



Our Mission:

We are committed to saving lives and reducing suffering of homeless dogs and cats through education, advancement of knowledge and shelter outreach.

Program Staff:

- Dr. Jan Scarlett, Program Director
- Dr. Elizabeth Berliner, Director of Clinical Programs
- Ms. Kelley Bollen, MS, CABC, Behavior Consultant
- Ms. Anne Marie McPartlin, LVT, Teaching Support Specialist
- Mrs. Amanda Grace, MS, Program Coordinator
- Ms. Sue Honig, MS, Computer Technician

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Shelter Watch



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From the Director's Desk

Happy Fall everyone! Time has just snuck up on us all, but we have lots of good news to share with you! Since our last newsletter, we have launched the next three years of our program so generously supported by Maddie's® Fund.

The renewal of their grant has allowed us to hire Anne Marie McPartlin, LVT (VTS-ECC), who is supporting the clinical, teaching, and applied research elements of our program. We are thrilled to have her on board as the Maddie's® Shelter Medicine Teaching Support Specialist.

We also have a new face behind the newsletter and on the other end of the phone when you call! Amanda Grace has joined us as our Maddie's® Shelter Medicine Program Coordinator, bringing a rich background of teaching and education to our program. In addition to keeping the various elements of our program in order, Amanda is also tasked with helping to expand our website outreach.

Currently, we are also in the process of interviewing candidates for our new Maddie's® Shelter Medicine Clinician. This additional faculty member will join us in the shelters, on the road, and in the classroom, expanding opportunities for consultations, rotations, and continuing education opportunities.

And last -- but not least -- the long awaited van has arrived in Ithaca. Funded by a grant from the Weiderhold Foundation, this vehicle will allow us to bring equipment and students to a wider range of shelters in our region. I am beside myself with joy over the "big red bus," and Anne Marie has been dreaming up organizational schemes to keep us stocked, productive, and on the road.

In devising a topic for this month's newsletter, the crew quickly agreed that our focus should be on care of senior animals in the shelter. Several of our own recent rescues have allowed us to think about what it means to provide a high quality of life for the older animals in the shelter with

chronic, "treatable- manageable" conditions. Diseases such as osteoarthritis, severe dental issues, and endocrine disorders can be expensive and difficult for shelters to address, but if there are people in your community with a passion for older pets, collaborative efforts can bring about heartwarming solutions for animals who once would have been dismissed as unadoptable.

One of my favorite examples is "Muttville," a San Francisco rescue that specializes in placing senior pets. This foster-based rescue removes seniors from the shelter, provides necessary medical care, and places them in appropriate homes. I love this model for senior animals, as long-term housing in a shelter setting is not ideal for older pets with mobility issues, cognitive disorders, or change-induced anxiety. Sherry Franklin, founder, has found great success, and I know there are so many others like her doing this important work for older pets.

Maddie's® Fund has also launched a pilot funding initiative in the San Francisco area called the, "Treatable Assistance Program." This program will provide a stipend to shelters and rescues, which transfer medically treatable and senior pets from animal control facilities. The dual mission is to save more of these vulnerable shelter pets while strengthening the relationship between adoption-guarantee organizations and animal control organizations. Here at the Maddie's® Shelter Medicine Program at Cornell, we wish this pilot subsidy program grand success, as we would love to see such programs in many more communities. What a great opportunity, for pets and for people.

Feel free to e-mail or call with comments. We love to hear from you.

And we'll be seeing you at the shelter!

Elizabeth Berliner, DVM

Janet L. Swanson Director of Clinical Programs



Dr. Erin Henry adopted Duke from a Philadelphia Shelter at twelve years old. Duke is also a trained therapy dog.

“A thorough physical exam by a member of your medical staff can tell you a lot about an animal, and it may just be the least expensive screening test you can perform!”

Geriatric Care



Screening Tests to Consider for your Geriatric Population: Dr. Erin Henry

Screening tests to consider for your Geriatric population

Screening tests for geriatric dogs and cats are an invaluable tool in sheltering. Not only do they allow you to properly care for pets while they are waiting for their new home, they also help to start these pets off on the right foot with their new adopters! Screening diagnostics are just one more piece in the puzzle of information that you can give adopters to help them understand their new family member. The tests described below are just a few screening tests we recommend for your older crowd. Your shelter may decide that some of these tests be reserved for animals that appear ill, or you may choose to screen any animal over a certain age; whatever the decision, your geriatric population will surely benefit!

