The New York City Veterinarian VMA NYC Newsletter



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Veterinary Medical Association of New York City

200 W. 54th St. Suite 9A NYC, NY 10019

212-246-0057 (tel)

212-721-1620 (fax)

www.vmanyc.org

DECEMBER 2011, VOL. 53, NO. 4

TABLE OF CONTENTS

Page

- 3 President's Message
- 6 Management Transition
- 8 VERT Memorial to 9/11 dogs
- 10 Committee Updates
 - Social
 - Membership
 - Animal Health
- 12 Liaison
- 13 NYS Political Education Committee
- 14 Program and Calendar of Events
- **15** Infection Control: Nosocomial infections and Zoonoses

22 Classifieds



The American Museum of Natural History announced that 11 new species of bees have been discovered, including 4 from New York City and the surrounding suburbs.

Discovery News, Jennifer Viegas

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President's Message

By Dr. Lisa Esposito

2011 is a landmark year for the VMA of NYC—as hard as it is to say- it is the year we say farewell and good wishes to the "heart and brain" of the VMA, our dear executive secretary ,Effie Cooper. Effie has made the decision to retire and hopes to direct most of her retirement time to NYSAVE.

Effie has been steadfast in her commitment to the VMA and has facilitated the success of the VMA in promoting its mission. Effie has many stories to tell and has adapted to the many different personalities of the executive board. She has facts and facts and facts archived in her brain.

Effie is one of the founding members of NYSAVE and has been active with NYSAVE from day one when we met with the attorneys to start setting up NYSAVE's 501C3 status. Effie has been the pillar upon which NYSAVE has been held up by for many years. Effie understood the need-after all for forty years she received calls referred to the VMA from financially challenged persons looking for veterinary care.

In 2000, Effie received "Outstanding Service to Veterinary Medicine Award" from the VMA . This was a small token of the respect and admiration that VMA members had for Effie.

We all wish Effie the very best of happiness and health during her retirement.

On behalf of the VMA of NYC- Thank You, Thank You, Thank You!

The successful endeavors of the VMA of NYC this year can be attributed to the hard work and expertise of the current executive board.

The VMA's continuing education program is world class thanks to the continued efforts of Dr.'s Mark Peterson and Deirdre Chiaramonte. As a special benefit to our members, we initiated the all day management CE. Pfizer continues to be a generous host providing meeting space for both CE and executive board and wonderful dinners for our group.

We have secured very generous sponsor due to the hard work of Dr.'s David Wohlstadter and Sally Haddock. The generosity of the sponsors promotes all of our programs and VMA members should make time to meet with them. Kudos and Thanks to VMA sponsors.

This year our members received special social events including a "behind the scenes tour" of the Bronx Zoo- usually reserved for VIP members of the zoo thanks to Dr Attas. The SI Yankee game was enjoyed by many as well as our annual dinner dance aboard the beautiful "World Yacht." Our veterinarians made a proud showing at Westminster this year and those who volunteered had a very good time. The recipients and families of the VMA High School awards were very pleased and proud.

On the political front, our voices were heard loud and clear through the efforts of Dr Sangiorgio. Most recently, Dr Sangiorgio successfully testified in front of the Health and Mental Hygiene committee (.intro 655) to facilitate more dollars be designated to the city animal shelters. We are now being recognized as a respected resource for an opinion regarding animal related legislation. Our goal, to promote humane laws and appropriation of funds for the greater good of animals.

Furthermore, the Ethics Committee Members work very diligently on many challenging cases acting as liaison to foster understanding between client and veterinarian and promoting good will in our profession.

Our future is very bright and exciting. We look forward to the talents, enthusiasm and expertise that our new management company, Solutions-Linda and Scott – are offering us They are eager to promote new strategies to enhance our membership and the value being a VMA member.

I have been very grateful for the honor of serving as President of the VMA for 2011. I am grateful for the co-operation and support the VMA Executive Board and general membership. I encourage members to join a committee and come to executive board meetings.

I am proud to now pass the gavel to our incoming President Dr David Wohlstadter.

Many Good Wishes for many joy filled and successful days in 2012

Lisa A Esposito DVM

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Effie, Thank You for all Your Years of Service!!

Your Fans at the New York City Veterinary Medical Association

Management Transition





As many of you have heard, Effie Cooper, our executive secretary of more than 40 years, is retiring. Effie initially worked for the association as part of her responsibilities with an association management company and was rapidly stolen away from that company to work for us full-time as an independent contractor a few years later. Effie has seen us through many changes over the decades of her involvement with the group. She has helped us grow from a small group to our current size of nearly 300. She has ushered us through transitions from a predominantly male practice owner group to a diverse organization with veterinarians from all aspects of our profession. She has put up with countless presidents and board members, some more "interesting" than others. Throughout all her years of service. Effie has never flagged in her support for veterinarians and the animals we help. Since 2001, Effie has helped our non-profit off-shoot, NY SAVE, distribute funds to owners in desperate need of veterinary care and has helped save countless numbers of animals during this time, and will hopefully continue to participate in that organization after her retirement from the VMA of NYC. Effie has been a great asset to our organization and she will be sorely missed.

