


**HELICOBACTER PYLORI, UREA C13 BREATH TEST**

<b>Document number</b>	LA-75-WI-060E_02.30
<b>Revision date</b>	2018-Sep-17
<b>Required specimen type</b>	Sample of exhaled air
<b>Medical supplies</b> 	<b>Helikit:</b> <ul style="list-style-type: none"> <li>• Plastic container with 100 mg of Carbon 13 urea powder;</li> <li>• 2 tubes: 1 green top tube and one yellow top tube;</li> <li>• 2 identification labels (1 green and 1 yellow);</li> <li>• 2 straws</li> <li>• Helicobacter Pylori Consent form (RR-05-FM-007)</li> </ul>
<b>General Guidelines</b>	<ol style="list-style-type: none"> <li>1) All specimens must include a double identification (first and last name of the patient and date of birth or medicare number).</li> <li>2) The use of gloves is required when handling all biological specimens.</li> <li>3) A valid requisition, including the following information :           <ul style="list-style-type: none"> <li>• First and last name of the patient, date of birth or medicare number and gender.</li> <li>• Date and time of specimen collection and signature of the collector.</li> <li>• Physician's full name, signature and license number (or other qualified prescriber).</li> <li>• Any relevant clinical information.</li> <li>• Requested tests.</li> </ul> </li> </ol>
<b>Patient preparation</b>	<ol style="list-style-type: none"> <li>1) This procedure is specific to the use of the Urea C13 Breath Test screening kit only.</li> <li>2) The following groups of medications should discontinued prior to testing, as they may interfere with the results;           <ul style="list-style-type: none"> <li>• Proton Pump Inhibitors (H<sup>+</sup>, K<sup>+</sup> -ATPase Inhibitor): 3 days;</li> <li>• Histamine H2 Receptor Antagonists: 1 day;</li> <li>• Antibiotics: 4 weeks;</li> <li>• Bismuth preparations: 2 weeks.</li> </ul> </li> <li>3) Do not eat, drink (including water) or smoke for at least 4 hours prior to the test;</li> <li>4) The Helicobacter Pylori test should be done before any barium testing, if these two are planned on the same day;</li> <li>5) Other breath tests should not be scheduled at the same time as the Urea C13 breath test;</li> <li>6) If particulate matter is visible in the reconstituted Carbon 13 Urea solution, after thorough mixing, the solution should not be consumed.</li> </ol> <p style="text-align: center;"><b><u>Patients should always consult their healthcare professional before discontinuing any medication.</u></b></p>
<b>Specimen Collection Instructions</b>	<ol style="list-style-type: none"> <li>1) Confirm that the patient has been fasting (no drinking, including water) for at least 4 hours and has not smoked;</li> <li>2) Confirm that the patient did not take any of the medication that should be avoided (see list above);</li> <li>3) Have the consent form read and signed;</li> <li>4) Make sure the patient is at rest for at least 10 minutes before the start of the test;</li> <li>5) Open the kit;</li> <li>6) Write the patient's first and last name and ID number (if applicable) on the green and yellow labels, as well as the date of birth or Medicare of the patient (see Figure 2);</li> </ol>



**Figure 2: Identification labels**

- 7) Stick the green label on the green top tube;



- 8) Stick the yellow label on the yellow top tube;



- 9) Prepare the Carbon 13 Urea solution as follows:

- Open the sealed container;
- Fill to the black line with water;
- Mix well so that all of the powder is dissolved.

- 10) Seat the patient comfortably;

- 11) Collect the first sample in the green top tube (with the green label) as described below:

- Remove the green cap;
- Ask the patient to take a normal breath and hold it for 8 to 12 seconds;
- Insert the straw completely to the bottom of the tube;



- Have the patient take a deep breath and exhale fully through the straw, into the tube for 4 to 8 seconds;
- Immediately pull out the straw and quickly seal the green top tube;

- 12) Have the patient drink the solution;

- 13) Wait 30 minutes and inform the patient to continue fasting for the remainder of the test;

- 14) Collect the second sample in the yellow top tube yellow (with the yellow label). See step 10.

- 15) Place the two tubes in the container, along with the completed requisition and consent form.

- 16) Return samples to the laboratory as soon as possible.

**Additional information**

N/A

**Specimen Conservation and Stability**

- Powder: conserve at room temperature and do not use the powder beyond expiration date.
- Collected specimens: 7 to 10 days at room temperature.