Tests for both Geriatric Dogs AND Cats

Physical exam: A thorough physical examination of each animal by a member of your medical staff can provide valuable information and it may just be the least expensive screening test you can perform! An exam can reveal if an animal has a heart murmur or is suffering from arthritis; it can tell you if they might benefit from a dental cleaning; and it can alert you to other possible diseases that may require further diagnostics. Don't ever underestimate the value of a thorough physical exam!

Quick Assessment Tests

Packed cell volume- The packed cell volume or 'PCV' is a test that tells you the percentage of red blood cells that an animal has in their blood. It is one component of a CBC that, depending on the level of staff training and the resources available to your shelter, you can do in the shelter. This test can tell you if an

animal is anemic and allow you to decide if further testing is required.

Total solids- The total solids measurement, like the PCV, is a test that can be done by staff depending on the extent of their training or the resources available to the shelter. It can help indicate if an animal is dehydrated; or it may provide clues as to why an animal is anemic. A chemistry screen can be used to further investigate an abnormal result found on this test.

Azostick- The azostick is a quick “dipstick” test that allows you to roughly measure whether a pet has elevated enzymes that may indicate kidney disease or dehydration. It is a great way to determine if a chemistry panel is indicated to rule out renal disease!

Blood Glucose- This test is a great way to determine if the signs you are seeing could be related to diabetes mellitus. A glucometer (exactly the same as the ones used in human medicine) is used to determine the amount of sugar in the pet's blood. Levels that are too high or too low can be indicative of underlying disease, which may call the need for further diagnostic testing.

Urinalysis- Another training and resource-dependent screening test, the urinalysis, can tell you the health of a pet's urinary system, from their kidneys to their bladder, and even a little about other organ systems. The test has three portions, including the urine specific gravity (USG), the urine dipstick, and the urine sediment. The USG tells you how concentrated a pet's urine is, which can be an indication of dehydration (if it's too high) or kidney or liver disease (too low). The urine dipstick can tell you if the urine sample contains inappropriate compounds caused by systemic or urinary disease. The urine sediment involves viewing spun urine under a microscope, and can reveal an elevated white blood cell count, bacteria, blood and

more. Abnormal findings on any of these “in-house” tests can be verified by sending a sample off to a laboratory for confirmation by a pathologist.

Laboratory Panels

Complete blood count- A complete blood count measures the number of red blood cells, white blood cells, and platelets in a sample of blood. The numbers of each type of cell can indicate that an animal is anemic (too few blood cells), or that it may have an infection, or even cancer (like leukemia or lymphoma).

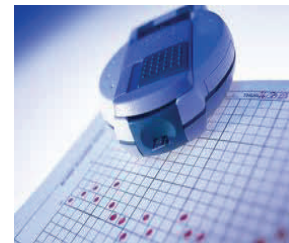
Chemistry panel- A blood-chemistry panel measures electrolytes, enzymes, and chemical elements present in an animal’s blood such as calcium and phosphorous levels. This test can give you an understanding of the function or dysfunction of many organs, including the kidneys, pancreas and liver, which can begin to have problems as animals age. Blood-chemistry panels also help accurately diagnose and treat illness, as well as, indicate whether certain medications can be used in an animal (such as medications used for arthritis). The results of a chemistry panel may also indicate that further testing is needed

to reach a diagnosis.

Specific Tests for Geriatric Cats

Thyroxine (T4) levels- This test can tell you if a cat is suffering from hyperthyroidism, a common disease seen in older cats that results in an increase in metabolism. You may choose to run this test if a physical examination reveals a heart murmur, very thin body condition, or enlargement of the thyroid gland in the neck. You may also wish to run this test if kennel staff report that an older cat is eating ravenously and very thin.

In conclusion, it is important to recognize that while the screening tests discussed above can reveal quite a bit of information about an animal’s health status (like a geriatric animal in pristine shape for their age), they may not give you all of the answers needed, and further diagnostic tests may be indicated. Having a good relationship with a veterinarian (either in-shelter or on a consulting basis), can be very helpful for navigating the care and welfare of your senior animals.



