



8 August 2009

SUBJECT: 2008-2009 Annual Report of Maddie's Shelter Medicine Externship Activities

This report covers the disbursement and activities of the Maddie's Fund Shelter Medicine Externship Program at VA-MD Regional College of Veterinary Medicine, from the inception of the program 12 November 2008 through 30 June 2009. The initial fund administration had to be established with the Office of Sponsored Programs at Virginia Tech, so funds were not available for disbursement until January 2009. The mechanism for externship awards is now well established and smoothly operating, so that payments to students can be processed in a timely manner.

In order to maximize the number of senior students receiving financial support for their externships, an amount of 750.00 was awarded to each qualifying applicant. Senior veterinary student awards for 2008-2009 through 30 June 2009 are as listed:

<u>Name</u>	<u>Externship Dates</u>	<u>Externship Location</u>	<u>Amount</u>
Tom Blaszak	3/30/09-4/19/09	Charlottesville Albemarle SPCA	750.00
Thomas Wilkerson	3/30/09-4/19/09	Philadelphia SPCA	750.00
Lindsay Dzombar	5/11/09-5/31/09	San Diego Humane Society	750.00
Melissa Gosline	11/16/09-12/06/09	Charlottesville Albemarle SPCA	750.00

All externship sites were either previously approved by Maddie's Fund listing or were screened for adherence to no-kill policy and to the Asilomar Accords.

Please find enclosed a copy of each student report following his/her externship, with the exception of Melissa Gosline who will complete her externship in Nov-Dec 2009. Financial statements from VA Tech are also included. Please do not hesitate to contact me for any further information or assistance, at 540-231-4621 or bpierce@vt.edu.

The Maddie's Fund Shelter Medicine Externship has been a very successful program for our 4th year veterinary students. Since 30 June 2009, the remainder of the fund has been awarded as four 750.00 stipends for four senior student applicants. We look forward to continuing in the program in the future if additional funding is available.

Sincerely,

Bess J. Pierce, MZS, DVM
Diplomate ABVP, ACVIM
Associate Professor, Community Practice
Faculty Coordinator, Maddie's Fund Shelter Medicine Externship



Maddie's Shelter Medicine Externship Program
Essay of Completion and Reflection

Lindsay Dzombar

June 10, 2009

I recently completed my externship at San Diego Humane Society and SPCA. This organization runs their facility as a no-kill shelter. My goal in working at this externship facility was to gain a better appreciation of shelter medicine and to experience a successful no-kill shelter first hand. Although I felt that my experience was incredibly worthwhile and rewarding, I have left this experience with as many questions as I had when I entered it regarding the policies and the realities of a no-kill shelter medicine.

The SDHS does allow for some number of euthanasia. Animals that are unable to be rehabilitated due to an extreme medical or behavioral issue are euthanized for the well-being of the animal as well as the safety of the public. Extreme measures are taken to ensure that the animal is allowed some amount of rehabilitation, both medical and behavioral in nature. Medical cases are pursued aggressively. Technical and often expensive medical procedures are taken to bring these animals back into health. For example, during my time at the SDHS, I witnessed many fracture repairs, mass removals with histopathology performed on removed tissue, and even a diaphragmatic hernia fixation. This seemed to me to be very cutting edge and forward-thinking medicine, especially for a shelter facility.

In addition to the medical efforts, behavioral issues are also addressed. Behavior assessments are performed on all of the shelter animals. They consist of testing for food aggression, stranger aggression, resource guarding and behavior towards other animals. The staff is careful to allow all new animals an adjustment period to get used to the shelter before the assessment is performed. Usually this adjustment period ranges from three to seven days in length. In addition, animals that fail the assessment are still maintained in the shelter for a few weeks. They are placed as possible euthanasia candidates on a white board

to allow concerned staff can advocate for them. Training is also done with animals which fail the assessment to see if they can overcome their behavioral issues. They are all reassessed after this period before a final decision is made regarding their adoption status and possibility for euthanasia.

By running the shelter in this manner, the number of animals euthanized for non-medical conditions is impressive. The SDHS has a euthanasia rate that is under ten percent of their total intake, and the large majority of animals that are euthanized have exhausted all of the behavior rehabilitation efforts and still would be considered a danger to the public. They are therefore deemed unadoptable.

