May 28, 2014

To: Chiefs of Service, Attending Physicians, Housestaff, Nurses and Other Concerned Personnel

From: Clayton Hooper, RN
Manager, POCT Program

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Re: Reporting of Laboratory Results by POC Blood Gas/Chemistry Analyzers in Electronic Medical Records (EMRs)

Beginning June 3, 2014, laboratory test results obtained on point of care (POC) blood gas / chemistry analyzers (IL GEM 4000) in the Infant Care Center (Nursery), Operating Room, Emergency Department and 4E, 5E, 5R Critical Care units will automatically be transmitted and reported in LCR. Results obtained in the 4E, 5E, 5R Critical Care units will also be reported in ICCA (Critical Care Unit EMR).

In LCR, GEM 4000 results will be displayed as follows:

- Blood gas, cooximetry and hematocrit under Hematology;
- Electrolytes (Na⁺, K⁺, iCa⁺⁺) under Chemistry;
- Glucose and Lactate, Whole Blood under POC Results

Please note:

- Reporting of POC blood gas, cooximetry and listed chemistry results into LCR and ICCA coincides with the upgrade at POC sites to IL GEM 4000 analyzers, the same analyzer already in use at the Infant Care Center and the Clinical Laboratory. Reference ranges are therefore the same and test results are expected to agree within allowable tolerances, regardless of where the test is performed.
- The menu of tests performed at each POC location may vary and is subject to approval by the Clinical Laboratory. The current list of tests approved for each site is maintained by POCT Services in the Clinical Laboratory.
- Reporting of cooximetry testing was standardized to the following 4 result parameters: 1) Total hemoglobin (Hb in g/dL), 2) O2-Hb, 3) CO-Hb, 4) MetHb, all in percent values. If both blood gas and cooximetry panels are ordered, O2 Content in volume % will also be reported.
- Oxyhemoglobin (O2-Hb), a spectrophotometrically measured parameter of the proportion of hemoglobin that is combined with oxygen was chosen to be reported as the best available measure of O2 saturation.

For questions or concerns, please contact Dr. Eberhard Fiebig by phone (x68588) or email (efiebig.ucsf.edu).