



PRINCE OF WALES HOSPITAL

威爾斯親王醫院

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From: Prof YM Dennis LO
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PWH Dept of Chemical Pathology

To: COSs of all HA Hospitals

Tel / Fax No.: 2632 3338 / 2632 5090

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Improved Diagnostic Service for Primary Aldosteronism

Special laboratory investigations for screening and confirmation of primary aldosteronism include the measurement of plasma renin activity, serum/plasma aldosterone concentration and 24-hour urine aldosterone excretion.

To improve the diagnostic sensitivity, specificity and turnaround time of this service, the above markers will be measured by the state-of-the-art liquid chromatography tandem mass spectrometry technique for samples received by our laboratory after 1 April 2013. New reporting format with updated locally-derived reference intervals will also be offered.

Please note the following new arrangements with effect from 18 July 2013:

1. Specimen requirement: two 3mL EDTA blood samples are required for both renin and aldosterone measurement.
2. Sample processing and transportation:
 - a. For samples collected in PWH, they should be sent to our laboratory at room temperature as soon as possible. **DO NOT** keep samples in refrigerator or ice-water bath to prevent cryo-activation of pro-renin, which may lead to falsely high plasma renin activity.
 - b. For samples collected outside PWH, plasma samples should be aliquoted and frozen in the local laboratory as soon as possible and kept frozen during transportation to PWH.
3. Test(s) requesting procedure:
 - a. For clinicians working in NTEC, new Generic Clinical Request System (GCRS) request entries will be available:



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- i. “Primary aldosteronism, screening” for plasma renin activity and aldosterone concentration in sitting position for at least 15 minutes.
 - ii. “Primary aldosteronism, balance study” for supine and erect plasma renin activities and their respective aldosterone concentrations.
 - iii. “Primary aldosteronism, saline infusion” for pre- and post-saline infusion plasma renin activities and their respective aldosterone concentrations.
 - iv. “Aldosterone, 24-hr urine” for 24-hour urine aldosterone and sodium concentrations.
 - v. “Renin, CAH monitoring” for spot plasma renin activity for monitoring patients suffering from congenital adrenal hyperplasia.
- b. For clinicians working outside NTEC, please kindly indicate the test item(s) requested together with the corresponding clinical indications, e.g. “Primary aldosteronism, screening”, “Balance study”, “Renin, CAH monitoring” so that better reporting format can be provided in the final report. Isolated spot plasma aldosterone concentration may also be requested under specific scenarios, e.g., adrenal venous sampling.

4. Turnaround time for result reporting will be reduced from 3-6 months to 14 working days.

If there is any enquiry on the above new diagnostic service, please contact our Duty Biochemist at 2632-2685 / 2632-2331, or page through PWH operator at 2632-2211.

You are most welcome to use our new service.

Thank you for your kind attention.

Sincerely yours,

Prof YM Dennis LO