**Diagnostic Protocol for Cases of Suspected Cushing’s Syndrome or Addison’s Disease**

**History, physical exam, CBC, chemistry panel, electrolytes, and urinalysis consistent with Cushing’s Syndrome or Addison’s disease**

1. **Draw baseline cortisol sample**
2. **Perform an ACTH stimulation test with Synacthen $^\text{®}^*$ IV $^*$5 µg/kg or alternatively a total dose of 125 µg if $<10$ kg and 250 µg if $>10$ kg**
   - **Draw 1-hour cortisol (Post-ACTH)**

### Pre-and Post-ACTH

- **<55 nmol/L**
  - If both results are $<55$ nmol/L results are consistent with hypoadrenocorticism if consistent with clinical signs
  - **Begin treatment with mineralocorticoid and/or glucocorticoid as appropriate**

- **55-166 nmol/L**
  - **Post-ACTH**
  - **55-166 nmol/L**
  - **Post-ACTH:** 166-497 nmol/L
  - **Normal**

- **497-607 nmol/L**
  - **Equivocal, Cushing’s possible**

- **>607 nmol/L**
  - Consistent with Cushing’s if consistent with clinical signs
  - **Perform ACTH level and/or abdominal ultrasound to discriminate between PDH and adrenal neoplasia**

---

*Remainder Synacthen* can be aliquoted into 1-mL syringes containing 0.2mL Synacthen each.

Store aliquoted syringes for up to six months, or vial can be refrigerated for up to one month.

$^*$


For Further Information call your IDEXX Representative or IDEXX Technical Support on:  
1300 443 399 Australia  
0800 102 084 New Zealand

© 2006 IDEXX Laboratories, Inc. All rights reserved  AUS 09-61738-05
**Low-Dose Dexamethasone Suppression Protocol**

**For Cases of Suspected Cushing’s Syndrome**

- **History, physical exam, CBC, chemistry panel, electrolytes and urinalysis consistent with Cushing’s syndrome**
  - **Draw baseline cortisol sample**
  - **Perform a low-dose dexamethasone suppression test with 0.01 mg/kg of dexamethasone IV**
  - **Draw 4-hour and 8-hour cortisols**

### Results

- **4 hours**
  - **<28 nmol/L**: Normal
  - **28 - 41 nmol/L**: Consider repeating in 6-8 weeks*
  - **>41 nmol/L**: Consistent with Cushing’s
  - **<41 nmol/L**: Consistent with PDH

- **8 hours**
  - **<28 nmol/L**: Inconclusive, consider repeating in 6-8 weeks*
  - **28 - 41 nmol/L**: Consistent with Cushing’s
  - **>41 nmol/L**: Consistent with PDH

### Consider Performing:
- Abdominal ultrasound to discriminate between PDH and ATH.
- Endogenous ACTH concentration

*Wait a minimum of 48 hours before repeating if a technical error in the protocol occurred.

---

For Further Information call your
IDEXX Representative or
IDEXX Technical Support on

1300 443 399 Australia
0800 102 084 New Zealand

*Waiting a minimum of 48 hours before repeating if a technical error in the protocol occurred.*
Start loading dose of mitotane therapy

Observe for decrease in appetite, water intake <60 ml/kg/day, vomiting, diarrhoea or lethargy

5 to 7 days into loading dose or sooner if adverse effects noted

Perform ACTH stimulation test

Discontinue mitotane
If a dog is listless or ill, administer maintenance prednisone in tapering dose for two weeks. If dog is clinically healthy, do not start prednisone, but start low maintenance dose of mitotane in two weeks.

<28 nmol/L

Adequate control

28 - 138 nmol/L

INADEQUATE CONTROL
Further loading dose required, duration based on clinical signs

Begin maintenance mitotane dosing Continue for one month

>138 nmol/L

INADEQUATE CONTROL
Consider altered maintenance dose or short reinduction

Perform ACTH stimulation test.

<28 nmol/L

INADEQUATE CONTROL

28 - 138 nmol/L

Adequate control

Maintain current dosage

Repeat the ACTH stimulation test every 3-4 months thereafter. Use the response criteria shown immediately above to ensure appropriate mitotane dosing.

>138 nmol/L

If ACTH stimulation is still >138nmol/L after initial 3-7 days continuation, continue loading dose for additional 3-7 days, observing for adverse reactions.