with all windows and doors open and fans on, to reduce transmission of TB. This literal openness did make privacy and confidentiality fairly, if not impossibly difficult, not least given that other staff members were frequently coming in and out of the consultation rooms.

Patients at the TB clinic were usually seen monthly and would routinely be tested annually for HIV unless already known to be positive. TB/HIV co-infection was unsurprisingly fairly common.

Patients with multi drug resistant TB (MDRTB) are not allowed to travel by public transport, therefore hospital transport would bring them free of charge to clinic. There seemed to be a fairly supportive social welfare system.

Patients with both fully sensitive TB and MDRTB are seen at this clinic and to reduce transmission of MDRTB, the clinic days were divided with Mondays and Thursdays set aside for fully sensitive TB, and MDR and XDRTB on Tuesdays and Wednesdays. This was a very good idea although sometimes patients would still turn up on an unspecified day as happened when I was there.

This also introduced me to the appointment system where patients are given a date to turn up on but no specific time, they would therefore be waiting for a while to be seen; on the other hand this system is more flexible especially for patients who may be delayed or not know how long it will take to get there, particularly if they have travelled far.

Patients brought their own notes and unless they had MDRTB there wasn’t any record of their visits stored at the clinic, for those with MDRTB their notes were written and stored on the clinic’s computer and a copy also given to the patient. There do seem to be advantages for patient’s having copies of their notes, although others seemed worried about relatives, partners or friends seeing their notes.

One particularly interesting patient was a female teenager from DRC who had travelled to Botswana for the Africa Youth Games despite being diagnosed with pulmonary TB a month or so before; whilst at the Games she had become unwell and was then found to have MDRTB and was therefore in isolation in the TB inpatient facility. Before she could fly back to DRC she needed to have had two negative cultures. She was understandably fairly bored and away from most of her family, to add to her frustrations, she spoke French but not Setswana or English.
which made her even more isolated. I was fairly impressed she had competed in the games despite having pulmonary TB!

I also saw two patients who had had psychotic episodes whilst on cycloserine for MDRTB, one whose symptoms resolved when cycloserine was stopped but the other patient’s symptoms continued and had been referred to psychiatry but had not yet been seen. It seemed that referrals worked by writing a note in the patient’s notes and then the patient would attend that clinic, this could be good as it enabled more flexibility for patients but also relied upon patients attending that clinic, which in the case of mental health services in particular may not happen.

We each were asked to give a presentation at the BHIVCS CME (continuing medical education) evening and at Princess Marina Hospital grand round, I chose to discuss MSM sexual health and HIV prevention strategies. The estimated MSM HIV prevalence in Botswana is 13% (which is lower than the general population prevalence), though this is difficult to correctly estimate as homosexuality is illegal in Botswana and although rare there is a potential 7 year prison sentence. The presentations seemed to be received well and generated questions such as when and how to ask a patient about their sexuality and the HIV/STI risks for WSWs.

Friday 15th
I spent Friday morning at the Baylor clinic. My first thought was that it is a very nice looking building that appears open and inviting.

A range of patients is seen at this clinic including infants through to adolescents and beyond. In addition there was a family clinic so that parents could also be seen there as well as their children to reduce clinic visits and also make it easier to deal with complex family and social circumstances.

One thing that really struck me was that the adolescents and young adults that I saw did not seem to have much knowledge about condoms and how to use them. I asked one 21-year-old woman, who was vertically transmitted, if she knew how to use a condom or had been shown how to use one, she did not so I offered a condom demonstration. Unfortunately I was unable to find a condom demonstrator in the clinic therefore demonstrated on my fingers! I hope this did not completely confuse her!

I was quite surprised that condom knowledge seemed so low as there is a regular ‘teen club’ once a month in Gaborone and satellite clubs at other towns on Botswana as well as a ‘teen mothers support group’ which seems to be popular and offered a good chance for young people to discuss and be informed on these issues. This does however, correlate with the fairly low average age of first delivery in Botswana being 17.8 years.

(Schedule of Teen club and Teen mothers support groups events)

Condoms were available from the clinic but only from the pharmacy where there is a box at the front where people can help themselves; this box was in sight of pharmacy staff members and some people in the waiting room, so not very discrete.

I saw many dispensers (such as the one pictured) for free condoms around Botswana such as in airports or office buildings but all of them were empty of condoms or leaflets.

I did not see any female patients that were on any other form of contraception.
and this was rarely discussed by the physicians. Contraception is apparently available from local clinics but women were often not keen to go to them as they would commonly know people who worked there and would be worried that other people in their communities would be told about their clinic visit.

As in the UK, some patients had real difficulty with the idea of disclosing their status to their partner. At Baylor there were psychologists who patients could see to discuss this and any other issues but there didn’t seem to be any health advisors to facilitate disclosure or for provider referral. One woman in early 20s was concerned she may be pregnant and had some abdominal pain, at Baylor there were no point-of-care pregnancy tests, instead a urine sample could be sent to the lab and the result would be back the next day, therefore we suggested she went to A&E. She was not keen to do this as she was concerned that her HIV diagnosis would be written on the A&E card that patients put in their notes and that her partner would ask to see the card and therefore find out her status.

