

UGANDA SUSTAINABLE
USTOP Resident Blog
TRAUMA ORTHOPAEDIC PROGRAM

The following posts were taken from a blog kept by Dr. Lane Dielwart, UBC Orthopaedic resident and member of the USTOP October 2012 visit.

Day 1 in Kampala.

Made it unscathed albeit very sleep deprived Mind was eased upon arrival about any true threat of Ebola. Scariest car ride ever. But an Amazing day with the Ortho and General surgery residents, compete with presenting a whole new way for femoral nailing. And finally, a pretty tasty lager with the crew.



Day 2 in Kampala.... Culture Shock...



Hard to explain today in any words other than... an eye opener. Touring the hospital facilities, rounding on last night's hospital admissions, and joining up with the Ugandan surgeons on several femur fractures. It is incredible the simplest of luxuries we take for granted, including proper prep solution ("Alcohol" in a Nalgene bottle), proper anesthetic drug "carts" and sporadically stocked implant supply.

But the Canadian presence was welcomed, and many pairs of Canadian eyes have been opened.

Day 3 in Kampala... The waiting game...

You can only do so much here, despite the most pure of intentions. Full hospital rounds revealed a shocking number of patients awaiting an operation. Some admitted for days, others for weeks, and some for months. Each which would be taken emergently to the OR back home, simply awaiting the resources to become available. (lists... and lists... and lists of patients).

The course of the treatment might ultimately lead to greater disability than the injury itself.

One bed reserved for the minority of the injuries here, (Closed fractures and post-op), which is the majority anywhere else in the world.

But an uplifting point, the families of patients are present in full force. As they act as the ward aides, clerks, nurses, chefs, and housekeeping (hence the laundry on the front lawn).

But alas, due to lack of equipment, and the only sterilizer in the hospital breaking down, patients awaiting definitive treatment only grew in numbers....

The waiting game continues...



Day 4 in Kampala... Pathology... Resilience



Uganda is country of 30 million people, with one major national referral center.

30 million, one center... I guess one should have expected the breadth of pathology. Things I've only read about in textbooks.

30 million, one center... I guess one should have expected the extent of overcrowding. The "wards" with rows upon rows of stretchers, each filled with someone more in need than the last; The hallways, acting simply as an extension of the "ward."

30 million, one center... I guess one should NOT expect the children to escape unscathed. But

a positive that comes from today. No matter where in the world, no matter what the injury, no matter what the treatment, kids are just so damn resilient. And one other constant, a smile on their face, instantaneously warms my heart.

Day 5 in Kampala... Frustration... Escape... Reset

Frustration mounts as the case counts grow, and the productivity diminishes. Problems that we would be frustrated about at home as they would delay our case an hour or so, disrupt the entire surgical flow here. Steam. Who knew steam would play such a vital role in productivity. Without steam, there is no sterilization, without instrument sterility, there is no way to operate, and without operating...

But when you can't beat the system, sometimes you just have to give into it. Seize the opportunity.

"Driver, please take us to a good local market"

First time experiencing the busy roads, filled with "Boda Boda's," small Ugandan motorcycles which just so happens to be the major cause of the Trauma Epidemic that is plaguing the country.



The rows are narrow, the smells pungent to impeccably fragrant. The vibe of the market different than any I have ever experienced. The word "Mzungu" shouted far to frequently, as this doesn't seem to be a top tourist destination. Colors I have never seen, fragrances I have never smelled, vibe that was simply electric.

What a way to reset the African experience, and get ready for whatever experiences might come my direction tomorrow.

Day 6 in Kampala... Back to work!!



They do their best at trouble shooting, and perhaps improvise more than we would back home, but there is work to do, important work. And patients are becoming sicker by the day from their septic wounds. So at some point, you have to accept some lower standards, because delays just become too detrimental.

The experiences continue to shock, regardless of how many morning rounds you have attended.

A young boy with an open tibia fracture, laying on the dirty ground on rounds in the morning, because there are simply not enough beds, and his family has yet to provide him with the appropriate linens.

