

Carboxy- and Methemoglobin Underestimated Due to Interference by Cyanokit Farmington Hills Only

Effective Date: October 26, 2018

ALERT

It has been determined that current blood gas instruments at Farmington Hills laboratory are likely to underestimate carboxyhemoglobin (COHb) and methemoglobin (MetHb) when hydroxocobalamin (Cyanokit) has been administered for inhalation cyanide poisoning.

Siemens Healthcare Diagnostics has determined that therapeutic levels (1 mg/mL and 2 mg/mL in blood) of hydroxocobalamin (Cyanokit) may interfere with total hemoglobin and some of the CO-Ox fractions (COHb and MetHb) that are reported on the RapidLab 1265 blood gas analyzer. This model is currently in service at Farmington Hills laboratory.

Hydroxocobalamin negative interference with COHb has the potential to alter the medical assessment of the patient and may delay treatment of carbon monoxide poisoning. Negative interference with MetHb has the potential to alter the medical assessment of the patient and may delay treatment of methemoglobinemia. Based on data collected by Siemens Healthcare Diagnostics, if therapeutic levels of hydroxocobalamin are present, COHb or MetHb could be reported at **less than half of the true value**.

Also note that due to the intense color of hydroxocobalamin, a derivative of vitamin B12, other clinical laboratory values may also be affected, as indicated in the [FDA labeling for Cyanokit](#) under Warnings and Precautions.

Blood gas instrumentation at other Beaumont Laboratory sites is not significantly affected by this interference.

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