Uganda Spine Surgery Mission

Trip Report 2018

2018 Member Roster

Name	Role	Dates
Dr. Isador Lieberman	Orthopedic Surgeon	7/22/18 – 7/28/18
Dr. Michael Hisey	Orthopedic Surgeon	7/22/18 – 7/28/18
Dr. Jaime Villarreal	Orthopedic Surgeon	7/22/18 – 8/3/18
Dr. Stanley Kisinde	Orthopedic Surgeon	7/22/18 – 8/3/18
Dr. Stephen Gorlick	Family Physician	7/22/18 – 7/28/18
Kari Zagar	Neuromonitoring Technician	7/22/18 – 7/28/18
Sherri LaCivita	Scrub Technician	7/22/18 – 7/28/18
Sydnie Ozanus	College Student	7/22/18 – 7/28/18
Michelle White	Physical Therapist	7/22/18 – 8/3/18
Brian Failla	Equipment Technician	7/22/18 – 7/28/18
Jason Ash	Scrub Technician	7/22/18 – 7/28/18
Joel Tanner	X-Ray Technologist	7/22/18 – 7/28/18
Sherron Wilson	Registered Nurse	7/22/18 – 8/3/18
Adam Woodward	College Student	7/22/18 – 8/3/18
Dr. Selvon St. Clair	Orthopedic Surgeon	7/29/18 – 8/4/18
Dr. Daniel Park	Orthopedic Surgeon	7/29/18 – 8/4/18
Dr. Gary Schniegenberg	Orthopedic Surgeon	7/29/18 – 8/4/18
Megan Hermiller	Scrub Technician	7/29/18 – 8/4/18
Bogdan Popa	Neuromonitoring Technician	7/29/18 – 8/4/18
Alexa Nieman	Registered Nurse	7/29/18 – 8/4/18
Teisha Pearson	Certified Registered Nurse Anesthesiologist	7/29/18 – 8/4/18

2018 Surgery List

Serial Number	Name	Sex	Age	Diagnosis	Procedure
1.	Ndyabasa, Powasi	Male		Bilateral lower extremity paralysis for 6 weeks	T11-L1 laminotomy, I&D of epidural fluid collection with culture and biopsy.
2.	Ainebabazi, Jecinta	Female	16	Broken rods	Rod exchange and fusion
3.	Karyebuza, Edward	Male	52	Cervical myleopathy and a chiari type I	C4-5 ACDF decompression and fixation
4.	Akanjuna, Clency	Female	9	Scoliosis and tumor	T5-T11 instrumentation and fusion, T7-T-10 decompression
5.	Tumuhelkwe, Prima	Female	9	Osteochomdroma; sent to pathology	resection of left posterior iliac spine
6.	Dushime, Promise	Female	14	Moderate left rib hump; Congenital thoracic kyphoscoliosis	T5-L3 instrumentation and fusion. T-11-T12 assymetrical pedical subtraction and osteotomoies
7.	Muhumuza, Martin	Male	64	Degenerative L4/5 stenosis	L4-S1 PLIF
8.	Tukamuheeba, Stephano	Male	26	Congenital occiput C1 fusion, severe basilar invagination and spinal cord compression. On examination, right sided upper and lower extremity weakness. Bilateral positive Hoffman's. Hyperreflexic on the right.	Posterior occiput to C3 fusion with occiput foramen magnum decompression
9.	Evanmile	Female	60	Disc herniation	C6-7 ACDF
10.	Owembabazi, Shivan	Female	13	Congenital kyphosis, right rib hump	T9-L3 post instrumentation and correction, fusion, and osteotomies
11.	Kyomohendo, Denise	Female	21	Previous scoliosis patient. Loose & painful hardware.	T2-L3 hardware removal
12.	Ayembire, Emmanuel	Male	36	Bilteral jump facet	C5/6 540°
13.	Bakyenga, Steven	Male	45	Loose hardware and infection	hardware removal, I&D

