

**Elective Title:**

**A truly inspirational visit to Southern Africa**

**Elective Dates:**

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**Institution:**

**Zithulele Hospital**

**City/Region/State/Country:**

**Eastern Cape, South Africa**

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	<b>Research Report</b>

## **ABSTRACT:**

I spent my elective at Zithulele Hospital, in the Eastern Cape of South Africa. The hospital serves a very underprivileged, rural population and is chronically under-resourced. Recently it has been headed up by a group of truly inspirational doctors who are transforming it to become a centre of excellence in rural health care. HIV and TB are rampant in the region and affect at least half of our patients' care. I worked primarily in the female General Medical ward and spent most of my afternoons in our Outpatient Department. I managed a large number of extremely sick patients, did a lot more orthopaedics than I had expected and learnt a lot about working with interpreters. The most profound lesson that I have taken away from this experience is that medicine can be a wonderful, exciting and truly joyful profession if approached with the right attitude in the right setting – an ideal which I will now strive towards achieving.

I spent my elective at Zithulele Hospital, in the Eastern Cape of South Africa. It is a small rural hospital that has been transformed in the last 6 years from a very mediocre, chronically understaffed place to a hospital which is truly on the road to becoming a centre of excellence in rural health care. I became aware of Zithulele through a mentor of mine (an Ophthalmologist working in rural Swaziland with whom I had spent 6 weeks at the end of my 2nd year). He said that this was a truly special place and after my time here I have to agree with him.

## **Setting**

### **"The Wild Coast"**

Zithulele is set in The Wild Coast of South Africa. It is a very under-developed region of South Africa, with lush green rolling hills and a population who traditionally live a largely pastoral lifestyle. In the era of Apartheid it was part of the Transkei - one of four semi-independent states which were set up by the Apartheid government with the stated aim of allowing self-governance for the local Xhosa people. However, in practice the effect of independence was that the Transkei received little active development and because it was an effectively one party state and had a hugely corrupt the aid money that was given was siphoned off by the ruling elite. Hence roads were poorly constructed and maintained, health services time suffered from under-funding and understaffing, and a good education was a rarity.

One of the striking things about this countryside is just how open it is. Despite it being particularly fertile, there is little intensive agriculture (in fact many people here don't grow enough to feed themselves but rather rely on government grants). Land is not owned individually, but is allocated by the local chiefs. Hence there is very little fencing and instead footpaths worn into the ground by many feet wind between houses. From a traveller's perspective, the wonderful thing about this is that one can simply pick a destination in the distance and set out straight towards it, following the many branching footpaths and literally walking through people's back yards all along the way. Having been born in South Africa, I grew up with a rather warped image of the Transkei as being a place that was somehow alien, different and rather unsafe - the sort of place where you don't get out of your car if you were to break down. Yet having spent 8 weeks here now I know this to be in fact one of the safest, most friendly places in South Africa.

Because it was so difficult to go to get an education during the Transkei era (and in fact to the present day), the only sort of jobs that people could get were in the gold mines around Johannesburg (for the men) or as domestic servants (for the women). This led to a drain of young talent from the region and to the development of a culture of absence - where it is perfectly normal for a woman's husband to be far away from home working for many months of the year, and with that, a tacit acceptance that he may well have one or more girlfriends where he works. More recently jobs in the mines have become scarcer, and the new youth of the Wild Coast are left with few choices. Their traditional role as the farmer of a small homestead holds little appeal to most cellphone touting youths, particularly as they see their friends making much better money in the cities. Their more recently traditional role as a breadwinner in the mines is simply not an option because the jobs no longer exist. That leaves them with the option of trying to find work in the cities (yet there are thousands upon thousands of uneducated people living in townships on the outskirts of most cities in South Africa with precisely that dream) or finding some role here and relying on government grants to support them and their young families.

