VetRap is an annual newsletter produced by the Students of the Canadian Veterinary Medical Association (SCVMA) Committee and distributed to all members of the SCVMA.
I want to talk about mental health, because we don’t talk about it enough. 6.8% of males and 10.9% of female veterinarians develop or experience mental health issues, and each year 14.4% of males and 19.1% of females in the veterinary profession consider suicide (Veterinarians and Mental Health: CDC Results and Resources, Feb 2015). That’s a lot of veterinarians out there with health issues.

We learn to treat mental health issues in cats and dogs, like anxiety and compulsive disorders, so why don’t we learn how to recognize and get help for these same signs in ourselves and our classmates? Because so many veterinarians are at risk for suicide attempts (for reasons such as familiarity with euthanasia, access to lethal drugs, and compassion fatigue) we should be taught in vet school how to prevent, recognize and seek treatment for mental health issues in our colleagues and ourselves.

I personally don’t understand why such a stigma has to exist around the whole topic of mental health and mental illness. We don’t stigmatize a dog with separation anxiety or a cat with compulsive behaviors. We shouldn’t stigmatize people with similar issues either. We don’t think twice about treating a cat with diabetes or a dog with chronic heart failure or a horse with laminitis with drugs that will help treat their condition. So why should we feel differently when seeking help for and treating mental health issues in people? They are all health issues for which helpful drugs exist. We learn about the insulin and the furosemide and the NSAIDS in vet school, so why not give us the tools to seek medical help for ourselves when we need it – because almost all of us will need it at one point or another. And that’s okay.

Our job is hard, it is stressful, it is compassion-fatigue and euthanasia and late-night hours on call. But it is also healing and helping and caring and love. And we shouldn’t forget that. But sometimes we do. Sometimes some of us can’t keep keeping on, and then we need help. And that is okay. Everyone needs help sometimes. But since mental health issues run like an epidemic through vet students and veterinarians, we need to treat it like the illness that it really is and start with prevention. All good veterinary medicine starts with prevention. And this prevention needs to start in veterinary school. Immunize the eager and hopeful first years against the stigma of mental illness and the dangers of suicide. Give them the tools, the education, to help themselves and their classmates. Don’t stigmatize. Treat it like the health issue that it is. Don’t ignore the facts, and don’t ignore the disease. We would never do that in our patients. So why do it to ourselves? Let’s start talking about mental health in veterinary school.
The emergence of new bacterial strains that are able to resist once effective antimicrobial drug treatments has become a global public health issue (WHO 2014). Antimicrobial resistance is a growing problem for both humans and animals, with severe implications on controlling infectious diseases, health care costs, and risk of death. The main driver of this resistance development is the use – particularly the overuse or misuse – of antimicrobial drugs (WHO 2014). When taken unnecessarily, evolutionary pressure increases selection of resistant species, which can ultimately lead to novel microbial strains (Fishman 2014). Studies conducted on microbial treatments in the United States alone indicate inappropriate use in as many as 50% of cases (Fishman 2014), providing many opportunities for selection to yield resistant bacteria. Acquiring new antibiotics for the treatment of resistant microbes is difficult, as the pharmaceutical industry “pipeline” has been cut short in recent years (Fishman 2014). It is estimated that new antibiotics may not make it to market for up to another 10 years (Fishman 2014), further adding to this critical issue. It is therefore crucial to adopt strategies that will maintain the effectiveness of the antimicrobial agents that are currently available. Antimicrobial stewardship programmes stem directly from this principle as a means of improving the quality of antimicrobial prescriptions.

