

Provincial Laboratory Services



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Health PEI
One Island Health System

Umbilical Cord Blood Gas Critical Values

February 19, 2021

This information applies to: Labour & Delivery, NICU, Maternal Child Care Unit, Family Medicine

Umbilical cord blood gases are useful in the context of fetal distress and asphyxia at birth that can lead to significant metabolic acidosis. There are no agreed upon reference intervals for cord blood gases and current practice is that QEH laboratories phone critical values for different parameters based on historical precedent, while PCH laboratories do not phone critical values for umbilical cord gases.

In consultation with clinical stakeholders Health PEI laboratories will communicate umbilical cord blood critical values when the pH is ≤ 7.0 and/or the base excess is ≤ -16 mmol/L (i.e. -16, -17, -18 etc). These values are endorsed by the Canadian Paediatric Society to guide therapeutic hypothermia in the context of neonatal encephalopathy¹. No other parameter values will be communicated as a critical result.

This change will become effective starting February 22, 2021.

For more information, contact:

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