“ When it comes to judging QOL for non-verbal creatures such as human babies, non-verbal adults or companion animals, dynamics become increasingly complicated.”

Assessing Quality of Life for Senior Shelter Pets:

Elizabeth Berliner, DVM

Quality of life (QOL) assessment is a hotbed topic in medicine these days, be it human or veterinary. Defining *quality of life* is the first challenge. Even in humans capable of self-reporting on their own quality of life, assessments vary greatly based on attitude and overall outlook. Objective measures fall short. When it comes to proxy assessments –meaning that one person assesses another person’s QOL- the results are highly unreliable: what I may judge to be a horrible QOL may seem highly desirable for another with different values. Furthermore, few tools have been demonstrated to enable someone to effectively rate someone else’s quality of life, and those in use are highly focused for

particular short-term events, as in recovering from surgery. When it comes to judging QOL for non-verbal creatures such as human babies, non-verbal adults, or companion animals, dynamics become increasingly complicated.

Several quality of life assessments are available to help private owners evaluate the status of their own pets in their homes, particularly as their pets begin to age. The often recommended approach is to have owners put a marble or other item in one of two jars daily: one for “good” days and one for “bad” days. In these instances, “good” days reflect how often senior pets engage in activities they have always loved, as well as, basic



Dr. Henry and Duke enjoy taking longer walks by wagon.

measurements such as appetite and attitude. When the bad outnumber the good, perhaps the quality of life has shifted.

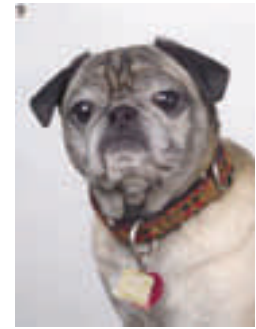
Other more formal QOL assessment tools exist on-line. A good example has been published by Dr. Alice Villarobos, called the *HHHHMM Scale*. Rated values include hurt, hunger, hydration, hygiene, happiness, mobility, and more good days than bad. Although math cannot be used to make difficult and emotional decisions, it can help elucidate and inform situations by providing a more objective view.

In a shelter, the absence of a long-term, historical relationship often calls for an evaluation of a senior’s quality of life in the shelter, where its human bonds have been broken. This can be incredibly difficult, but I think the same QOL assessments can be used, along with the Farm Animal Welfare Council’s, *Five Freedoms*, which have become the basic guiding principles for ensuring QOL for all shelter animals. Ensuring freedom from pain and discomfort or fear

and distress can be difficult to impossible in older pets with painful, debilitating conditions, especially with the added stress of being separated from their human life partners. Senior pets often require more time, patience, and resources, but the rewards can be great when you see that pet through to placement in a new home. However, evaluation and management of common conditions such as osteoarthritis, dental disease, or other degenerative diseases are *essential* when providing for older pets in the shelter and ensuring that their “golden years” are truly humane and enriched.

Further Reading

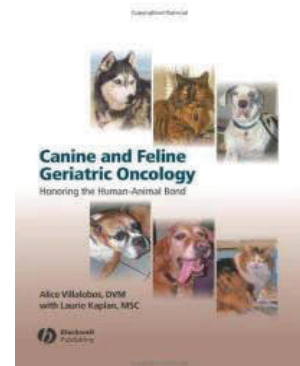
McMillan F. *The Mental Health and Well-Being of Animals*. Iowa: Wiley Blackwell, 2005.
 Villalobos AE, Kaplan, L. *Canine and Feline Geriatric Oncology Honoring the Human-Animal Bond*. Iowa: Willey Blackwell, 2007.



“Senior pets often require more time, patience, and resources, but the rewards can be great when you see that pet through to placement in a new home.”

The Five Freedoms	
Freedom from hunger and thirst	By ready access to fresh water and a diet to maintain full health and vigor
Freedom from discomfort	By providing an appropriate environment including shelter and a comfortable resting area
Freedom from pain, injury, or disease	By prevention or rapid diagnosis and treatment
Freedom to express normal behavior	By providing sufficient space, proper facilities and company of the animal’s own kind
Freedom from fear and distress	By ensuring conditions and treatment which avoid mental suffering

From the Farm Animal Welfare Council 1979, revised 2008)



“A successful plan for keeping older pets active and comfortable is using a multimodal approach to pain control.”