## **Zithulele Hospital**

Zithulele sits atop a hill next to one of the few well-maintained roads in the region and is a 40 minute walk from the coast. It has beds for 140 patients, split between male and female medical wards, a paediatrics ward, and a large obstetrics ward. They have an operating theatre for C-sections and minor procedures, and a large Outpatient Department which is really the heart of the hospital. The wards are long, single story rectangular buildings. Most patient rooms have 6 beds (8 in the paed's ward!), a few chairs and little elevating stands to hold the patient notes. Otherwise, they are sparsely furnished - most don't have working curtains, either between beds or on the windows, which makes patient privacy non-existent.

6 years ago the hospital was typical for the region - chronically under-staffed, poorly equipped, and terribly organised. Two couples (all four of whom are doctors) decided that they were going to make this a personal mission of theirs and dedicated 5 years of their lives in advance to the hospital. Their passion and dedication has attracted others to the area, and today the hospital has 10 doctors, 2 physiotherapists, 2 OT's, and a speech and language therapist. It regularly hosts medical students from the South African universities, and often has overseas students doing electives. The hospital is now well-enough staffed that it provides rotating doctors for 13 of the surrounding clinics. (This is a strategy that is more and more important with the increasing prevalence of HIV and TB as these patients need intensive, long term follow-up, and it's extremely difficult and expensive for many of these patients to get to the hospital, hence getting treated at the local clinic improves compliance and attendance of follow-ups).

As well as treating patients, the Gaunts and Le Rouxs set up The Jabulani Foundation, a charity which aims to encourage and support the development of the local community. It provides support for the hospital, in the form of funding and equipment, and finds people in the local community for roles such as translators. It has also supported the local school to expand and for example has just built a community library, primarily for the school children.

A typical day at Zithulele starts at 7:30 with a morning education session (grand rounds with interesting patients, specific teaching sessions on topics of interest, audits and M&M reviews, etc.). These are held these most mornings, and particularly with the many overseas trained doctors, there's plenty to cover! After this, the doctors split into their assigned wards for ward rounds. I spent most of my time in the Female general medical ward (because the doctor assigned to the ward was a wonderful teacher). We would each see about half the patients and I would present my assessments and plans to him for comments, suggestions and to get any new charted meds checked and signed. We would then sort out the ward jobs (Lumbar Punctures, pleural taps, difficult cannulations, biopsies, etc.), before heading to the Outpatient Department for the rest of the afternoon. In OPD I would see my own patients, getting advice as needed and getting prescriptions checked and signed off by the other doctors.

Between the doctors, allied health workers, teachers and all of their families, there are enough people to form a vibrant local community. There were regular functions after work celebrating birthdays, comings and goings, and we played ultimate Frisbee on an outdoor floodlit court twice a week. Because the hospital is so isolated, people tended to go away for weekends, but between all the various students and young volunteers, there was always a group of people to explore the countryside with.

## Common Presentations

I saw a great range of patients during my 8 weeks. In particular, we saw lots of:

- HIV and TB
- Liver and Renal dysfunction
- Orthopaedics
- Weird and wonderful local complaints

### HIV and TB

Coming to an African country which is currently in the clutches of dual epidemics of HIV and TB, I was expecting to see and treat many patients with these diseases. What I didn't expect is that both these diseases completely change the landscape of almost all the medicine being practiced. Every diagnosis made requires further differentials if the patient is HIV positive, also needs TB added near the top of the differential list no matter what their HIV status, and finally needs the addition of drug toxicity from these treatments. Management plans also require rethinking, as young patients very quickly end up on 8 or more medications, with immediate effects on their livers, kidneys and nerves, and with abundant drug interactions. HIV in particular adds a whole further dimension of social issues, much of which is dealt with by the HIV councillors, but some of which always ends up popping up in consultations. I remember one lady in particular who was RVD positive, on first line HAART, but was complaining of lipodystrophy (due to Stavudine [D4T] which hence now needed to be switched to Tenofovir [TDF]), wanted to now get pregnant (which meant that we should be switching her Efavirens to Nevirapine) yet had a partner who was non-compliant with his HIV meds (which put her at risk of viral super-infection if she had unprotected sex with him). The poor lady wasn't even feeling unwell, yet the complexities of HIV management spiralled around her and completely swamped what was supposed to be a 15 minute appointment.

