

Hypertension Questionnaire

Part 1: About Your Laboratory

Name of your laboratory: [Click or tap here to enter text.](#)

- a. Teaching hospital
- b. DGH
- c. Specialist
- d. Other

Network status:

- a. Part of a network
- b. Not part of a network

If (a), please confirm whether your answers are on behalf of:

- a. Your site only
- b. All sites within network

If (b), please specify all of the sites covered by your response:

[Click or tap here to enter text.](#)

Part 2: Feedback from Hyponatraemia Audit, June 2024

Did your laboratory participate in the audit on hyponatraemia?

Yes No

Did you implement any changes in practice following this audit?

Yes No

If yes, please specify: [Click or tap here to enter text.](#)

Part 3: Hypertension

1. Does your department issue formal guidance for investigation of any type of hypertension?

a. Yes

b. No

If yes, please provide a copy

2. Was this guidance drawn up in collaboration with anyone outside the lab?

a. Yes

b. No

If Yes, please tell us who (e.g. Endocrine consultants, GPs, ICBs etc):

[Click or tap here to enter text.](#)

3. Do you have an electronic order profile or careset for hypertension?

a. Yes

b. No

If Yes, please provide details of the tests included, and when the careset should be used:

[Click or tap here to enter text.](#)

4. Do you routinely recommend MEN screening on the basis of any laboratory results?

a. Yes

b. No

If Yes, please provide details of when you would recommend MEN screening

[Click or tap here to enter text.](#)

Part 4: Cushings

1. Which assay are you using for measurement of serum cortisol?
Click or tap here to enter text.
2. Does your department issue formal guidance for investigation of suspected Cushing's?
 - a. Yes
 - b. No*If yes, please provide a copy*
3. Was this guidance drawn up in collaboration with anyone outside the lab?
 - a. Yes
 - b. No*If Yes, please tell us who (e.g. Endocrine consultants, GPs, ICBs etc):*
Click or tap here to enter text.

First Line Tests

4. Please indicate which first line tests you recommend for the exclusion of Cushing's syndrome?
 - a. 9am cortisol Yes No
 - b. Late night (midnight) serum cortisol Yes No
 - c. 9am salivary cortisol Yes No
 - d. Late night (midnight) salivary cortisol Yes No
 - e. 1mg overnight dexamethasone suppression test Yes No
 - f. Low dose 2-day dexamethasone test Yes No
 - g. 24-hour urinary free cortisol Yes No
 - h. Other (please state) Click or tap here to enter text.
5. Do you recommend specific tests in the following groups of patients? If yes, please specify.
 - a. Pregnant women Yes No Click or tap here to enter text.
 - b. Patients taking anti-epileptic medication Yes No Click or tap here to enter text.
 - c. Renal failure Yes No Click or tap here to enter text.
 - d. Suspected cyclic Cushing's Yes No Click or tap here to enter text.
 - e. Adrenal incidentaloma Yes No Click or tap here to enter text.

9am Cortisol

6. What is your reference range for 9am serum cortisol? What is the source of your reference range (e.g. in-house study, manufacturer range etc)? *Say n/a if you do not offer this test and skip to Q8*

Click or tap here to enter text.

7. What cut off for 9am serum cortisol do you use to exclude Cushing's?

Click or tap here to enter text.

Late Night Serum Cortisol

8. What is your reference range for late night serum cortisol? What is the source of your reference range? *Say n/a if you do not offer this test and skip to Q10*

Click or tap here to enter text.

9. What cut off for late night serum cortisol do you use to exclude Cushing's?

Click or tap here to enter text.

Late Night Salivary Cortisol (LNSC)

10. What is your reference range for LNSC? What is the source of your reference range? *Say n/a if you do not offer this test and skip to Q14*

Click or tap here to enter text.

11. What cut off for LNSC do you use to exclude Cushing's?

Click or tap here to enter text.

12. Do you recommend a single sample for LNSC, or multiple samples?

Click or tap here to enter text.

13. Do you report salivary cortisone and salivary cortisol?

- a. Yes, we report both
- b. No, just cortisol
- c. No, just cortisone
- d. Other (please specify): Click or tap here to enter text.

1mg Overnight Dexamethasone Suppression Test (ONDST)

14. Does your lab issue formal guidance for performing ONDST?

- a. We do not perform ONDST *skip to Q16*
- b. Yes *please provide a copy*
- c. No

15. Was this guidance drawn up in collaboration with anyone outside the lab?

- a. Yes
- b. No

If Yes, please tell us who (e.g. Endocrine consultants, CCGs, etc):
Click or tap here to enter text.

16. What cut off do you use to exclude Cushing's following ONDST? What is the source of the cut-off?

Click or tap here to enter text.

17. Do you recommend ONDST be performed in primary care, or restrict to secondary care?

- a. Primary & secondary care both perform ONDST
- b. ONDST is performed only in secondary care

18. Do you always comment on ONDST results?

Click or tap here to enter text.

