

DATE:	10 June 2024
TO:	All Healthcare Providers, Edmonton Zone
FROM:	Clinical Biochemistry, Alberta Precision Laboratories (APL)
RE:	Switch To Different Analyzer for Neonatal Total Bilirubin on Babies <30 Days of Age

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Key Message

- Effective, Tuesday June 11, 2024, University of Alberta, Royal Alexandra, Grey Nuns, Misericordia, and Sturgeon Hospitals Laboratories will switch Total Bilirubin testing on neonates <30 days (NBIL) to a different analyzer.
- The following reporting parameters will be changed:
 - The reference interval of <250 µmol/L will be added for babies 7 up to 15 days of age.
 - The reference interval of <20 µmol/L will be added for babies 15 up to 30 days of age.
 - The upper reporting limit will expand from 600 µmol/L to 3000 µmol/L.
 - Results are expected to be lower on average by approximately 11%.
- The following reporting parameters will remain the same:
 - No reference interval for babies 0 up to 7 days of age.
 - Critical value will remain as >300 µmol/L and will be phoned to the ordering provider.
 - Interpretative comments.

Background

- NBIL will switch from the Reichert Unistat Bilirubinometer to the Roche Cobas c503 analyzer.
- In Edmonton, the Bilirubinometer has been used to measure NBIL for many decades, but it has been discontinued by the manufacturer and recent in-house studies have demonstrated better performance on Roche.
- The change will improve testing standardization across the province and align methods with Total Bilirubin for patients ≥30 days of age, which will continue to be measured on Roche.

Action Required

- NBIL results may require re-baselining on some babies being serially monitored due to differences in results between the analyzers.
- Be aware that abnormal results between 7 and 29 days will now flag as elevated due to addition of reference intervals.
- Refer to the [test directory](#) for sample collections requirements.

Questions/Concerns

- Dr. Josh Raizman, Clinical Biochemist, APL, josh.raizman@aplabs.ca or 780-718-2402
- Dr. Albert Tsui, Clinical Biochemist, APL, albert.tsui@aplabs.ca or 780-996-9813

Approved by

- Dr. Kareena Schnabl, Clinical Biochemistry Section Chief, North Sector, APL
- Dr. Michael Mengel, Medical Director, North Sector, APL

Effective September 1, 2023, APL has become the sole provider of all public lab services in Alberta. As a result, community lab services formally provided by DynaLIFE Medical Labs will become the responsibility of Alberta Precision Labs (APL). This change impacts all zones.