After an extensive search for appropriate replacements, we have hired Solutions + of NYC to take over from where Effie will leave off. Solutions + is an association management company with extensive experience in the field. They have had great success helping other small associations grow their membership and leverage their limited resources in the most productive way. Their team, composed principally of Linda Chiaverini, Scott Gerard, and Janet Lowry, will help us make a seamless transition as we go forward and provide us with a wide range of expertise in areas such as organizational efficiency, event planning, communications and marketing. They are excited to work with all of us "interesting" veterinarians and we encourage all of the membership to come and introduce yourselves to them at our monthly scientific meetings.











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The VERT Committee

Dr. Mark Salemi VERT Liaison Reported by Pat Costello



A 10th Anniversary Recognition Ceremony for all Working Dog Teams, Veterinarians, and VMATs "Finding One Another: Courage Beyond Measure" was held on September 11th, 2011 in Liberty State Park, Jersey City, New Jersey overlooking lower Manhattan. The construction of the Freedom Tower was visible across the river and the USS New York sailed seaward during the ceremony. The day was overcast, which lent to the reminiscent tone. The organization Finding One Another went to great lengths to indeed find many of the dogs and handlers who responded to the World Trade Center site in 2001. Teams that had come from far and wide in 2001 were there in Liberty State Park with the generous help of their local breed organization or affiliate organization who paid their travel expense. Many of the local municipal dogs were younger than the dogs we had worked with, a sad reminder of how much time has indeed passed.

It was a meaningful gathering of veterinarians from our area, as well as many VMAT members. We at NYC VERT hope that this first annual event will be expanded in years to come since it really addressed an entire community of people who previously had no way of 'finding one another'. FOA organization and this event was created to bring the Dogs, Handlers and Veterinarians together since we all shared very significant events in the aftermath of September 11th.

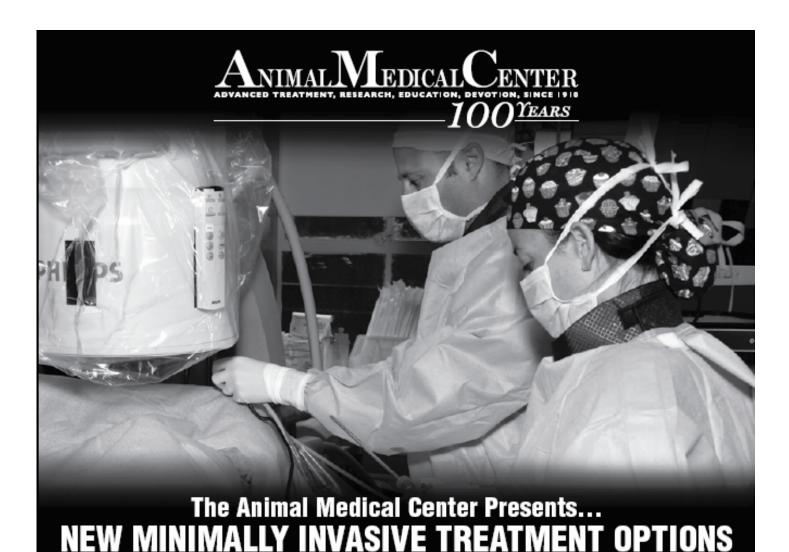
Several veterinarians, who went on to create the New York City Veterinary Emergency Response Team, were in attendance. It was because of the cohesive work done at the MASH unit that the Office of Emergency Management realized the need for a veterinary resource they could call upon in city emergencies. Representative Max Green worked with the Suffolk County SPCA and a handful of local veterinarians to create NYC VERT. Those doctors, along with representatives of OEM and the Red Cross went on to recruit many private hospitals as VERT members. Over the years, VERT has worked closely with OEM to plan for emergencies and to participate in the Animal Planning Task Force. The APTF brought about many sweeping changes in the way NYC responds to emergencies with regard to animals including co-located shelters and pets being allowed on mass-transit.

Attending the Liberty Park event was a reminder of how and why VERT was formed. The terror threat issued for that day and the warning to 'bring gear' was a reminder as to why we continue our efforts. An extensive effort was made in the weeks before 9/11/11 to contact the veterinarians who had volunteered for and worked shifts at the WTC. It was a daunting task after 10 years to track down the almost 200 veterinarians and technicians. If you missed this unique commemorative event this year, NYC VERT encourages you to contact Finding One Another so that you will



be on the invite list for 2012. http://www.findingoneanother.org/historic-registry is a link to join the registry of participating veterinarians.

