FEATURE

VOLUNTEERING WITH RAFIKI IN TANZANIA

Rafiki is a small Perth-based volunteer organisation which has been running surgical plastic and reconstructive trips to Tanzania since 2004. It started off performing cleft lip and palate repairs and operating on skin cancers of patients with albinism, but over the years, the scope of procedures has expanded to include acute burns and disabling burn contractures as well as most other types of plastic reconstructive surgery.

I have been fortunate in going on 14 trips over the years after initially filling in when an anaesthetist withdrew at short notice. Being available at short notice endears one to any organisation and I can recommend it if you want to get involved! Although I'm most certainly no expert in volunteerism I can share a few thoughts.

Tanzania has a population of 55 million but no plastic reconstructive surgeons and only a handful of doctor anaesthetists. Most anaesthetics are administered by nurse anaesthetists with widely variable skill sets and training.

Most plastic and reconstructive surgery is not life threatening, even if extremely disfiguring and devastating to one's life prospects, so has been considered a low priority in Tanzania.

SERVICE VS CAPACITY BUILDING

Providing the surgeries certainly makes a massive difference to the patient's lives, their family, school class and even the whole village, as we witnessed on a trip to follow up patients some years down the track. Lives are transformed. Patients can literally change from village pariah with little prospect of an education or marriage to attending school, getting married and becoming Village Chief!

However, the 'drop in the ocean' and 'teach a man to fish' argument has resulted in Rafiki evolving into a more capacity building-oriented organisation in recent years. Last year Rafiki organised and launched Tanzania's first Plastic Reconstructive Specialist Training Program in conjunction with the National Hospital and its associated university.

The move from a primarily service focus, to a primarily training focused organisation does require some adjustment of attitude and practice. Surgeons love operating on as many patients as possible, anaesthetists love providing safe, smooth, incident free, timely anaesthesia and donors love seeing incredible before and after photos at fundraising events. While the rewards of capacity building (training), are in fact greater they can take longer to be realised. In my opinion, there is a place for

both service and training trips especially if the service trips still incorporate a significant amount of teaching.

This year, Rafiki plans four purely teaching trips and two service/teaching trips. The two Tanzanian surgeons enrolled in the Plastic Reconstructive Masters degree will attend all trips for hands-on teaching.

Patient checks and the safe, smooth workings of an operating room are something we take for granted, but are not necessarily present in Tanzania and knowledge transfer in this area is also important. Our in-theatre anaesthetic training is very practical and most appreciated by the local anaesthetists who have a strong desire to learn and improve.

On one of our trips to a large teaching hospital in Mwanza, there were two patients awaiting surgery by a Tanzanian team in an adjacent theatre – one required a craniotomy and the other had a broken leg. The patient with the broken leg had the craniotomy. On asking the ironically named check-in nurse Fortunata, how this had occurred, he stated that it wasn't his fault as both patients had the same name!

MOTIVATION

If you are expecting a holiday, not only will you be a much less useful team member, but you will be very disappointed, as in my experience the two-week trips are the most stressful, demanding, hard-working weeks of my year. However, they are also the most rewarding.

Other motivations may include a desire to share the fantastic medical education and experience we enjoy in Australia with those not as lucky, the challenge of working in different and sometimes difficult environments, being a part of a team, gaining perspective and extra purpose in life and career, escaping the family for a while, CPD points and an improved curriculum vitae. I think everyone has their own mix of motivations, but in general it's best if you try and be a giver rather than a taker, as one of my wise mentors used to say. You will be a better, more useful team member, and the rewards of volunteering will take care of themselves.

