

DATE:	31 August 2026
TO:	All Zones: Pediatricians, Neonatologists, and Public Health Nurses
FROM:	Clinical Biochemistry, Alberta Precision Laboratories (APL)
RE:	Implementation of a Correction Factor for <i>Neonatal Bilirubin, Total</i> Results (<30 Days Old)

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Key Message

- Effective **17 September 2026**, a correction factor will be applied to certain serum/plasma *Neonatal Bilirubin, Total (NBIL)* results in neonates <30 days old.
- This will improve NBIL result agreement across two instrument types used for testing, thereby reducing discrepancies and reclassification risk when neonate care for jaundice occurs between testing sites.
- The correction factor will be applied **automatically** to applicable NBIL results; no additional calculations or actions will be required from the clinician.

Background

- NBIL in neonates <30 days is tested on two instrument types in Alberta and they have analytical bias:
 - QuidelOrtho Vitros (Vitros): acute care in larger rural and smaller urban sites.
 - Roche cobas: large urban sites.
- The bias can lead to challenges in assessing jaundice severity to guide treatment.
- A mathematical correction factor will be applied to NBIL results measured on Vitros instruments for neonates <30 days old to improve agreement with potential subsequent testing at a Roche testing site.
- The factor was developed in collaboration with clinical biochemistry, neonatology, and pediatric representatives across the province using analytical & clinical data.
- In a retrospective review of neonates transferred between sites, the factor reduced jaundice treatment classification discrepancies from higher to lower risk categories by 64%.

How this will impact you

- The factor will lower NBIL results in neonates <30 days tested at Vitros sites by ~10-15%.
- Although the factor will significantly reduce discrepancies from higher to lower risk categories, a very small number of results may shift in the opposite direction.

Action Required

- Be aware that NBIL tested at Vitros sites will be automatically factored in neonates <30 days old.
- Although discrepancies between instruments will be minimized, they may still occur. Clinical judgment should continue to guide management, particularly near decision thresholds.
- There are no changes to ordering, reference intervals, critical values, or bilirubin nomograms.

Questions/Concerns

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