**THAMES AUDIT GROUP: Hirsutism/Testosterone/Adrenal androgens
Spring 2019**

# Part 1: About Your Laboratory

Name of your laboratory: Click here to enter text.

1. Teaching hospital [ ]
2. DGH [ ]
3. Specialist [ ]
4. Other [ ]

Network status:

1. Part of a network [ ]
2. Not part of a network [ ]

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

1. Your site only [ ]
2. All sites within network/organisation [ ]
If (b), please specify number and type of sites: Click here to enter text.

# Part 2: Feedback from Audit of point of care testing services and accreditation status April 2017

Did your laboratory participate in the audit on point of care testing services and accreditation status?

 Yes [ ]  No [ ]

Did you implement any changes in practice following this audit?

 Yes [ ]  No [ ]
If yes, please specify: Click here to enter text.

# Part 3: Analytical

1. What method(s) do you use for measurement of total testosterone (If Mass Spectrometry please include details of model and extraction method)?

Click here to enter text.

1. What reference ranges do you quote for total testosterone in males and females?

|  |  |  |
| --- | --- | --- |
|  | **Reference intervals** | **Source of reference intervals** |
| **Testosterone (males)** | Click here to enter text. | Click here to enter text. |
| **Testosterone (females)** | Click here to enter text. | Click here to enter text. |

1. Do you quote paediatric reference intervals?

 Yes [ ]  No [ ]
If yes, please specify intervals and source: Click here to enter text.

1. Did you validate your reference intervals locally?

 Yes [ ]  No [ ]
If yes, please specify how: Click here to enter text.

1. What is the imprecision of your assay at a testosterone concentration of 1.5 nmol/L? Please indicate the source of this data (e.g. verification data, kit insert etc)?

Click here to enter text.

1. What EQA scheme do you use?

Click here to enter text.

1. Does your laboratory automatically add on SHBG and FAI to all female testosterone requests?

 Yes [ ]  No [ ]

1. Does your laboratory offer the following tests?

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Yes, measured in house\*** | **Yes, referred to an external laboratory** | **Not offered** |
| **Testosterone by mass spectrometry** | [ ]  | [ ]  | [ ]  |
| **Testosterone after extraction** | [ ]  | [ ]  | [ ]  |
| **Androstenedione** | [ ]  | [ ]  | [ ]  |
| **DHEAS** | [ ]  | [ ]  | [ ]  |
| **SHBG** | [ ]  | [ ]  | [ ]  |
| **17 hydroxyprogesterone** | [ ]  | [ ]  | [ ]  |

1. If you offer the test in house, what reference intervals do you use in males and females?

|  |  |  |
| --- | --- | --- |
| **Assay** | **Reference interval** | **Source of reference interval** |
| **Androstenedione** | Click here to enter text. | Click here to enter text. |
| **DHEAS** | Click here to enter text. | Click here to enter text. |
| **SHBG** | Click here to enter text. | Click here to enter text. |
| **17 hydroxyprogesterone** | Click here to enter text. | Click here to enter text. |

1. What, if any, criteria do you use to request testosterone by mass spectrometry?

Click here to enter text.

1. Do you report free testosterone?
2. Calculation of free testosterone within LIMS\* [ ]
3. Calculation of free and bioavailable testosterone in LIMS\* [ ]
4. By equilibrium dialysis [ ]
5. Free testosterone is not offered [ ]
6. Other [ ]

\*If by calculation please provide the calculation(s) you use, reference interval(s) and source of these. Click here to enter text.

1. Do you recommend 17OHP for hirsute women with…?

|  |  |  |  |
| --- | --- | --- | --- |
|  | Yes | No | No vetting performed |
| Total testosterone within reference interval | [ ]  | [ ]  | [ ]  |
| Total testosterone above reference interval | [ ]  | [ ]  | [ ]  |
| Follicular phase of cycle | [ ]  | [ ]  | [ ]  |
| Luteal phase of cycle | [ ]  | [ ]  | [ ]  |

1. Do you vet requests for androstenedione and DHEAS?

 Yes [ ]  No [ ]

If yes, please give examples of the circumstances you will suggest?

Click here to enter text.

1. Do you offer advice about potential drug interference for testosterone assays?

 Yes [ ]  No [ ]

If yes, please provide details about this advice?

Click here to enter text.

1. Do you recommend a urine steroid profile for the investigation of women with hirsutism?
2. If 17OHP is increased [ ]
3. If 17OHP is borderline raised [ ]
4. Regardless of 17OHP concentration [ ]

**Reporting**

1. Do you add interpretative comments to testosterone results in?
	1. Males [ ]
	2. Females [ ]
	3. Paediatric [ ]
	If Yes, please specify examples below
	Click here to enter text.
2. What would you do when reviewing the following results on a 23y female presenting with oligomenorrhoea and hirsutism, total testosterone by immunoassay is 3.5 nmol/L (ref interval <2.4 nmol/L):

|  |  |
| --- | --- |
| Suggest repeat testosterone by immunoassay | [ ]  |
| Refer sample for mass spectrometry | [ ]  |
| Repeat on early morning sample | [ ]  |
| Add on SHBG and calculate free androgen index | [ ]  |
| DHEAS, Androstenedione and 17OHP | [ ]  |
| Other (please specify) Click here to enter text. | [ ]  |

1. How do you report results where there is a raised total testosterone in a female by immunoassay but normal result by mass spectrometry?

Click here to enter text.

**Testosterone in males**

1. Do you recommend testosterone is measured at 9am?

 Yes [ ]  No [ ]

Other (pls provide details) Click here to enter text.

1. Do you recommend testosterone is measured on a fasting sample?

 Yes [ ]  No [ ]

Other (pls provide details) Click here to enter text.

1. What action(s) would you consider where a testosterone result in a male patient below the reference interval taken at 9am:
	1. Ask for a repeat [ ]
	2. Calculate free testosterone [ ]
	3. Calculate bioavailable testosterone [ ]
	4. Add on LH/FSH/prolactin [ ]
	5. Would not comment [ ]
	6. Other (pls provide details) [ ]

 Click here to enter text.

1. What test(s) would you suggest/add on to a testosterone of 5 nmol/L (ref interval 6.1 – 27.1 nmol/L) in a 30 year old male patient?
	1. LH/FSH [ ]
	2. Prolactin [ ]
	3. SHBG [ ]
	4. Calculated free testosterone using SHBG and albumin [ ]
	5. Testosterone by mass spectrometry [ ]
	6. Other (please give example below) [ ]

Click here to enter text.

**Guidelines**

1. Does your Trust or department issue formal guidance for assessment of premenopausal women with clinical evidence of hyperandrogenaemia?
	1. Yes [ ]  *If yes, please provide a copy*
	2. No [ ]
2. Does your Trust or department issue formal guidance for the investigation of women with PCOS?
	1. Yes [ ]  *If yes, please provide a copy*
	2. No [ ]
3. Do you have guidelines for the investigation of hypogonadism in males?
	1. Yes [ ]  *If Yes, please provide a copy*
	2. No [ ]
4. Were guideline(s) drawn up in collaboration with anyone outside the laboratory?
	1. Yes [ ]
	2. No [ ]
	If Yes, please tell us who (e.g. Endocrine consultants, CCGs, etc):
	Click here to enter text.

**Many thanks for completing this questionnaire. Please send completed questionnaires by 2nd April 2019 to:**

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