

## **SAFELY CLEARING CORTISOL-TYPE HORMONE REPLACEMENT OR SUPRAPHYSIOLOGICAL DOSING USING DEXAMETHASONE FOR ACCURATE ACTH (CORTROSYN) STIMULATION TEST**

From NADF Medical Director Paul Margulies, MD, FACE, FACP:

**Q.** How long do you have to be off cortisol before you can get an accurate ACTH stimulation test result? Example: A patient is on Cortef. His doctor takes him off the Cortef and prescribes dexamethasone. How long should they wait before doing the ACTH stimulation test?

**A.** I assume the work-up is to rule out Addison's disease. In that case, I would wait at least two weeks after the switch to dexamethasone, hold the morning dose and then give the standard ACTH stimulation test. There is no journal article to quote regarding my recommendation for two weeks on dexamethasone. It reflects my bias from many years of clinical practice during which patients were sometimes referred to me on unknown doses of various steroid preparations, sometimes including intramuscular and topical steroids, and I was asked to determine if there really was underlying adrenal insufficiency. The point is that all cortisone or any other glucocorticoid that might be measured as cortisol in serum or urine assays must be totally cleared from the body before performing the stimulation test. In addition, one would like to allow the pituitary to readjust to a reasonable dose of glucocorticoid that avoids severe suppression of ACTH that might have occurred while on high dose cortisone. This will allow measurement of baseline plasma ACTH before the administration of the Cortrosyn, enhancing the value of the test. By the way, in cases where autoimmune Addison's is suspected, I recommend adding a blood test for 21-OH adrenal antibody for confirmation.

**Q.** "Is OK to stay on fludrocortisone while doing a Cortrosyn test."

**A.** "It is OK to stay on fludrocortisone while doing a Cortrosyn test."



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