The small and dreary hallway leading to the “casualty theater”, which acts as pre-op, un-monitored recovery room, and tea room for the nurses. Having to use headlamps from MEC in order to see, as the OR lights have been broken for months. And using the only sterile “drill” in the hospital, hand powered, and looking like it belongs in a tool box from the 1920s.

But in the end, We are all very happy to get back to work. No matter where in the world you are, Surgeons crave the operating room. Ugandan and Canadian residents alike! It was great to work side by side with attendings from Canada, and residents from Uganda. Seeing how their thought processes and algorithms must differ from ours, just as a product of the environment.

Happy to have made it to Friday. October the 5th... always an emotional day and thinking of all my RPI girls. Miss you and love you.

This baby giraffe is off to see real baby giraffes in the national park for the weekend!!

Day 7 in Uganda... Away from Kampala... Villages, culture, reflection.

Getting away from the hospital scene is a must, for all of us. A week here has been eye-opening and mind expanding. Its been shocking at times, but enlightening at others. The highs and lows bring me back to the feelings I used to get when just starting residency.

Some moments the doubt is excruciating, wondering if we are actually able to do anything to help. Other moments absolutely encouraging, seeing that changes have come, regardless of how slow. It is literally the definition of "baby steps". But no matter how small the step, if its made, and a shift occurs, then every second is worth it, for myself, those I traveled with, and all the groups who have made this trek before me.

Week one comes to a close with 10 of the new and bright minds join us Canadians for some wine and good food. A great way to celebrate new beginnings, and perhaps give them a feeling of comfort surrounded by us Mzungus, making the possibilities for week two even greater.

7am pack up the car with two others of the group who are eager to experience even just a hint of Africa outside of Mulago Hospital. Five hours through country "roads", with each passing village giving a slightly different scent and impression than the previous. Each town as we head further west, showing more and more of the traditional western Ugandan culture and way of life. As the car rolls to a stop as we make a turn to the North, we are surrounded by local merchants, our driver convincing us to try Casava. Not sure what to think about this cooked "root", but sure is better than snacking on Timbits on a Roadie.

The bluest of sky, the reddest of soil roads, and the unique and gorgeous green trees that scream out to remind me, just where it is I am.

Never would I have predicted to be riding a boat down the Nile river (with a Ukrainian and Lithuanian none the less, one of which who happens to be my boss), but here I am. An infinite



number of Hippos, a couple Elephants, Crocs, Water Buffalos, Baboons and Wild boars later, I lay my head down, welcoming one night of luxury in the Paraa Safari Lodge, and digest all that these eyes have witnessed, ears have heard, hands have touched, and nose has smelled...

Day 8 in Uganda... Happy Canadian thanksgiving from the African Safari Tourist

It was a night of luxury; delicious meal, hot shower, and the amazing sounds of the Nile river, not 100 yards from where I slept.

Seeing so many tourists feels strange at this point. I wonder if they know all that goes on, just 300 km southeast. Affluence can be somewhat hard to digest, having just witnessed such immense poverty.



But today, I too am that tourist, African safari through the Murchison Falls National Park. The American tourists never seem to disappoint, they sure do love to dress the part. I have never seen so many khaki cargo pants, cargo vests, and tilley hats in all my life!

The safari becomes quite "Custom Vacation" style when we are unable to find a guide for our adventure. Peter, our amazing driver from Kampala, and his mini Toyota mini SUV turn out

to be a heck of a lot more fun than a formal guide and a stereotypical Land Cruiser. Turns out that Giraffe is spelled the same, but said much differently in Lugandan, Ukranian, Lithuanian, Spanish and English. Out of the Wild boars, Elephants, Hippos, Water buffalos, baboons, various kinds of Antelope, and an amazing array of African birds, its is unanimous, the He-rafffff-e-h (Giraffe) is the most enjoyed creature.

Unfortunately our safari Toyota fails on the way home. A broken down vehicle feels so much

different on a “road” laden with baboons, and infested with hungry TseTse flies . 32 degrees, baboons, tsetse, 50km of soil road behind us, 50k of soil road in front of us.... Ut oh.

We finally make it to the next town with full bladders and empty stomachs to find the local mechanic.

