

SHORT SYNACTHEN TEST

INDICATION: To detect primary adrenal failure. Also used as a test of ACTH reserve in people with pituitary disease or following pituitary surgery.

PRECAUTIONS: The test should not be performed in anyone known to have an allergy to Synacthen or if patients are having an exacerbation of asthma. Patients on oral steroid therapy should be instructed to omit their steroid dose on the evening before and on the morning of the test. The tablets can be taken following completion of the test. Patients using inhaled steroids should be instructed not to use their inhaled steroid on the morning of the test. Patients using HRT or oral contraceptive agents will need to discontinue their medication six weeks prior to the test if possible. If it is not possible to discontinue these agents then the test should be interpreted with caution.

NB: If patients are taking long term oral steroids (Prednisolone/Dexamethasone), please discuss with endocrine team prior to testing.

PROCEDURE: Test commences between 8.00 and 9.00 am.

Take a serum tube for baseline cortisol level and EDTA tube for ACTH – take the EDTA tube on ice to the biochemistry laboratory immediately.

250 mcg of Synacthen is given IV or intramuscularly into the buttocks.

At 30 minutes collect a serum tube for cortisol estimation.

A 60 minute sample is not normally required but may be indicated if a patient has demonstrated a borderline response on a previous 0 and 30 minute test.

Patient may then leave. Ensure all samples are labelled clearly and correctly.

SIDE EFFECTS: Include vomiting, nausea, dizziness, epigastric pain and flushing. These are usually short lived but can distress the patient. Very rarely an allergic or anaphylaxis reaction may occur. Contact a member of the medical team if these symptoms are not transient.

INTERPRETATION: Cortisol levels should increase to at least 420 nmol/L at 30 minutes. Failure to respond to short Synacthen test suggests adrenal failure, suppression or atrophy.

Interpret with caution if patients are using inhaled steroids, long-term oral steroid therapy, are within six weeks of pituitary surgery or symptoms suggestive of pituitary infarction.

If the patient is using oestrogen therapy or is pregnant the test should be interpreted with caution, as an increase in CBG in these conditions will make the cortisol results difficult to interpret.

Authors: Endocrine MDT meeting, 14 July 2017