19. Do you measure dexamethasone in samples taken during ONDST?

- a. Yes
- b. No

If Yes:

c. Which method do you use?

Click or tap here to enter text.

d. And what cut off do you use to establish the suppression test has been carried out correctly?

Click or tap here to enter text.

Confirmatory Tests

20. Please indicate which follow up tests you recommend for diagnosis of Cushing's?

- a. 24h urine cortisol Yes No
- b. 9am cortisol Yes No
- c. ACTH Yes No
- d. Low dose dexamethasone suppression test Yes No
- e. Combined LDDST-CRH test Yes No
- f. Other (please state) Click or tap here to enter text.

Part 5: Pheochromocytoma

1. What tests do you use for the screening of pheochromocytoma/paraganglioma (PPGL) in **adults**? Do you measure these in house or refer to a specialist centre?

	In house	Referred
a. Urine metanephrines (24 hr)	<input type="checkbox"/>	<input type="checkbox"/>
b. Urine metanephrines (random)	<input type="checkbox"/>	<input type="checkbox"/>
c. Plasma metanephrines	<input type="checkbox"/>	<input type="checkbox"/>
d. Urine catecholamines (24 hr)	<input type="checkbox"/>	<input type="checkbox"/>
e. Urine catecholamines (random)	<input type="checkbox"/>	<input type="checkbox"/>
f. Plasma catecholamines	<input type="checkbox"/>	<input type="checkbox"/>
g. Urine HVA/HMMA (24 hr)	<input type="checkbox"/>	<input type="checkbox"/>
h. Urine HVA/HMMA (random)	<input type="checkbox"/>	<input type="checkbox"/>
i. Other (please list) Click or tap here to enter text.		

2. What tests do you use for the screening of pheochromocytoma/paraganglioma (PPGL) in **paediatrics**? Do you measure these in house or refer to a specialist centre?

	In house	Referred
a. Urine metanephrines (24 hr)	<input type="checkbox"/>	<input type="checkbox"/>
b. Urine metanephrines (random)	<input type="checkbox"/>	<input type="checkbox"/>
c. Plasma metanephrines	<input type="checkbox"/>	<input type="checkbox"/>
d. Urine catecholamines (24 hr)	<input type="checkbox"/>	<input type="checkbox"/>
e. Urine catecholamines (random)	<input type="checkbox"/>	<input type="checkbox"/>
f. Plasma catecholamines	<input type="checkbox"/>	<input type="checkbox"/>
g. Urine HVA/HMMA (24 hr)	<input type="checkbox"/>	<input type="checkbox"/>
h. Urine HVA/HMMA (random)	<input type="checkbox"/>	<input type="checkbox"/>
i. Other (please list) Click or tap here to enter text.		

3. Is 3-methoxytyramine included in:

	Yes	No
a. Urine metanephrines	<input type="checkbox"/>	<input type="checkbox"/>
b. Plasma metanephrines	<input type="checkbox"/>	<input type="checkbox"/>

4. Which screening test(s) do you recommend

- a. In adults: [Click or tap here to enter text.](#)
b. In paediatrics: [Click or tap here to enter text.](#)

5. For tests done in house, what methods are used for each test
- a. Urine metanephrines: Click or tap here to enter text.
 - b. Plasma metanephrines: Click or tap here to enter text.
 - c. Urine Catecholamines: Click or tap here to enter text.
 - d. Plasma catecholamines: Click or tap here to enter text.
 - e. Urine HVA/HMMA: Click or tap here to enter text.
6. For tests done in-house, what reference ranges do you use for each test, and how were these derived? (*please attach a copy if that is easier*)
- a. Urine metanephrines: Click or tap here to enter text.
 - b. Plasma metanephrines: Click or tap here to enter text.
 - c. Urine Catecholamines: Click or tap here to enter text.
 - d. Plasma catecholamines: Click or tap here to enter text.
 - e. Urine HVA/HMMA: Click or tap here to enter text.
7. Please detail the specimen requirements in your laboratory for the following tests (sample type, preservatives, taken on ice, time limit to reach laboratory etc)
- a. Urine metanephrines: Click or tap here to enter text.
 - b. Plasma metanephrines: Click or tap here to enter text.
 - c. Urine Catecholamines: Click or tap here to enter text.
 - d. Plasma catecholamines: Click or tap here to enter text.
 - e. Urine HVA/HMMA: Click or tap here to enter text.
8. Does your laboratory provide written advice to users regarding the potential impact of medications that cause analytical or pharmacological interference in the measurement of metanephrines and/or catecholamines?
- Yes No
- If yes, please provide details or provide a copy: Click or tap here to enter text.
9. Do you have a written protocol for the laboratory investigation of PPGL?
- Yes No
- If yes, please provide details or attach a copy, including whether these were written in collaboration with anyone outside the lab): Click or tap here to enter text.
10. For plasma metanephrines, do you/your referral laboratory provide reference ranges for:
- a. Seated
 - b. Supine
 - c. Both

11. How are samples collected in your centre?

- a. Seated
- b. Supine
- c. Both

If both, please briefly explain the situations where supine sampling is used rather than seated:
Click or tap here to enter text.