STRESSES OF THE JOB

Although rewarding, volunteer trips can be very stressful, especially for many anaesthetists like myself who are somewhat prone to anxiety. In fact, it's common for me to spend long periods awake in the early hours of the morning, worrying about the next day on these trips, and wondering why I agreed to go on another trip in the first place! Even though I'm very experienced and more than capable, jet lag and the exhaustion following 26 hours of travel contribute of course. Fortunately, this subsides pretty quickly once the first day or two of operating is over and I'm in the swing of things. If anxiety is an issue, you're not alone. Many team members feel much the same and I've found it useful to talk with others about it

TEAM SPIRIT

Being part of a team of like-minded people, with the same goals, working in an often-challenging environment is certainly one of the special things about volunteer surgical trips. You spend a lot of time with the other team members, working, eating, exercising before work (great for anxiety relief) and relaxing together. In fact, I would suggest a quite unique, long lasting bond is formed between team members, be they nurses, physiotherapists, anaesthetists, surgeons or self-funded volunteers.

ANAESTHETIC EQUIPMENT AND DRUGS

In Rafiki's experience, situation appropriate anaesthetic machines are the key. Tanzanian hospitals are littered with broken down first world anaesthetic machines donated by well-intentioned but misguided first world countries. Some have been donated already partially broken, others have broken down over time due to lack of maintenance and the lack of anyone able to fix them.

On one of our visits to a large teaching hospital in Mwanza, we were very surprised to find the theatres had recently been decked out with top-of-the-range GE ADU anaesthetic machines. In fact, the same ones we had in our biggest private hospitals in Perth at the time. This was quite a jump from the EMOs the anaesthetists had been using until then, and in fact still were still using for difficult cases as they didn't fully trust these new high-tech machines. We helped set the ADUs up and instructed on their use.

A year later the soda lime had not been changed and had turned to concrete. The CO_2 monitors stopped working over the next couple of years followed by many other components, all due to a lack of servicing which was considered too expensive and not in the budget.

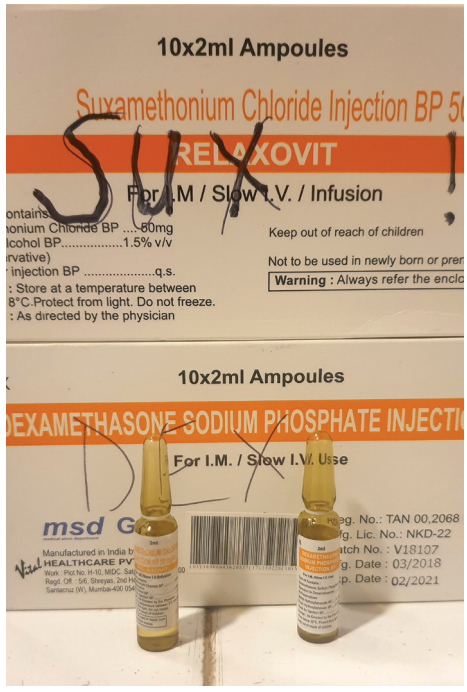
Worse still, some years down the track and after the EMOs had been discarded, the town's oxygen plant which filled the essential size G oxygen cylinders broke down and was not operational for several weeks. With no pressurised oxygen, the hospital could not provide anaesthesia having only the ADUs, and numerous patients died for the lack of surgery.

In a country where pressurised oxygen can be scarce and there are several blackouts per day, an appropriate anaesthetic machine which can remain operational under such conditions and has a local service facility is vital.

In the early days, ULCO kindly made such a machine for us at cost price. Named the ULCO lite, it was a portable machine built into a blue Bunnings toolbox. It required no electricity and could run off pressurised oxygen or an oxygen concentrator. It was so simple even I could understand its workings. It required no maintenance and was almost indestructible. It served us well for years.

FEATURE

Happy,calm patient walking to OR



What could go wrong?!

I quickly discovered how to plug an oxygen concentrator into the back bar of the ULCO lite, when my butt knocked over the only available size G cylinder just after intubating the first case of the trip. As it toppled, the cylinder smashed a theatre window before hitting the concrete floor. The first stage regulator shot across the theatre with a deafening roar of escaping oxygen which cleared the theatre of all local staff and waiting patients, who thought a bomb had exploded. Certainly, one of those "I can't believe this is happening" moments saved by an ambu bag and the one remaining local theatre nurse quickly sourcing an oxygen concentrator from elsewhere in the hospital, while a capable colleague managed to close the cylinder so we could hear ourselves talk.

