

## **VMTH Clinical Diagnostic Laboratories Endocrinology Sample Submission Guidelines**

Sample quality and pre-analytical sample handling can significantly affect the results of endocrinology testing. When submitting samples to the VMTH Clinical Diagnostic Laboratories, please follow these sample preparation and handling instructions.

### **General sample collection and handling procedures**

- Collect blood using a plain red-top collection tube (RTT) without additive (i.e. clot activators, no SST tubes, etc.). Do NOT submit whole blood or serum separator tubes (SST). There are some exceptions to this general rule; listed below by test.
- Allow adequate time for the blood to clot (usually at least 30 minutes) to ensure sufficient sample yield for testing and to avoid fibrin formation. If the sample is not centrifuged within 2 hours of draw, please store in the refrigerator until time of centrifugation.
- Centrifuge specimen at a speed and time (~10 minutes) that allows for complete serum separation from red cells.
- Samples with marked hemolysis or lipemia should be re-drawn before sample submission.
- After centrifugation, transfer the serum into a labeled tube, appropriate for shipping and/or storage. Un-labeled specimen will not be analyzed.
- Ship serum on frozen cold packs wrapped in a paper towel and send via overnight FedEx, Monday-Thursday only. Our labs do not receive packages on weekends.
- Include a completed VMTH Clinical Diagnostic Laboratory Sample Submission form with all laboratory submissions. Failure to include a form will result in delayed sample analysis.

Questions? Contact Central Lab Receiving (CLR) at 530-752-VMTH (752-8684) or visit our website: [www.vetmed.ucdavis.edu/clinical-laboratory](http://www.vetmed.ucdavis.edu/clinical-laboratory)

### **Endogenous ACTH Testing**

#### *Sample collection and handling procedures*

- Collect blood in a **plastic EDTA** tube (lavender top tube). Samples collected into glass EDTA tubes may yield false results.
- Collect enough blood to the tube fill volume, gently mix by inversion, and chill immediately by refrigeration or immersion into an ice bath, ensuring the sample does not freeze.
- Keep blood in the refrigerator prior to centrifugation.
- Separate the plasma from red cells as quickly as possible for dogs, and at least within 4 hours for horses.
- Centrifuge for ~ 5-10 minutes (preferably in a refrigerated centrifuge), transfer plasma into a plastic tube without additive, and freeze immediately.
- Label all samples with patient name/ID. Un-labeled specimen will not be analyzed.
- Samples with marked hemolysis or lipemia should be re-drawn before sample submission.
- Ship samples on frozen via overnight shipping. Plasma samples should arrive at the VMTH frozen.
- Do NOT submit whole blood or serum for Endogenous ACTH testing.

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## **OFA Canine Thyroid Registry Panel**

### ***Sample collection and handling procedures***

- Collect blood into a plain, red top tube. Allow blood to clot, and then centrifuged to separate serum.
- Transfer serum to a new plain, red top tube.
- Samples with marked hemolysis or lipemia should be re-drawn before sample submission.
- Label samples with the animal identification number. Un-labeled specimen will not be analyzed.
- OFA Registry samples must be received by the laboratory within 24 hours on cool gel packs (<60°F on cold gel packs) and within 48 hours of packing and shipment. Any time delay longer than this will render test results unreliable.
- The date of collection must be written on the sample submission form.

Two sample submission forms and two payment checks are required.

- A VMTH Canine Thyroid Registry Submission Form and an OFA registry form. Both forms are available on the VMTH Clinical Diagnostic Laboratory website.
- Two checks must be included with each OFA submission
  - a. One check made out to “VMTH” to cover the cost of the testing
  - b. The second check made to OFA to cover the cost of registration.

Specimen will be rejected if:

- Serum is markedly hemolyzed or lipemic.
- Any specimen other than serum is submitted.
- Serum is incompletely separated from the clot.
- Time lapse between specimen collection and receipt by the laboratory is greater than 48 hours.
- Serum has a temperature greater than 60°F upon receipt by the laboratory.
- Collection date is not listed on the submission form.
- Serum has been collected, labeled, preserved, or otherwise handled in such a manner that it has become unreliable as a test specimen.

If samples are rejected, the sender will be promptly notified and given the reason(s) for specimen rejection.

OFA Thyroid results are confidential and will only be faxed back to the ordering veterinarian. Results will not be released to owners.

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## **Cortisol Assays**

Includes: ACTH stimulation test, low and high dose dexamethasone suppression tests (LDDS, HDDS), cortisol.

### ***Sample collection and handling procedures***

- Collect blood into a plain, red top tube. Allow blood to clot, and then centrifuged to separate serum.
- Transfer serum to a new plain, red top tube.
- Samples with marked hemolysis or lipemia should be re-drawn before sample submission.
- Clearly label all specimen with sample time and patient information (example, LDDS: “pre”, “post 4 hour”, “post 8 hour”).
- Include a Clinical Diagnostic Laboratory Sample Submission form with each sample submission.

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