**Monday 18th**

Each patient coming to Baylor would first be seen by the nurse for a set of vital signs and a pill count. This meant that patients had to bring their ARV containers with them, one patient commented that they did not like this as when sitting on the combi (public bus) it was often bumpy and people could hear her bag rattling with tablets and she found this stigmatising, especially as she felt that everyone would know that they were ARVs and not other medications – most other medications are in blister packs and thus would not rattle. For some patients the pill count was quite useful for assessing adherence and was an easy route in to a discussion about their poor adherence with the clinician, but it could easily be manipulated if a patient did not want to take their ARVs and took the correct amount out at home. Viral load and CD4 cell monitoring was available to all patients and similarly to the UK this was usually conducted every 3–6 months, however, FBC and biochemistry were done less frequently, sometimes only every 2 years.

**Tuesday 19th**

We had the opportunity to fly out to Ghapsi in the West of Botswana, close to the Namibia border, which involved an early morning visit to the airport and a flight in a small plane. Arriving at Ghapsi airport I was surprised how built up it was and that the hospital was surprisingly big but seemed to have very few inpatients (we saw only four inpatients on the female ward). It did instead have a lot of outpatients because visiting clinicians fly out once a month and patients are “booked” in to that clinic, some of whom had waited a long time to see a clinician. Some patients were asked to come back each month as they were on medications and needed a repeat prescription which seemed quite time consuming for both patients and clinicians. If investigations were requested, it seemed to be the patient who was given the report; a clinician would only see it if it was taken to them, this has the advantage of empowering the patient to take responsibility for their own health but of course also leaves the risk of having significant abnormalities unseen by a healthcare professional.

‘Drug stock-outs’ (supply of a particular drug runs out) occur quite frequently in Botswana according to the doctors I spoke to. This was particularly frustrating and clinically significant when amikacin ran out for 27 days in a row, which was a significant issue for those with MDRTB who were affected all over Botswana. We saw patients with MDRTB in Ghapsi and Gabrorone who had treatment interruptions due to this. Also there are ARV drug stock-outs, when this happens often patients would be given a 3-day supply then asked to come back to the pharmacy every 3 days for repeat collections until a larger supply arrived. Obviously this is very frustrating for the patients concerned, some of whom live a fair distance away and thus travelling to the pharmacy can be expensive, it also produces more work for the pharmacy team and increases the chance of poor adherence.

**Wednesday 20th**

IDCC is the adult HIV clinic at Princess Marina Hospital; patients are usually seen every 3–6 months but can only pick up 1 month of ARVs at a time. I saw a variety of patients there, some were very well and stable on ARVs, others poorly adherent, failing and unwell. First-line therapy is a single tablet regimen of tenofovir/emtricitabine/efavirenz, or tenofovir/emtricitabine or zidovudine/lamivudine plus nevirapine or lopinavir/r. If treatment failure occurred on an NNRTI then the patient would be switched to tenofovir/emtricitabine plus lopinavir/r. Due to cost, Princess Marina Hospital IDCC was one of only a few government clinics in the country where newer agents such as raltegravir could be prescribed. Therefore patients would be referred in and often travel a long way. We saw two patients who were on tenofovir/emtricitabine plus raltegravir and had been referred in for it to be prescribed again. One was a woman who had been diagnosed towards the end of her second trimester and this regimen had been chosen to reduce the viral load quickly, although it appeared that she had never had a viral load measured. When we saw her she had delivered a month before and was breastfeeding, which is usually encouraged for women with HIV as long as they are still on ARVs. The plan was to continue on this regimen while breastfeeding and then switch. The other patient had been referred from a private clinic as she could no longer
afford the fees or ARV costs, from her history she had been on various regimes and failed on some although the documentation of which regimes she had failed on was unclear.

5th Botswana International HIV Conference
At the end of our stay in Gaborone we attended the 3-day ‘5th Botswana International HIV Conference’, which was very interesting especially as I had previously only been to conferences in the UK. It was good to go to an HIV conference in a middle-income rather than high-income country, and one where the HIV prevalence is ~18% and perhaps most interestingly where homosexuality is currently still illegal. There were speakers from all over the world discussing many issues from medical topics such as treatment of OIs, TB/HIV co-infection, liver disease to finance and how the declining diamond resource will impact funding of HIV care and prevention, to social media and how to engage young people for example through the use of social media. Asim Ali (one of the other exchange participants) came up with the idea of setting up a twitter profile for the conference so that we could tweet key points live from the conference. This was fairly successful although we are not sure how ubiquitous twitter is in Botswana. We were also rapporteurs for the conference and were each given sessions to make notes from and then write a report for the BHIVCS website.

The conference provided an overview of the history of HIV in Botswana and the country’s response to the HIV epidemic, which has resulted in an impressive reduction in MTCT and HIV prevalence.

The key messages that I took away from the conference and my time in the clinics was that there is good and free access to ARVs but that there is still a significant proportion of the population that have never been tested for HIV and that stigma is a real barrier to tackling this, disclosure and partner notification. There also seems to be a real need for better access to non-barrier forms of contraception as 50% of pregnancies are unplanned and many at an early age.

… And obviously a trip to Southern Africa would not be complete without a little safari so we spent the weekend at Madikwe game reserve in South Africa, close to the border with Botswana, where we were lucky enough to see lots of elephants, lions and even three cheetahs.

All in all, this was a fantastic experience for which I am very grateful to have been part of and would recommend to others. I am looking forward to showing the Batswana exchange participants experience of clinics in the UK and life in London. I would like to thank all those that made us so welcome while we were there especially Dr Tshed Kgamane for her brilliant hospitality and to BMS, BHIVA and BHIVCS for making it possible.