Tony Kurdzuk/The Star-Ledge r



Interventional Radiology (IR) & Interventional Endoscopy (IE) involve the use of contemporary imaging modalities, such as fluoroscopy and/or endoscopy, to perform diagnostic and therapeutic procedures in virtually any part of the body (blood vessels, gastrointestinal, biliary, respiratory, urinary tract, etc.).

The Animal Medical Center is proud to present the opening of the IR/IE service where new minimally invasive treatment options are currently available.

For questions about a case or to find out more, please go to www.amcny.org/interventional-radiology-endoscopy or call Dr. Chick Weisse or Dr. Allyson Berent at 212-838-8100.

To show our appreciation for the ongoing loyalty of veterinarians who refer to The AMC, we are offering gift cards which may be passed along to your clients requiring specialty care. These cards entitle them to a \$100 discount towards a specialty service* at The Animal Medical Center.

To request your cards, call Ms. Nancy Gilfillan, Director of Client Communications at 212-329-8833.

* Services for specialty consultation or services your practice does not provide



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- Soft Tissue Surgery

The Social Committee -WE NEED YOU!!

Dr Mari Morimoto, Chairperson

Regrettably, Dr. Mari Morimoto will be stepping down as the Chairperson of the Social Committee. During her years of service, she did an exception job of providing the NYC VMA membership with a multitude of outings including trips to watch the Staten Island Yankees, happy hours, and organizing the NYC VMA volunteers for the Westminster Kennel Club show. While she will still coordinate the Westminster Kennel Club show, she no longer has the time to coordinate other social events. As such, we are in need of one or more volunteers to assume the duties for the Social Committee. If you are interested, or have additional guestions please contact the NYC VMA at VMANYC@aol.com.

The Membership Committee

Alexandra van der Woerdt

A total of 10 veterinarians were introduced as new or returning members of the VMA of NYC during the October and November meetings of 2011. They are as follows:

New members October 2011 New members November 2011

Dr. Andrea Lantis Dr Adam Eatroff
Dr Edmund Orok-Edem Dr William Farmer
Dr Dennis Slade Dr Shelby Freda
Dr Rhonda Windham Dr Bryan Gelman

As always, we welcome these new members into our association, and hope to see them regularly at our meetings.

The Animal Health Committee

Dr Amy Attas, Chairperson

Canine Influenza is in the news again. After a recent outbreak in a Bergen County animal shelter forced it to close for two weeks in October, there have been a number of stories in the local media. We are likely to get questions about this new disease especially at this time of the year when many of our clients are going away for the holidays and more pets are in boarding facilities.

Canine flu is an Influenza A virus which was originally an equine influenza virus. In 2004, a group of greyhound dogs came down with respiratory illness which was found to be caused by the equine influenza A H3N8 virus. This virus has adapted to cause illness in dogs and spreads easily among dogs. Symptoms of this illness in dogs are coughing, runny nose and fever. A small percentage of the affected dogs develop serious complications such as pneumonia. Canine influenza is spread by direct contact with aerosolized respiratory secretions of infected dogs, by contact with contaminated objects and from people moving between infected and uninfected dogs. Nearly all unvaccinated dogs are susceptible to infection and about 80 percent will develop a mild form of the disease. Some dogs will become infected, remain asymptomatic but still be capable of spreading virus particles to others. Infected dogs should be treated with supportive care. Some patients will require antibiotics for secondary bacterial infection. There is an approved vaccine for canine influenza. The disease can be confirmed from respiratory secretions or by blood samples sent to a qualified diagnostic laboratory. An initial blood test is taken when the animal is sick and it should be followed by a second sample 2 to 3 weeks later. Most patients recover with supportive care, some require antibiotic therapy if secondary bacterial infection (i.e. pneumonia) occurs. There is a low mortality. There is no evidence that humans can become infected with canine influenza.

Recall: lams dry dog food—unacceptable levels of the toxin



One lot of P&G's lams ProActive Health Smart Puppy dry dog food is being recalled due to high levels of a naturally-occurring toxin that can sicken pets, Proctor & Gamble and the U.S. Food and Drug administration announced today. According to the FDA, the recalled dog food was distributed to specific retailers in the following states: AL, CT, DE, FL, GA, LA, MD, ME, MS, NC, NH, NJ, NY, PA, SC, VA. The specific retailers are not named in the recall notice, but the FDA does say that it is a limited number. It is also unclear how many bags of lams ProActive Health Smart Puppy dog food is included in one lot.