14.	Nasafarine, Christine	Female	51	Recieved previous injection that relieved pain	lumbar epidural injection
15.	Mugisha, Milton	Male	55	??	anterior corpectomy at C7, C6-T1 fusion, pin in right tibia
16.	Ssebyonga, Sulaiman	Male	74	Possible dynamic instabilityat C1/2, old C2 fracture, myleopathy	Posterior C1/2 fusion
17.	Kyaluzi, Lawrence	Male	69	Stenosis at L3/4 and L4/5	L4/5 laminectomy
18.	Beinomugisha, Peace	Female	67	L4/5 stenosis	L4-L5 laminotomy, foraminotomy, and decompression
19.	Ayembire, Emmanuel	Male	36	Infection	I&D
20.	Tukamuheeba, Stephano	Male	26	Dura tear	Dura seal
21.	Betakwise, Edison	Male	38	fracture right patella	patella I&D
22.	Tubasimwa, Hillary	Male	29	comminuted displaced right femur fracture	open IM rod
23.	Muygunga, Night	Female	52	HIV+,	Posterior T12-L4 decompression and fusion with instrumentation
24.	Myesiga, Brian	Male	??	Compression fracture L2	T12-L4 posterior instrumentation and fusion; L1-3 laminectomy
25.	Kahangire, Robert	Male	??	Canal stenosis C3 - C7	C3 - C7 posterior laminectomy and fusion
26.	Nsimire, Elly	Male	50	C5/6 foraminal stenosis	C5-C7 ACDF
27.	Byabaswaija, Charles	Male	35	Closed comminuted tibial fracture	ORAF of the distal right femur with bone graft; tibial IM rod
28.	Atuhire, Anitah	Female	18	Open fracture left tibia	IM rod, gastroc flap, I&D left tibia
29.	Nandudu, Sarah	Female	44	HIV+, right sided disc herniation at L4/5	L4-5 decompression and right sided mictodiscectomy
30.	Sr. Mklagale, Specioza	Female	67	Spondylolisthesis and stenosis	L5/S1 right sided laminectomy fusion and instrumentation
31.	Fr. Kitagamba, Longino	Male	78	L4-L5 spondylolisthesis	L4-L5 decompression,

					instrumentation and fusion
32.	Kagwisagye, Lucas	Male	57	L3-5 moderate stenosis. Severe degeneration L5-S1. Neurogenic claudication	L4-S1 decompression. L5-S1 instrumentation and fusion
33.	Kakwenza, Grace	Female	60	L3-L5 stenosis, L4-L5 disc herniation	L3-5 decompression and right L4/5 mictodiscectomy.
34.	Byaruhanga, Andrew	Male	23	femur fracture	open reduction external fixation (OREF) of right femur
35.	Doe I, John	Male	??	??	OREF of right open communited right tibia, closed fixation of the pelvis.
36.	Doe II, John	Male	??	??	OREF distial tib fib
37.	Doe III, John	Male	??	??	open blade plate of the distal right femur
38.	Nsimire, Mackrene	Female	37	Painful left knee	Left knee MUA
39.	Tukamuheeba, Stephano	Male	26	Dura tear	Dura seal
40.	Kurikomwaka, Lillian	Female	??	??	epidural lumbar injection
41.	Faida, Chantal	Female	??	??	possible T5/6 decompression
42.	Turemye, Immaculate	Female	??	??	lumbar epidural injection
43.	Tumukunde, Jackline	Female	??	??	lumbar epidural injection
44.	Nalya, Safina	Female	??	??	Knee injection
45.	3 Knee Injections	??	??	??	??

Trip Blog

Day 1: Oh, the places you'll go

After many hours of international air travel, landing us in Doha, Qatar for a night, a majority of team 1 was able to reunite. Attending team 1 was Dr. Isador Lieberman, Dr. Michael Hisey, Dr. Jaime Villerreal, spinal fellow, all from Texas Back Institute, along with Dr. Susan Benton from Plano, Texas, taking care of anesthesia, and Dr. Steve Gorlick from Toronto. In addition, we have Kari Zagar, the neuromonitoring technician, Sherri LaCivita and Jason Ash, scrub technicians, Joel Tanner, radiology technician, Brian Failla, hardware representative from Globus Medical, Sydnie Ozanus, undergrad, and myself, Adam Woodward, undergrad.

We slowly made our way to our respective hotels, and with those currently in the city, we were split between 4 hotels throughout town.

When we all finally got to our hotels, we took a short break to unwind from the long 15 hour flight before dinner; naps, exploration, and catching up on emails and social media. A reservation was made for a restaurant called "Persia", which was absolutely fantastic, both in terms of looks and the quality of food. The interior was gorgeously decorated, with paintings in alcoves you could sit and eat in, and food that was unbelievably perfect. We took our sweet time at dinner, even though the restaurant did not serve any alcohol, enjoying each other's company, the food, and sights. But of course, everything must come to an end, so we returned to our hotels to call it a night before our early flight to Entebbe to begin the final leg of the journey.

Sleep took many of us that night, and we traveled down to the airport, where we explored and bought souvenirs before climbing into a plane for another long and uneventful flight, where we would then meet up with Sherron Wilson, resident nurse (RN), Michelle White**,** our physical therapist, and Stanley Kisinde, a local doctor who is currently doing his orthopaedic residency in South Africa and has been a valued team member for the past 3 years.

