ACTH Stimulation Test

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 Cortrosyn® IV* 5 µg/kg or ACTH gel 1 IU/lb IM-max 40 IU.
3. Draw 1-hour cortisol (Cortrosyn®) or 2-hour cortisol (ACTH gel).

- **Pre- and Post-ACTH <2 µg/dL**
  - If both results are <2 µg/dL, results are consistent with hypoadrenocorticism
  - Begin treatment with mineralocorticoid and/or glucocorticoid as appropriate.

- **Post-ACTH 2–6 µg/dL**
  - Post-ACTH: 2–6 µg/dL
  - Inconclusive

- **Post-ACTH 6–18 µg/dL**
  - Pre-ACTH: 2–6 µg/dL
  - Normal

- **Post-ACTH 18–22 µg/dL**
  - Pre-ACTH: 18–22 µg/dL
  - Equivocal, Cushing’s possible

- **Post-ACTH >22 µg/dL**
  - Consistent with Cushing’s
  - Perform high-dose dexamethasone suppression to discriminate between PDH and ATH, ACTH level and/or abdominal ultrasound.

*Remaining Cortrosyn® can be aliquoted into 1-mL syringes containing 0.2 mL Cortrosyn each. Store aliquoted syringes for up to six months, or vial can be refrigerated for up to one month.¹