TEST SERVICE UPDATE: Dex Suppression Interpretation

Interpretation: Low Dose Dexamethasone Suppression Test
LDSS (low dose dexamethasone suppression) is a test is indicated to support a clinical suspicion of hyperadrenocorticism. Non-adrenal illness and drug therapy may be associated with elevated post cortisol results and a false positive LDDS test. The LDDS should only be performed when there are clinical signs consistent with a diagnosis of hyperadrenocorticism.

First step: Determine if the LDDS result is consistent with hyperadrenocorticism
Hyperadrenocorticism is supported if: 8-hour post cortisol concentration is greater than or equal to 1.4 ug/dl

Normal result (does not support hyperadrenocorticism): 8-hour post cortisol concentration is less than or equal to 1.0 ug/dl

Inconclusive result: 8-hour post cortisol concentration is between 1.0-1.4 ug/dl. Consider ACTH response testing or repeat LDDS in 1-2 months depending on clinical impression.

If the 8-hour post cortisol concentration is less than or equal to 1.0 ug/dl, no further interpretation needs to be considered. Stop here.

Second Step: If the LDDS is consistent with hyperadrenocorticism determine whether the results support pituitary hyperadrenocorticism
Pituitary Dependent Hyperadrenocorticism is diagnosed if there is suppression of cortisol on the LDDS defined as one of the following:
1) 4-hr cortisol concentration <1.0 µg/dL
2) 4-hr cortisol concentration <50% of baseline cortisol levels
3) 8-hr cortisol concentration <50% baseline but >1.4 µg/dL

If there is no suppression of cortisol concentration on the LDDS: consistent with either adrenal or pituitary dependent hyperadrenocorticism. Additional testing could be considered to include HDDS, abdominal ultrasound and/or endogenous ACTH concentration.

Interpretation: High Dose Dexamethasone Suppression Test
Pituitary Dependent Hyperadrenocorticism is diagnosed if there is suppression of cortisol concentration on the HDDS defined as:
1) 4-hour or 8-hour cortisol concentration <50% of baseline cortisol levels
2) 4-hr or 8-hr cortisol concentration <1.0µg/dL

If there is no suppression on the HDDS there is a 50:50 chance of pituitary or adrenal disease, i.e. lack of suppression on a HDDS is inconclusive. Other testing such as abdominal ultrasound may be considered to differentiate pituitary from adrenal disease.