It is thanksgiving of course. We all miss home a bit today, so we decide to indulge in local culinary traditions, since all of our October traditions are put on hold this year. Local fare in a small western Ugandan town; Beans, rice, Matoke, Casava, and Ugali, it definitely satisfies. Just should have had a better look around before ordering a beer. No electricity, does not make for the coldest or most refreshing of Nile Specials.

11 hours in the car later, we make it back to Kampala to welcome our plastic surgery team, who just finished a course on Flaps with the Orthopaedic residents. Amazing to see the brightness in their eyes, and the eagerness of their voices, as their week one begins tomorrow. I'm sure that is exactly how I looked just one week ago.

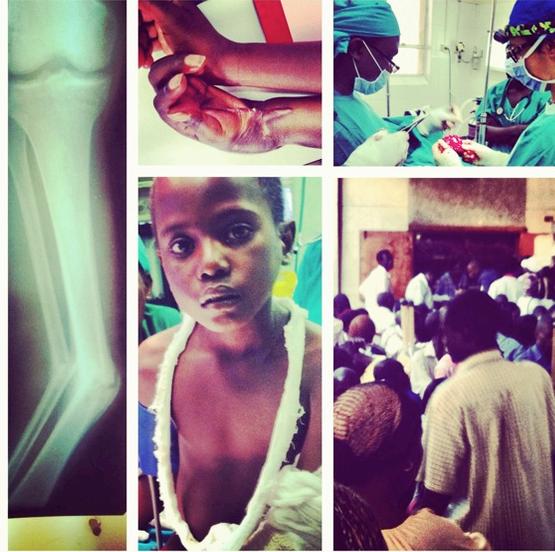
After an untraditional thanksgiving, an amazing weekend experience, and some time to reflect on all of the positives from the previous week, I welcome this second week with open arms. This group, having doubled in numbers, will be a strong force in the Mulago hospital. The shift continues to unfold...

Day 9 in Kampala... Cold trauma, complications, “follow-up”

I couldn't figure out exactly how it was possible, with the volume of trauma they see here, how there was only one day of outpatient clinic per week. But as I round the corner towards the surgical outpatient department, it becomes all too clear.

The people are lined wall-to-wall, all crowded around one single check-in window. Wall to wall is an understatement, wall to wall, up the long hallway, seemingly around the corner, and out the front door of the hospital, and might as well have been piled from floor to ceiling. The lucky ones, even if for just this moment, were those in wheelchairs, the design of which was a direct reflection of their socioeconomic status; were the only to have their personal space even

remotely respected. The unlucky ones, legs wrapped in anything from a plaster cast, a surgical bandage, the metal bars of an external fixator, or even homemade linens soiled with dirt and blood. For these, the design and craftsmanship of their crutches were a direct reflection of their culture. Anything from skillfully crafted wooden replicas of our lightweight aluminum ones, to a young gal limping with a large sugar cane stalk, towering nearly twice her size.



All residents and staff are expected to man this over-populated clinic. And although it began at 830am, the whole lot of us, delayed due to a morning teaching exercise, dressed dorkily in our authority demanding white coats turn this corner at nearly 10am. Every eye in the congested room now upon us, although somehow it feels like they are all looking at the tall, lady Mzungu Doctor in the white coat. We pass through them feeling somewhat like passing through a crowd of paparazzi, arms reaching out, trying to navigate the crowd. All of the Mzungu eyes meet, the thoughts behind them I can only imagine resemble my own. The feeling makes the stomach sink, and the mind race. All of the residents and attending surgeons take their seats in rooms up and down a dark hallway, and one by one, the nurses bring patient after patient into the rooms.

I am not sure when the shift happened in Canada, but there is a firm status distinction between Doctor and patient here. The patients quiet, listening, answering only with “Yes, sir” or “No, Madam.” The doctor seated behind a desk, with an attitude of what can only be described, again, as authoritative. But at the end of the day, they have found their access to specialist care in this underserved country. Regardless of my perceptions of the human condition, my perceptions of the apparent medical dictatorship, my perceptions on how things can be different; in the end they are here, they are the fortunate ones.