To achieve good viral suppression and minimize any chance of viral mutation to evade ARV's, one needs a compliance rate of 90-95% or better. The cruel irony of this is that populations like those living around Zithulele - poorly educated, poor, and with minimal access to good healthcare - are often the ones worst hit by the epidemic. To remain well, they have to understand the importance of treatment, understand the many pills they take (with doses that change, and pill shapes that are constantly changing because of various generic substitutions), and then remember to take these tablets on time every day for the rest of their lives! They are exposed to enough polypharmacy to make our geriatricians wince, have immune systems which leave them vulnerable to anything and everything until the ARV's kick in, yet have to catch an overcrowded taxi home, head back to work and continue their lives without respite, as they simply have no choice...

As part of a guided tour of the local village, we stopped in at the house of the local Sangoma (traditional healer). While we were there, I couldn't help but ask what the lady thought of HIV. She said that it was a very sad situation – that if her patients would only come to her rather than taking the pills from the hospital that she would be able to cure them! Unfortunately, cultural prejudices such as this are widespread, and make it difficult to truly reach and treat the people here. (For a truly excellent insight into the social issues involved around HIV, I would highly recommend "The Three Letter Plague" by Jonny Steinburg).

Because of the extremely high prevalence of TB, one ends up ordering and interpreting lots of Chest X-rays, which was superb practise. I saw absolutely textbook quality images of miliary TB, lungs that due to old TB had sclerosed down to the size of a kidney, causing massive midline shift (although very few symptoms), and lots and lots of normal chest X-rays. The hospital also has an ultrasound machine which we used from time to time to screen for extra-pulmonary TB. The machine produces great images, and I saw some very large pericardial effusions caused by TB pericarditis as well as splenic and liver micro-abscesses.

### Liver and Renal dysfunction

Some element of renal and liver dysfunction is found in a large proportion of the population here, due to the complicated concoctions of ARV's and TB meds that they are on. Furthermore, local Xhosa medicine often involves ingredients (which differ from Sangoma to Sangoma) that can cause extreme liver or renal failure. We had patients arrive on the ward with LFT and Creatinine results that were off the charts and seemed physiologically incompatible with life. It was particularly sad to see little children who had developed minor ailments, had been taken to the Sangomas and due to their 'treatment' went into fulminant liver failure and died in front of our eyes. In contrast, it was amazing to see just how well some of the renal failure patients recovered once their offending ARV's had been stopped. Patients who I truly expected to die would walk out of the hospital 3 or 4 days later looking like nothing had happened to them!

### Orthopaedics

The amount of orthopaedics performed in this small hospital really surprised me. The elderly here, despite being frail, unsteady on their feet and sometimes completely blind, have no choice but to continue walking along the local footpaths, which are precarious in many places, making falls a common occurrence. These old ladies with fractured femurs often ended up lying in the ward in traction for weeks while we fought with the local orthopaedic hospital and the transport service to get them transferred for surgery. On the other end of the age spectrum, the youth do manual labouring type jobs and many of them play soccer fiercely. We saw many strained and broken ankles due to football, and saw one man who had had a truck load of bags of concrete mixture accidentally dropped on him. (He broke both humeri and a number of ribs). We also saw a large number of violent injuries, commonly young men getting beaten by local gangs, but also wives being beaten by their husbands. Fortunately gunshot wounds weren't as common as elsewhere in South Africa, but people seemed to be able to do quite enough damage with the sticks, boots and knives that they had.

### Local complaints

As well as standard medical presentations, I saw some patients with very local complaints. Animals tend to roam free in the Eastern Cape, and we fairly regularly saw people coming in having been trampled or charged and gored by cows. The area also has some utterly amazing lightning storms. Every rondavel (house) has a car tire placed on the top of the conical roof and decorated with whatever the inhabitants see fit, in the belief it's the tires of a car that make it a safe place to be during a lightning storm (which is actually incorrect – it's the metal frame which forms a path of lesser resistance than your body is) and so putting a tire on your house makes that a safe place too!!! During my stay, there was one huge lightning storm – strikes every 5 seconds or so for over

an hour. The next morning we had two women in the female ward with full thickness lightning burns to their backs and the backs of their legs, jagged representations of where the lightning had skimmed over their skin.

