

Directorate of Laboratory Medicine:
Department of Clinical Biochemistry
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OVERNIGHT LOW DOSE DEXAMETHASONE SUPPRESSION TEST

INDICATION: Screening test for suspected Cushing's syndrome.

PRECAUTIONS: Patients using oestrogens (e.g. HRT or OCP) or those who are pregnant may induce cortisol binding protein and artificially increase total cortisol levels. If possible oestrogens should be discontinued six weeks prior to the test. If not possible to discontinue oestrogens then the test should be interpreted with caution.

Urine collection for 24-hour urine free cortisol must not be performed at the same time as this test.

PROCEDURE: Patient to be instructed to take Dexamethasone tablets 1 mg between 11.00 pm and midnight and to return at 8.45 am. At 9.00 am prompt withdraw blood in a serum tube for cortisol estimation.

If the test is being used in the context of raised testosterone then send additional serum tube for testosterone measurement.

SIDE EFFECTS: Nil

INTERPRETATION: A normal response is indicated by a 9.00 am serum cortisol concentration of < 50 nmol/L.

False positive results may be obtained in some patients with depression, alcoholism, weight loss, renal failure, on dialysis, systemic illness and in patients with anorexia nervosa. Failure to suppress may also be due to hepatic enzyme inducing drugs (Phenytoin, Rifampicin, oestrogens, Tamoxifen, sympathomimetics and nasal decongestants).

Authors: Endocrine MDT meeting, 14th July 2017