The relief is overwhelming when I pass into the room housing all of the residents. This is where the future lies. Their approach to patients is no different than mine. They have a kind regard

and understanding for all that has happened for them to find themselves here today. The future lies here...

It does become apparent as the day progresses that their patient population can be very difficult to treat. They come in by ambulance, have their operation, and without any formal form of transportation, find their way back to the furthest corners of the country. Even if an appointment has been arranged for them, the majority of them are lost to follow-up. So any further complications present far down the line, dramatically increasing the complexity of treating the problem.

There is another sub-set of patients, the “cold traumas;” those who were unable to gain access to orthopaedic care when it was needed. They do not complain, barely wince to the most excruciating pain, and hold their head high at all times. Without this stoic demeanor, perhaps having a broken leg, pelvis, and dislocated hip would have prompted an earlier trip to Mulago hospital. Perhaps they might have a minor complaint that their leg has healed in a zig-zag manner. Or that a broken wrist, so simply treated in the acute phase, has gone on to form a nearly non functional limb. 30 million people, 30 orthopaedic surgeons, this is on the most basic of levels, an issue of access.

The day comes to a close, and I now understand that these surgeons and residents are working in an environment where a simple two-sided question, becomes infinitely more complex due to access, overcrowding, and loss of patients to follow-up. It is on a day like today, that we have to remember that this residency program has gone from three residents on the first USTOP visit, to now nearing twenty five residents six years, and several trips later. Give it a few more years, a few more trips, and the number of orthopaedic surgeons in this country will nearly double...

Oh yea, and I amputated a hand today. Its ok, he was a bad guy trying to throw a grenade at the police in a riot.

Day 10 in Kampala... Collaboration... unfeeling... Thomas the Turkey

The plastics team here has a slightly different approach than the USTOP team, but there is a lot of excitement about potential collaboration. From ward rounds last week alone, there are a mere ten patients who could benefit from plastic surgery intervention. Today we invite them on our hospital wide rounds, their first experience with ward 3B, the holding ward for all those patients who came in over night, as decisions are made as to their diagnosis, treatment, and



ultimate disposition. I have had this experience every morning for ten days now, and somehow its still difficult to stomach. You can tell how busy the night before was, by how many stretchers (which are essentially just a rectangle of metal bars, half of which might have a mattress), overflow out into the hallway of the hospital. With each step closer to this ward, the smell of fresh air diminishes, and the stomach-churning stench of sweat, urine, and blood, becomes more and more overpowering. Apparently the morning routine has become just that for me, a routine. I know to prepare myself, I know when to take a deep breath, I know the thoughts I must put through my head to calm myself down. I know that upon entering the ward to step to the left, to avoid a puddle of, I convince myself it is water, that is consistently present in that spot. I keep my eyes focused straight ahead as I enter, because I know any wandering of my gaze will welcome far too many unwanted sights. My ears somehow protect themselves, with voices sounding like distant whispers, knowing that if I do not turn this off, my ears will welcome far too many unwanted sounds. I know to keep my arms in a confined and crossed position, as if I don't, my hands will desire to reach out in a comforting embrace. Mind focused, head high, arms crossed, I walk through to the far side of the ward where the group is convening. I reach the group in the corner, and turn to see if my accompanying plastic surgery colleagues have found their way through the battle. The thought of it makes me a bit nauseous when I realize that it only took ten days for me to lose some compassion. My gaze now allowed to wander, catches the plastics resident, his eyes jumping, the saccadic movements capturing the scene of the entire ward. Head injuries, multi-traumas, abdominal

sepsis, cachectic children, open fractures and every surgical pathology one could think of, all in the same place, each awaiting the next word in their prognosis. He shouldn't have looked around. The shock hits him, as he slowly lifts his leg to step over a patient not lucky enough to get a rectangle with metal bars, and instead is taking any possible refuge from a blanket placed over the floor. Where did that patient come from? Did I step over him and not even notice?! How could that be? After just ten days in this environment, have I really lost my ability to be humane? But what could I do for that patient, how could I change his outcome, how could I make it better? In this moment, at this time, in this situation, I have to accept that I can't. It is self-defense. Perhaps I am too affected by these things; the only way to make it through these rounds is to turn off; to un-feel. I look up at him as he joins the group, "It gets easier... I think."