The policies listed above are in line with my personal beliefs of how a no-kill shelter should be managed. I was extremely impressed with the medical and behavioral efforts of the staff and the facility. I was even more impressed when I was shown the annual publication of how many animals were adopted through the shelter, and how few of them were euthanized. However, it wasn't until later in my externship that I learned that SDHS only takes in animals that have been relinquished from owners. They do not accept stray animals. The San Diego Department of Animal Services (SDDAS) is responsible for all stray animals within the county. The SDHS does work in close association with the SDDAS, and often receives transfers of animals from the SDDAS, but in general the majority of animals in SDHS are relinquished animals.

Although I still believe that the SDHS provides an extremely important service to the community and provides for the animals in its care in the best way possible, I was disappointed to discover that stray animals in the county are handled through an entirely different organization. Unlike the SDHS, the SDDAS is not run with a no-kill philosophy. I had the opportunity to work in one of the SDDAS shelters for a few days with their veterinary staff. The number of animals and the extreme lack of equipment make for a very different type of medical and behavioral care that these shelter animals receive. It is definitely two ends of the spectrum of shelter medicine. SDDAS also is forced to euthanize a high number of their animals due to medical issues, behavioral problems (although the

animals are not given a behavioral assessment or training opportunities prior to adoption), and lack of room or resources of the local shelters.

I still strongly support the idea of no-kill shelters. Having experienced the care that animals receive in these types of shelters, I was even further impressed with the philosophy. However, I am still unsure if shelters like the SDHS can be run with any practicality in our world today. The animals that are housed and adopted through the SDHS are given the best possible care. However, the large number of strays and relinquished animals in the entire San Diego County do not find themselves at the SDHS, but in the SDDAS. Although the SDDAS shelters and staff are giving the best care that they can to their animals, they are exactly what would be expected from a poorly-funded, understaffed, and underequipped animal facility.

Upon finishing this externship, I would love to see every shelter run with the same policies as the SDHS. However, even this organization was unable to help the majority of animals that should fall under its jurisdiction. Most animals today are still given minimal care at shelters like the SDDAS shelters, even with local no-kill shelters in the area. I am still unsure whether I believe that the no-kill shelter philosophy can be implemented within every shelter. I fear that this is an ideal that may be impractical in today's world.

Tom Wilkerson
Philadelphia SPCA
30 Mar – 19 Apr 09

My three week externship at the Philadelphia SPCA was truly an eye-opening and educational experience. Unlike other shelter externship experiences, which I have personally seen or learned of from other students, this was a tremendous all around experience. The PSPCA truly allowed for exposure to shelter medicine, rather than just a spay-neuter clinic, as I have found many to be.

Having the opportunity to do plenty of surgeries, particularly spays and neuters, is the reason most students choose to go to shelters. But there is, or at least should be, so much more to learn and do in these shelters. The doctors at the PSPCA make sure students are exposed to many of these facets, yet there was still not a single day that I did not have to opportunity to do at least multiple surgeries. The very first day of the externship I was able to do 7 spays. Because the PSPCA serves such a large, metropolitan city there is virtually an unlimited number of animals that need to be spayed/neutered before they can be adopted. In talking the head veterinarian, the PSPCA takes in over 32,000 animals a year, and it seems like nearly all of them are intact. This would be a daunting number of animals even if the PSPCA offered no other services to the public.

Outside of the spays/neuters and adoptions typical of any shelter, the PSPCA also operates a low cost outpatient service to the community, an emergency service, behavior service, a full team of humane society police officers, as well as a feral cat trap and release program and other services. Students are scheduled to spend time in each of these areas learning from the veterinarians, techs and officers, yet are still permitted to adjust the schedule to spend more time in areas that are of the most interest to us. The PSPCA has developed a rough schedule for externs from UPenn SVM to at least give students a starting place until they figure where they would like to spend more time. UPenn uses two week, compared to our three week rotations which allowed an entire extra week for to pursue the areas I was most interested in, emergency and surgery.

The best thing about the entire experience at the PSPCA is that they treat students as doctors. Whether in surgery, in the clinic or receiving emergencies, students are expected to work independently, prioritizing tasks and directing support staff. Yet I was never forced out of my comfort zone and I was never truly alone to work up cases. There was always someone to ask questions and advice, and the staff vets would always take time to go over difficult cases with me. It was an excellent experience for my last rotation of forth year; it really tested my knowledge and gave me the confidence to go out into practice on my own. The first case I saw in the clinic was a parvo puppy, and while we learn all about appropriate treatment and biosecurity in school, we do not really learn what to do in cases where the owners only have \$50, and just spent \$30 of it on the office visit. It requires a little creativity and sensitivity for the owners' situation.

