Results for the ABL Survey are not formally evaluated; however, statistics will appear in the Participant Summary for your information.

To provide a timely evaluation of your results, statistics presented in this Participant Summary reflect a minimum of 80% of participant enrollment.

The Accuracy Based Lipid (ABL) Survey is a new product released by the CAP this year to enable laboratories to assess the accuracy and harmonization of lipid and lipoprotein tests. Because of the importance of lipids and lipoproteins in cardiovascular risk assessment and in the management of patients with hyperlipidemia, accuracy and precision goals for total cholesterol, HDL-Cholesterol, LDL-Cholesterol and triglycerides measurements have been recommended by the National Cholesterol Education Program (NCEP), which is sponsored by the National Institutes of Health (1-5). In addition, programs to harmonize results for apolipoproteins and lipoprotein (a) methods have been developed by the IFCC (6-8).

The ABL Survey materials were based on fresh frozen off-the-clot serum to reduce the effect of matrix differences between the proficiency testing materials and patient samples on the analysis, thus potentially making it possible to assess the accuracy of the various lipid and lipoprotein measurement procedures. The initial plan for the ABL Survey was to grade participants based on peer group criteria like most other proficiency testing Surveys for one year and until the commutability of the fresh frozen serum used in the Survey could be established. The target value for those tests with a reference method (cholesterol, triglycerides, HDL-Cholesterol, and LDL-Cholesterol) has been determined by the Centers for Disease Control and Prevention and is reported in the Survey. For educational purposes only, the results for these tests have been graded by the NCEP criteria for total error that includes bias as well as imprecision.

<table>
<thead>
<tr>
<th>NCEP Performance Criteria</th>
<th>Total Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cholesterol</td>
<td>9%</td>
</tr>
<tr>
<td>HDL-Cholesterol</td>
<td>13%</td>
</tr>
<tr>
<td>LDL-Cholesterol</td>
<td>12%</td>
</tr>
<tr>
<td>Triglycerides</td>
<td>15%</td>
</tr>
</tbody>
</table>

Based on results from the ABL-A and ABL-B Surveys, the majority of the measurement procedures for cholesterol and triglycerides meet the current NCEP total error goals. For HDL-Cholesterol and LDL-Cholesterol, however, there were several assays from various manufacturers that appeared to exceed the NCEP total error goals.
However, investigation of the Survey materials has shown that for HDL-Cholesterol and LDL-Cholesterol the materials were not fully commutable with native clinical serum samples. Consequently, results from the ABL Survey, at this time, should not be used for assessing the accuracy of HDL-Cholesterol and LDL-Cholesterol measurement procedures.

The CAP is investigating the source of the commutability problem and will modify the preparation procedure for the 2009 ABL Survey materials to rectify this problem. The Survey results will be graded based on peer group criteria until commutable proficiency testing materials can be produced for all the lipid and lipoprotein analytes for which reference method target values are available.

References:

Alan T. Remaley, MD, PhD and W. Greg Miller, PhD
Chemistry Resource Committee