



Plasma Free Metanephrine Testing

Dr George Marshall

Plasma free metanephrines are now performed by TML Pathology. This test is at least as sensitive as the traditional urinary catecholamines and metanephrines, and it offers a convenient alternative to urine tests to exclude pheochromocytoma.

The test is completely funded by Medicare with no out-of-pocket payment.

Pheochromocytomas and paragangliomas (PPGLs) are rare tumours derived from chromaffin cells. In 80–85% of patients PPGLs arise in the adrenal medulla (pheochromocytomas), with the remainder arising from extra-adrenal sympathetic tissue of the abdomen, pelvis and chest (paragangliomas)¹. The clinical and biochemical features of these tumours result largely from the overproduction of catecholamines.

They present with a highly variable clinical presentation but the presenting features includes paroxysmal hypertension, palpitations, sweating and headaches. The serious and potentially lethal cardiovascular complications of these tumours are due to the potent effects of secreted catecholamines².

Biochemical testing for pheochromocytoma should be considered and excluded in:

- Patients with suggestive clinical features
- Adrenal incidentaloma
- Less commonly, in those with a family history of pheochromocytoma or genetic syndrome associated with this tumour

Other endocrine tests that are relevant to the more common scenarios:

Endocrine hypertension screen (particularly if severe, paroxysmal, early onset or difficult to control)

- Plasma free metanephrines
- Aldosterone renin ratio
- Screening tests for Cushing's Syndrome (if clinical features present)

Other: serum calcium (primary hyperparathyroidism), TSH (thyroid dysfunction).

>>> CONTINUED OVERLEAF

Adrenal incidentaloma

- Plasma free metanephrines (to exclude pheochromocytoma)
- 1mg overnight Dexamethasone suppression test (to exclude Cushing's Syndrome)
- Aldosterone renin ratio (If hypertensive, to exclude primary aldosteronism)
- Others: serum androgens if hirsutism present in female, particularly if severe or of recent onset

PATIENT PREPARATION

Patient preparation is vitally important for plasma free metanephrines as numerous medications*, intercurrent illness and some physiological factors (such as vigorous exercise before the test) may cause elevation in the absence of pheochromocytoma. Mild elevations may also be present in advanced renal disease.

Optimal patient preparation requirements:

- Overnight fast, no caffeine or nicotine prior to the test
- No exercise on the morning of the test
- Patients in their usual state of health
- Record patient's usual medications
- Recumbent collection (lying down for at least 20 minutes prior to and during sample collection) is optimal but not absolutely essential initially**

HOW TO ORDER

Request 'Metanephrine, Plasma' on a TML Pathology Request form.

Urinary catecholamines and urinary metanephrins remain available and can be ordered by requesting 'Catecholamines, urine' or 'Metanephrines, urine'.

BILLING/COST

This test is bulk-billed subject to Medicare guidelines and criteria. TML Pathology is pleased to announce that we continue to offer urine catecholamines and urine metanephrines testing which can also be bulk-billed to Medicare.

FURTHER INFORMATION

For further inquiries regarding this test, please contact Dr J Chang, Dr G Marshall or Dr C Appleton on **(07) 3121 4444**.

REFERENCES

1. Blake, MA & Sweeney, AT 2018, 'Pheochromocytoma Workup', Medscape, <<https://emedicine.medscape.com/article/124059-workup>>
2. Lenders, JWM, Eisenhofer, G, Mannelli, M, Pacak, K 2005, 'Pheochromocytoma', The Lancet, vol. 366, no. 9486, pp. 665 – 675, via PubMed

* Including, but not limited to, several antidepressants including SSRIs, venlafaxine and desvenlafaxine, tricyclic antidepressants, beta-adrenergic blockers (minor effect), sympathomimetic agents and some uncommon antihypertensives such as phenoxybenzamine. Re-testing after an appropriate washout period may be appropriate if raised results are found initially.