Given that this is an intercity shelter, the cases that come in are truly incredible. The sheer number alone is often overwhelming, and the complexity rivals many specialty clinics. Besides spending a lot of time in surgery, I spent a great deal of time in the emergency / critical care section. I do not recall a single day that there was not an animal hit by car presented to the clinic, but there were also many other interesting cases. Many cases that I hope I personally will never have to see or treat again; stabbings, electrocution, horribly embedded collars, dog fights and other obvious cases of abuse / neglect.

After all, why kids think it is a good idea to go around a neighborhood stabbing dogs with broken beer bottles is beyond me. Especially one of the nicest dogs you could ever hope for. The owners

rushed him to the PSPCA as he hemorrhaged blood from multiple wounds to the inguinal area. After exploratory surgery to stop the bleeding and check for any remaining shards of glass, and pressure wrapping, it started bleeding the next day. Another exploration, two whole blood transfusions later he was finally ready to go home. That was until he got outside with his owners and became excited and started hemorrhaging again. At this point it became apparent that he needed more specialized care, calling local emergency/specialty clinics we were quoted from \$3,000 - \$8,000 ("if no complications"). Seeing the quotes for this case and others coming from local emergency centers it is no wonder why so many animals show up at the PSPCA.

Even though it would be nice to see veterinarians commanding more in fees, it is unfortunate that veterinary medicine is becoming such an elitist group. There are not very many people anywhere that can reasonably afford an \$8,000 surgery for their dog. It is actually relatively disheartening knowing I am going to be practicing in this same area, and be forced to send my clients to these places.

The time I had to spend at the PSPCA also really brought the benefits and the issues of a no kill shelter to light for me. It was painful to see so many animals present with such life threatening conditions, and even more painful that more often than not they presented there because the owners could not afford treatment anywhere else. It was not surprising that they frequently could not afford treatment at the PSPCA either, even at the greatly reduced prices. The one relief was that these same owners always had the ability to surrender the animals to the shelter, to allow them to receive the treatment they needed and be able to find a home. There were so many medical surrenders to the PSPCA during my time there it is a wonder that the shelter is able to continue to operate.

In addition to all regular surrenders, the ferals and strays, and cruelty cases seen, the medical surrenders create an obvious strain not only on the finances of the shelter, but also the staff. There were numerous occasions in which the entire critical care unit, over 30 cages, was filled with surrendered animals all requiring extensive 24 hour care. There would be times all the cages would be full and not a single client owned animal was in there. It would get so bad that at times, the more stable animals and the animals set to be discharged would have to give up their cages and be left out in the ward to free up cages for more critical patients. The medications, supplies, and time to care for these animals paid for by the PSPCA. A daunting task when just the cost of the care of the normally healthy shelter animals is considered.

I would never suggest that this is a bad situation; actually I am very happy that they provide this service and give these animals a chance at life and to find a new home. Rather it reinforces the need to support the mission facilities such as these, as doctors and as members of the community. The facilities, the equipment are in many cases outdated and/or in need of repair, but the financial burden is incredible, and unlike many private practices profitability is not the priority, but rather sustainability. As a result they function with less than optimal equipment; a 1980s obstetric ultrasound. An equally outdated radiograph machine was down for nearly one week of my three week externship. In a facility that sees a lot of hit by cars, and foreign bodies, the lack of a functional radiograph machine is very detrimental to patient care. I hope that more veterinarians and members of the community in general take a more active role in supporting these facilities. They provide a tremendous service to the public and to the animals, they should receive the support they need to accomplish this in the best possible manner.

It would be so easy for the PSPCA and other shelters to euthanize many of the animals surrendered, whether or not they have medical conditions. It would certainly make sense financially. But all

these animals deserve a chance at a happy and healthy life, and they frequently go beyond the call of duty to give these animals the best opportunity. Taking four surrendered animals to surgery for foreign bodies, *after* working a full day is a lot to ask of anyone. For the emergency vet, the technician (and the extern) to put in over 22 hours to take care of the animals and return to work the next day (for another 14 hour day) to do it all over again without sleep and without overtime pay or other compensation. There is so much good to be done, and their goal of finding a home for every adoptable animal is very noble, but with limited finances and support there is a limit on how much shelters can do. Given the intercity workings of animal care, there are also an incredible number of animals that have to be housed and cared for due to ongoing investigations and court proceedings, that cannot be adopted out, or even euthanized (because they are unbelievably vicious, they must be housed in a special building to ensure they do not come in contact with other animals or untrained staff). All this creates an incredibly difficult position for the PSPCA and its staff.