Finally, we saw some of the most interesting causes for psychotic episodes that I have ever heard of. One of the side effects of Efavirenz (one of the ARV's) is neuro-psychiatric effects, and two or three ladies during my stay developed acute psychotic episodes that quickly resolved once we switched their medication. Another younger lady developed a psychotic episode and on doing standard screening bloods we found that she had hyperthyroidism with an elevated TSH, indicating a possible TSH producing pituitary tumour (incidence of 1 in a million) or Thyroid hormone resistance (incidence of 1 in 50,000). Either way, she was a great reminder that we do these screening tests for a reason – even if they always seem to come back normal, there is a sub-population in which they will pick up correctable non-psychiatric pathology.

## **Highlights**

### **Making a difference**

Medicine at Zithulele is on the whole a really satisfying venture. Each day one really feels that a large number of lives have been made better for the fact that one chose to be here. This is probably enhanced by the fact that in such a busy, resource limited setting one only really has time to do the things that really make a substantial difference. Hence we end up spending more time managing episodes of bacterial meningitis or sepsis, where antibiotics produce an Absolute Risk Reduction of dying which is somewhere in the high 90% range over a 1 week period, than say placing all elderly people on aspirin which at the low risk end of the scale reduces risk by 2% over a 5 year period. As a healthcare system becomes better and better resourced, each person in the system ironically ends up spending more and more time achieving comparatively less and less as all the easy interventions have already been put in place.

The local population is also incredibly grateful for even the most basic of medical help and advice. Working in the OPD one afternoon, I met a gentleman in his 60's who had just been charged by a bull and now had a fractured rib. As I took my history it emerged that he also became short of breath while lying down (he slept with 3 pillows) and would wake up at night fighting for breath. He had small bilateral pleural effusions but had absolutely no signs of right sided heart failure (peripheral oedema, hepatomegaly, etc.). Hence I diagnosed him with isolated left sided heart failure, placed him on a diuretic as well as analgesia for his rib and arranged to review him in two weeks' time. When he returned, he bounced into the room, beaming, and shook my hand vigorously. He said that I must be an amazing doctor, as this medicine had changed his life - he was now able to sleep the whole night (on 1 pillow) without waking up, and felt like a new man. Seeing his joy bubbling over kept a smile on my face for the rest of the day.

### **Valued Ideas**

The medical elective is a wonderful mechanism for cross-pollination of ideas, and as well as learning a lot myself, I was also able to contribute some of my own ideas to improve Zithulele. For example, one of the long-running headaches when dealing with the outlying clinics is that each one has rather different skill levels, work ethics and philosophies towards various aspects of health care. Clinic A might manage hypertension wonderfully, while Clinic B might be hopeless at it.

Equally, Clinic B might blow Clinic A out of the water when it comes to ARV management. This means that each doctor has to mentally develop a clinic task-filter over their first few months at the hospital, so that when a patient says that they live nearest to clinic B and they need a hypertension checkup the doctor knows that he either needs to be extremely explicit about how he wants the patient managed, or he needs to get the patient back to Zithulele for the checkup. What's more, because of high staff turnover, the relative strengths and weaknesses of the clinics ebb and flow at a fairly rapid rate. When I saw this, I suggested a system of higher certification for the clinics. The system would need to be prepared in such a way that it recognised and celebrated the skill sets that the nurses did have rather than publicly catching them out for the skills they lacked. It could then be rolled out together with a CME program run by the doctors visiting the clinics, so that over the period of a few years the clinics slowly could slowly gain competency in the various domains that I had suggested, and thus even out their relative strengths and weaknesses. I raised the idea with some of the doctors and clinic managers, they said that they would think about it, and from there I assumed that like most ideas it would hit roadblocks and nothing much would come of it. However, one of the local charities which funds the clinics in the area took the idea and ran with it. They will be rolling out a constrained version of it (focussing on HIV and TB management) over the next few months, which is really quite satisfying to see!