With such a large group of 15 volunteers and over 40 pieces of luggage and storage totes, comes many new problems not commonly encountered on prior trips, like having so many boxes of necessary medical equipment and supplies that either we could (A) fill the bus with everything and not fit all the people, or (B) Fit all the people and not all of the supplies. Dr. Lieberman strategically initiated the audible and made some calls to local friends, and planned to fill the bus as much as we could, and have the rest of the supplies delivered to Mbarara the following morning, so we could have them for surgeries beginning on Tuesday. So, while we waited on the truck to arrive to carry supplies on Monday, we played Tetris on a much larger scale, fitting boxes, backpacks, and suitcases into the bus as carefully as we could. Once satisfied and the other vehicle was filled and secured, we all got to know one another as we piled into the bus very close to one another and began the long drive to Mbarara. The drive was long and uneventful as we headed to the equator to stop for dinner, eating at Café Equator and strolling through some of the local shops for more souvenirs. We took our time, enjoying the fantastic food, air, environment, and the chance to stretch our legs before we all piled back into the bus and resumed our trip, where many of us let sleep overtake us, giving some of us the bizarre ability to sleep with our face pressed against the window, even while the bus drove over bumps.

We arrived in Mbarara, where we unpacked the necessities from the bus (our personal belongings and clothes), received our roommate assignments, and called it a night, preparing for an early morning at the hospital.

Day 2: Exactly how much did we pack?

The morning was pretty typical to trips in the past; some got up early and worked out, some took care of emails and everything, and others slept in until the last possible minute before the standard team breakfast, where we'd discuss the tentative plan for the day.

In the one year since I've been in Uganda, change is present, whether it be in the form of new highways and paved roads, or new buildings being built in Mbarara. But the familiarity of the hospital was pleasant as we drove down the road, ready to unpack our luggage and start a clinic. At the hospital, we unloaded what felt like countless boxes of supplies from the bus. Some unloaded them, some carried them in, and some started organizing and packing, creating a perfect system. The boxes slowly began to line the walls of the hallway and the rooms we were occupying, and when you try and fit 15 people in two rooms and a hallway with a bunch of boxes, it gets pretty cramped. As we finished up with the majority of the supplies, the truck containing more arrived, and the unpacking once again resumed in the same manner. As we unpacked, we would pass one another, with either a new box or an armful of some sort necessary supplies destined to the sorted and stored in the storage room by Sherron and Sherri, and one by one, the boxes emptied. While most of us emptied the bins, the doctors, Sydnie, Michelle and myself ran off to visit a few patients, and in viewing one gentleman, it was decided to do a surgery on him to clean an infection and perform a laminotomy (a surgery that relieves pressure in the vertebral canal).

With the truck and bus now empty, we split into two main teams; Operating room (OR) prep, and a clinic team. Preparing the OR, we left Dr. Benton, Sherri, Sherron, Jason, Joel (who spent a good majority of time repairing the C-arm, which is used to take x-rays during the surgeries), Brian and Kari. For clinic, Dr. Hisey, Dr. Lieberman, and Dr. Villerreal seeing patients , Dr. Gorlick, Sydnie, Michelle, and myself (Adam) scribed for the three clinic rooms, while Dr. Kisinde, Dr. Kisitu, and Dr. Tuhumwira translated for those who could not understand.

The day went by as smoothly as it can, when, you know, anything could happen at any time. Dr. Benton's vaporizer blew a fuse upon being plugged in when testing it, so she had to adjust her plan for the rest of the week and use a different anesthetic gas than she initially planned. Other than that, OR prep went by well, with supplies being wrapped up and set to be sterilized rapidly, and everything being positioned and set up the way the teams would need them for surgery for the afternoon and following days.

Time for surgery came about, and Dr. Villarreal left clinic to perform the surgery, where he left clinic and Dr. Hisey and Dr. Lieberman continued to run, with Michelle, Dr. Gorlick, Sydnie and I continuing to scribe, where an estimated 60 patients were seen through the entire day. As surgery occurred, clinic and unpacking continued for a few more hours until clinic wrapped up, unpacking was called for the day (with a lot more boxes, bags and bins still needing to be opened and emptied), and the surgery was successful.

We left the hospital and returned to the hotel, where we had our team dinner before sharing lessons we learned for the day (everyday, no matter what, you should learn something). Afterwards, we split, some of us arm wrestling each other, and others passing out for the day, finally able to get a good night's rest after so much travel and a long day of work, knowing another one was right in front of us.

Day 3: Clinic Queues

another morning, another breakfast, another bus ride to the clinic, however, instead of our usual bus, we had a much more entertaining situation. The previous night, our normal bus driver wasn't there, so someone else drove us to the hotel. The problem was, the bus we were taking was significantly smaller than what we needed. While it fit 12, we had to fit a grand total of 16 (including our driver). So, we piled in, got very close to each other, cracked a few clown car jokes, and made our way to the hospital to begin a multitude of surgeries and return to the penalty box, aka clinic.

We arrived (we still had a few packed bags needing to be unpacked), and quickly went to work. While most of us prepped the two ORs we were going to use, Dr. Villarreal, Dr. Kisinde, and Sydnie made their way down to the ward to check on the previous day's patient, who was doing well. After a quick peek of his incision, change of his dressing, and seeing him doing well, they quickly returned to the rest of us, where we were close to completing the final touches on the ORs for the surgeries.

