Laboratory Updates February 2024

Dear Colleagues,

In our constant effort to provide Frederick Health Hospital with the latest technology, we are excited to announce that the main laboratory is upgrading our current Roche Diagnostics analyzers starting February 13, 2024.

Frederick Health Laboratory has outgrown the current setup and will be upgrading to the Roche Diagnostics pro integrate series of instruments, which include two lines of 5 instruments each. Each line consists of 2 ion-selective electrodes (ISE) modules, 2 chemistry analyzers, and 1 immunoassay analyzer.  The advancement in technology allows for multiple improvements in patient care including:

1.        Increasing the number of samples per hour;

2.        High speed analytical units;

3.        Intelligent sample routing;

4.        Minimal operator intervention;

5.        Automated maintenance reduces downtimes;

6.        Large and more stable reagent packs;

7.        Automated calibration.

In addition to new instrumentation, the FHH laboratory will begin offering Vitamin D in house and upgrade from Troponin I 4th Gen to Troponin T High sensitivity 5th Gen. The laboratory, providers, nursing staff, and IT department have collaborated to assure a smooth transition to Troponin T High Sensitivity 5th Gen, since there are new reference ranges and critical values for High Sensitivity Troponin.

The Troponin T HS provides higher diagnostic accuracy for acute myocardial infarction and is associated with an improved rule-out process.

One of the biggest changes with the new Troponin T HS is that the results are reported in ng/L (whole numbers) rather than ng/mL (decimals), and there are gender-specific cut points.

A close up of a box

Description automatically generated

The new Troponin T HS is available for outpatients as Troponin T HS (SINGLE) or Meditech mnemonic TNTSINGLE. The FHH inhouse Vitamin D may be ordered as Meditech mnemonic VIT D25.

Additionally, in few weeks, the FHH laboratory will also go live with auto verification in our chemistry department with Roche Diagnostics’ middleware called Infinity. This will allow our technologists to concentrate on only specimens that require their attention reducing turnaround times drastically.

The final piece of our chemistry analyzer upgrade due this spring is our automation line, Roche Diagnostics cobas 8100 automated workflow series. The cobas 8100 automated workflow series is built for performance. Intelligent tube transport, innovative centrifuge with short cycle times, STAT sample prioritization, and upfront sample integrity checks reduce bottlenecks to lower the overall turnaround time. Roche Diagnostics cobas systems are designed to work together to reduce staff intervention and overall complexity, while increasing capacity and confidence.

We look forward to seeing the advancements of our new chemistry analyzers will have on our patient’s care.

Kudos to our amazing and dedicated laboratory team for completing this project after more than a year of hard work!

If you have any questions, please contact Catherine Korpacz, Blood Bank and Core Laboratory Supervisor, at 240-566-4036.

If you have any questions regarding the new Troponin T test, please contact myself, Dr. Daniela Mihova, Medical Director, at 240-566-3158 or Bruce Williams, Director of Laboratory Services, at 240-566-3996.

Thank you,

Daniela Mihova, M.D., FCAP

Vice Chief of Staff

Director of Clinical Laboratories

Department of Pathology

Frederick Health Hospital

400 West Seventh Street

Frederick, MD 21701

Phone:  240-566-3158

Fax:  240-566-7410

E-mail:  [DMihova@Frederick.health](mailto:DMihova@Frederick.health)