

February 15, 2012

A L E R T

New Ketone Test Measures Beta-Hydroxybutyrate

WHAT'S NEW?

PeaceHealth Laboratories will implement a new Ketone test using beta-hydroxybutyrate effective Wednesday, February 15, 2012. This change comes as the result of the manufacturer ceasing reagent production to facilitate the former test method. With the new test comes significant changes in specimen requirements.

BACKGROUND

Beta-hydroxybutyrate is one of three sources of ketone bodies. Its relative proportion in the blood (78%) is greater than the other two ketone bodies which are acetoacetate (20%) and acetone (2%).

During periods of ketosis, beta-hydroxybutyrate increases more than acetoacetate with the ratio of beta-hydroxybutyrate/acetoacetate typically between 3:1 and 7:1 in severe ketotic states. Beta-hydroxybutyrate has been shown to be a better index of ketoacidosis including the detection of subclinical ketosis.^{1,2}

QUESTIONS?

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REFERENCES

1. Tietz 4th edition Clinical Chemistry and Molecular Diagnostics;
2. Mayo Medical Laboratories Interpretive Handbook, 2007-2008

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ORDERING INFORMATION

31792	Ketones, Quantitative
Replaces:	31790 Ketones, Serum 31790.71 Ketones, Blood 31790.5 Ketones
Methodology:	Conductivity
Performed:	Daily
Released:	Same day as tested
CPT Code:	82010

SPECIMEN REQUIREMENTS

The information below reflects significant changes to previous specimen requirements.

Collect:	One 4 mL green top tube (heparin)
Handling:	Send to laboratory immediately, do not centrifuge specimen
Standard Vol:	4 mL
Minimum Vol:	0.5 mL
Stability:	5 hours ambient or refrigerated
Transport:	Ambient
Comments:	This test measures the ketone Beta Hydroxybutyrate but not acetoacetate or acetone

REFERENCE

Range:	< 0.6 mmol/L
Rejection Criteria:	Serum, plasma or whole blood in different anticoagulant than specified; delayed transport