Understanding Your Result Report

**TEST TYPE**

**SMALL INTESTINAL BACTERIAL OVERGROWTH (SIBO) RESULT REPORT**

10 SAMPLE LACTULOSE TEST

**Patient**

- **Name:** John Doe
- **Date of Birth:** 3/2/1990
- **Address:** 123 Elm Street
- **City, State, Zip:** Boston, MA 02205
- **Date of Collection:** 8/12/2017
- **Sample Type:** Breath Sample

**Physician**

- **Name:** Jane Doe
- **Address:** 573 Longwood Avenue
- **City, State, Zip:** Boston, MA 02205
- **Date Test Received:** 8/15/2017
- **Date Test Reported:** 8/16/2017

**TEST DATE INFORMATION**

- **Barcode:** DX100001

**Graph of All Sample Values**

**RESULTS CHART**

**Table of All Sample Values**

<table>
<thead>
<tr>
<th>Sample Time</th>
<th>Sample Number</th>
<th>Hydrogen* (PPM)</th>
<th>Methane* (PPM)</th>
<th>Carbon Dioxide (cf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>15 min.</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>30 min.</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>45 min.</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>60 min.</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>75 min.</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>90 min.</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>105 min.</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>120 min.</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>135 min.</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>1.00</td>
</tr>
</tbody>
</table>

* Hydrogen (H₂) and Methane (CH₄) values have been corrected for Carbon Dioxide (CO₂) content in each sample as a quality assurance measure to ensure sample validity. Any Carbon Dioxide Correction Factor (cf) value over 2.50 is considered an invalid sample by the laboratory and is not included in the overall calculations of the test results.

**Explanation of CI’s use of a correction factor in the calculations of hydrogen and methane sample values**

The highlighted 90 minute mark corresponds to the time that the substrate should transition from the small intestine into the colon.

**Overall Test Results for Each Trace Gas**

- **Hydrogen (H₂) Production:** 0 ppm (Normal < 20 ppm)
- **Methane (CH₄) Production:** 0 ppm (Normal < 10 ppm)
- **Combined Gas (H₂ + CH₄) Production:** 0 ppm (Normal < 15 ppm)

**Summary of 90 Minute Patient Results**

The greatest difference over baseline for each trace gas are presented below:

**Comments:**

These test results should be correlated with clinical information that is unavailable to Commonwealth Diagnostics International, Inc. (CDI). For questions and test interpretation, patients/clients should discuss their test results with their healthcare provider. The healthcare provider can assess clinical factors that may affect the interpretation of the test results and ensure that the test results correlate with a patient’s symptoms and other related findings for diagnostic and treatment purposes.

This test was developed and its performance characteristics determined by Commonwealth Diagnostics International, Inc. (CDI). This test has not been cleared or approved by the US Food and Drug Administration (FDA), and the FDA does not require this test to go through premarket approval. This test is also listed as exempt on the CLIA edit. This test is used for clinical purposes and should not be regarded as investigational or for research.


**Reviewing Physician**

**Laboratory Director**
Common Results of SIBO Hydrogen and Methane Breath Tests*

High Hydrogen/No Methane (Supported)
Patients who have symptoms such as bloating often will have high hydrogen production that increases dramatically throughout the test. Notice that the plot crosses the dashed line at 20 ppm which indicates a “supported” (positive) result for hydrogen.

No Hydrogen/High Methane (Supported)
Patients who have symptoms such as constipation often will have high methane production that is present at high levels during the entire length of the test. Notice that the plot is above the dotted line at 10 ppm which indicates a “supported” (positive) result for methane.

High Hydrogen/High Methane (Supported)
Patients who produce both methane and hydrogen often demonstrate this plot. This is due to the competing methanogens consuming the hydrogen gas to produce methane gas. The decrease in hydrogen with the increase in methane is indicative of this microbiome composition. This test would be a “supported” (positive) result for both hydrogen and methane.

Low Hydrogen/Low Methane (Not Supported)
Patients who have GI related symptoms that do not produce enough gas to surpass the clinical cutoff of either hydrogen (>20 ppm) or methane (>10 ppm) at or before 90 minutes (sample 7) often have this trend. Notice that the two plots do not cross either the dashed line for hydrogen or the dotted line for methane which indicates the test would be a “not supported” result for either gas production.

No Hydrogen/No Methane; “Flatline Result” (Not Supported)
Patients that do not produce any hydrogen or methane throughout the entire test but still present with GI related symptoms often have this plot. This may be due to hydrogen sulfide production from sulfur-reducing bacteria which the CDI breath test is not able to detect. This test would be a “not supported” result for either gas.

High Hydrogen Baseline (Not Supported)
Patients who do not fast properly will often have a plot that looks like this. The first few samples will begin with high hydrogen levels, slightly increase, and immediately decrease. The patient is recommended to retest when this occurs. This test would be a “not supported” result for either gas.

*These common test results are guidelines only and should be correlated with clinical information that is unavailable to Commonwealth Diagnostics International, Inc. (CDI). For questions and test interpretation, patients/clients should discuss their test results with their healthcare provider. The healthcare provider can assess clinical factors that may affect the interpretation of the test results and ensure that the test results correlate with a patient’s symptoms and other related findings for diagnostic and treatment purposes.