** TML Pathology reports include reference intervals for seated collections to accommodate this; recumbent collections would be appropriate to follow up initially elevated results. Not every collection centre can accommodate recumbent collections – if requested, patients are asked to phone TML Pathology to find their nearest collection centre that can perform a recumbent collection.

MedWay: Real-time Results. Anytime, Anywhere

MedWay, TML Pathology's web-based application, provides you with real-time access as soon as results are available at the laboratory.

Medway enables you to view your clients' results quickly, efficiently and securely over the Internet.

With no paper to handle, instantaneous delivery and secure access, MedWay ensures your clients' results are available real-time, anywhere, on time, all the time.



SIGN-UP & ACCESS

1. Go to medway.com.au
2. Enter your username and password

New Users: Click 'Sign Up' and follow the steps. Please note, initial sign-up can only be done on a computer, not a mobile device. Specialists should always choose the Single Practitioner option to access enhanced capabilities.

From the Education Desk

What a huge year this has been with both GP and Specialist events held throughout the state. On behalf of TML Pathology I would like to thank again all of our specialist speakers throughout the year for giving up their time, knowledge and expertise to assist in bringing you quality professional education.

AUDITS

These continue to be popular with record registrations throughout the year. Keep an eye out for upcoming changes as behind the scenes we have been working very hard in revising, reviewing and altering our existing audits. Some of the changes have been based on participating practitioner's feedback and evaluations over the last 12 months. We hope that these changes will give you greater knowledge, feedback and benefits based on your participation.

THE SURGICAL SKIN AUDIT

You will soon notice changes to the Skin Audit including a new report format. This new format will better reflect changes in current practice and give you greater statistical information based on that month's participation. Whilst we are implementing these changes, we are happy to let all know that we have been able to maintain the uncomplicated and easy to read report format.

This year has seen a record number of registrations from practitioners with many hundreds of doctors qualifying for their Cat 1 points this year.

***As a reminder The Surgical Skin Audit has specialised request forms, to order, please use your stores request forms via your local laboratory or via the website. Please use these requests with the **reverse** of the request form completed to ensure your specimen is included in your count.

We would like to wish all practitioners and their staff a very safe and happy festive season and we will see you all in 2019.

Warm regards and hope to see you all soon at our events.

The TML Pathology Education team



Season's Greetings

The pathologists and staff at TML Pathology wish you a joyous festive season, filled with peace and good health.

Collection centre opening hours over the holiday period will be updated on our online Collection Centre Search.

- Locate collection centres within a desired region from suburb or postcode information.
- Obtain collection centre operational hours and contact information.
- Receive up-to-date public holiday or temporary closure times.
- Search for collection centres who perform specific tests.
- Find licence details and general centre features (e.g. on-site parking, on-site bathroom facilities, and test payment options).

To check hours please visit tmlpath.com.au

INFECTIOUS DISEASES REPORT: SEPTEMBER 2018

For historical clinical data please contact enquiries@tmlpath.com.au

ORGANISM	SEPTEMBER	AUGUST	JULY	TOTAL
Adenovirus (not typed)	1		1	2
Bordetella pertussis	7	3	2	12
Chlamydia trachomatis, not typed	6	9	8	23
Cytomegalovirus (CMV)	1			1
Epstein-Barr virus (EBV)	5	5	5	15
Hepatitis B virus		1	1	2
Hepatitis C virus	9	7	4	20
Herpes simplex Type 1	5	4	10	19
Herpes simplex Type 2	1	2	5	8
HIV-1		1		1
Human Metapneumovirus	3	2	3	8
Influenza A virus	8	2	2	12
Mycoplasma pneumoniae	1	4	2	7
Neisseria gonorrhoeae		1		1
Parainfluenza virus	5	5	2	12
Respiratory Syncytial virus		3	3	6
Rhinovirus (all types)	2	2	5	9
Streptococcus Group A	1	2		3
Toxoplasma gondii		3		3
Treponema pallidum	1	1		2
Varicella Zoster virus	1	5	1	7
TOTAL	57	62	54	173