Recently we purchased two diamedica Glostavent Helix machines. These quite remarkable machines can run off a built-in oxygen concentrator which generates 10l per min of 100% oxygen or use pressurised oxygen if available. If all else fails it operates as a drawover machine entraining room air. It has an uninterruptible power supply and a battery when the frequent blackouts occurs.

In short, it can operate under almost all conditions experienced in Tanzania. The availability of a local service agent and in servicing support is also extremely useful. The self-inflating reservoir bag takes a bit of getting used to, but overall, it's a great machine and can be recommended.

In this day and age, taking out-of-date consumables into Tanzania is forbidden, even if they are in perfect condition. Although frustrating, when it is only the packaging which is out of date and the item may be in perfect condition, it's important to respect this not unreasonable Tanzanian position.

In recent years we did come across a dozen or so pallets of in-date consumables that were going to landfill from one of our large teaching hospitals. Apparently, a department was moving to a new site and the system didn't allow for the consumables to be transferred between hospitals. This certainly demonstrates the terrible waste in our health system

Ulco lite

but on the upside, the several thousands of dollars' worth of gear was gratefully accepted by Tanzania.

At present we take most of our drugs with us from Australia except for locally sourced Halothane, the volatile of choice in Tanzania, Suxamethonium and Pethidine, the opiate of choice in Tanzania. At the request of the Tanzanian Government, we are endeavouring to source more drugs in Tanzania although this is not completely without hazard. We were recently surprised to find that the locally supplied 2ml vials of Suxamethonium and Dexamethasone came in identical sized and coloured packaging, and vials. The only difference was the small black lettering! What could go wrong?!

RISK TAKING IN TANZANIA

What is an appropriate level of anaesthetic risk to take when volunteering in Tanzania?

The previous medical director of the hospital we visit, always starts his farewell speech with "This has been a very successful mission. There have been no deaths".

We endeavour to set the bar a little higher! While we have had no deaths of elective patients in 15 years, there have unfortunately been several avoidable deaths in adjacent, locally run theatres while we have been visiting. This highlights the importance of our ongoing attempts to improve the safety of anaesthesia and surgery in Tanzania.

No parents, no EMLA, no worries

Undoubtedly, we anaesthetise out of our personal comfort zone, but it's important that you're not so far out that you are taking unnecessary risk. Some current or at least recent paediatric anaesthetic exposure is highly desirable. The patients are often sicker and smaller children than we would normally anaesthetise as non-paediatric subspecialised anaesthetists in Australia. We have an age limit of one-year-olds and weight limit of 8kgs with Hb guidelines.

Thorough preoperative assessment is difficult, with more than one hundred patients to see on the first day and unrecognised severe anaemia, malaria and chest infections some of the commonest problems we encounter.

Difficult airways from severe head and neck burns present from time to time and are managed with judicious use of LMAs, a Macgrath video laryngoscope, and AMBU fibreoptic laryngoscopes. Taking excessive risk in these cases is to be avoided and any patient requiring complex postoperative airway management in ICU is usually declined surgery.

HOW TO VOLUNTEER

I would highly recommend volunteering with an established, respected organisation if possible, rather than venturing out on one's own.

A good organisation will have thought through the most ethical, effective, safe and coordinated way for you to work and have protocols and a range of experienced people to guide you.

A good organisation will respect anaesthetists and the vital role we play. They will also have a team of people other than doctors performing vital tasks such as fundraising. Rafiki is fortunate to have a very effective voluntary fundraising committee and all the trips are funded by an annual Rafiki Ball.

Bureaucracy and paperwork can be daunting in Africa, having the Honorary Consul of Tanzania as our Chairman certainly smooths the way.

Lastly, a good organisation has a strong, hardworking team coordinator/ leader to keep trips on track. Rafiki is most fortunate to have Taka, my long-suffering wife in this important role. As I advise team members – do what she says, yesterday if possible, and your volunteer experience will be good!

Dr Andrew Wild