The outcome of the rounds is very positive. Several patients placed on a list for flap coverage of the compound fracture wounds. A surgery that would have never been a possibility for them, without this team being here today. Several of the orthopaedic residents will take part in these surgeries, giving them a chance to learn something that was foreign to them just one day ago. And perhaps, will initiate a shift in the way these wounds are managed. With all that my senses bombard me with, this is where my mind must focus, and remember why it is we are here.

Oh yea.. Thomas the Turkey.

We all are missing home, and despite the Ugandan traditions filling in for one day, it has been decided, we will try for a Turkey dinner ourselves. The team who travelled north for the weekend, just happened to be in the Turkey capitol of Uganda, and travelling with a few locals from there area. Not sure why then, I was surprised when they came home with Thomas, a somewhat weightless Ugandan turkey who had made the long drive home under the feet of an anxious nurse (alive and kickin!!)

The whole experience was quite unique, a trip to the local market to find all the ingredients for as Canadian of a thanksgiving as possible. Swaib, our local host finding a second Turkey running around the area of our guest house. And within minutes, our one skinny turkey has changed to two. Faulty ovens, overestimation of turkey weight, lots of chopping of local vegetables later, we sit down with our colleagues. Breaking bread, knowing on dry turkey, and sipping on the finest of Ugandan wine. Without fail, discussions and debriefing over a "good"

meal, gets us all to remember the good that came from today, share the sorrow of the bad, and again get excited for what we accomplish tomorrow.

Thanksgiving...

Today I am thankful for...

Overactive and sometimes annoying traffic laws in Canada, because the opposite, whoa, this is chaos.

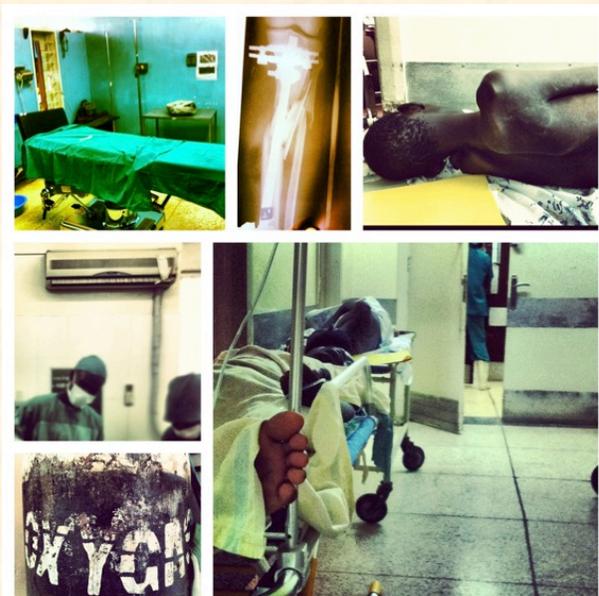
For the patients here for showing such courage, even in their darkest of hours.

For the residents here, showing such enthusiasm and keenness for learning, and initiating change in this country.

And of course, for Thomas the Turkey not judging that I wanted to eat him, and Waragi Gin; a fine fine product of this country.

Kampala day 11... Casualty...Ambivalence... Sweat.

The term “casualty theater,” initially sounded somewhat dramatic, but as the days go by and the experiences build, turns out this apparent misnomer, is impeccably accurate. The lower level



entrance to the hospital defines the “casualty area”, and in all the days here I have yet to pin point exactly how things work. There are people behind metal bars, looking out at the holding area, one small table with two nurses, a disorganized pile of paper, and one analog blood pressure cuff. Given all these clues, I make the assumption this is the triage area. As has become a theme for the rest of the hospital, the patients are all housed in a single large mass, in chairs and on the floor, regardless of their ailment. There is

a lone hallway in the corner above it reads “CASUALTY.” The feeling is always the same