## **Challenges**

### **Limited resource setting**

Zithulele is a small, very isolated hospital, at the end of a very long and rather unreliable supply chain. As such, equipment shortages were the norm rather than the exception. For example, at various stages throughout my stay we ran out of Oxytocin (so PPH's simply bled), normal saline, gloves (nurses ended up using sterile gloves to change dirty beds because no normal ones were available, then wondered why we ran out of sterile gloves too...), oxygen (the wall supply would simply stop and nobody would notice, sometimes for hours; at least one patient died because of this), and simple but crucial things like batteries for laryngoscopes in the resuscitation trollies. Most of the electrical monitoring equipment was either completely broken or only partially working (I know because I did an equipment audit for the hospital). For example we had 4 ECG machines in the hospital, but they required suction cups, almost all of which had been lost, so it was an absolute feat of juggling to get an ECG and most of the time it simply wasn't feasible. I did not see a single paper hand towel in the entire time I was in the hospital, which meant that washing hands between patients was difficult, and didn't happen as often as it really ought to have.

Patient care at Zithulele is complicated further by the fact that the tertiary referral hospitals have rather variable levels of care depending on purely arbitrary factors. For a start our ambulance transport service regularly fails to pitch up and transfer patients. The standard patient transport vehicle for clinic patients is overbooked weeks before any said date and there doesn't seem to be any way of increasing the numbers above the hospital's defined quota. If the patients do somehow manage to get to Mthatha, their care is purely dependent on who happens to be manning the OPD on that said day. Some patients get wonderful care, delivered by knowledgeable specialists with a passion for their field. However, many simply get rejected outright based on the pretence of some bureaucratic failure on our part. If they do get seen, they are more often than not returned to Zithulele with no record of what has happened to them, often without having been properly assessed and having received no further treatment other than what we initiated as a stop-gap measure. I literally had to re-Xray one lady with a low femur fracture because she came back from the tertiary Orthopaedic hospital with no note and no idea what had happened to her - just a shiny

new cast which we then had to remove because the bone wasn't adequately aligned! Because of this patchy record, we end up managing patients in our wards who in normal circumstances would be referred to a tertiary hospital as a matter of course.

On top of all of this, the population we are working with is truly poor. Government grants have taken the edge off what used to be frank poverty, but in doing so have created a culture of passivity and disempowerment. More and more gardens are simply overridden by grass rather than being productive - a phenomenon fuelled by many social influences, but certainly not helped by what is fast becoming an institutionalized reliance on government handouts. This poverty and disempowerment actually has many parallels to our underprivileged Pacific population in South Auckland.

Poverty makes so many aspects of healthcare delivery more difficult. For example, arranging emergency transport for a sick relative in one of the local taxis can cost up to R3000 (\$500 NZD), which salary for salary is the equivalent of us paying for multiple round the world flights - just to get to the hospital!!! Most houses here don't have running water - water is collected from the local stream, no matter how dirty it is, because that is literally the only option. Even the hospital tap water was found to be unfit for human consumption while I was there, which led to rather ironic scenes of nurses handing out glasses of this contaminated water to patients with their pills. A house connected to the electricity grid is a rarity, and landline telephones are virtually non-existent. People instead communicate by cell phones, but as they don't have a power supply have to take the phone in once a week or so to the local shop, school or hospital to charge it! This can make getting in touch with the families of sick patients incredibly difficult, as phones can sit around in homes for weeks having run out of batteries. Furthermore, phones are often used as reminder alarms for HIV and TB patients to take their meds, a plan which clearly doesn't work if the phone regularly runs out of batteries with no option to charge it!

One of the amazing things that I saw here was that the hospital is able to utilize a patient-carried health record. Despite the fact that patients here are poorly educated, live in mud-brick huts with very few possessions, and often have to undergo arduous journeys to reach our hospital or clinics, the vast majority manage to remember their clinic cards for each and every visit. This concept of a patient's health leaving the hospital with him, and being his responsibility to safeguard is a refreshing one, in a world which seems to take a more and more paternalistic approach to care of chronic diseases such as diabetes and obesity, expunging the patient somehow of their responsibility in the matter. Here is an example of giving the patient the benefit of the doubt, assuming that they will take charge of their health records, and the population responding by stepping up and doing so, which is heartening to see.

