

Trauma Department, Chris Hani Baragwanath Hospital, Johannesburg, South Africa

Making the cut

Viv is beaming when he finds me. "There's a chest drain to be done and I'm doing it!" My face drops. "Just kidding, obviously it's your turn." I've carefully watched four being put in, I've put my fingers into chests and felt the landmarks, I've even read the paper by the Prof – I'll need supervision but I'm ready.

I run over to Resus and sure enough there's an elderly patient looking worse for wear. He's been shot in the shoulder and they've found blood in his chest, so the team is trying to sedate and stabilise him. I start preparing equipment and in the heat of the moment, whack a sterile needle through my finger. Cursing my luck, but feeling glad it wasn't a used needle, I quickly place a bandage round it and a glove on my hand. When I return, he's talkative. Viv is putting the infusion in and someone else is taking blood.

He looks nervous, and I often calm patients by asking them where their favourite place is, to help them imagine somewhere nice. I've done this many times before, and it's worked a treat. He says "America", but then bursts into tears. "I'm gonna die doc, and never see America!" The whole team glares at me for making the patient cry, and I make a mental note never to ask that question again, and swiftly put in a catheter while doing my best to reassure him.

The moment I'm done with that though, a young man is wheeled in who's in an even worse state. A stab to his upper chest, between his first and second rib, has put him in real trouble. With every breath in, the edges of the wound are dragged deep into his chest; every time he coughs, a fine spray of blood splatters over me. His heart rate and pressures are pretty bad too, so it's a clear diagnosis: tension pneumothorax. The wound has created a one-way valve that lets air into but not out of the space around his right lung, squashing the lung even further down against the heart with each breath. He is on the edge of dying.

"Well here's your drain, Benji!" The registrar spits and I run off to grab some gloves. Only finding massive ones, I whack them on and start to check my equipment. "No time for that!" the SHO barks at me, "Cut, cut cut!"

A good choice.

I completed my elective in South Africa, the third richest country on the continent yet the country with the highest Gini coefficient in the world. This statistic goes a long way to explaining some of the enormous social inequality and causes of morbidity and mortality we saw. As does the fact that over half of all healthcare spending occurs in private sector, in which 80% of consultants work but only about 18% of the population can afford to access.

We worked in the trauma department at Chris Hani Baragwanath hospital. Serving the 3 million people in Soweto, it bears the full brunt of trauma in the township. Due to a combination of prohibition during apartheid and poverty in the area, small bars selling moonshine called "Sheebens" are popular drinking holes. The drink there is cheap, and tremendously strong.

Most of our patients were drunk and were stabbed or shot by someone they knew. One woman was stabbed eleven times by the drunk father of her children for not quitting her job, another was shot in the chest at some drinks after going to a funeral. We even got nursing students come in who had been stabbed at a nursing student party. The alcohol fuelled violence hits a crescendo on pay-day weekend, flooding the streets with money, booze, drink driving and fights.

The booze explains the loss of inhibitions but doesn't explain why they are so violent. People get outrageously drunk in the London (8.8million) and we've only had 60 stabbings (mostly gang related) as of the start of May. Soweto (3 million) experiences about that many stabbings a fortnight. The violence, according to the 10 locals or so that I asked, is down to social factors which create tension over money, drug dependence and a sense of powerlessness. There is also sadly still a hangover from the Apartheid era, with weapons still left over and a normalisation of violence that started in the 1976 riots.

It also doesn't help that corruption of police and government officials alike have stopped the social and infrastructural development of the township. I'd never thought of this before, but in a world where you don't have hot water from a tap you have to boil water for the bath. Inevitably on the way to the bath some parents spill some, or leave a bath full of hot water unattended and toddlers toddle up to it and fall in. As a result we get about a kid a day at Bara who has been scalded in this way.

Similarly, failing to provide proper road infrastructure in the area often leads to horrendous person vs. vehicle and motor vehicle accidents. On our way into hospital there was a busy four way intersection that had no working traffic lights and was unsurprisingly covered in glass of cars that had crashed each day. Taxi drivers carry guns in Johannesburg too, and should you not let them into your lane, they are known to promptly get out of the car and shot you driver in a fit of road rage. The failure of policing services to even appear to be operating with any degree of effectiveness in Soweto means that the local community often feel they must engage in "mob justice". They collectively assault a suspect, with no pre-tense of evidence or fair hearing. We treated many of the survivors as crush injury victims.

As an elective student I joined the trauma department, working 12-24h shifts many times a week, averaging 48-60h per week. As patients came into minors "the pit", I was often the first one to see them, triage them and then organise treatment for them. Heaps of suturing, bringing patients to CT scanners, immobilizing patients, ploughing drunk patients with fluids and assessing C-spines. In Resus I was often running a resuscitation myself, but most of the time I was moving quickly between patients doing all the jobs that needed doing urgently. Every patient in Resus needed their clothes cut off, two drips, an ABG, a catheter, oxygen and monitoring put on and I was usually part of the team doing that. I also inserted three chest drains under supervision, scrubbed dead skin off burned patient and intubated a patient. In the morning I also spent a lot of time on the trauma ward, removing drains and central lines and doing lots of other jobs.

A Jewish choice

All in all it's been an extraordinary cultural and medical experience. I have been given enormous amounts of responsibility, far above what my experience level would warrant but at the same time surrounded by a team who supported me hugely. At several points I felt out of my depth, with many requests for me to suture eyes and ears and lips. Despite a lot of ridicule for declining, and demanding plastics do it, I never felt like I was being forced to do anything.

As well as living in Sandringham, one of the Jewish areas in Johannesburg, I was regularly hosted by two Jewish families, who I joined for magical Friday night dinners every week. I also got the chance to go to Chabad when not on a Friday night shift. The community was tremendously fun, warm and welcoming. Rabbi Mendel is an extraordinary orator and is great fun at Kiddushes with a whiskey bottle in one hand and a vodka bottle in the other. You'd have to see it to believe it.

What struck me most though, was how unbelievable the food was. I have no idea how they've managed to get such high quality of kosher restaurants in Johannesburg, but whatever they've done it's working. I would recommend a visit based on the food alone.

The flights and accommodation were pricey, and staying in a Jewish neighbourhood meant hiring a car so I could drive to work every day. I'm so grateful to the Jewish Medical Association for giving me a bursary to help cover these costs, it really made a huge difference.

Bubbles and blood

I'm pretty sure I've found my entry point, but I'm unsure – so ask for help. Hands appear and count out the spaces between the ribs for me, ending up round about where I was anyway (in the safe triangle). There are cries encouraging me to cut swiftly or the patient will die. I grab the blade and slice.

As I've been taught, I sweep aside muscle with a needle holder and stick my finger in to feel the pleura. It's there, and before I know it they've given me an instrument to force a hole through the pleura. With most of my weight behind the metal instrument, we hear a loud pop as I break through. Air hisses out, followed by gushes of blood, and I shove in the drain so quickly that I almost put the whole thing in, but then notice and sheepishly pull it out to the appropriate depth.

Air bubbles through the tube into a pot, making it look like a jacuzzi, and the patient suddenly looks a lot better. My knots to secure the drain are awful, partly because the gloves are so huge (and I've got a big bandage round my finger under them) – but the SHO, who I'm doing my best not to hug, helps me. For the first time ever, it feels like I'd saved a patient's life. Sure, any of the doctors there could have done it, but I had done this one – and with a drunk, flailing and rapidly deteriorating patient no less.

Benji Rosen
UCL