The FDA reports, however, that retailers have removed the affected dog food from store shelves, and that no health effects related to this recall have been reported. No other dry or canned dog and cat food (or dog and cat biscuits, treats or supplements), are affected by this recall. The recalled dog food has a use by or expiration date of either February 5 or February 6, 2013, and includes the following specific products:

Size	Code Date	UPC Code
7.0 lb bag	12784177I6	1901402305
8.0 lb bag	12794177D2 12794177D3	1901410208
17.5 lb bag	12794177K1 12794177K2	1901401848

The toxin, Aflatoxin, is a naturally occurring by-product from the growth of Aspergillus flavus and can be harmful to pets if consumed in significant quantities. Pets which have consumed this product and exhibit symptoms of illness, including sluggishness or lethargy combined with a reluctance to eat, vomiting, yellowish tint to the eyes or gums, or diarrhea, should be seen by a veterinarian.

Consumers who purchased the recalled lams dry dog food should stop using it and throw it away. Consumers can also contact lams at the number below for a voucher toward a replacement bag of dog food. For more information, or a product replacement or refund call P&G at 866-908-1569, or visit www.iams.com.



In this December 24, 2010 photo, Pusuke, the world's oldest living dog according to Guinness World Records, is shown in Sakura in Tochigi Prefecture, north of Tokyo. The fluffy tan Shibamix dog, recognized as the world's oldest living dog last December, died on Monday after suddenly falling ill and refusing to eat or go on his morning walk, owner Yumiko Shinohara told reporters at her home in Sakura. Pusuke died at the age of 26 years and eight months.

Picture: Kyodo News/AP

Liaison Committee

Amy I. Attas, V.M.D.

The liaison committee interacts with our local specialty hospitals, educational institutions and not for profit organizations and lists in this column any information which is relevant for our membership. Please feel free to contact me if you or your hospital has information that would be relevant. Specifically, we highlight continuing education which is complementary to our membership and new hires in specialty areas. I invite you to contact me if your hospital has information that you would like to share with our membership at dramy@citypetsvets.com.

At the time of this newsletter there were no scheduled dates for CE from VERG or Animal Endocrine Clinic although plans for more dates were in the works. Please let me know if you or your practice have any plans for continuing education or if you have any event that you would like to invite the general membership to. You may contact me at drawbership to. You may contact me at <

News from the Animal Medical Center (AMC):

The next in the series of Partners in Practice Continuing Education will be on December 20, 2011 at the AMC: 510 East 62nd Street. The conference is free and RACE approved. Breakfast and lunch are served. Registration can be done on line at www.amcny.org/pipseminars

The AMC also offers *Practical Clinical Evening Workshops*. These are held from 7:00pm -8:30 at the AMC on the evenings and subjects listed below. These are small group, intimate and interactive learning workshops. Practitioners are welcome to bring case materials to discuss. These evenings are free but registration is required as space is limited. Contact Dr. Phil Fox at Philip.fox@amcny.org or 212 329 8606.

December 20, 2011 – Emergency and Critical Care

News from Blue Pearl Veterinary Partners/NYC Veterinary Specialists:

Continuing education lectures are free and open to all area veterinarians. There are also veterinary technician CE lectures which are open to all veterinary technicians and assistants. Registration is required and is done by contacting Dr. David Wohlstadter at 212 767 0099 or david.wohlstadter@bluepearlvet.com. Dinner begins at 7 PM and the lectures start at 7:30 PM. Unless otherwise noted, lectures are given in Brooklyn, Queens and Manhattan at the addresses listed below:

Manhattan 410 West 55th St (Bet 9th and 10th Avenues) New York, NY 10019 Queens 107-28 71st Rd (Bet Austin St and Queens Blvd) Forest Hills, NY 11375 Brooklyn 32 4th Ave (at Pacific St) Brooklyn, NY 11217

January 2012

Internal Medicine— Update on Adrenal Diseases Tuesday January 17 Queens Wednesday January 18 Manhattan Thursday January 26 Brooklyn Speaker- Kathryn McGonigle, DVM, DACVIM

February 2012

Radiology- Title TBA
Tuesday February 14 Queens
Wednesday February 15 Manhattan
Thursday February 16 Brooklyn
Speaker: Michaël Lora-Michiels, DVM, MS, DACVR

March 2012

Surgery- Title TBA
Tuesday March 20 Queens
Wednesday March 21 Manhattan
Thursday March 22 Brooklyn
Speaker: Kelson Danielson, DVM

April 2012

Critical Care- Updates on CPR
Tuesday April 17 Queens
Wednesday April 18 Manhattan
Thursday April 19 Brooklyn
Speaker: Meredith Daly, VMD, DACVECC

The New York State Political Education Committee

Dr Linda Jacobson

THE NEW YORK STATE POLITICAL EDUCATION COMMITTEE:



WHY WE SHOULD GIVE!