What would be really nice would be if veterinary schools supported these facilities more. It is hard to believe that UPenn, less than 10 miles from the PSPCA rarely send students there (even when many of the vets who work there are UPenn grads). They have even gone so far as to offer surgical residents time and support to come in and perform more complex surgeries, such as orthopedics. To minimize the number of amputations that need to be done for fractures and the like that they currently do not have the training to pin, plate, etc... As of yet they haven't been taken up on the offer.

I was the first extern to go there in the last four months. There is such a tremendous learning opportunity, and there is such a great opportunity to help animals. Philadelphia generally a very good city for animals, and animals in the shelter for adoption rarely stay very long. There is such a rapid turnover of animals that the new families frequently have to wait days, sometimes weeks for their newly adopted animals to get spayed/neuter before they can go home. This is one area that vet students can really assist and gain lots of surgical experience. In three weeks, I was able to do over 40 spays and nearly as many neuters. That is 80 animals that would have otherwise had to have waited to go to their new homes. If I had only been able to get to the other 300-400 animals that were in the shelter while I was there. Hopefully, more students will take the opportunity to learn and help, and more vets will remember the shelters.

Maddie's Shelter Medicine Externship Program

With only months from graduation and being referred to as a "Doctor," the idea of having such great responsibility was daunting. Although rotating through multitudes of different specialty areas of veterinary medicine in my senior year, the responsibility for decision making with potentially no one available to consult was a frightening concept soon to be realized. The Charlottesville SPCA was selected to fill my Public Corporate Externship requirement and to gain a significant amount of surgical experience through constant spaying and neutering procedures. With ultimate goals of working as a general practitioner, honing my basic surgical skills and increasing my efficiency was a requirement before embarking on the fast paced real life of private practice. Fortunately, the Charlottesville SPCA externship provided not only a large surgical case load and surgical practice, but also developed my technical skills and enhanced my knowledge of basic general practice medicine.

The majority of the day was filled with surgical procedures, mainly spays and neuters, but occasionally elective procedures such as dewclaw removals and cherry eye correction were performed. The surgical candidates all received a physical exam, except feral cats, prior to performing surgery. The large number of daily cases scheduled for surgery enabled me to develop my general physical exam abilities through constant practice and repetition. Although we were only allowed to perform surgery on certain animals, while at the clinic, I was able to neuter 32 and spay 16 animals on my own. As the rotation continued, more and more surgical opportunities were provided daily. The wide variety of age groups and sizes of animals provided a good overall representation of potential general practice cases. In addition, some of the animals in which surgical spays were performed were pregnant, sometimes only discovered during the surgical event. These encounters demanded confidence as well as careful vessel ligation and surgical technique. Fortunately, a doctor was always present providing assistance and guidance if necessary.

One case in particular is a prime example of having assistance and guidance. I was spaying a young female puppy. During surgery, her ovary was located but because she was so young and her broad ligament was covered with fat, it was difficult to locate the small ovarian pedicle. The pedicle was thought to be located and ligated, but upon close inspection of the broad ligament there appeared to be a few large vessels still present in the cranial aspect of the broad ligament. Therefore, it was decided to ligate the broad ligament and large vessels within it to prevent potential abdominal bleeding. Once ligated, the broad ligament was dropped into the abdomen. After being released into the abdomen, the ligature was inspected and appeared to have slipped and be free floating in the abdomen. While the broad ligament in this puppy was not terribly vascular, the cranial aspect appeared to have descent sized vessels, likely the location of the ovarian pedicles which were improperly ligated initially. Therefore, for a soon to be graduate, this situation was both concerning and a serious complication which needed to be addressed. My first instinct was to retrieve the broad ligament and locate any bleeding vessel, but this was extremely difficult since the abdominal contents continuously obstructed my view. Upon further inspection, blood was found filling the dorsal abdomen, different from the typical serosanguinous fluid which can commonly be found.

As a new graduate on your own, while taught to extend you incision, locate the pedicles and observe them for any hemorrhaging this would have been a frightening task, especially if being performed for the first time on you own. Fortunately, Dr. Graybush was available to discuss the situation and provide assistance. Instead of simply finding the bleeding vessel for me and ligating it, she used the moment as a teaching opportunity to direct and guide me to find the bleeding vessel and place a mosquito hemostat on it. It was repetition and practice that allowed situations which commonly arise in practice to take place, but fortunately, it was under the supervision of a doctor who could direct and give assistance or advice rather than on your own as a new graduate. Through the experience, I have become more efficient and competent surgically, and feel more comfortable locating the pedicles in the abdomen following ligation and retrieving any bleeding vessels.