Many resistance problems are attributed to antimicrobial use in humans, but considerable scrutiny has been on the use of such drugs in animals, largely due to the concern of zoonotic transmission of pathogenic bacteria from animals to humans (Morley et al. 2005). Veterinarians therefore have an important role in antimicrobial stewardship, in which they must balance the health of their patients with public health and the protection of other animals. Consequently, veterinarians are responsible for ensuring that drug administration is based on need and accurate diagnostics, in order to conserve microbial drug use as much as possible for minimal effect on human health. Moreover, veterinary patients themselves are being found at greater risk with the emergence of resistant bacteria (Prescott et al. 2012). Microbial resistance has been shown to be increasing in companion animals and horses. Examples include E.coli and methicillin-resistant Staphylococcus pseudintermedius (MRSP) in dogs (Boerlin in Prescott et al. 2012).

There is an ethical conflict between the benefits to veterinary patients (and their owners/managers) versus the risk to public health (Morley et al. 2005). In order to find a balance in this conflict, there are many strategies that can be adopted by veterinary professionals to promote antimicrobial stewardship. These strategies include promoting disease prevention and educating the public, specifically their clients, on the consequences of antimicrobial treatment and its promotion of selectively-resistant bacteria. In addition, veterinarians are obligated to educate their colleagues to ensure their understanding about conservative antimicrobial drug use. Antibiotic cycling is another proposed strategy, in which clinicians administer alternating drugs in strategic succession (Vence 2013). However, clinical data confirming its efficacy remains lacking (Vence 2013). Computer-assisted programs may also be useful in antibiotic use and have been offered as a way to improve prescription quality and accuracy (Fishman 2014). These programs would provide patient-specific data and therefore suggestions about patient care and refinements on antimicrobial treatments (MacDougall and Polk 2005).

Unfortunately, the veterinary profession lacks sufficient information and research regarding the efficacy of antimicrobial resistance strategies (Morley et al. 2005). Further research is required to adequately provide veterinarians with the tools and information to tackle this issue in a more efficient and sufficient manner. However, data collection for antimicrobial research has proven difficult in certain areas; particularly the drug distribution in Canada due to its complexity (feed mills, veterinary prescriptions, over-the-counter, etc.) (Prescott et al. 2012). According to the Public Health Agency of Canada, not enough is known about antimicrobial drug use in Canada (Prescott et al. 2012). Nevertheless, the consequences of microbial resistance are considered so severe that many veterinary (and other health) organizations are advocating for conservative use (Morley et al. 2005). A decrease in the prevalence of resistant pathogenic bacteria has been correlated with antimicrobial drug use restrictions (Morley et al. 2005).
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John Prescott, a professor at the Ontario Veterinary College, explains in an interview this year that there are many places where Canadian veterinarians need to be making continuous improvements of antimicrobial use (OVC 2014). Examples he gives are, “how we use antibiotics, how we dose them, the diagnostic side of things, how we regulate them, who uses them, [and] creating new antibiotics” (OVC 2014). The Canadian Veterinary Medical Association has established guidelines for the implementation of sound antimicrobial programs in beef and dairy cattle, swine, and poultry (CVMA 2008). These guidelines are to assist veterinarians, which recommend the use of more specific and targeted drug therapies and to use them strictly when needed (CVMA 2008). The Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS) has developed a Canadian antimicrobial surveillance system. Collecting retail meat samples is part of this surveillance program, in order to compare resistance of intestinal bacterial pathogens with commensal intestinal bacteria among Canadians (OVC 2014). According to Prescott, the European Union has already made changes to prevent further development of antibiotic resistance, while change in Canada has been much slower (OVC 2014). Health Canada, however, has announced recently that developments will be made to strengthen veterinary control (oversight) of antibiotic use in animals, including the removal of antibiotics as growth promoters (CVMA 2014). Nonetheless, regulatory gaps still remain that prevent Canada from having effective control of antibiotic use in animals, posing threats to the health of both animals and Canadians (CVMA 2014).

