INTRODUCTION

The 14C-Urea Breath Test considered to be the ‘gold standard’ non-invasive diagnostic method for detection of the presence of current infection with H. pylori in the stomach. The 14C-Urea Breath Test offers highly accurate (positive predictive value 100%, negative predictive value 98%) and reliable diagnosis of H. pylori infection. It is useful both for initial diagnosis and for post-treatment follow-up to demonstrate H. pylori eradication. QML Pathology is now offering this test bulk billed at all our collection centres.

HELIcobacter PYLORI

The successful treatment and eradication of H. pylori infection will:

• Relieve symptoms of gastritis
• Reduce risk of ulcer recurrence
• Reduce risk of developing gastric cancer

HOW THE TEST WORKS

If H. pylori is present in the stomach, it produces large quantities of urease which protects the organism against the acidic conditions in the stomach. The 14C-Urea Breath Test detects and quantifies the amount of urease in the stomach.

The urease produced by H. pylori breaks down the 14C-Urea in the test capsule into carbon dioxide and ammonia. The labelled carbon dioxide is then measured in exhaled air. If there is no urease present, labelled carbon dioxide is not detected, indicating the absence of H. pylori infection.

PATIENT PREPARATION

The patient should fast for 6 hours prior to taking the test. The patient must discontinue the following medications prior to testing as they may cause false-negative results:

<table>
<thead>
<tr>
<th>Medication</th>
<th>Duration Prior to Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibiotics and bismuth-containing products</td>
<td>1 month prior to testing</td>
</tr>
<tr>
<td>Cyto-protective medicines, e.g., sucralfate</td>
<td>2 weeks prior to testing</td>
</tr>
<tr>
<td>Proton pump inhibitors</td>
<td>1 week prior to testing</td>
</tr>
</tbody>
</table>

Although the radiation dose is extremely small, the test has not been sufficiently tested in children or pregnant females and should not be performed in these groups.

INDICATIONS FOR ORDERING

H. pylori infection is significantly underdiagnosed as the majority of individuals with uncomplicated infection are asymptomatic. Testing is currently recommended in the following circumstances:

• patients with known or suspected H. pylori infection, gastritis, peptic ulcer disease or gastric malignancy
• patients with epigastric pain, discomfort or non-ulcer dyspepsia
• patients experiencing unexplained anorexia, weight loss, nausea or vomiting
• patients receiving or about to receive long-term proton pump inhibitor therapy
• 4-6 weeks after treatment in all patients treated for H. pylori infection to confirm eradication of infection
• first degree relatives of patients with gastric cancer.

HOW TO ORDER

Request ‘C14 Urea Breath Test’ on a QML Pathology request form.

TURNAROUND TIME

Metro – 48 hours
Regional – Up to 7 days

COST

Bulk billed subject to Medicare guidelines and criteria.

FURTHER INFORMATION

For any further enquiries regarding this test, please contact QML Pathology on (07) 3121 4420.