### **Practicing medicine through an interpreter**

South Africa has 11 official languages, making communication rather challenging at times. Fortunately, these tend to be regionally specific and in the Eastern Cape the predominant language was Xhosa. As part of our medical school training we were taught some principles of effective communication through an interpreter:

- Speak to the patient, not to the interpreter – maintain normal eye contact and body language with the patient
- Speak in short sentences rather than long dialogues (long dialogues are difficult to remember and the interpreter is more likely to leave things out or mis-translate concepts)
- Give the interpreter time to communicate fully – don't interrupt

- Get to know your interpreter
- Avoid jargon and culturally specific references

However, walking into the wards on my first day I experienced something quite different. Instead of professional interpreters, the doctors make use of the nurses during ward rounds and then 'lay interpreters' in OPD. On a ward round the doctor would regularly stare down at the page in front of him, and not raising his eyes say to the group of nurses following the ward round: "Sister [not addressed to anyone in particular], please ask the patient \_\_\_\_\_", or when discharging a patient speak for 5 minutes about the various things the patient needed to do at home, then at the end of all of that ask one of the sisters to translate the entire thing (half of which even I couldn't remember any more).

After realising that the nurses and translators didn't really consider translating for a medical student to be a priority, I decided to hire a full time translator myself. The Jabulani foundation was able to find me a pleasant lady named Kulelwa by my third week. She had a good grasp of English, though as with all the hospital interpreters did not have any formal training in interpreting or any medical background. Having someone permanently around made a massive difference to my productivity as I could now see patients independently of the nurses' other duties. Furthermore, we were able to develop a trusting working relationship where she felt safe asking for clarification about what I was asking rather than just translating blindly. Finally, over the next few weeks she became familiar with my history and examination style which sped patient interaction up hugely. For example, the first time I tried to test eye movements in a patient, it took me 15 minutes to explain to her that the patient needed to watch my finger while keeping their head still, but after this I could just ask her to explain eye movements and she would do so without further prompting or help, as well as correcting the patient if they were doing it incorrectly.

While communication through my interpreter was generally pretty good, psychiatric interviews in particular were difficult. Culturally, Xhosa people have different ways of expressing psychological pain than my culture does. Many have a generic complaint of 'waist ache', which can simply refer to low back pain but can also be a cardinal symptom of depression. Even the most depressed, when asked whether their mood is happy or sad, will respond that they feel OK (racing thoughts and sleepless nights are more reliable symptoms). From a language perspective we couch a lot of the psychiatric interview in euphemisms and indirect questions so that the patient doesn't feel threatened or alienated. Obviously the majority of these simply don't get through the language barrier. The translator isn't trained in psychiatry, so has no way of knowing where one is aiming at with some of the questions we ask, which means that any euphemism that we use will either be translated literally, in which case the meaning will probably be lost, or will be interpreted into its true meaning but without the soft cushioning that our wording was intended to provide. Even worse than this, some of the translators I worked with simply didn't pick up on tone of voice or body language. Hence, I would ask a question in a soft, calm voice to establish rapport yet the interpreter would speak to the patient in a brash, disinterested manner that was not only frustrating for me but must have been rather confusing for the patients too!