The purpose of the Political Education Committee is to support and enhance legislation that is positive to the veterinary profession, the clients we serve and the animals under our care. We support those elected officials whose ideas, actions and voting history closely align with the majority of veterinarians in the state.

That is the PEC's mission. The reality is that there is always legislation during each session of the NY State Legislature (Senate and Assembly) that somehow affects the way we practice as well as the eroding of what qualifies to be under the State's definition of the "Practice of Veterinary Medicine." In other words, there have been and still are bills pending that will outlaw some aspects of practice and other bills allowing lay people to perform procedures that are historically considered to be performed by a licensed veterinarian or veterinary technician. We are a profession that must protect itself from the outside interests that are trying to change how we practice.

For example:

- 1. Did you know that a bill to outlaw devocalization of animals has been introduced?
- 2. Did you know that a bill was introduced to outlaw intracardiac euthanasia?
- 3. Did you know that a bill has been introduced to permit farmers to vaccinate their sheep and cattle against rabies?
- 4. Did you know that there is a bill allowing for guardianship of pets. This means that a court appointed individual could sue an owner, a veterinarian or anyone dealing with a pet for damages? The lawyers would make out well on this!
- 5. Did you know that lay people have been allowed to float teeth in horses and now a group has visited one of our member's practices to show how they can clean a dog's teeth without a sedation? In California, there are already store-front animal dentistry clinics performing teeth cleaning on pets without anesthesia or sedation.
- 6. Did you know that on a national level there is a bill in Congress that would require all veterinarians to write prescriptions for every medication that we dispense even though the client is purchasing it directly from us? This is known anecdotally as the Wal-Mart bill BECAUSE even Wal-Mart now wants to get into the pet pharmacy business. I can only imagine what the lobbyist's for Wal-Mart spent to have this introduced into both Houses.

These are but a few issues that have come through our legislative bodies. There have been others and there's surely more to come.

We can protect ourselves by giving to the PEC! The monies that are contributed help to educate our legislators regarding the challenges we face and allow us to at least discuss our position with them. This level of support is limited by the funds that are donated by our members for this purpose. The more we have, the better chance we have to reach out to as many elected officials as possible. We have been successful in the past and we must maintain this position.

If you are a recent graduate with thousands of dollars of debt, don't you think a small contribution is worth something to protect how and what you can practice? If you are practice owner or have been a graduate for several years, don't you think it's our obligation to ensure the future of our newer graduates and veterinary students as well as to protect ourselves?

Please give!

Checks may be made out to the Political Education Committee and mailed to the New York State Veterinary Medical Society, 9 Highland Ave., Albany, NY 12205. You may also contribute by credit card by calling 1-800 – UR-NYVMS.

Thank you for your support,

Linda E. Jacobson, D.V.M.
PEC Chair
2011 NYSVMS President-elect

Calendar of Events

Program Committee

Dr. Mark E. Peterson, Chairman, Dr. Deirdre Chiaramonte

December 7, 2011

Speaker: David Twedt, DVM, Dip. ACVIM, College of Veterinary Medicine & Biomedical Sciences

Colorado State University

Topic: Feline Pancreatitis and Hepatic Disease

January 4, 2012

Speaker: Laura Eirmann, DVM, DACVN, Oradell Animal Hospital, Nestle Purina Petcare Company

Topic: Nutrition & Pet Food Marketing

February 1, 2012

Speaker: Andrea Looney, College of Veterinary Medicine, Cornell University

Topic: Pain/Anesthesia

March 7, 2012

Speaker: Bonnie G. Cambell, DVM, Dip ACVS,

College of Veterinary Medicine Washington State University

Topic: Soft Tissue Surgery (more specific topics TBA later)

April 4, 2012

Speaker: Catharine Scott-Moncrieff, DVM, Dip. ACVIM, ECVIM

Department of Veterinary Clinical Sciences, Purdue University, Indiana

Topic: Addison's disease; Diabetic in cats: What Do We Really Know about Factors that

Influence Remission?

May 2, 2012

Speaker: Justine Lee, DVM, Associate Director of Veterinary Services Pet Poison Helpline

Minneapolis, Minnesota

Topic: Top 10-20 Toxins and How to Treat Them

June 6, 2012

Speaker: Margie Scherk DVM, Dip. ABVP

Editor, Journal of Feline Medicine and Surgery

Vancouver, BC Canada

Topics: Advances in Feline Medicine

Remember, our Continuing Education program is meant for our VMA of NYC members, so please do not ever hesitate to provide your input and suggestions for great speaker or timely topics to make our C.E. program the best it can be. I can always be contacted via email (mark@animalendocrine.com). Or feel free to call me in my office (212.362.2650) if you have any suggestions.

