

Glucagon Test for Growth Hormone

Indication:

Assess growth hormone status. Assessment of the hypothalamic - pituitary adrenal axis. Used when ITT is contraindicated; the elderly, epilepsy or ischaemic heart disease.

Contraindications:

Phaeochromocytoma.

Precautions:

Occasional side effect of nausea or vomiting.

Procedure:

- Inform lab where possible give one weeks notice.
- **Fasting from midnight.**
- iv cannula in situ. (green venflon)
- One nurse dedicated to test. Minute minder required.
- Record BP at baseline and at 30 minute intervals throughout test.

Sampling:

- Growth hormone at 0 then 15 minute intervals for 3 hours.
- Flush iv. cannula with Normal Saline 0.9% after each sample. Discard 0.5ml blood, collected in 2ml syringe, prior to each sample collection.
- As growth hormone is stable samples may be batched and sent to lab, with WGH combined form, on completion of the test. (See sample form)
- Blood tube - orange (Li Hep) 2.7ml tube.
- **Glucagon 1mg. is administered by i.m. injection immediately after collection of 0 sample.** Glucagon is used from ward stock. Prepared solution should be used immediately, see instruction sheet supplied with each vial.

Interpretation:

Severe GH deficiency can be defined as a peak GH response of $<9\mu\text{u/l}$.

Protocol developed by Professor Seckl, Western General Hospital, Edinburgh, 1999.

Reference: Clinical Endocrinology (1996) 45, 557 - .562