There was a lot of bustling around as patients were being brought in and put to sleep, x-rays were being put up and looked at, table were being prepped and sterilely covered with tools placed on top, and people were beginning to scrub in. But, even through all this chaos, there was a method to the madness. People knew where to go and what to do without being asked, everyone knew what to grab, and what cases were about to happen. In the first room, we had a patient by the name of Jecinta who returned to us with two broken rods, so the plan was to exchange the broken rods. The second room had a 52 year young man named Edward who required a simple (nothing in spine Surgery is simple) 1 level fusion of his cervical (neck) vertebrae at C4 to C5.

Surgeries started, and Dr. Lieberman, Dr. Kisinde, and I headed down to resume clinic from the previous day, where countless patients were still waiting from the day before. Shocked, we quickly entered the exam room, prepared ourselves, and started seeing patients. Dr. Lieberman would talk and examine them, Dr. Kisinde would translate and also examine them, and I would record the patient's history and diagnosis. Of course, seeing each patient and listening to them takes time, so after the first 10 patients, Dr. Lieberman made the executive decision to see a total of 50 for the day before he heads to surgery, and more would be seen during the second week of the mission. Charts were collected, and patients continued to come in one by one; low back pain, neck pain, pain or numbness radiating into the hands and/or feet. You name it when it comes to back problems, we probably saw it.

After a few breaks for our stomachs and mother nature, and the help of Dr. Hisey after his first surgery was completed, we finished seeing 58 patients, and made our way to the OR, where cases 3 and 4 were beginning to get ready. Case 3 a young girl named Clency who required a large instrumentation and fusion in her back, while case 4 was another young girl named Prima who was had a mass removed from her back. Once again, the ORs and the doctor's room we were inhabiting started bustling with activity as we moved to prepare the next two cases; imaging, cleaning, equipment and supplies needed, people ready.

Once the cases began, and those of us not directly involved in the surgeries took a short break to grab a snack, or (a crowd favorite here) sit down. While all the cases were in progress, including cases 1 and 2, Sherron and Sydnie were continuing to unpack and organize a room, so when clinic was over and those of us there returned, Sydnie proudly told us that the task Sherron had given her was “complete”, and she went to watch the surgeries.

Both cases progressed smoothly and came to an end close to 7:00 PM, so we did our fantastic clown car routine, piled into the small van, and headed back to the hotel, where we ate dinner and laughed at different stories and Jason. He hypothesized that if he drinks a little bit of vodka every night, it will kill all the bacteria in his stomach and he won’t get sick from anything, and then took a drink. Needless to say, everyone became invested in his hypothesis, and we are all awaiting the results from his experiment. Then came the lessons of the day. As per usual, everyone shared what they learned, when we got to Sherron, who looked at us, chuckled, and said, “What I learned is the terminology for “complete” for millennials is different than older generations.” By this point, we all knew that Sydnie had completed the room in her eyes, but not in Sherron’s, and started cracking up.

The rest of the evening was uneventful; a few of us parted ways, exhausted from the day’s work and ready for bed, while the rest continued to test Jason’s hypothesis and enjoy each other’s company. Little did we know what Wednesday would have in store for us.

Day 4: Murphy Strikes

Breakfast was like the calm before the storm; no one truly knew what was going to happen, but we knew it would be a busy day. We had planned one instrumentation and fusion and one posterior lumbar instrumentation and fusion for the morning, and occiput (bone at the bottom of your skull) and C3 vertebra (the third vertebra in the neck) and anterior cervical discectomy and fusion (removal of the disc). Two long cases, and two short cases sounds ideal, but as Murphy's Law states "anything that can go wrong, will go wrong, at the worst possible moment".

We arrive at the hospital and immediately break into our separate groups; rounds and OR. Dr. Villarreal, Dr. Kisinde, Dr. Hisey, Sydnie and I all made our way down to the surgical ward, where we saw all of the previous surgical patients. All the patients were doing fantastic, and some, such as Jecinta (who had surgery on Tuesday) was up and walking with the help of our lovely physical therapist, Michelle. Others, such as Clency (one of the two little girls who had surgery on Tuesday) was doing better than she was previously, but still wasn't doing as well as we had all hoped she would. With a little bit of encouragement and a few painkillers to make her more comfortable and alleviate her pain from such a large surgery, we hoped to see her begin to improve. With our rounds rapidly hitting its conclusion for the day, we returned to the OR where Dr. Hisey went to the one operating room to begin, while Dr. Villarreal went to join Dr. Lieberman in the other.

However, life doesn’t always intend for things to move smoothly, and always like to keep you on your toes.

