

Blood Gas Analyzers Platform Change



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On December 19, 2018 the Chemistry Laboratory will implement a new testing platform for performing blood gases (arterial, venous, and cord), CO-oximetry (OSat), ionized calcium, and pleural fluid pH. Currently these tests are performed on the Roche Cobas b221 analyzer. Moving forward these tests will be performed on the Siemens RapidPoint 500 analyzer. Correlation studies between the two platforms are excellent for all analytes evaluated. The test names and ordering processes for all blood gas, ionized calcium, and pleural fluid pH assays will remain the same.

With this implementation of new technology there are a few major changes.

The stabilities for blood gases (arterial, venous, and cord), blood pH, O2Sat, and pleural fluid pH have changed.

1. For all blood gases, blood pH, and OSat samples: Place the samples on ice as soon as possible and immediately transport to the lab. These samples are stable for 1 hour after collection. Samples received on ice > 1 hour after collection will be rejected.
2. All samples submitted for pleural fluid pH should be on ice.

The following reference range changes will be made:

1. The reference range for pO₂ in arterial blood gas samples has been updated to include a reference range of 55-80 mmHg for neonates between 0-1 day of life.
2. The reference range for Oxyhemoglobin in OSat testing has been slightly modified to be 89-96%.
3. The reference range for pleural fluid pH has been changed to: Pleural Fluid pH reference ranges are unavailable. Results should be interpreted in the context of the clinical setting.

Test Name	Lab Code	Epic Code
BLOOD GAS, VENOUS	VBG	LAB3032
BLOOD GAS, ARTERIAL	ABG	LAB3031
BLOOD GAS, CORD BLOOD ARTERIAL	CBG	LAB3033
BLOOD GAS, CORD BLOOD VENOUS	VCBG	LAB3173
PLEURAL FLUID, Ph	PLPH	LAB3110
OXYGEN SATURATION	OSAT	LAB718
IONIZED CALCIUM	ICAL	LAB2039

If you have any questions concerning these changes please contact Dr. Clayton Wilburn in the laboratory.

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