Charlie, age 14, and Izzy, age 12, were both rescues from the Upstate NY area in 2002. Both have been close traveling companions for Anne Marie making cross country road trips three times since 2006.

Getting the Creaks Out: Pain Control For Geriatric Animals In The Shelter: Ms. Anne Marie McParlin, LVT

Adoptability, quality of life, and exit plan strategies are difficult enough for young and adult animals, but when these decisions are exacerbated by age, the point at which to draw the line can sometimes become blurry. To the right adopter, geriatric pets can offer appealing qualities such as a quiet demeanor, and requiring little or no training – in particular house training. Keeping in mind that age itself is not a disease, with medical screening, shelters can offer older animals an opportunity for a new start.

Mobility issues associated with aging can often be manageable conditions with an assortment of medications available to shelters. A successful plan for keeping older pets active and comfortable is using a multimodal approach to pain control. Different classes of drugs have different modes of analgesia. When used in combination, these drugs can work synergistically while lowering the dose of each drug (which in turn can lower cost).

Non Steroidal Anti Inflammatory Drugs (e.g. Metacam, Rimadyl, Deramaxx, Etogesic)

NSAID's reduce inflammation. They are often formulated as a once daily dose, and as flavored chewables. They can have significant gastrointestinal, kidney, and liver side effects so they should be used with caution, or not at all in dogs with impaired kidney or liver function, or that have a history of vomiting and diarrhea. NSAID's are not usually recommended in cats due to the potential for toxicity. However, if other drug options have failed to provide adequate analgesia and the cat is otherwise healthy, meloxicam (Metacam) has been shown to be the safest for cats.

Atypical Opioids (Tramadol)

Tramadol can be a great ally in the management of chronic pain. It is available in generic form and can be compounded in various strengths for both cats and dogs. It is particularly distasteful for cats so medicating can sometimes be difficult. Tramadol is excreted in the liver and kidneys and should be avoided in animals with impaired function. It should not be used in combination with antidepressants.

N-methyl-D-aspartate Receptor Antagonists (Amantidine)

As opioids wear off, some people and animals with chronic pain will experience enhanced pain due to something called the “wind up” effect. So NMDA antagonists are sometimes used in combination with opioids. NMDA receptor agonists mediate the changes in the brain and spine that can occur with chronic pain by blocking the activation of these receptors. Amantidine is excreted in urine and should be used with caution in animals with impaired renal function. It has a once a day dosing, which can make medicating easier.

Nutraceuticals (e.g. Cosequin, Dasequin, Chondroflex)

Many chondroprotectant formulations are available to enhance a drug regimen, or in some cases, provide sole relief. They include different combinations of supplementation such as glucosamine, chondroitin, and msm. Although clinical studies have not proven their efficacy, many pet owners have reported positive results, as marketed to prevent cartilage breakdown and contain anti-inflammatory properties.

Article Highlight

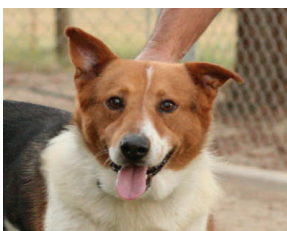
Article: Muttville: Senior Rescue Dog

What is Muttville? We reach out to senior and special needs rescue dogs; find suitable homes for those dogs that are adoptable; and offer end of life care for those that are not.

The organization: Muttville was started in 2007 by Sherri Franklin, a longtime animal advocate and rescue worker.

The Dogs: Dogs come to Muttville from shelters, as well as, from loving homes.

Web Link:
<http://www.muttville.org/>



Cody is a strong and sweet 7 year old boy that was abandoned at a central valley shelter.

They also come in a wide variety of chewable/flavored forms. Dosing for large breeds can be expensive.

Adequan

Adequan is a polysulfated glycosaminoglycan and is characterized as a disease modifying osteoarthritis drug for use in dogs. Its particular mode of action is unclear, but it is said to inhibit enzymes involved in the breakdown of cartilage. It is administered as an intramuscular injection twice a week for up to four weeks. It should be avoided in dogs with impaired liver or kidney function.