Once Dr. Hisey entered his operating room with everyone who was going to assist him, they noticed the anesthesia machine was not working properly, saying there was no oxygen. Now, while a patient is sedated, the machine helps them breathe by filling their lungs with oxygen, so the machine saying there isn’t any is a rather significant problem. The technicians worked as hard as they could to get the machine up and running, and after about an hour of hard work, they finally managed to fix it! Now, as they went to retrieve the patient, they couldn’t find him. It wasn’t a matter of he wasn’t in hospital, as he was here and waiting in the back for the machine to be fixed, but more a matter of he just walked off for a bit. We frantically searched for what felt like an eternity (but was more like 5 minutes) and he just came back, all ready as long as we were, so we set to work.

Two cases would eventually turn to three, as Dr. Hisey finished his first case, and moved onto the second, while Dr. Lieberman and Dr. Villarreal continued work on case; a young girl named Promise in need of a large instrumentation and fusion procedure, which required caution due to the shape of her scoliosis, and the size (her T5 vertebra to her L3 vertebra). With one this size and severity, caution must be taken to prevent loss of movement in her legs, or further damage to her nerves.

Cases two and three became our final case, case four. This one was on a young man named Stephano, which we knew would take a while to complete. You see, his diagnosis was an interesting one, as the bone at the base of his skull, the occiput, fused on its own to his very top vertebra, C1 (Fun fact, it's also known as "Atlas" because it holds supports the globe of your head, after the Greek myth Atlas, who holds the world up on his shoulders). This auto-fusion, in turn, caused compression on his spinal cord and further complications, such as sudden weakness in his right side. This procedure would (as expected), turn out to be a long case, as it must be approach with extreme caution. It was planned to fuse his occiput bone to his C3 vertebra, and to decompress the spinal cord, in an attempt to have him regain motor function

The night came to a late close, and we prepared to return back to the hotel for a well-earned night of sleep and rest, realizing that week 1 was slowly approaching an end. Little did we know, however, that while today was stressful, the rest of the week would hold more interesting surprises for us, never letting us relax for too long.

Days 6, 7, 8: A long, well-earned break.

Friday was a day none of us actually anticipated. Upon finishing our team breakfast and arriving at the hospital, we discovered the power was still out. Out of concern for the patients, we decided to hold off on surgery to prevent any complications, and to wait until noon to see if the power would come back on. In the meantime, almost all team members went on morning rounds. For some a few people on the morning rounds, this would be eye opening for them, because they only see the patients immediately before, during and after the operation. To see them in recovery is a completely new experience.

We began in the ICU, visiting Shivan, who unfortunately, wasn't doing well herself. She had a slightly low oxygen saturation in her blood (her blood is not carrying as much oxygen around her body as it should), and she was in a lot of pain. After ordering her to remain in ICU another day and expressing that she needed watched closely, we checked on Emmanuel. He appeared to be doing very well, and expressed only post-surgical pain; we can definitely handle that. A quick handout of pain meds to our patients later, we traveled to the private ward to check on patient, Martin. He had completed the CT scan we asked for, so we could get pictures of his brain, and unfortunately, it confirmed our thoughts from the day previous. He had suffered from a stroke, but he was able to understand us, indicating that the part of his brain responsible for speech was affected, but his comprehension portion was not. We explained the situation to his family, and expressed how important rehab would be for him. He may be able to regain some of the function he lost, but we could not say how much or how soon.

From there, we traveled down to the emergency ward, where little Promise was. Similar to Shivan, she had low oxygen and was being given some and watched. We talked with her and her father, addressed their concerns, and monitored her. It was not that when she was laying down, her levels were lower than when standing, so our fabulous Michelle began working with her right then and there, in addition to her normal rounds. Then, we walked to the general surgical ward. In the female ward, Denise was having a rough morning. Her hardware removal left her in a fair amount of pain, and she was very uncomfortable. However, we had no codeine (a very strong painkiller) remaining, so we gave her some ibuprofen (you may recognize this as Advil), and assured her that with time, she would feel better. Evanmille, who was throwing up the previous day, was able to finish her painkillers with no more issues, and was able to leave the hospital to return home. Clency was still not as strong, so we administered some stronger painkillers, and had her stay at the hospital. Some patients, such as Jecinta and Prima, recovered extremely quickly and were moving with minimal pain, and were sent home the previous day.

In the male ward, patients weren't doing too hot. Steven was still in a lot of pain, and needed to continue his antibiotics. One conversation with a nurses later calmed as, as she assured us he'd be given his meds. Emannuel, who was done on Wednesday, suddenly started having significant drainage from his incision, and from judging his case and the complexity involved in surgery, we agreed it may be an infection or a tear somewhere that was leaking fluid. We agreed to watch one more day to be sure, and if it was in fact what was suspected, we would take him back on Monday with team 2. Stephano was doing well, and was regaining significant strength in his hands and arms!

We return to the doctor's lounge, noting the power was still out. Great. We lounged around for a bit, packed some equipment, cleaned the lounge and the store room we were occupying and team 2 would occupy, and simply talked. Dr. Hisey stepped out at one point to complete a simple injection for a patient, and returned to help us. By that point, it was now noon; four hours with no power. Unwilling to put our

patients at risk, we contacted everyone we had scheduled, and told them that they would all be on Monday, for team 2.

