

Bronson LabWire

Laboratory News and Analysis for Clinicians January 2023

Blood Gas Changes

Epic test names will be more explicitly defined, along with a few blood gas panels expanding within the system. See details listed below. Changes expected to release late February.

Main Laboratory: BMH, BLH, BSH

- Epic test name "HCO3" will replace CO2(HCO3), bicarbonate value will be reported
- Epic test name "O2 Sat", oxygen saturation value will be reported for arterial samples only
- Epic test name "Oxyhemoglobin", oxyhemoglobin value will be reported

Respiratory Care: BBC

- Epic test name "HCO3" will replace CO2(HCO3), bicarbonate value will be reported

Point of Care: BMH Surgery

- Epic test name "HCO3" will replace CO2(HCO3), bicarbonate value will be reported
- Epic test name "O2 Sat", oxygen saturation value will be reported
- Epic test name "Oxyhemoglobin", oxyhemoglobin value will be reported
- Epic test name "Carboxyhemoglobin", carboxyhemoglobin value will be reported
- Epic test name "Methemoglobin", methemoglobin value will be reported
- Epic test name "Hematocrit, Est.", hematocrit value will be reported

Point of Care: BMH TCU/NICU

- Epic test name "HCO3" will replace CO2(HCO3), bicarbonate value will be reported
- Epic test name "O2 Sat", oxygen saturation value will be reported
- Epic test name "Oxyhemoglobin", oxyhemoglobin value will be reported

Point of Care: BMH PICU/NICU Transport

- Epic test name "HCO3" will replace CO2(HCO3), bicarbonate value will be reported

Please direct any questions you may have to Laboratory Point of Care Team, Lab.POCT@bronsonhq.org

Cortisol and ACTH Stimulation Reference Range Changes Effective 1/31/2023

At the request of Bronson Endocrinology, changes are being made to enhance appropriateness of subspecialty referral.

Cortisol

Cortisol values vary by time of day. For this reason, the reference range is broken down into specific AM and PM time frames. The change noted below is being made based upon consultation and review of historical data from Bronson, test manufacturer literature, and ranges published by other facilities using the same testing methodology.

Time of Day	Previous Range	New Range
6-10 AM	6.0-18.4 ug/dL	6.0-23.0 ug/dL
4-8 PM	2.7-10.5 ug/dL	2.7-12.0 ug/dL

In addition, it is known that oral contraceptives significantly raise cortisol values. Therefore, a comment will be appended to all results: *The reference range does not apply to patients receiving oral contraceptives, which increase serum cortisol levels.*

ACTH Stimulation Test

The reference range modifications are being made to reflect the normal range change as well as comments related to the baseline level.

Previous statement:

The usual normal response is an approximate doubling of the baseline level, provided the baseline level does not exceed the normal range (6.0-18.4). Many patients with normal adrenal function however, do not respond to the expected degree.

The following criteria have been established to denote a normal response.

- the baseline cortisol level should exceed 5 ug/dL
- the post injection level should show an increase of at least 7 ug/dL above the baseline level, or a peak response of greater than 18 ug/dL.

New statement:

Normal ACTH stimulation interpretation is cortisol >15 ug/dL.

Note: The usual normal response is an approximate doubling of the baseline level, provided the baseline level does not exceed the normal range (6.0-23.0 ug/dL). Many patients with normal adrenal function, however, do not respond to the expected degree.