INFECTION CONTROL PRACTICES IN VETERINARY MEDICINE

Dr. Sally Slavinski

Infection control practices are necessary in the prevention of nosocomial (hospital acquired) infections among patients and zoonotic infections among staff and pet owners. While universally accepted infection control practices are required among human health care facilities, similar practices have not been widely adopted among veterinary facilities.

A survey among veterinary practitioners found that among small animal practices, only 31% had a written infection control policy. Small animal veterinarians reported always washing their hands before eating, drinking or smoking at work 55% of the time, and between patients 48% of the time, suggesting we have room for improvement. In addition, 32% of veterinarians reported recapping their needles prior to disposal, and not surprisingly, these veterinarians were more likely to have reported a needle-stick compared to those who did not recap needles.

Nosocomial infections are being identified more commonly in veterinary hospitals, as are reports of zoonoses among veterinary staff. In recent years, several documents have been published which offer guidance on the development and implementation of infection control practices and protocols for veterinary practice. They include, the Compendium of Veterinary Standard Precautions for Zoonotic Disease Prevention in Veterinary Personnel from the National Association of State Public Health Veterinarians, and Infection Prevention and Control Best Practices for Small Animal Veterinary Clinics by the Canadian Committee on Antibiotic Resistance.

What follows are two excerpts. The first is taken from a chapter from Veterinary Clinics of North America, Small Animal Practice 2009; Pets and antimicrobial resistance by Dr.'s Jeff Bender and Jamie Umber and offers a brief overview of nosocomial infections. The second is from the Compendium of Veterinary Standard Precautions for Zoonotic Disease Prevention in Veterinary Personnel.

If you have not already done so, I strongly urge you to have a written protocol for you facility. Not only is it the right thing to do to protect your staff and your patients, it can also be important from a legal standpoint.

The infection control guidelines referred to can be found on line at;

- Compendium of Veterinary Standard Precautions for Zoonotic Disease Prevention in Veterinary Personnel from the National Association of State Public Health Veterinarians http://avmajournals.avma.org/doi/pdf/10.2460/javma.237.12.1403
- Infection Prevention and Control Best Practices for Small Animal Veterinary Clinics by the Canadian Committee on Antibiotic Resistance http://www.designit.ca/ccar/english/pdfs/
 GuidelinesFINALDec2008.pdf

^{1.} Wright JG, Jung S, Holman RC, et al. Infection control practices and zoonotic disease risks among veterinarians in the United States. *J Am Vet Med Assoc* 2008;232:1863–1872.

NOSOCOMIAL INFECTIONS

Jeff Bender DVM, MS DACVPM
Jamie Umber DVM, MPH, DACVPM
Veterinary Public Health , University of Minnesota

(Excerpt from Umber J, Bender J. Pets and antimicrobial resistance. Veterinary Clinics of North America, Small Animal March 2009.

Nosocomial (i.e. hospital associated) infections have become increasingly recognized in veterinary hospitals. Similar to human nosocomial infections, the most commonly identified pathogens associated with veterinary nosocomial infection are Gram-positive cocci (e.g. *Staphylococci* and *Enterococci*), members of the Enterobacteriaceae family, and nonfermentative Gram-negative bacilli (e.g. *Acinetobacter* spp. and *Pseudomonas* spp.).1,2 Nosocomial organisms are often resistant to antimicrobials.3,4

Several studies have identified nosocomial infections (some involving outbreaks) in dogs and cats with *Acinetobacter* spp., *Clostridium perfringens, Enterococcus*, *E. coli*, *Klebsiella spp.*, *Pseudomonas spp.*, *Serratia marcescens*, and *Staphylococcus* spp. (e.g. MRSA) (Table 1).5-14 *Salmonella* spp. was identified in the majority of the small animal clinic outbreaks with evidence of both nosocomial spread and zoonotic infections. Nosocomial infections are often associated with bloodstream infections, urinary tract infections, respiratory tract infections (e.g. pneumonia), surgical wound infections, and/or infectious diarrhea. In two studies, the most common site of infection among pets included postoperative surgical wounds.5,15 Murtaugh and Mason documented that postoperative surgical wounds accounted for 46% of known nosocomial infections.15

Factors linked to nosocomial infections in human health care facilities studies are also common in veterinary hospitals. These include the use of invasive devices (e.g. intravenous and urinary catheters, surgical instruments), implantation of orthopedic hardware, longer hospitalization stays, induced immunosuppression with chemotherapies, and the use of antimicrobial agents. In one study, an increased duration of stay in the small animal intensive care unit (ICU) was associated with positive catheter-tip cultures and nosocomial urinary tract infections.16