### **Management of Diabetes**

Type 2 Diabetes is a less common in this rather poor corner of the world, yet a proportion of the population live a western lifestyle and eat a western diet (and this proportion is increasing), so it does affect a substantial number of people. Diabetes is managed very differently here because of resource constraints. For example, in New Zealand most new diabetics would receive personal blood glucose monitors so that they could keep track of their sugars, yet this simply isn't feasible

here. Hence, one has to try and work out how a diabetic is doing based on occasional, non-fasting blood sugar levels, which can be done as seldom as 3 monthly. I remember one man who came in with chronically elevated BSL's, who we were due to start on insulin but who today had a very normal looking level. I asked the obvious question about whether he'd eaten anything differently and it turned out that as we was running late that morning he'd only had a cup of coffee to drink rather than a normal breakfast. One then has to look back at every other result with a good measure of suspicion, and you really don't have a lot to work with once you start doubting why a certain level was high or low. The answer to this from a long-term monitoring perspective is to measure HbA1C's, which the medical staff seem to know about, but not regularly do (there may have been a cost component). Finally, we hit some practical barriers when trying to institute insulin injections in many elderly people, as between poor eyesight and tremors (mostly senile, but occasionally parkinsonian) it turned out to be almost impossible for these people to inject themselves. Because these elderly ladies didn't have people around them who would reliably be there to do the injections, we were forced to keep many of them on Sulphonylureas, even though this meant that their control wasn't great and they were at increased risk of hypoglycaemic episodes.

### **Management of Epilepsy**

Epilepsy is another condition which is managed entirely differently. It is remarkably common and here is primarily caused by Neurocysticercosis, which is caused by the pork tapeworm *Taenia solium*, and leads to cysts in the brain which in turn cause irritation and so spontaneous electrical discharges. Neurocysticercosis is so prevalent as a cause for epilepsy that it is made as the default diagnosis. As we have no neuro-imaging facilities, the only way to confirm infection is via cysticercosis serology (looking for antibodies), which takes many weeks to come back. Without imaging, we cannot prove whether the cysts are active or not, and based on a recent study, that means that we assume that they are inactive (or will spontaneously become so) and we don't treat with praziquantel. Hence, we are left with anticonvulsants as our only option, even though there is still a clear focus of epileptic activity. Anticonvulsants are limited to Sodium valproate and carbamazepine, so even here we don't have a lot of scope for treating difficult cases. (Phenytoin is an option in an emergency, but there is no way that people could get ongoing blood levels). As a result of this, the hospital accepts 2-3 fits a month to be a measure of good control, though this obviously doesn't lead to particularly good quality of life. Imagine being a child in school and fitting in class every fortnight – it must be socially devastating...

### **Lessons Learnt**

#### **The immense value of a thorough clinical examination**

Because of the difficulties that I had with translators, poor patient medical knowledge (about their own health or what had happened to them in the past), and the fact that a history taken by even a good translator is at least twice as slow as one taken in a language one is fluent in I was often forced to rely my physical examination skills rather than a full history to pick up the signs to guide diagnosis and treatment. This was the first time where I've really appreciated the strength and importance of being able to do a logical, thorough examination which you know covers everything. Previously my histories have been my strong point, and the examination a secondary addition, which simply confirms or denies specific differential diagnoses. Without a good history, the examination becomes the key information gathering apparatus, and suddenly needs to be

meticulous, logical and utterly reproducible. I would often find signs that I simply hadn't even thought of expecting in these patients, and my management plan would then be able to be redirected down that route. I have now been able to re-apply this knowledge to all my patients – even the ones that I have a really good handle on what's going on before I lay and hand on them – and have found that I pick up oddball signs far more frequently than I thought I might, some of which are incredibly important to managing these patients optimally.

### **Medicine can be a wonderful profession**

The doctors at Zithulele were a truly inspirational group of people. They all were sacrificing a life of comfort and stability to help a group of people in great need. They brought with them a force of personality which truly drove that hospital forward every day (despite an often lacklustre response from many of the long-term staff). They had compassion for each patient they saw, yet managed to juggle that with an urgency to get to the many more in need of treatment, and the ability to stop in wonder at what they were seeing and experiencing, to laugh at the natural hilarity that hundreds of people just being themselves bring to any situation, and to thoroughly enjoy at least most days that they spent working there. I have sometimes struggled during my training to come to grips with what it is that I am trying to achieve with all this training, what sort of person it is that I want to become. It sometimes seems that in our system people are forced to choose between doing medicine as a job, where they then lose that sense of drive and passion, or medicine as a way of life, where they are forced to exclude everything else from their lives in order to achieve what they strive to. I now know that it is possible to achieve a middle ground and that in doing so one can live a life filled with joy, wonder and the fulfilment of knowing that you really are making a difference.

