AOTEA PATHOLOGY
- CLINICAL UPDATE

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CHANGES TO ASSAY FOR SERUM CORTISOL

From 1st September 2015, laboratories in Wellington will be changing to a new assay for serum Cortisol

This change is because Roche Diagnostics has restandardised the existing assay to remove non specificity. On average, the new results will be 28% lower than with the current assay and will be a better measure of true cortisol.

The implications of the restandardised results have been fully discussed with local endocrinologists. This change is also taking place in laboratories at Dunedin, Christchurch and Auckland.

There are changes in the reference interval and in thresholds for dynamic testing.

Reference interval

The new reference interval for serum cortisol in samples taken between 6am-10am is 170-500nmol/L [previously 250-700]. This is based on data from Roche, in a population of healthy adults.

Results below 170nmol/L suggest adrenal insufficiency but synacthen testing is required for confirmation. Adrenal insufficiency is unlikely with results between 170 and 300 but synacthen testing may be indicated when clinical concern remains for subjects in this range. Results over 300nmol/L generally exclude adrenal insufficiency.

Short Synacthen test

A result of < 400nmol/L 30 minutes after 250ug synacthen or < 450nmol/L at 60 minutes suggests adrenal insufficiency.

Overnight Dexamethasone Suppression Test

Post-dexamethasone cortisol of < 50nmol/L indicates normal suppression. Levels between 50-100nmol/L may be normal but Cushing's syndrome is not excluded. Levels >100nmol/L indicate failure of normal suppression.

Urinary Free Cortisol - There is no change in the assay for urinary free cortisol.

If you have any questions you can contact:

Max Reed
Head of Department, Biochemistry
Ph (04) 381 5900 ex 850
mreed@apath.co.nz

Dr Michael Crooke
Chemical Pathologist
Ph 027 563 6393
mcrooke@apath.co.nz