

## BreathID® in the Primary Care Setting: Open Access Urea Breath Testing Welcomed by Dutch GPs

Submitted by  
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“Our GP’s feel the new service [BreathID®] has improved their management of dyspepsia...”

### Initial approach to dyspepsia in primary care

A general practitioner (GP) has several choices when he/she is confronted with a dyspeptic patient. When the patient has alarm symptoms (Red flags) an endoscopy should be requested. When there are no alarm symptoms, the GP can choose between re-assurance alone, empiric (symptomatic) therapy or ordering a diagnostic test.

Endoscopy used to be the optimal diagnostic procedure, but large studies published in major journals during the last few years have shown that a test for *Helicobacter pylori* and treat strategy was as safe, more patient-friendly, and cheaper than endoscopy in dyspeptic patients <45-55 years of age. Furthermore, it had similar health outcomes to endoscopy.

In this treatment strategy, a non-invasive *Helicobacter pylori* test is used as the initial test to exclude peptic ulcer disease. If the test is positive, then the patient is treated with antibiotics. If the test is negative, either initially, or after successful antibiotic treatment, empiric treatment with a proton pump inhibitor (PPI) should be the next step. Costs are decreased because less endoscopies are needed to manage the problem.

### New Dutch dyspepsia guideline

Dyspepsia guidelines in England, Scotland and Canada have already adopted the test and treat approach as the most optimal for managing the majority of dyspepsia patients. The European *Helicobacter pylori* Study Group also advised test and treat as initial management for dyspeptic patients <45 years of age in their Maastricht Consensus Report. In addition, the Dutch 2003 Consensus Report on the management of dyspepsia also suggests that the test and treat approach has gained a prominent position.

It was suggested that patients with typical reflux symptoms should receive empiric treatment with a PPI, but all those without typical heartburn should be

managed by test and treat. In order to allow Dutch GP’s to adopt these new guidelines, the consensus group advised the government to build an infrastructure in which all Dutch GP’s would have access to an easy, accessible urea breath testing service.

### First experience with open access near patient urea breath testing

Open access endoscopy services are offered to GP’s by many hospitals. The new evidence-based management strategy for dyspepsia, which is now also advised in many official guidelines, requires hospitals to also offer, alongside endoscopy, open access testing facilities for *Helicobacter pylori* infection. According to all of the guidelines, urea breath testing has the

most optimal test characteristics, both before and after antibiotic treatment. The test is easy to perform and both <sup>13</sup>C and <sup>14</sup>C urea can safely be administered. If present, the bacterial enzyme urease breaks down the urea, which results in labelled CO<sub>2</sub> to be exhaled. Different equipment can then be used to analyse breath samples.

Hospital Bernhoven in Oss, the Netherlands introduced the test and treat protocol last year. Gastroenterologist Wink de Boer, who heads the clinical Helicobacter research program, introduced the concept to the local GP's at an evening symposium. "Most of the urea breath tests required us to send the breath samples to a central facility, but in order to facilitate the novel dyspepsia management we needed an affordable "near patient" testing facility". Hospital Bernhoven choose the Exalanz BreathID® Breath Test System to meet these unique needs, and became one of the first sites in Europe to incorporate this technology.

Between August 2002 and May 2003, just over 1000 patients have used the open access breath test. Patients make their own appointment by telephone. "Our GP's feel the new service has improved their management of dyspepsia and decreased our work load in upper endoscopies; we now have more room for colonoscopies." sites de Boer. "The thing that surprised me most" de Boer added, "was the enthusiasm of our patients." Many patients become frustrated when their GP prescribes a drug without doing any tests.

However, these patients felt that they were taken seriously by their GP. In addition, the explanation of the test and attention they received from the nurse helped them to better understand and accept their symptoms. Another remarkable marker for patient acceptance was the fact that all infected patients, after being treated, wanted to come back to test for cure.

De Boer states, "Test and treat is here to stay and I predict that within a few years time, most hospitals will be offering open access urea breath testing to their local GP's. The BreathID® system, one of the few truly near patient testing systems is very likely to be chosen by many institutions". ■

The Bernhoven Hospital in the Netherlands has been using the BreathID® System for more than 7 years (2002-2009).

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