The probability of a patient developing a nosocomial infection depends upon many factors. These factors include the virulence of the agent, the susceptibility of the patient to that particular agent, the degree and route of exposure to the agent, the number and type of invasive procedures that the patient undergoes, and prior antibiotic therapy that the patient has had. Organisms that cause nosocomial infections may be intrinsically pathogenic or they may be part of the normal flora of the patient (e.g. on the skin, in the upper respiratory tract, or in the gastrointestinal tract).2 The use of antibiotics can alter the bacterial flora of a patient by diminishing susceptible bacteria and allowing resistant bacteria to flourish.15,17 This, together with the existence of fomites (e.g. keyboards, stethoscopes, thermometers, personnel, etc.) that can harbor resistant bacteria, often leads to the promotion and propagation of antimicrobial resistance in nosocomial pathogens; particularly to the antibiotics most frequently used in that particular hospital.3 At the University of Minnesota VMC multi-drug resistant *E. coli* was more commonly isolated from patients in the ICU than from patients seen as VMC outpatients on the community practice service (Table 2). This likely reflected antibiotic usage in the ICU and highlights the need to take precautions to prevent nosocomial spread of pathogens - especially among highrisk patients.

Many veterinary hospitals have instituted programs in an attempt to prevent and control nosocomial infections. These efforts include improving hand hygiene and cleaning and disinfection of facilities and equipment, implementation of policies for patient isolation, establishment of an antibiotic usage committee, restriction of antimicrobial usage, and implementation of microbiologic surveillance systems.15 Surveillance is important for establishing baseline rates of infection. For example, a review of Tibial Plateau Leveling Osteotomy (TPLO) surgeries at the University of Minnesota VMC identified 23 (3.6%) surgical site infections among 663 procedures. These baseline data provided a means to summarize key pathogens, surgeon-specific infection rates, overall rates of infection, and success of implemented intervention programs.18

Nosocomial Infections continued......

Table 1. Reported nosocomial events in small animal facilities in the United States and Canada, 1975-2007

Organism	MDR	Year	# and Spe- cies Involved	Zoonotic Transmission (yes/no)	Type of Facility	Reference
Klebsiella	Yes	1977-1978	23 Dogs 1 Cat	NA	Veterinary Teaching Hospital	5.Glickman, L.T. 1981
Salmonella travis	NA	1978-1979	17 Dogs	NA	Veterinary Teaching Hospital	6. Ketaren, K. 1981
Serratia marcescens	Yes	NA	81 Dogs & Cats	NA	Veterinary Clinic	7. Fox, J.G. 1981
Salmonella krefeld	NA	1984	20 Dogs	Yes	Veterinary Teaching Hospital	8. Uhaa, I.J. 1988
Clostridium perfringens	NA	1985-1988	30 Dogs	NA	Veterinary Teaching Hospital	9. Kruth, S.A. 1989
Salmonella Typhimuri- um	Yes	1999	12 Cats	Yes	Veterinary Clinic	10. Wright,J. 2005
S. Typhimurium	Yes	1999	Kittens	Yes	Veterinary Clinic	10. Wright,J. 2005
Acinetobacter bau- mannii	Yes	1998-2000	10 Dogs 5 Cats (1 Horse)	NA	Veterinary Teaching Hospital	11. Boerlin,P. 2001
S. Typhimurium	Yes	2000	3 Dog 4 Cats	Yes	Veterinary Clinic	10. Wright,J. 2005
S. Typhimurium	Yes	1999-2000	9 Kittens	Yes	Animal shelter	10. Wright,J. 2005
Clostridium difficile	No	2002	48 Dogs	NA	Veterinary Teaching Hospital	12. Weese,J.S. 2003
Escherichia coli	Yes	2003	6 Dogs	NA	Veterinary Teaching Hospital	13. Ogeer- Gyles, J. 2006
Staphylococcus aureus (MRSA)	Yes	2007	4 Dogs 2 Cats	NA	Veterinary Teaching Hospital	14. Weese,J.S. 2007

Abbreviations: NA, not available

Table 2. Antibiotic susceptibility of fecal *E. coli* isolates from outpatient Community Practice (CP) and inpatient ICU Patients at the University of Minnesota VMC, 2005

Source	# of Isolates	Pansensitive1 n (%)	MDR2 n (%)
Community Practice	102	70 (69%)	4 (4%)
ICU	113	42 (37%)	42 (37%)