Another case involved an older cat which needed to be spayed. Once the abdomen was open, the right uterine horn was located and pedicle ligated. While trying to follow the right uterine horn to the left uterine horn by following it toward the uterine body, when I reached the uterine body, I found the absence of a left uterine horn; however a large vessel coursed cranially. Immediately, I recognized this as an anatomic abnormality. Being careful not to avulse the vessel coursing cranially, I was uncertain of the best method to search cranially for a left ovary. Fortunately, Dr. Beichel was available to guide the process and explain that many times cases such as these with anatomical abnormalities will still have a corresponding ovary which should be located and removed. With her assistance and guidance, a cystic ovary was located and removed having adhesions to the omentum. It was assuring to have a doctor present who had experienced a similar situation and be available to provide guidance and their knowledge regarding the anatomical abnormality.

When I wasn't performing surgery, I was improving my skills in intramuscular injections, catheter placement and anesthetic induction. Prior to surgery, most animals had catheters placed in order to provide fluid intraoperatively and an endotracheal tube placed to provide anesthesia and airway protection. Through one week of the externship, I placed as many catheters as I did in three weeks of anesthesia. The repetition and practice was excellent for advancing and improving technical skills.

Besides providing sterilizing surgical experience, options were available to have animals vaccinated, dewormed, heartworm tested, and to have basic deciduous dental extractions performed. The entire process was similar to your encounter at a general practice situation, but at a much lower cost to the client. Outside of daily surgical case load, the SPCA also provides medical health care to sick or injured animals. A large portion of the cases dealt with upper respiratory infections in cats and infectious tracheobronchitis in dogs; however, there were also sporadic random cases such as minor wounds, fractures, gastrointestinal problems, and medical conditions needing additional care. Dr. Graybush and Dr. Biechel used every opportunity to teach by questioning and asking for our opinions on case evaluation, management, and treatment before providing their knowledge and experience.

Prior to arriving at the Charlottesville SPCA, my first impression of a "No-Kill Animal Shelter" was a financially poor facility struggling to provide adequate medical care, but supporting animal life at all costs. Coming to Charlottesville SPCA, I was caught off guard to find a beautiful facility that provided excellent medical care and

support within limits and a large amount of support and volunteers that sacrificed their time to maintain the facility. However, I was taken back when the shelter's main philosophy of "No-kill," was contradicted when euthanasia was performed on a behaviorally aggressive animal. It was at this point that I discovered "No-kill" doesn't imply absolutely zero euthanasia. It was explained to me that "No-kill" is defined as a facility in which 80% of the animals are kept alive and less than 20% are euthanized. This was quite shocking that a facility could euthanize one in five animals and still be referred to as a "No-kill" animal shelter. To add to the confusion, animals were constantly spayed at various stages of pregnancy, although, to be fair, some of the pregnancies were first discovered intraoperatively. Abortion was another issue which seemed baffling to see in a facility described as a "No-kill" animal shelter. At this time, it was also explained that animals less than 8 weeks of age, or those who have not been weaned yet, can be euthanized without any further concern. This is understandable since newborn animals require constant feeding and care at a young age, especially when the mother is unavailable to provide milk. However, this is not what I had thought of when "No-kill" was used as a describing term for the facility.

Although animal euthanasia and abortion occurred at the Charlottesville SPCA, to be fair, most of the animals were taken in and given basic healthcare, provided medical care as needed and surgical sterilization, then displayed for adoption. The facility was very successful at finding appropriate homes for animals and would make house visits to ensure the owners were meeting certain requirements and the animal was properly cared for. The system and confines in which the SPCA operates is very successful and a good cause promoting animal life and proper care.

On the medical and surgical care side, Dr. Graybush and Dr. Beichel are very knowledgeable and efficient. The Charlottesville SPCA is extremely fortunate to have both doctors' on their staff. The animals within the facility truly benefit from the work Dr. Graybush and Dr. Beichel do day in and day out.

Overall, the externship experience exceeded my expectations and was truly beneficial in preparing me for future work as a veterinarian. If given the chance to make a different decision, the choice would remain the same. I am very thankful for the opportunity to learn and work at the Charlottesville SPCA for my fourth year externship.