## Post-Elective Student Evaluation and Recommendation Form

Please complete the following by ticking the appropriate box and include any specific comments.

Aspect of Elective	No	Yes	N/A	Comment / Recommendation
Would you recommend your choice of country / city for your elective?		Y		
Would you recommend your choice of hospital for your chosen elective?		Y		
Was hospital/ institution accommodation available?		Y		
Was the standard of hospital accommodation acceptable?		Y		
Was alternative acceptable and affordable accommodation available?			Y	
Was the general cost of living acceptable?		Y		Accommodation was a little pricey for what one got, but I saw that as a donation to the Jabulani foundation.
Was there adequate transport between accommodation and hospital ie safe and affordable?		Y		
Was access to the nearest city / town acceptable?		Y		I didn't hire a car, so had to rely on others for transport, but there are enough people coming and going to make this a feasible (and more fun) option
Did you encounter any threat to your personal safety?	Y			
Did you encounter any problems with theft?	Y			
Did you travel with a fellow medical student?	Y			
Any barriers in regards to cultural issues	Y			
Any barriers in regards to language issues		Y		
Would you recommend traveling with another student?		Y		I had experience of the country and contacts to call if things went pear shaped, so I was OK travelling by myself. If you've never been to Africa before, you're probably better off travelling as a pair.
Was access to personal medical care available / acceptable?		Y		
	Poor	Satisfactory	Excellent	
Do you feel your supervision adequate?			Y	

Did you consider your elective to be a worthwhile experience from a medical perspective?			Y	
Did you consider your elective to be a worthwhile experience from a personal development perspective?			Y	
Did you consider your elective to be a worthwhile experience, overall?			Y	

Any further comments / recommendations:

*The elective has been the single most enjoyable and valuable part of my medical education thus far. I would highly recommend Zithulele to anyone else.*

### **Suggestions to future Students**

*Zithulele is a great place to come and work. It does however require some organisation in advance to ensure that the trip is safe and enjoyable. They have a great website ([www.zithulele.org](http://www.zithulele.org)) on which is a student handbook that covers most of the mechanics of organising the trip. It's a popular place, and you need to make enquiries and confirm that you're coming a long time beforehand as they tend to be pretty slow in replying to emails.*

*From a transport perspective, I flew in to Port Elizabeth, took the BazBus up to Mthatha, then caught the CoffeeShack shuttle (a backpacker's in coffee bay) through to the QaiMan junction and finally got picked up by people from the hospital there. This worked really well (although left me standing on the side of the road for about an hour) and cost a fraction of what hiring a car would. It is possible to get reasonable food in the area, though without a car you're at the mercy of other peoples' timetables to get to the shops. I took 30kg of food up with me just in case, which was perhaps overkill but made me a popular new resident for the first few weeks!*

*From a medical perspective, take your stethoscope, reflex hammer, etc. Also, if you have things like a portable BP cuff and particularly an Otoscope / Ophthalmoscope kit these come in really handy in OPD. Preparation reading wise, "The Three Letter Plague" by Jonny Steinburg is a great introduction to the social context of HIV, while if you're not entirely comfortable with interpreting chest X-rays, I found that "Learning Radiology: Recognizing the Basics" by William Herring is a great way to systematise how one thinks about them.*

*In your spare time, make sure that you get out and explore the countryside, which is absolutely amazing. Coffee Bay is a really cool place to get away to for a weekend (I stayed at the CoffeeShack, which was very cool, although it becomes a little tiring when every local person that you pass stops to offer you marijuana). Lubanzi beach is the closest beach, 40 mins walk from the hospital – get directions from people in the hospital, then get ready to take some total guesses about directions and just walk until you get there. If you stop at peoples' houses, they will usually be able to point you in the right direction. Another wonderful destination is Bulungula, which is a 3 hour walk south of the hospital on the coast.*

*All in all, come along, get involved and you'll have an amazing time!*

