

July 2018

All GPs
All Practice Managers

**Department of Clinical
Biochemistry**

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Dear Colleague,

Please find an update below detailing information on laboratory investigations for phaeochromocytoma and Conn's.

Screening for Phaeochromocytoma

The recommended first line screening test for Phaeochromocytoma has changed to 24 hour urinary metadrenalines instead of urinary catecholamines. Metadrenalines are the metabolites of adrenaline and noradrenaline and therefore are raised in Phaeochromocytoma. There is a higher chance of detecting a Phaeochromocytoma with metanephrines as they have a higher sensitivity (97% compared with 85% for urinary catecholamines). If you suspect a hereditary form of phaeochromocytoma we would suggest discussion with the duty biochemist as this group may require more specific investigation.

Urinary metadrenalines still require a 24 hour bottle with HCL acid preservative. Urinary metadrenalines can be requested via ICE but catecholamines have been removed. As before, at least two 24 hour collections are recommended to exclude a phaeochromocytoma and certain medications may interfere with the test. Please phone the duty biochemist if you wish to discuss prior to requesting. Urinary catecholamines and urinary vanillylmandelic acid (VMA) and homovanillic acid (HVA) can still be performed but would need discussion with the duty biochemist.

Plasma metadrenalines have similar sensitivity and specificity for detection of phaeochromocytoma as 24 hour urinary metadrenalines and may be useful for certain patients. However, samples for this test must arrive in the laboratory within 30 minutes of collection and be transported on ice, so are only suitable for collection in secondary care.

Screening for Conn's

The recommended test for screening for Conn's is a renin/aldosterone ratio. Indications for measurement include:

- Resistant hypertension
- Hypertension and family history of early onset (<40 yrs) CVE, PA or hypertension
- Spontaneous or diuretic induced hypokalaemia
- Hypertension and an incidentaloma
- Hypertension onset at a young age

Samples for measurement of renin/aldosterone must arrive in the laboratory within 4 hours of collection, consequently are only suitable for collection in secondary care. Results may

be affected by a number of medications (e.g. spironolactone, beta-blockers, NSAIDS, ACEi, ARBs) and by other factors. As samples may be affected by so many patient factors please phone the duty biochemistry to discuss individual cases prior to requesting.

Please feel free to contact myself or my colleagues if you have any questions, or if you require assistance in interpretation of results.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Francesca Mills', written in a cursive style.

Francesca Mills

Principal Clinical Biochemist

Contacting the Duty Biochemist

The duty biochemist is available on a daily basis (9am-5.30pm).

Contact numbers are below:

Dr Moya O'Doherty – Consultant Chemical Pathologist and Metabolic Medicine– 01225 824715

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