



## RESEARCH PROGRESS REPORT SUMMARY

**Grant 02686-A:** Pattern of Thyroid Function Tests during Recovery from Acute Nonthyroidal Illness

**Principal Investigator:** Timothy Bolton, DVM  
**Research Institution:** Virginia-Maryland Regional College of Veterinary Medicine  
**Grant Amount:** \$13,792.00  
**Start Date:** 1/1/2020      **End Date:** 6/30/2023  
**Progress Report:** FINAL  
**Report Due:** 6/30/2023      **Report Received:** 6/14/2023

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### **Original Project Description:**

Hypothyroidism is the most common endocrine disease in dogs. A diagnosis of hypothyroidism relies on finding both appropriate clinical signs and low thyroid hormone levels. Unfortunately, other illnesses can suppress thyroid hormone levels and result in a misdiagnosis. This phenomenon of low thyroid hormone levels caused by a disease not involving the thyroid gland is known as nonthyroidal illness or euthyroid sick syndrome. It is important to distinguish between nonthyroidal illness and hypothyroidism as the treatment for each is different. Historically, the recommendation for a dog with nonthyroidal illness has been to resolve the underlying disease, followed by a recheck of thyroid hormone levels thereafter. However, the duration of time after resolution of the nonthyroidal illness necessary to perform accurate thyroid hormone level testing is unknown. This study will provide information about thyroid hormone levels during the course of nonthyroidal illness, and also establish the approximate duration of time for recovery of thyroid hormone levels to normal following illness resolution. These results will correlate clinically with more concrete recommendations for thyroid hormone level testing following resolution of nonthyroidal illness.

### **Publications:**

A manuscript delineating the findings of this study is under review by the Journal of Veterinary Internal Medicine.

### **Presentations:**

None at this time.



**Report to Grant Sponsor from Investigator:**

The study is currently completed and all data statistically analyzed and interpreted. The entirety of the project (results and conclusions) has been compiled into a manuscript and is under review currently by the Journal of Veterinary Internal Medicine.