Changes to Reference Ranges

Chemistry

A change in the biochemistry instrumentation used will result in changes to some tests and reference ranges. While most of these changes are insignificant, there are a small number which could have a direct impact on patient diagnosis and management for patients who have relevant results prior to service transfer on 3 June 2024. These are shown in the table below:

Test	Approximate % change compared to previous	Reference range change?
Albumin	-20%	Y
Bilirubin	+24%	N
Ca 125	+11%	N
Cortisol	-17%	Y
fT3	-13%	Y
fT4	-25%	Y
iPTH	+24%	Y
LH	-50%	Y
Oestradiol	-5%	Y
TSH	-23%	Y
TRAb	+28%	Y

For all tests shown above, it is **not clinically appropriate** to trend results with those recorded prior to 3 June 2024.

Reference ranges will continue to be included on test reports, and all critical results will be telephoned through to practices as per standard Synnovis operating procedures.

Nutristasis

The Nutristasis unit provides analysis of endogenous vitamins in body fluids.

Test	Change
Serum B12	Serum B12 – age related reference ranges apply. Ethnicity and pregnancy (trimester specific) ranges are incorporated into comments where applicable 0 – 1 yr old: 215 – 1389 ng/L (all ethnicities) 2 - 5 yr old: 374 – 1494 ng/L (all ethnicities) 6 – 9 yr old: 332 -1081 ng/L (all ethnicities) 10 – 13 yr old: 253 – 871 ng/L (all ethnicities) >14 yr: 225 – 1091 ng/L (Black and Black British ethnic group) > 14 yr: 182 – 692 ng/L (White and Asian ethnic group) For pregnancy, trimester specific serum B12 reference ranges apply: • First trimester 168-574 ng/L • Second trimester 154-516 ng/L

	• Third trimester 112-465 ng/L
Serum ferritin	Serum ferritin – sex and age-related reference ranges apply **<u>Females cut-offs</u>** 0-5 yrs – 12-150 ug/L ≥6 yrs- 15-150 ug/L **<u>Males cut-offs</u>** 0-5 yrs – 12-200 ug/L ≥6 yrs- 15-200 ug/L
Serum folate	Reference range 3.1 -20.5 µg/L