¹ Sensitive to all antimicrobials on the panel

² Multi-drug resistant Chi-square = 37.9; p<0.0001

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Compendium of Veterinary Standard Precautions for Zoonotic Disease Prevention in Veterinary Personnel

National Association of State Public Health Veterinarians

Excerpt from the Compendium of Veterinary Standard Precautions for Zoonotic Disease Prevention in Veterinary Personnel by the National Association of State Public Health Veterinarians which was published in JAVMA, Vol 237, No. 12, December 15, 2010 and is available free online at http://avmajournals.avma.org/doi/pdf/10.2460/javma.237.12.1403

The VSP outlined in this Compendium are routine infection control practices designed to minimize transmission of zoon-otic pathogens from animal patients to veterinary personnel in private practice. The Compendium was first published in 20081 in response to a growing recognition of the occupational risks inherent in veterinary practice and the need for infection control guidance for veterinarians.2–9 The 2010 document includes an updated model infection control plan

Compendium of Veterinary Standard Precautions for Zoonotic Disease Prevention in Veterinary Personnel continued.....

that can be adapted to individual practices and updated guidance on the use of personal protective equipment. Although the Compendium focuses largely on personal protective equipment and actions, a multifaceted approach to workplace safety that incorporates environmental engineering control measures, appropriate administrative policies, and personal protective actions is recommended.

The objectives of the Compendium are to raise awareness of the scope of zoonotic disease risk in veterinary medicine; address infection control issues specific to veterinary practice; provide practical, science-based veterinary infection control guidance; and provide a model infection control plan for use in individual veterinary facilities.

In the 2003 African monkeypox infection outbreak in the United States, 18 of 71 (25.4%) infected individuals were veterinary personnel. This incident highlighted the risk of exposure to exotic zoonotic pathogens and the need for infection control precautions in veterinary medicine.10,11 However, zoonotic diseases are occupational hazards faced by veterinary personnel on a daily basis. 12–15 Approximately 868 of 1,415 (61%) known human pathogens are zoonotic, and approximately 132 of 175 (75%) emerging diseases that affect humans are zoonotic.16 There are more than 50 zoonotic diseases of importance in the United States (**Appendix 1**). Documented zoonotic infections in veterinary personnel include the following: salmonellosis, 17–20 cryptosporidiosis,21–26 plague,27,28 sporotrichosis,29–33 methicillin-resistant *Staphylococcus aureus*,34–46 psittacosis,47–50 dermatophytosis, 51,52 leptospirosis,53–55 and Q fever.56–59

Veterinary Standard Precautions are guidelines for commonsense infection control practices. They are intended to be used consistently by veterinary personnel—regardless of the clinical presentation or the presumed diagnosis of animals in their care—whenever personnel may be exposed to potentially infectious materials including feces, body fluids, vomitus, exudates, and nonintact skin.

Veterinary Standard Precautions are based on human standard precautions, which are the cornerstone of infection control in human health-care settings.60 However, the VSP also include strategies to reduce the potential for animal bites and other trauma that may result in exposure to zoonotic pathogens. During their careers, approximately two-thirds of veterinarians report a major animal related injury resulting in lost work time or hospitalization. 12,13,61–63 Dog and cat bites, scratches from cats, kicks, and crush injuries account for most occupational injuries among veterinary personnel. 12,13,61–63 Approximately 3% to 18% of dog bites and 28% to 80% of cat bites become infected, depending on the location of the bite and other factors.64 Most infected dog- and cat-bite wounds contain mixed aerobic and anaerobic bacteria. The most commonly isolated aerobes are *Pasteurella multocida* (from cat bites), *Pasteurella canis* (from dog bites), streptococci, staphylococci, *Moraxella* spp, and *Neisseria weaveri*; the most commonly isolated anaerobes are various species of *Fusobacterium*, *Bacteroides*, *Porphyromonas*, and *Prevotella*. 64 Rarely, bite and scratch wounds may result in serious systemic infections caused by invasive pathogens such as *Capnocytophaga canimorsus*, *Bergeyella zoohelcum*, CDC group NO-1, and *Bartonella* spp.64–70

Needle-stick injuries are among the most frequent accidents in the veterinary workplace71–73; the most commonly reported needle-stick injury is inadvertent injection of a vaccine.12,74,75 In a 1995 survey of 701 veterinarians, accidental self-injection of rabies virus vaccine was reported by 27% of respondents; among large-animal practice respondents, 23% had accidentally self-injected vaccines containing live *Brucella* organisms. 12 Inadvertent self-injection of vaccines, antimicrobials, and anesthetic agents by veterinary personnel may result in adverse events that range from local irritation to serious systemic reactions.73,76–78 Additionally, needle punctures sustained during procedures such as fine-needle aspiration are potential sources of zoonotic pathogens.79

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