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**Date:** November 30, 2020  
**To:** Alberta Children's Hospital (ACH): Nurse Educators, Physicians, Rapid Response Laboratory (RRL) Staff, and Respiratory Therapy Department  
**From:** Clinical Biochemistry Section, South Sector, Alberta Precision Laboratories (APL)  
**Re:** Excess use of venous blood gas (VBG) panel orders on ACH inpatients and outpatients

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**Key Message:**

- VBG panel orders on inpatients are intended for urgent measurement of pH, blood gas and co-oximetry parameters.
- STAT analysis for plasma electrolytes, CO<sub>2</sub>, glucose, lactate, serum ionized calcium, and whole blood complete blood count (CBC) is available from the ACH 3<sup>rd</sup> floor rapid response lab (RRL) with a turn-around time of 60 minutes from specimen receipt.
- VBG panel orders on outpatients have limited clinical utility.

**Why this is Important:**

- Respiratory therapists (RTs) must be diverted from their normal clinical duties to collect and run VBG panels.
- All hospital RRLs provide identical chemistry and hematology analyses using plasma, serum and whole blood.
- Most ambulatory/outpatients do not require VBG panels.

**Background:**

- Adult hospital respiratory therapy departments perform no more than 25% of total site VBG panels, however the ACH respiratory therapy department performs more than 50%.

**Action Required:**

- For inpatients and outpatients, consider ordering STAT or routine plasma chemistry panels, serum ionized calcium or a whole blood complete blood count (CBC) rather than a VBG panel.

**Inquiries and feedback may be directed to:**

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