# **Feline Asthma**

# Treatment Guidelines for Using Inhaled Medication

Flovent<sup>TM</sup> (fluticasone propionate) and albuterol metered dose inhalers with the AeroKat<sup>TM</sup> Feline Aerosol Chamber

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Once a diagnosis of asthma has been determined, the next step is to decide if the clinical signs are mild, moderate, or severe.<sup>1</sup>

- 1. Mild symptoms: In these cases, the symptoms do not affect the way in which the cat conducts its business (quality of life). In these cases, between "attacks", the cat eats, drinks, and plays as if nothing is wrong.
- 2. Moderate symptoms: In these cases, the asthmatic condition sometimes affects the way the cat conducts its business (e.g., it may tire easily, it may wake up at night coughing). Symptoms are present on most days and may include in creased effort to breathe and/or daily cough.
- **3.** Severe symptoms: in these cases, the asthmatic condition is continual and clearly limits the cat's ability to conduct its business. These cats are not comfortable at rest, and the symptoms occur for most of each day.

In summary, to classify cats with asthma, we take the following steps: (1) determine if the signs are intermittent or daily, and (2) determine the severity of daily symptoms. These two steps are the beginning of a rational treatment plan.

In cats that have sporadic and not daily symptoms, the cause of the sporadic symptoms is from bronchoconstriction that is acute and non-predictable (spontaneous). In these cases it is usually not necessary to treat with corticosteroids, neither is it necessary to treat daily. Albuterol alone is an appropriate symptomatic treatment. For the cat that had been displaying daily symptoms of varying severity and is using inhaled corticosteroid therapy yet presents the occasional symptom, albuterol is the first choice before increasing the inhaled corticosteroid.

### **Treatment of Feline Asthma**

**Mild Daily Symptoms.** These cats have daily symptoms but in between the coughing and wheezing, they are generally unaffected by their disorder. For these cats, I prescribe 110 mcg of Flovent<sup>TM</sup>, 1 actuation (puff) twice daily into the AeroKat<sup>TM</sup> spacer. [Details of using an MDI (metered dose inhaler) with a spacer are given below.] I also prescribe albuterol inhaler as needed for those times when symptoms are particularly troublesome. Because inhaled Flovent<sup>TM</sup> takes about 7-14 days before its maximum effect is seen, these cats will likely continue to be symptomatic for an additional week or so. Clients should be supported through this period and encouraged that their pet is going to begin to improve after the first week of therapy. If the pet is doing well after two months on the 110 mcg BID (total 220 mcg/day) dose, some patients will continue to do well after a decrease to 110 mcg once daily.

**Moderate Daily Symptoms.** These cats have daily symptoms that have a negative effect on their quality of life, but their cough, wheeze, or dyspnea is not constant. For these cases, I prescribe 1 actuation of Flovent<sup>TM</sup> 110 mcg into the AeroKat<sup>TM</sup> twice daily. I also prescribe 1 mg/kg of prednisone administered orally twice daily for 5 days and then once daily for 5 additional days. After 10 days of combined oral and inhaled steroids, the cat has generally shown great improvement and the oral prednisone can be discontinued without further taper. Oral prednisone is used in this setting because significant daily symptoms suggest the presence of a more aggressive inflammatory component that should be more aggressively treated. Albuterol administered as needed.

**Severe Daily Symptoms.** These cats are symptomatic and uncomfortable at rest and require aggressive early management. I begin with 2 mg/kg of dexamethasone administered intravenously and inhaled albuterol every 30 minutes for up to 4 hours. This frequency of albuterol treatment generally does not cause side effects or might cause slight muscle tremor. These cats are also given 40% to 100% oxygen either by nasal cannula or oxygen cage. Once these patients are stabilized (their symptoms are dramatically improved), they can be discharged with 1-2 actuations 110 mcg of Flovent<sup>TM</sup> administered twice daily (total 220 – 440 mcg/day) into the AeroKat<sup>TM</sup>, and albuterol administered four times daily as needed. Some of these cats with very severe symptoms may also require intermittent lower doses of oral prednisone or a higher maximum dose of 880 mcg/day Flovent<sup>TM</sup>, but this is tailored for the individual patient.

## Using Flovent<sup>™</sup> or albuterol with the AeroKat<sup>™</sup> Feline Aerosol Chamber

- 1. Check that the AeroKat<sup>TM</sup> is free from any obstructions or foreign matter.
- 2. Insert MDI into back of chamber. Hold and shake for 15 seconds to load the valve inside the MDI.
- 3. Place mask on cat's muzzle, making a gentle seal around nose and mouth.
- 4. Depress and actuate the MDI and count to at least 10 seconds.
- 5. Repeat steps (shake, depress and count) if prescription warrants.

Corticosteroid accumulation at the mask contact area may cause a benign dermatitis in rare cases. For prevention, wipe the muzzle with a damp square of paper towel after Flovent<sup>TM</sup> administration. Candidiasis is not a concern in the feline.

Flovent<sup>TM</sup> needs to be administered twice a day, with the exception of some mild cases, and has an in vivo halflife of approximately 8 hrs. The therapeutic range for feline asthma falls between 110 mcg and 880 mcg per day. Once the lowest therapeutic dose has been achieved and the cat has an extended period of stability, that dosage should be continued for the life of the patient unless daily symptoms change significantly. What works for an individual cat is the treatment to maintain.

Flovent<sup>TM</sup> is a registered trademark of GlaxoSmithKline. AeroKat<sup>TM</sup> is a registered trademark of Trudell Medical International.

<sup>1</sup>Padrid, P. Feline Asthma: Diagnosis and Treatment. Veterinary Clinics of North America: Small Animal Practice. Vol. 30, Number 6, November 2000

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