Understanding antimicrobial resistance is extremely important in order to make improvements in the health management of humans and animals. Selectively resistant bacteria have become a growing problem across the globe, increasing the risk of death and disease for humans, as well as animals from all sectors (companion, food production, etc.). Antimicrobial stewardship strategies and education is essential to stop the development and movement of antimicrobial resistance. Public understanding of this issue is crucial. Veterinarians have an obligation to teach their clients about the proper use of antimicrobial drugs, as well as to act responsibly and conservatively in regards to their administration. Veterinarians have an integral role in controlling the use of these drugs. The main strategy advocated by the profession is conservative use to improve prescription quality. That is to say, implementation of strategies that will make for more targeted and patient-specific antimicrobial therapy is required. Further research into drug management and resistance is needed to improve the handling of antimicrobial drugs, particularly in the veterinary world. Veterinarians must keep in mind animal health and the risk to humans when making decisions regarding antimicrobial use. Many systems and guidelines are in development to help overcome this problem, but Canada is still slow in its change toward better conduct of antimicrobial drugs.

WORKS CITED


This summer I decided to embark on a journey with Veterinarians without Borders on the wonderful continent of Africa. I packed my bags and left for two months on the goat pass on project in Uganda! For anyone contemplating whether or not they want to do something like this, stop contemplating and do it! It wasn’t always easy, but it’s extremely worth it. It’s definitely eye opening and will change the way you view things.

First I thought I could explain the project a little bit more in my own words. The concept goes like this:

For each community, we start with an initial donation that goes into a revolving fund. This will serve as a sort of bank account for the village, from which members can loan money and repay with interest. Then, they are presented with a business opportunity (raising goats). To qualify for goats, villagers need to first invest in and build a goat pen following our recommendations. When they are ready to receive goats, we visit their pens and give them the okay. Before the goat pass-on day, all new beneficiaries receive a husbandry training and basic information on raising their goats and keeping them healthy. There is also a paravet or two trained in each village; this person receives more advanced training allowing them to give basic veterinary care to the goats in their village (vaccinations, hoof trimming, etc.). On goat pass-on day, each beneficiary receives two nanny goats. If all goes well, these should give birth to at least 4 other goats. Members need to sell one offspring for meat and put the money into the revolving fund and pass-on one goat to a new beneficiary ready to receive. Once doing this, their “debt” is repaid and the rest of the goats are officially theirs. The revolving fund is helpful because it gives people the opportunity to start another small business, invest in their education, borrow if they get sick, and so on. The people in the community who are part of this group have meetings once a month to discuss how the revolving fund is doing, who’s ready to pass on goats, who’s ready to receive goats, they vote on who’s ready to receive money for something, and so on. This creates a sort of micro economy and a form a sustainable development.

Things can and will go wrong! And it will take some time to get used to the African (or wherever you go) ways. For example:

- Taking the bus in Uganda is nothing like taking a bus in Montreal. First of all, there’s no such thing as not enough seats. People will sit in the aisles, on the floor, on the stairs, and they’ll even pile up all their bags in the front of the bus and about 10 people sit on top of it all. And even if you have a seat, don’t expect to have personal space haha there is no such concept here, personal space does not exist!
- Places where you stay are interesting; ours was at Mbarara University. The entrances to the houses have a guarded gate so it was pretty safe. It had concrete floors, a living area that was perfect for hanging out, a kitchen and bathroom that aren’t the best but I’ve been told its luxury for Uganda! The bathtub was funny, it didn’t have a shower head, it had a hose that wasn’t long enough so you had to bend your head to get water on it, and warm water was a big luxury we most often didn’t have.
- Food was not great. People do not eat for pleasure or for nutrients. In Africa, they eat to get full! Lots of rice, plantain, matoke (kind of like potato), chipattis (a pancake-like thing), pocho and sometimes when you’re lucky there’s also Gnuts (basically peanuts) grounded up into a sauce I guess you can say! And you just put that on everything. The fruits are good though (banana, avocado and mangos were big there!)
Nothing goes according to plan!!

North American time does not equal African time

But, and this is a big but, even though most things don’t go according to plan, the things you gain are priceless and incomparable:

• The relationships you create. I knew I would be spending a lot of time with whoever I was paired with in the project and that we would probably end up becoming good friends but I never imagined how close. The friendships I built with Brittany and Sarah are ones that I’m sure will last a lifetime! Even though it was just two months, there’s something about being in a different country and working on a project like this together day in and day out, and going through all the adventures we went through that creates a special bond.

