

**BLOOD SCIENCES**  
**DEPARTMENT OF CLINICAL BIOCHEMISTRY**

Title of Document: Reproductive Hormones Summary of Assay Change

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### **Assay changes for reproductive hormones**

From November at NBT, in January 2023 at RUH and in March 2023 at UHBW, the Clinical Biochemistry departments at each Trust will be moving to a new suite of analytical equipment, produced by Beckman Coulter UK (BCUK). For most assays there will be either no, or only very small, differences in results.

In the case of reproductive hormones there are some expected method related differences. Most reference ranges are changing. The assay changes are summarised below:

#### **Testosterone**

- At low testosterone concentrations (i.e. normal female and hypo-gonadal male) results will be higher than previously
- The adult female reference range is higher to account for this: <2.7 nmol/L
- At high testosterone concentrations results may be slightly lower than previously
- The adult male reference range is lower to account for this: 6 – 27 nmol/L
- The new assay does not cross react with norethisterone

#### **Free androgen index and calculated free testosterone**

- Free androgen index results will be higher than you are used to
- The adult female reference range is higher to account for this: 0.8 – 9.0%
- There is little change to calculated free testosterone

#### **Gonadotrophins and estradiol**

- Please see the new reference ranges, which include sex, age and menstrual cycle specific ranges
- Of note the FSH reference range for peri-menopause is lower: >16 IU/L

#### **Progesterone**

- Results may be lower than previously
- The reference range for mid-luteal progesterone is lower: >12 nmol/L

#### **Prolactin**

- Results may be lower than previously
- There is no change to the clinical decision limit of 700 mIU/L