12. If supine sampling is used, in what conditions are samples taken? (Tick all that apply)

- a. After overnight fast
- b. No advice other than supine
- c. After 10 min supine
- d. After 20 min supine
- e. After 30 min supine

13. If seated, in what conditions are samples taken? (Tick all that apply)

- a. After overnight fast
- b. No advice provided on the position of the patient for plasma mets
- c. At least 10 min sitting
- d. At least 20 min sitting
- e. At least 30 min sitting

Part 6: Primary Hyperaldosteronism

1. Do you measure aldosterone in house, or do you refer samples to a specialist lab?
 - a. In house
 - b. Refer

2. Do you measure renin in house, or do you refer samples to a specialist lab?
 - a. In house
 - b. Refer *(if no to both Q1 and Q2, please skip to question 8)*

3. Which assay are you using for measurement of aldosterone?
Manufacturer/instrument: Click or tap here to enter text.
Methodology (e.g. mass spec): Click or tap here to enter text.

4. Which assay are you using for measurement of renin?
 - a. Manufacturer/instrument: Click or tap here to enter text.
 - b. Methodology: Click or tap here to enter text.
 - c. Is your method activity (PRA) or mass (DRC)

5. Do you report the aldosterone / renin ratio?
 - a. Always
 - b. Only if requested
 - c. Never
 - d. Other *please specify:* Click or tap here to enter text.

6. Please provide your reference ranges and the source of the ranges, including cut offs that would be suggestive of primary hyperaldosteronism:
Aldosterone: Click or tap here to enter text.
Renin: Click or tap here to enter text.
Ratio: Click or tap here to enter text.

7. Do you quote a lower limit for plasma aldosterone which excludes primary hyperaldosteronism (irrespective of the renin)?
 - a. Yes and the limit is: Click or tap here to enter text.
 - b. No

8. Does your department issue formal guidance for investigation of suspected primary hyperaldosteronism?
 - a. Yes
 - b. No

If yes, please provide a copy

9. Was this guidance drawn up in collaboration with anyone outside the lab?

- a. Yes
- b. No

If Yes, please tell us who (e.g. Endocrine consultants, GPs, ICBs etc):
Click or tap here to enter text.

10. When taking samples for aldosterone & renin, do you recommend the following? Please tick all that apply.

- a. Random sample
- b. Morning sample
- c. Supine sample

if yes, how long should patients be supine Click or tap here to enter text.

- d. Seated sample

if yes, how long should patients be seated Click or tap here to enter text.

- e. Paired ambulant and supine samples

if yes, how long should patients recline / be ambulant?
Click or tap here to enter text.

11. Do you require withdrawal of antihypertensive medication before taking samples for aldosterone / renin? Please tick all that apply.

- a. We recommend withdrawing all medications
- b. We recommend withdrawing certain medications but not all
- c. We refuse to test samples unless medication is withdrawn
- d. We would still analyse / refer samples if meds are not withdrawn
- e. We only recommend withdrawing meds if initial results are unclear
- f. Other (please state) Click or tap here to enter text.

- g. Please provide details of your recommendations (or attach a copy):
Click or tap here to enter text.

12. Do you review the serum potassium before analysing / referring samples for aldosterone / renin?

- a. Yes, we review the potassium and reject requests
- b. Yes, we review the potassium but analyse/refer samples anyway
- c. No, we don't review the potassium

- d. Please provide details of your policy (or attach a copy):
Click or tap here to enter text.

13. Please indicate which confirmatory tests are performed in your hospital:

- | | | |
|---|----------------------------------|-----------------------------|
| a. Repeat random aldo/renin ratio | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| b. Repeat supine or seated aldo/renin ratio | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| c. Saline infusion test | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| d. Captopril challenge test | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| e. Furosemide test | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| f. Fludrocortisone suppression test | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| g. Other (please state) | Click or tap here to enter text. | |

14. Does your hospital perform adrenal vein sampling to confirm laterality?

- a. Yes
- b. No

If no, thank you for completing this questionnaire, please see the end of the document for details of how to return your response.

15. Do you require that patients have a positive result on confirmatory testing (see question 11) before proceeding to AVS?

- a. Yes
- b. No

16. Please either briefly describe your protocol for interpretation of AVS results, or attach a copy. Please state whether it is performed with or without synacthen stimulation, and if so, whether this is continuous or bolus.

Click or tap here to enter text.

Thank you for completing this audit questionnaire. Please return along with any attached protocols or supporting documents to both:

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ellen.ridler@nhs.net

We hope that you can join us at the meeting on 12th November to discuss the results and hear from our expert speakers.