

# Quick test for detection of *Helicobacter pylori* urease activity in gastric biopsy specimens

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## INTRODUCTION

Rapid diagnosis of gastric *Helicobacter pylori* infection can be performed in connection with gastroscopy. A new simplified urea test for *H. pylori* urease activity for gastric biopsy specimen has been developed.

## MATERIALS AND METHODS

### Clinical Specimens

Stomach biopsy specimens were obtained and evaluated at Jorvi Hospital (Espoo, Finland) following standard protocol. The study included 70 patients who were referred to routine gastroscopy.

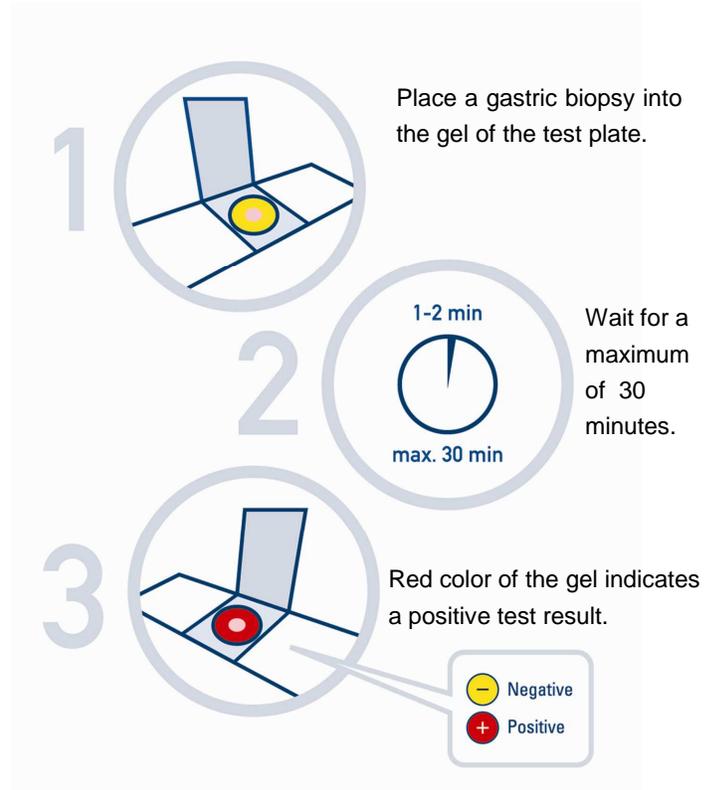
### Methods

The *H. pylori* Quick Test (Biohit Oyj, Helsinki, Finland) for detection of *H. pylori* urease activity was compared with histological analysis of *H. pylori* (modified Giemsa and HE stains) in gastric biopsies obtained from 70 patients consecutively undergoing endoscopy. The quick test provides a positive result in 1-2 minutes in case of high-density colonization of the *H. pylori* in the stomach mucosal lining. The maximum reaction time of the test, for low-density colonization of the bacteria, is 30 minutes.

## RESULTS

The *Helicobacter pylori* quick test results correlated well with histological biopsy findings. It had accuracy of 96%, sensitivity of 100%, specificity of 93%, positive predictive value of 89%, and negative predictive value of 100% (Table 1).

## PERFORMANCE OF THE *H. PYLORI* QUICK TEST



**Table 1.** *Helicobacter pylori* Quick Test sensitivity, specificity, PPV and NPV against histological analysis of *H. pylori* in gastric biopsies (modified Giemsa and He stains).

UREASE TEST	N	SENSITIVITY (%)	SPECIFICITY (%)	PPV (%)	NPV (%)	ACCURACY (%)
Biohit	70	100	93	89	100	96

## CONCLUSIONS

The new rapid test for *H. pylori* urease activity is a convenient, fast, reliable and low-cost tool for diagnosis of *Helicobacter pylori* infection in gastric biopsies collected during endoscopy.

