
Lab Alert: New Chemistry Analyzer and Reference Interval Changes

Effective November 11, 2025, at 9:00am, Nebraska Medicine will implement the Beckman Coulter Dxl 9000 as our new chemistry immunoassay analyzer. A brief downtime will occur during the analyzer switchover. We will make every effort to minimize disruption and will communicate any delays as needed.

As part of this upgrade, reference intervals will be updated. ***If you are actively trending patients using any of the analytes listed below, we strongly encourage you to review these changes carefully.***

There are no interface test build changes required—the updated reference ranges/reference intervals are sent with the result.

Reference Intervals Impacted

- **CK-MB** – Creatine Kinase-MB
 - New reference interval: 0.6 - 6.3 ng/mL
- **High-Sensitivity Troponin** – Cardiac Troponin
 - New reference interval for females: ≤12 ng/L
- **Prostate Antigen** – Prostate-Specific Antigen (PSA)
 - New reference interval for females: 0.0 - 4.0 ng/mL
- **Estradiol**
 - New reference intervals
 - Males: 0 – 32 pg/mL
 - Female, early follicular phase: 22 - 115 pg/mL
 - Female, mid follicular phase: 25 - 115 pg/mL
 - Female, ovulatory peak phase: 32 - 517 pg/mL
 - Female, mid luteal phase: 37 - 246 pg/mL
 - Female, post-menopausal: 0 - 25 pg/mL
- **Progesterone**
 - New reference intervals
 - Males: 0.1 – 0.4 ng/mL
 - Female, follicular phase: 0.1- 1.9 ng/mL
 - Female, ovulatory phase: 0.2 - 2.1 ng/mL
 - Female, luteal phase: 0.2 - 17.8 ng/mL
 - Female, post-menopausal: 0.1 - 0.4 ng/mL
 - Pregnant females, 1st trimester: 0.7 - 63.7 ng/mL
 - Pregnant females, 2nd trimester: 17.4 - 87.5 ng/mL

Reference Intervals Impacted (continued)

- **Sex Hormone Binding Globulin (SHBG)**
 - New reference intervals
 - Adult males: 13 – 90 nmol/L
 - Adult pre-menopausal females: 18 – 136 nmol/L
 - Adult post-menopausal females: 17 - 125 nmol/L
- **Free T3 – Free Triiodothyronine**
 - New reference interval: 2.5 - 3.9 pg/mL
- **Free T4 – Free Thyroxine**
 - New reference interval: 0.6 - 1.1 ng/dL
- **Ferritin**
 - New reference intervals
 - Males: 24 – 336 ng/mL
 - Females: 11- 307 ng/mL
- **Vitamin D**
 - New reference intervals
 - Deficient: <20 ng/mL
 - Insufficient: 20 – 30 ng/mL
 - Sufficient: 30 – 100 ng/mL
 - Upper safety limit: 100 - 120 ng/mL
 - Possible toxicity: >120 ng/mL

The following assay will now have a comment attached to all results:

- **Human Gonadotropin Hormone (hCG)** - “Healthy, non-pregnant individuals typically have low (< 5 mIU/mL) to undetectable hCG levels; however, hCG can rise to detectable levels in peri- and post-menopausal women.”

For questions, please contact:

Ria C. Fyffe-Freil, Ph.D., NRCC, Director of Clinical Chemistry
rfyffefreil@unmc.edu | Office: 402-552-7204 | Pager: 402-888-6436