• Creating positive change. Seeing the progress throughout the years, the change in so many of these women’s lives, and being a part of it is something so unbelievably special. Things move slowly and you don’t always see the change you want to see with everyone, but when it does work, it’s so worth it.

• Experiencing the country as a whole. You get to get the authentic version; working within the communities, with the Ugandans, with the animals, eating the local food, going to the market for your groceries, seeing how people live. And you also get the time (weekends off and some time off) to do things like safaris, gorilla trekking, experiencing nightlife, visiting lakes and sightseeing. You’d be amazed by the beauty and wonders that Africa has to offer.

• Teaching and learning in this way is a beautiful thing. You are teaching local farmers how to take good care of their animals, and how to give basic veterinary care, and learning at the same time. If you are interested in international development, public health, community work, then this is a great introduction and great learning experience.

I admit I was homesick halfway through but when it came time to leave, I was not ready to go. I would encourage any vet student who enjoys traveling and has an open mind, an interest in international development and a sense of adventure to apply to an internship like this. It will change your life!
At the beginning of June, I had the privilege of representing the students of the Ontario Veterinary College at the 12th annual Veterinary Leadership Experience (VLE) in beautiful Post Falls, Idaho. When our Dean of Student Affairs asked if I would attend, I automatically said yes before even knowing what it was! For those of you like me, the VLE is an event described as one that “equips veterinary professionals with the tools, knowledge, and experience necessary to become emotionally intelligent servant-leaders for the profession”, or as I like to put it “Summer Camp for Vets!” It is put on annually by the Veterinary Leadership Institute (VLI), “an organization dedicated to the development of tools and programs that give veterinary professionals the leadership skills necessary to be difference makers in the profession.”

For one week, I joined 150 other veterinary professionals ranging from students and faculty to researchers, industry vets, and clinicians for a week of summer-camp style leadership training. Our days were chunked into large group seminars, small group activities, and leisure and reflection time. We learned about “servant leadership”, which is being a leader in order to benefit others rather than yourself, and in order to do that we broke down leadership into four broad categories: self-awareness, self-management, social awareness, and social management. While many of the topics were familiar to me from my Orientation and Art of Veterinary Medicine courses at OVC, I really loved how we explored each topic through physical, creative, and fun activities (here’s where the summer camp comes in!).

With my small team of 13 students, vets, industry reps, and faculty I walked a tight-rope, traversed a “raging river”, and navigated my way through a spider web (among a week’s worth of other things). I loved how we worked together to complete difficult tasks, and when we were finished we devoted time to discuss what we learned about ourselves, each other, and how we could approach future situations cooperatively.

While all the learning activities were great in themselves, my most important take-away from the week was the power of networking and connecting with our peers around the world. I find that in Guelph, and in Canada, we are extremely isolated by our geography, our limited number of schools, and strict admission protocols (i.e. only being able to apply to your province of residency). I was thrilled to get outside the Guelph bubble and see what life is like for students in the USA, the Caribbean, and Australia, and I found that our passions, frustrations, and personalities are so similar and yet so unique. When we start to talk to each other, we’re building a community that strengthens our own individual mental health, and the health of our profession, helping us to grow from the challenges we face.

