

TEST UPDATE

Notification Date: Jan 31,2014

Effective Date: Feb 5th,2014

LIPID PANEL : Addition of Non-HDL Chol

TEST MNEMONIC: LIPID

EXPLANATION (1):

Non-HDL cholesterol is calculated by subtracting HDL cholesterol from total cholesterol and provides an estimate of atherogenic particles including IDL, VLDL, Lp(a), and LDL. Although it has not received as much publicity as LDL, non-HDL cholesterol has been recommended since 2001 as a secondary target by the National Cholesterol Education Program Adult Treatment Panel III (NCEP ATP III) for patients with triglycerides greater than 200 mg/dL. Sustained hypertriglyceridemia leads to elevated levels of VLDL, IDL, and abnormal highly atherogenic LDL. Non-HDL cholesterol provides a measure of these lipoproteins and thus may be a better measure than LDL in patients with elevated triglycerides in the 200-400 mg/dL range. In addition, non-HDL cholesterol has a superior performance compared to LDL as a measure of vascular event risk (2).

An additional advantage of non-HDL cholesterol is that it may be calculated on a non-fasting specimen. HDL cholesterol and total cholesterol have been shown to vary relatively little with different durations of fasting, whereas triglycerides vary considerably (3). Thus, non-HDL cholesterol enables interpretation of the lipid panel when it is not obtained after fasting.

NCEP cutpoints for non-HDL cholesterol were set to be 30 mg/dL above the LDL cholesterol cutpoints based on an assumed triglyceride level of 150 mg/dL.

Desirable:	Less than 130
Borderline High:	130-159
High:	160-189
Very High:	Greater than or equal to 190

The non-HDL cholesterol goal is less than 100 mg/dL for patients with any of the following criteria: established cardiovascular disease plus diabetes, established cardiovascular disease plus multiple risk factors, multiple risk factors of the metabolic syndrome, or acute coronary syndrome or coronary heart disease.

In addition to the non-HDL cholesterol value, we will also report the Chol/HDL Ratio, and there will be a Fasting? query upon ordering the Lipid Panel.

1. Reference FAHC Test Update. Lipid Panel: Addition of Non-HDL Cholesterol. August 19, 2013.

2. Blaha MJ, Blumenthal RS, Brinton EA, Jacobson TA. National Lipid Association Task Force on Non-HDL Cholesterol. The importance of non-HDL cholesterol reporting in lipid management J Clin Lipidol 2008;2:267-273.

3. Sidhu D, Naugler C. Fasting times and lipid levels in a community-based population: a cross-sectional study. Arch Intern Med. 2012;172(22):1707-1710.

QUESTIONS/CONTACT INFO

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