There was a lot of chatter as we drove back to the hotel. Should we go to the pool and relax as our last day? Go to town? Sleep? Failing to agree on just one, we split up. Jaime, Jason, Joel, Sydnie, Stanley, Sherron, and I would all venture into town to exchange money and buy gifts for friends and family, while all the others remained at the hotel to relax, sleep, and swim.

Town was packed. People were moving through the streets going into shops, or selling goods, cars and boda bodas (motorcycles) whizzed past about their daily lives as the seven of us exchanged our dollars into shillings, and began our hunt for authentic Ugandan fabric. We past shops, Stanley asking where we could buy cloth, when we were directed to a little passage that was filled with activity. Upon entering, it was like a busy labyrinth; people were passing through the tight walkways, shops were set up all over the sides. Seamstresses hard at work, merchants selling their goods, shop owners selling food; it was such an amazing place to see and explore. We eventually stumbled upon a woman, who didn't sell cloth, but knew the best place to buy fabric, and then we could pay her to make custom shirts and dresses, if we desired (and trust me on this, Sherron was all about this!). We followed her through the maze, across a much less busy street, through another small set of passages, where we arrived at a small shop with a wide display of fabrics, all different colors, patterns, and symbols. After much debate and discussion, three of us bought fabric (and a dress from a neighboring shop), returned with the seamstress, had her measure Sherron and Jaime, and then set out to find Fly Emirates shirts for Sydnie and Jason.

After a few hours, we finish our journey an d return to the hospital and pick up Michelle, who remained to work with patients, and set back to the hotel to eat dinner, and go out to enjoy our last night together, where Stanley took us to a crowd favorite. Club Vegas.

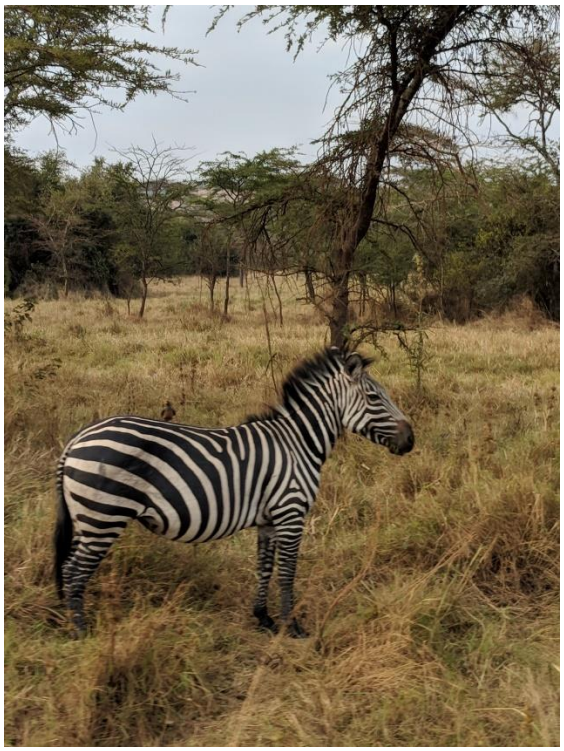
Saturday. The slowest and most relaxing day we could have asked for. Team 1 left at 5 am, leaving Stanley, Sherron, Michelle, Jaime, and myself behind to work with team 2. So, after some much needed sleeping in, we left to do rounds. Our patients were in a mix of states; some like Denise and Shivan, slowly started to improve, while others like Stephano, began to leak fluid from his incision, and had a headache, which is indicative of a tear, leaking fluid. Bad news. Due to such a small team, we could only treat the patients, and planned to return with team 2 to help everyone.

The rest of the day varied on who you asked. Sherron went out with Agnes and a friend to get their hair done, while Stanley, Jaime, and Michelle all went out to town for lunch, while I slept. I joined Jaime and the others for dinner, while Sherron continued on her girls out and ate out with them. Overall, a very calm (and much needed) day to relax.

Sunday. Another very nice and relaxing day. We met Dr. Selvon St. Clair from the Orthopedic Institute of Ohio, Dr. Daniel Park from William Beaumont Hospital in Michigan, and Bogdan Popa, our neuromonitor. Confused at why there were so few people, we asked about it as we ate our standard team breakfast and were met with a chuckle. "They missed their connecting flight. They'll be at the hotel probably around 4 am.".

Rounds roll around, and our suspicions were confirmed with Stephano and another previous patient, Emmanuel, both had leaks and required another surgery to clean the wound and seal the tears. Other patients, like Denise began to rapidly improve, while others like Promise and Shivan, had slower improvements. But hey, an improvement is an improvement! While rounds were going on, Sherron, Bogdan, and Dr. Park unloaded the few crates of supplies they brought, unpacked, and prepped tools to be sterilized, speeding the day up.

