



## **CLINICAL STUDY: INFORMATION FOR VETERINARIANS**

### **Evaluation of a Liquid Formulation of L-T4 (Leventa<sup>®</sup>) for Treating Hypothyroidism in Cats**

At the Animal Endocrine Clinic, we are enrolling cats for a study to investigate the usefulness of a liquid L-T4 formulation (Leventa<sup>®</sup> Merck Animal Health; [www.leventa.com](http://www.leventa.com)) for treatment of cats with hypothyroidism (both iatrogenic or spontaneous hypothyroidism).

As you know, naturally occurring hypothyroidism is rare, but iatrogenic hypothyroidism can develop after any of the common treatments used for hypothyroidism. It appears that subclinical forms of hypothyroidism may be more common than previously thought and that treating cats may be of benefit to their overall health.

Leventa is a synthetic levothyroxine liquid formulation that may have many advantages over other L-T4 preparations for use in cats. Note that it is approved for use in dogs, but it is not approved for use in cats (but no other L-T4 preparations are approved either!).

- Leventa is readily accepted by most cats.
- This preparation is most effective when administered twice daily.
- The liquid formulation of Leventa facilitates precise dosing and flexibility.
- Since the concentration of Leventa is 1 mg/ml, most cats only need a daily volume of 0.1-0.2 ml per day.
- Leventa can either be given orally or placed into the cat's food.
  - However, since L-T4 appears to be absorbed better on an empty stomach, we recommend either administering the Leventa an hour before feeding.
  - If the Leventa must be given with food, then we recommend placing the L-T4 into a small amount of the cat's favorite food (or pill pocket), waiting an hour, and then feeding the remainder of the meal an hour later.

To be eligible to enroll in this study, the cat must be documented as being hypothyroid, based on the results of a complete thyroid panel (serum T4, T3, free T4, and TSH) and confirmed with thyroid scintigraphy. If accepted into the study, we will do the **thyroid scan and follow-up thyroid panel testing (see below) at no charge** to you or your client.

In all cats with documented hypothyroidism, we will supply the owner with **1 bottle of Leventa at no charge to them**. Each bottle contains 30 ml (30 mg) of L-T4 solution, so a single bottle should be adequate to treat a hypothyroid cat for many weeks to months.



**animalendocrineclinic**

Dr. Mark E. Peterson

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Listed is the protocol we recommend for L-T4 dosing, monitoring, and making dose adjustments for your cat:

- The Leventia is best stored in a refrigerator.
- A starting dose rate of 75-100 microgram Leventia per cat is recommended, administered twice daily before each meal.
- The dose can be given either during fasting or with food (see above), but the owner must be consistent in time of dosing.
- Cats should be reexamined 4 weeks after initiating Leventia— please note improvement in clinical signs, and collect serum for a serum chemistry profile and complete serum thyroid panel at 3-4 hours after administration of the Leventia.
- If you use either Antech or IDEXX labs, we will supply our account number to you for this lab testing so you or your client will have the **results at no extra charge**. If you are interested, please call or email our office to get our account number so that you can submit the samples to the laboratory.
- All of the test results will be forwarded to you, along with my interpretation. I will help you tailor the dose rate and regime for each individual cat, as needed.
- Further assessment of hormonal responses and dose adjustment should be repeated at 1-3 month intervals, as directed. Again, we will do **all of these follow-up thyroid panels at no charge to you**.
- Once I receive the results, I will send you a follow-up report with my comments and recommendations.

Please do not hesitate to call (212-362-2650; 914-864-1631) or email us ([info@animalendocrine.com](mailto:info@animalendocrine.com)) if you have any questions regarding this study.

Thank you for helping us all learn more about this important feline endocrine disorder.

Best regards,

Mark E. Peterson, DVM, Dip. ACVIM