walking towards this dark hallway. The eyes of the onlookers stare, and see me defined by my white coat, and my white skin. The Mzungu doctor who is just going to walk on by, and not help us. My eyes trend in their usual downward direction as my form of self-protection. The dark casualty corridor is lined with stretchers, people, and several doors that lead into individual treatment areas. There are screams, groans, tears; as with any other emergency department, but somehow are amplified and echoed down this dreary passageway. At the far end lies a set of creaky double doors, above it is a small paper sign, "Casualty Operating Theater," just a few more steps and I will reach my destination. I could never seem to predict the scene present behind those double doors. Every day it would be a different sight. There were a few constants, two operating theaters connected by a narrow passage, which in itself acts as pre-op holding, post-op recovery, and the place where families come to deliver and pick-up their wounded family members.

Today the scene is more disturbing than usual. Sure, there is the usual orthopaedic patient, with a wounded and battered limb that needs emergent treatment. Today though, today there is a second patient. Leaning on his left side, breathing labored, eyes slumped, gripping his arms across his chest. I do not know why he is there, and there is nothing but a rumor that he is awaiting a general surgery intervention. There are no monitors here, there is no IV running, and no person seems to be paying attention to this man who seems to be taking one of his last labored breaths. They wheel my shattered and open tibia into the second casualty theater, leaving this other man behind. I look in the other theater, and nobody is to be found, I find the charge nurse, and she seems to have no idea why this man is down here, or what he is here for. This disorganization is what is difficult to comprehend, this treatment, or lack thereof, is what we are trying to change, this ambivalence by doctors, and nurses alike is absolutely discouraging. I can't move forward with this operation, knowing he is out here, rounding up the only monitor that is present in casualty, and convincing one of the orthopaedic residents to help me with placing an IV. I encourage those around to monitor him closely and perhaps find who is responsible for him. I am not sure what the outcome will be from my pleading, but possibly it is just enough to ease my mind to focus on the task at hand, unfortunately the vision of his emaciated shoulder and struggling respirations will not soon leave my mind.

Prepping for a case in casualty is always an adventure, and demonstrates all of the disparities that exist between first and third world medicine. In Canada, before any procedure we ensure

we have all the right equipment, that all has passed certain standards of sterility, and acting to minimizing any chance of complication. Here, the instruments are picked one by one, from a pile of “sterile” supplies, every case an improvisation of what might be needed. There is no tray of screws, simply a pile of screws that you can only hope are the right size. If there is no screw of the size you need, pray they are too long as at least we can cut these down to the size needed. There is usually one, if you are lucky two drapes to effectively isolate the limb, a process that takes four to five drapes at home. The amount of surgeons needed for a case not dictated by case complexity, but instead by the amount of sterile gowns present at that particular moment. But they improvise, and somehow, without a scalpel handle, sharp scissors, or the appropriate size drill, the case is finished. The outcome, even if not the standard of what would be expected at home, is enough to place the patient in a better position than they were previously. The end of every case I need my own period of personal debrief time, just to be ready to attempt the next with a reasonable state of mind.

To add to the difficulty of operating without proper draping, proper equipment, and sometimes even proper anesthetic, this room is in the ground floor of the hospital, the overhead OR lights have not worked in years, and the air conditioner in the corner is simply a decoration. Needless to say, once placing a thick operative apron, a bulky green gown, in addition to your cap and mask, your core temperature is a good twenty degrees above that of the room. By the end of one case alone, I feel like I just attended the strangest, most stressful session of Hot Yoga out there. And don't dare try the case without the thick apron as a clever ploy to avoid the sweat-fest, I made this mistake once without realizing the gowns are not in fact impermeable, and again are simply decoration and false sense of security. Hot room, no suction, copious irrigation... eww... I will pretend my underlying scrubs and britches were soaked through with irrigation, but I cannot fool myself, I know exactly what has found its way onto my skin and hence hop promptly into the shower, yuck.

When I walk out of Casualty today, 3 pairs of scrubs, one pair of britches, and four sessions of hot yoga later, the only thing I can think of is a massive, cold, beer.

He lies there still... What more is there to do?