Finished with our main task, we went on a crowd favorite activity; a safari to Lake Mburo. There's such a difference between seeing a zebra in a large enclosure back in the United States and a zebra just roaming around its natural environment. It's so much more breathtaking and stunning to see. Tiny monkeys appeared herds of Ugandan kob (gazelle like animals), the occasional warhog, and the loud hippos. Not to mention, the shop owner who waited for us to finish so we could buy souvenirs from her at the end.



Safari'd out for the night, we traveled to eat dinner at Igongo, a restaurant along the way to the lake, where we laughed about the stories told on the safari by one another, and talked about the rest of the group that would be arriving. Little did we all know, those previous long days had nothing on what week 2 had in store for us.

Day 9: There are things to do and patients to see

Monday morning arrived, and with it, the rest of team 2, consisting of Megan Hermiller, surgical technician, recently retired Dr. Gary Schniegenberg, who completed a residency in orthopedics, and a fellowship in pediatrics, Alexa Nieman, nurse, and Teisha Pearson, certified registered nurse anesthetist. Introductions were made, and friends were seen once again. Those of us who remained from the previous week caught those who arrived that morning up to date on the cases, and we quickly set to work on our breakfast before travelling to the hospital.

We arrived, and split into teams. While half of us unpacked fresh supplies and prepared for more surgeries, the remaining half traveled to view our patients from the previous week, and see potential new patients. All of our patients were recovering extremely well, with the exception of Stephano, whose dura leak that was noticed over the weekend was continuing to leak, and required another surgery to repair. We spoke with him, and told him he was on our list for the day, and we would see him shortly. In addition to the previously operated patients and the few patients still requiring surgery from week one, newer ones, like Sulaimon, were seen, who required a fusion in his neck. With the day tentatively planned, Dr. Schniegenberg and I were left to visit with general orthopedic cases that required surgery, and were told to select a few who required surgery, while the others went to the OR to begin the day's work.

The two of us spent close to an hour chatting with patients awaiting surgeries, examining x-rays, and determining who we'd be able to take back into the operating room to help. Names were written down, cases documented, questions asked, and a possible list assembled. Once satisfied with what we could do and potentially operate on, we travelled back to the group to discuss the rest of the week's cases.

With an initial plan to operate on five to six patients, we began work in two rooms, as we had been. Between cases, Dr. Schniegenberg and Dr. St. Clair discussed other cases for the work, and with the

approval and assistance of Dr. Kisitu, we went from two operating rooms to three, with the original two still running spine cases, and the new room running our general orthopedic cases.

With the new room rapidly up and running cases, all three rooms were off, knocking names off our list, as carefully as they could. However, no one expected the day to turn out like it did. Some of the cases we expected to be short, such as the sealing of the tear for Stephano, turned out to be more in-depth than originally thought, and an additional case was added. With a late night finish, we completed a grand total of eight cases. With everyone exhausted from a long day's work, we grouped up to leave and noticed Michelle carrying a pineapple. After some inquiry, we discovered that one of our very grateful patients had given it to her out of thanks for all the hard work she had done. Full of cheer and pride in our hearts, we returned for what would become our standard late night dinner, and tried to get as much sleep as we could, not knowing what the rest of the week would have in store for us.

Days 10, 11 and 12: The Days are Blurring Together

Tuesday, Wednesday and Thursday were easily the most packed days of the entire trip. Breakfast was quick every morning, as we chatted and planned the day, three ORs all beginning to go about their days. As per the Monday, two would be dedicated to spine cases during this time frame, and the third would be general orthopedics. All in understanding of what these days would be consisting of, we began our work.

Each morning, rounds were completed, patients were seen and discharged, and cases were continuously reviewed. While the surgery from Monday did well to repair the leak in Stephano, it was an incomplete fix. His pain was less than before, but with some searching, we found the necessary supplies to patch him up once and for all! Other patients, such as Sulaimon, recovered well from their surgery, and were off on the road to recovery!

The ORs and cleaning room were bustling with activity for however long we were in the process of a surgery. Tool sets for surgeries were planned very carefully to prevent overlap and a surgery from missing something critical. When one room finished, the tools were immediately sent to be cleaned by Sherron and Agatha, a local assisting us during the two weeks, and sterilized. Instrumentation was cut to the lengths desired, fractures set and fused. There was no such thing as a "short day" here; We were always working into the night, until 9-10 PM, our work and patients of the utmost importance to us. But, even with everyone doing their part during these nights, the supplies would pile up at the end, people ready to go home for the night before another long day. So what did we do? We cleaned; teamwork makes the dream work, right? So, every night, whoever was available would be found cleaning, drying, and wrapping tools, setting them inside the appropriate boxes.