As with any treatment plan, a veterinarian should be involved in proper screening for any medical issues and developing a drug regimen for each patient. Compounding pharmacies can be extremely helpful in providing smaller strengths and more palatable options at reasonable

costs. Ordering the generic form can also be very cost effective. For long term treatment, strive to maintain the lowest dose necessary for adequate analgesia in preventing possible side effects, and if planning to discontinue medications, be sure to do it gradually.



APPROXIMATE MONTHLY COST WHEN ORDERING FROM DISTRIBUTOR		
DRUG	CAT 8 lbs (3.6 kg)	DOG 50 lbs (22.7 kg)
Carprofen (Rimadyl)		\$25-30
Deracoxib (Deramaxx)		\$25
Etodolac (EtoGesic) *		\$3
Meloxicam (Metacam)	\$1-2	\$60
Tramadol *	\$0.10-1	\$1-2
Amantadine	\$1-2	\$50
Gabapentin *	\$15-20	\$6-10
Dasuquin	\$16/3mth	\$28/1.5mth
Cosequin	\$12/2.5mth	\$30
Chondroflex	\$2-3	\$15-20
Adequan		\$9/injection

*Generic Form

Just How Many Are Geriatric? Dr. Jan Scarlett



“Take some time (if you have not already) and examine the age distribution of the population entering your shelter and consider what resources you need to provide senior animals with good care.”



Like so many questions relating to the number of animals falling into various categories, we have no good answer to the question of how many dogs and cats entering our shelters nationwide are geriatric? We don't even have agreement as to what age range is considered geriatric. Veterinarians have defined senior or geriatric dogs in various ways, sometimes citing age ranges, and other times defining it as encompassing the last 25% of a dog's lifespan (in recognition that the life-span of dogs often varies by size). For large to giant breed dogs, the senior years might encompass 7-10 years of age, whereas for small breed dogs, the range may be closer to 14-18 years of age. Similarly, there is no consensus as to when cats are geriatric, but today it is probably somewhere between 12-20 years of age.

One of the few published studies presenting age-at-relinquishment data, reported that among animals with age information available, 19.5% (394/2017) of dogs and 16.1% (212/1319) of cats were estimated to be 9 years of age or older at the time of relinquishment (Salman et al, 1998). These estimates pertained only to animals relinquished by their owners in twelve open-admission shelters, and would probably have been lower if stray animals had been included. While percentages of geriatric animals undoubtedly vary by shelter and community, the data do suggest that the number of older animals entering shelters is significant.

Some are surrendered for euthanasia, but many require care and special efforts to facilitate their adoption (in shelters with the resources to do so). As shelters save more animals, it is likely that more elderly animals will require care and marketing appropriate for their age. Take some time (if you have not already) and examine the age distribution of the population entering your shelter and

consider what resources you need to provide senior animals with good care. If your shelter currently euthanizes older animals, then plan for what will be needed in the future as the shelter's live release rate increases.

This issue of our newsletter has only scratched the surface with regards to the myriad of issues pertaining to our senior animals. Careful consideration should be given to the protocols for our geriatric guests, such that they experience a good quality of life, and when appropriate, find loving homes.

Salman et al, 1998. Human and animal factors related to the relinquishment of dogs and cats in 12 selected animal shelters in the United States. *J of Applied Animal Welfare Science*, 1(3): 207-226.



Events Calendar

November 2012

Sun Mon Tue Wed Thu Fri Sat

1 2 3

4 5 6 7 8 9 10

Clinical Rotation in Shelter Medicine (2 Weeks) →

Daylight Savings

Election Day

Shelter Med Club Clinic

11 12 13 14 15 16 17

Healthy Pet Clinic Syracuse

Southside Clinic

Veterans Day

Presentation at SPCA TC

18 19 20 21 22 23 24

Visit to UC Davis and SF SPCA →

Thanksgiving

25 26 27 28 29 30

Southside Clinic



Cornell University
College of Veterinary Medicine
Maddie's Shelter Medicine Program



Maddie's® Shelter Medicine Program is underwritten by a grant from Maddie's Fund®, The Pet Rescue Foundation (www.maddiesfund.org), helping to fund the creation of a no-kill nation.