If you’re interested in getting involved with creating a more resilient profession and developing your personal leadership skills, the registration fee is extremely reduced for two students from every veterinary college, so talk to your administration about how you can attend! For more information about VLI check out: http://veterinaryleadershipinstitute.org/, and if you have any questions or just want to connect, email me at lomeljan@mail.uoguelph.ca.
Imagine for a moment it’s day one of your first rotation of fourth year vet med and your first task is to track the respiratory rate of a sick whale. Then, in the days that follow, you get called in to assist with surgery on a sea otter, you are asked to lend a hand during the necropsy of a fin whale, you help a harbor seal get a CT scan, and you aid a team of international specialists, flown in for a medical emergency, to perform general anesthesia and the first ever laparotomy in a Pacific white sided dolphin. There are some experiences in life so unique, that not even your imagination could have better designed them. I grew up watching the television show ‘Dangerbay’, a fictional series following the life and adventures of the head veterinarian of the Vancouver Aquarium. Like most kids glued to the series at the time, I dreamed of my life as a marine mammal veterinarian and researcher. It took me 36 years and a lot of detours, but I finally got to try out the role during a month long rotation at the Vancouver Aquarium. Needless to say, it was an experience like no other. The cases I got to see and assist with during this rotation helped to develop my understanding of disease processes and health issues that affect aquatic animals. Furthermore, the cutting edge medicine that was practiced helped emphasize the possibilities that exist for patient care and treatment within the aquatic and terrestrial realm; finally, the support, receptivity, and ‘hands-on’ learning attitude of the staff enabled me to acquire a variety of new skill sets. The dedication of the Vancouver Aquarium team to the well being of their animals was incomparable and I have the utmost esteem for the staff that dedicates so much of their time, effort, and emotion to the animals in their care. Moreover, I have a high regard for the research undertaken at the facility, helping to further our medical knowledge regarding aquatic species and ensuring their future sustainability. In the future, I hope to collaborate with the Vancouver Aquarium to specialize in imaging techniques specific to marine mammals, both as a diagnostic tool to aid in their care as well as for research to, for example, help characterize reproductive dynamics and develop successful breeding programs. I’m sure I am one of many to describe the opportunity I had as ‘a dream come true’, but more than that it served to highlight possibility. Not only what is medically possible, but also what is possible when you keep striving towards your goal.
By: Becca Wink
UCVM Class of 2016

Entering my fourth and final year of Veterinary School, I wasn't sure what to expect. After spending years in the classroom, the training wheels are tossed and we're set free to show off your skills (or better yet areas that need improvement) and start that very steep learning curve we hear so much about. I must be a fan of change because on top of that, I went to Africa.

UCVM offers a Tanzania Global Health Field School Rotation yearly for fourth year students. The months leading up to the trip we planned our projects, did bake sales, applied for grants, trained in the lab and packed. The trip entails a month long journey whereby we set up camp in Ngorongoro Conservation area (NCA). Maasai pastoralists live within the NCA and rely mainly on their livestock and grazing them as a livelihood. Hence, why veterinarians are helpful.

Education and knowledge on animal health and husbandry practices is limited within the NCA, this is unfortunate as the animals play such a huge role in human quality of life. My project focused on parasites and resistance to anthelmintics. A Fecal Egg Count Reduction Test was performed with Albendazole treatment, to determine that the drug is still working in sheep and goats. Once we had the results, we went back to the boma owners and community leaders and presented (with translators of course). Then we educated them on the importance of correct dosing, technique, and frequency. The other veterinary project was workshops for common problems including bloat, East Coast Fever, and parasites.

A day in the life was as follows. An early 5:30 am wake up in a bright and toasty tent. Then we'd all pack into the vehicles and head to the boma we were sampling that day. We'd return to camp afterwards for breakfast and spend the remainder of the day processing samples. In the late afternoon, there were daily seminars discussing various research topics of individuals in the group. Evenings consisted of some form of exercise, group dinner and discussions around the campfire.

Throughout the trip we were completely engaged in the community. The Maasai welcomed all of the students, instructors and researchers full heartedly. I think mostly due to the positive outcomes of previous projects. Weddings, community leader meetings, religious ceremonies and volleyball games are a few examples of events we attended.

Although I intend to practice small animal medicine, I will do yearly trips of a similar capacity in order to make a difference. Not only did Tanzania amplify my interests in the veterinary contribution to global health but it also taught me invaluable life lessons. As I go forward with my fourth year rotations and career in veterinary medicine, I will always carry a piece Africa in my heart.