Late nights meant late dinners, but that just meant more time to laugh and recount the success of the day. You could even find us playing Jenga one night, relaxing as we waited for our food! There was one struggle every night, though, and it wasn't playing Jenga against surgeons, or waiting for the food, it was trying to stay awake. Multiple times would people fall asleep, and be left alone until their dinner arrived.

Thursday, however, had a slightly different atmosphere than Tuesday and Wednesday. While those two days were jammed packed with surgeries, Thursday had to also include time to pack up instrumentation. Small, final cases were selected Wednesday night for the next day, sets of tools cleaned, sterilized, and any special tools that we needed set aside.

Thursday. The final day of operating. We arrived at the hospital, and immediately set to work, everyone completing their typical morning routine. Rounds, OR prep, grabbing tools, physical therapy, and our meeting with Stephano to tell him that, without a doubt, we can fix him 100%! Jobs done, we split up, with the majority of people entering the ORs to do the planned surgeries, Michelle heading to visit her patients for physical therapy, and Sherron and I organizing the tools to be packed and sent back.

Let me tell you, when you see a box or two out a time, you forget truly how much is there and that you're responsible for. They just kept coming and coming, sets being unwrapped from the sterile packing, numbers and names being checked of a large master list, and then being placed in a set number of large bins. As the two cases, one simple manipulation under anesthesia on the leg (a chronic pain-related manual therapy) and the dura seal were underway and being completed, bins were packed, marked

and sent to the truck to be packed. With Thursday being completed much earlier than the other days, but still in the late afternoon, everyone returned to the hotel to rest, eat, and celebrate our final day in Uganda with a night out!

Friday, Team 2 split into two groups. Michelle, Sherron, Jaime and I all left very early in the morning for our flight out to Uganda, while the others remained for a couple hours to check on patients, and thank everyone for being so hospitable and working with us. The manipulation patient was doing extremely well, and poor Stephano was finally feeling significantly better, and wasn't leaking any fluid!

Epilogues

Sherri LaCivita

“This is a mission near and dear to me, having finished my 7th year I feel as if I'm an honorary veteran now. Every year reminds me of how blessed I am, and proud to be part of such an amazing surgery mission. It is truly an honor to be part of a team of such talented and giving individuals. To use our talents and knowledge for the better of patients in Uganda with the sacrifices that we make to be there is sincerely humbling. To the lives that we touch and change keeps me wanting to come back every year.

There are many lessons learned with each mission and the strongest this year is how important family is, our team can go a year without seeing each other and when we get together it's like no time has passed, and our new members are just as loved. In the words of Michelle "it is lovely"! Also the families that take care of our patients, their own family members are instrumental in the process of healing.
We never know what to expect every year, or what each day will bring but we maximize the resources and knowledge we have and with successful results is the most rewarding.

I would like to thank Dr. Lieberman and HVO for another amazing experience and I look forward to next year!”

Michelle White

“I can never fully express how grateful I am to be able to be a part of this team. I feel like every surgery this year was a major success only excepting the gentleman who suffered a stroke, but even he was happy. I'm privileged to help patients recover, and to witness the joy as they get to their feet, stronger, taller, straighter or pain free thanks to the excellent surgery done by the team.

My highlights:

Stephan, the young man who presented with hemi-paresis. After surgery he regained a significant amount of grip strength and was able to walk unassisted.

Steven, Grace, Sarah, Specioza, Peace and Lawrence just a handful of our lovely patients who all reported significant pain relief D1 post op.

I'm so proud to be a part of this mission; I feel that every year the impact made is deeper and more significant.”

Adam Woodward

"I've been invited to be a part of this mission twice now, and every time I go, it reminds me truly how blessed I am to be able to make such an impact. To be able to assist with these procedures and to see the patients recover and be pain free is an amazing thing. To see the impact and know the difference I'm making in someone else's life is what drives me on. I hope to continue on this trip, and eventually return as a fellow doctor to further assist and give, just like Dr. Lieberman, Dr. St. Clair, and everyone else on this trip does."

Sherron (Agatha) Wilson, RN, BSN

I can say without the shadow of a doubt, that one of the most fulfilling events in my life, has been the annual Spinal Surgery Mission trip to Uganda. The question being asked by colleagues and others alike is, "what makes you want to do this year after year?" My response, for the sheer privilege, joy and gratification of serving others who in return can only offer a heartfelt "THANK YOU". This year I volunteered for the duration (2 weeks) of the mission, and as such, was doubly influenced by the sincerity, generosity, and selflessness of all participants. It's always rewarding to me as a seasoned veteran to observe the first-timers, whose consternation and incredulity in what they witness continues to inspire me to renew my dedication to the mission and the goal of Health Volunteers Overseas particularly.

There is such a fine balance between life and death; the newness of first inspired breath in one room is accompanied by the final expiration in another demonstrating the continuous circle of God given life. I am sincerely grateful for the opportunity to serve on this meaningful endeavor, and hope to continue to do so for many more missions.