Use of Pharmaceuticals as a Tool in Behavior Modification Programs in Animal Shelters:  
Part 1 and Part 2  
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Spending any length of time in a shelter environment is arguably a stressful experience for the majority of companion animals. Each shelter is tasked with providing for the core needs (food, water, housing, etc.) as well as doing the best they can to support the behavioral and emotional needs of the animal. It can be difficult to provide the balance of space, freedom, safe and comfortable social contact, environmental control, outlets for normal species specific behavior, etc. that sets each animal up to have a low-stress experience during their time in the shelter.

The consequences of fear, anxiety, and stress (FAS) can have additional effects including a negative impact on their immune function of that particular animal, and/or a negative impact on the quality for other animals in their immediate surroundings (secondary to aggression, excessive vocalization, etc.) which creates relevance for the entire population in addition to needs of the individual animal.

When FAS is reduced through enrichment, appropriate daily management, behavior modification and/or medication use, there can be positive impacts on adoption rates, adoption success, length of time in foster homes, and return rates, which encourages us to consider all options for the care of animals within the shelter system.

This list of observations that suggest a significant level of FAS and possible benefit from pharmaceutical intervention is quite extensive. The signs that are observed may vary from one animal to the next, and may also vary from one facility to another, which emphasizes the need for ongoing awareness and vigilance rather than monitoring for only one or two sentinel behaviors. These patterns will be discussed in greater detail during the presentation:

- Repetitive/stereotypic behaviors
- Excessive or persistent vocalizations
- Loss of appetite (anorexia)
- Excessive appetite (pica, polyphagia)
- Destructive behaviors
- Avoidance behavior (overall, or specifically triggered by individual’s approach)
- Worsening or change in behavior over time (as reported by volunteers or staff)
- Excessive arousal
- Excessive self-directed behaviors (grooming, licking, etc.)
- Weight loss
- Gastrointestinal upset
- Concurrent illness and/or medication use
- Lack of response to social interaction with people or other animals
- Disconnect from physical/social surroundings (may appear “calm”)

When any of these signs are observed, should medication use automatically be considered? Generally, no. These and other changes in behavior can have other possible causes, and may be able to addressed through adjustments in the animal’s exercise schedule, housing, etc. Before reaching for any of the pharmaceutical interventions that will be discussed here, it is important to confirm that other interventions (appropriate opportunity for exercise, minimize exposure to stressors, allow for decompression time, engage in positive reinforcement based training, provide physical and/or social
enrichment, etc.) are being implemented to the best of the shelter’s ability. This is a critically important step, because any positive impact of medication is likely to be affected by the animal’s physical and social environment, and is less likely to have an observable impact if these other factors haven’t been fully addressed. Of course, it is acknowledged that some level of ongoing stress is likely to be present given the general impact of living in the shelter environment, and this shouldn’t preclude the use of medication(s) for a given animal.

Medication may be more likely to be considered as a valid option in situations in which the animal has failed to respond sufficiently to those interventions listed above, if other housing/management options are not readily available for the animal, as a pre-emptive recommendation during the post-operative period, or when any available surrender history suggests that the FAS issue may have predated the animal’s time in the shelter environment.

Individual conditions/patterns likely to benefit from pharmaceutical intervention (to be discussed in greater detail during presentation) may include:

- Confinement distress (FAS is repeatable across various confinement methods, lack of distress in other contexts)
- Separation anxiety (difficult to accurately assess in shelter without supportive surrender history, anxiety is specific to social bond with individual)
- Isolation distress (animal is comforted by presence of any individual, animal is distressed when socially isolated)
- Reactivity / impaired impulse control (exaggerated response to stress or emotional activation/stimulation, easily triggered to react, exaggerated response intensity, prolonged reaction duration, prolonged recovery period)
- Generalized anxiety (persistent apprehensiveness, hypervigilance, exaggerated startle responses, lack of selective attention)
- Specific/global fears (negative emotional response to discrete stimuli)
- Compulsion / stereotypy (repetitive behavior, sequence occurs out of context, compromised ability to disengage from behavior, as outlet for energy/stress)
- Hyperarousal (affected by lack of exercise, insufficient opportunity to engage in normal behavior, affected by stress, lack of decompression time)
- Aggression motivated by FAS
- Feline psychogenic alopecia (assuming medical causes ruled out)
- Urine marking

There are several considerations that should be factored into a decision of whether or not to pursue pharmaceutical intervention for a particular animal, including:

- All decisions regarding prescriptions should be made by a licensed veterinarian, following standard protocols for prescribing within a valid veterinarian/patient relationship
- Pattern/diagnosis of behavior should be documented to the best of the practitioner’s ability prior to prescribing (i.e. scripts should not be provided “for behavior issues” but rather as intervention for specific/identified patterns)
- Animal should be assessed as completely as possible to rule out the presence of underlying medical illness that may have an impact on the behavior of the animal, or on the animal’s ability to handle pharmaceuticals safely
- Initial observations as well as those pertaining to animal’s response to intervention may be coming from volunteers, shelter staff, behavior support team, etc. – care should be taken to ensure basic knowledge of body language, relevant concerns for specific animal, etc. to maintain the greatest level of accuracy possible
Timeline for clinical response to individual pharmaceuticals may affect choices (i.e. maintenance medication may not be appropriate for acute problem, event medication lasting 4-6 hours is not likely appropriate for 24/7 management of animal, etc.)

Cost of medication as well as availability of generic options/alternatives may affect prescribing choices

Protocols should be established for how to handle ongoing medication use for animals that are adopted, transferred to other shelters, moved into foster care, or otherwise no longer in need of medication support (including an understanding of whether medication can/should be tapered vs. abruptly discontinued, etc.)

It may be prudent to consider the ethical implications of medication use within the shelter, as well as the public perception of pharmaceutical interventions within the shelter

In addition to the benefits of medication use for companion animals, staff as well as potential adopters should be aware of several perceived limitations of the use of behavioral pharmaceuticals within the shelter, including:

- Understanding that medication may affect the animal’s emotional response, specifically to FAS, but isn’t likely to create, teach, or strengthen more appropriate behavior patterns (those are typically taught within a behavior modification and training program)
- Using medication won’t likely compensate fully for insufficient exercise, ongoing social stress, the animal’s response to novelty within the environment, or a need for “decompression time”
- Side effects are possible with most pharmaceuticals – prescribers should be aware of those side effects prior to prescribing, and should take care to educate others within the shelter for the purpose of monitoring the animal’s response to treatment and adjusting treatment recommendations accordingly
- The animal’s assessed need for pharmaceutical intervention may change whenever there are significant changes in the animal’s physical/social environment, such as how that animal is impacted by other animals in their immediate proximity, how that animal responds to a transition into long-term home or foster environment

Medications that are likely to be used within the shelter can typically be categorized as “maintenance” (given daily, may take 4 weeks or more to take effect, should provide 24/7 benefit to patient when benefits are realized) or “situational/event” (given as needed, typically take effect within 15-60 minutes, may only last for a limited period of time, may need to be given multiple times per day for steady state effect to be realized).

Other options, specifically those marketed as supplements or nutraceuticals, may work in a variety of ways and can often be used in combination with prescription options for a synergistic benefit for the animal. Several specific medication options and a “flow chart” of sorts will be discussed during the presentation.

In addition, several resources for direct consultation with a board certified veterinary behaviorist will be provided, including searching for individuals on the website [http://www.dacvb.org/about/member-directory/](http://www.dacvb.org/about/member-directory/)