With a population of 10.5 million and an area of 94,000km², Kwazulu-Natal (KZN) in eastern South Africa (SA), has the highest prevalence of HIV⁺ patients in SA. There are greater than 1.5 million people living with HIV in the province, which is more than all of the HIV⁺ sufferers in Botswana and Uganda combined\(^1\). The AIDS epidemic on the whole has had a great impact on the economy and adds a great strain on the health care system. Life-expectancy has fallen in SA from 63 years in 1990 to 58 years in 2011, and, 57% of deaths in the under 5’s can be directly attributed to HIV\(^2\).

Wanting to pursue a career in anaesthetics and with a strong interest in pre-hospital medicine I was lucky enough to do my elective with the Air Mercy Service (AMS). Flying with AMS, I was able to explore deep into Zululand and provide assistance and transportation to patients who only had access to the most basic healthcare. This great opportunity allowed me to compare the
"Western" medicine I was used to with the all too popular "traditional healer medicine" being practiced in the rural areas. I was very luck to work with the highly skilled pilots and paramedics of AMS, gaining a new appreciation into pre-hospital medicine. It also provided me with insight into the vital role aviation medicine plays as well as the dangers of working in high pressured situations with powerful but potentially dangerous machines. I found the pressure huge. Our patients were so unwell and our equipment so limited it was fascinating to see how the paramedics coped in such hostile environments. At one point a patient’s ventilator, which was already struggling to keep him breathing, had to be held together with medical tape. One had to adapt to the challenges!

It was fascinating to watch the relationship between healthcare professionals and the aviation team. There was a lot of overlap. The medical team had to join the pilot in the morning aircraft inspection so we could all try to identify any dangers that might affect us while airborne. The pilot would double check our oxygen supply and equipment to ensure there were sufficient quantities for the patients. Even though from two very different backgrounds, we all became specialists in aviation safety and medicine. With the risks so high and the consequences deadly if one team got something wrong, it was vital that teamwork prevailed.

The effects HIV and antiretrovirals have on the pharmacology of basic drugs means that every patient will be different and one has to prepare contingency plans. The ‘medications’ the traditional healers give have unknown quantities of unknown substances, which can interact unpredictably with the most basic of drugs and can be deadly. This unpredictability about medicine in rural SA has led me never to assume anything and that even though your patient seems stable; one needs to be prepared for the unknown. One particular patient I remember was a HIV+ 22 year old, currently 26 weeks pregnant, whom had been ‘treated’ by a traditional healer for seizures. The patient was consequently
diagnosed with eclampsia at a local clinic. She was so unwell that she needed to be sedated for the 1 hour flight to the nearest hospital. However, it became apparent that the normal dose of midazolam used was not working for her. I was informed that this was all too common in patients treated by traditional healers. It became a balancing act of keeping her as comfortable as possible without pushing her into respiratory depression at 2,000 feet above ground.

A final aspect that I found challenging was how to comfort our patients. Many of the patients we picked up from Zululand were extremely unwell and when added to the fact that none had travelled by air before, (one patient had never seen a helicopter before) the stress placed on the patient was extreme. There was a fine balance between using short acting sedation and words of encouragement to try to calm the patients.

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References
