



R-Biopharm RIDASCREEN® Helicobacter and Generic Assays Helicobacter pylori compared to OXIOD Amplified IDEIA Hp StAR™

FRIDAY - CPHM-836

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Introduction

In accordance to guidelines there is a preference for monoclonal antibodies for detection of Helicobacter specific antigen in human stool¹. We compared our existing routine method for *Helicobacter* antigen detection in feces (OXIOD Amplified IDEIA Hp StAR™) with other less expensive and easier to automate methods (R-Biopharm RIDASCREEN® Helicobacter and Generic Assays Helicobacter pylori Antigen).

Methods

A prospective (n = 50) and a retrospective (n = 26) comparison was performed on routine stool samples using the Hp StAR™, RIDASCREEN® and the Generic Assays.

In the retrospective comparison the samples were primarily tested with the OXIOD Amplified IDEIA Hp StAR™.

The dilution of the stool samples was performed manually, all other steps of the RIDASCREEN® and the Generic Assays were performed fully automated using either DSX™ or Immunomat™. In addition to the dilution of the stool samples the Hp StAR™ included extra manual steps before the ELISA robot was used to finish the assay.

Results

From the positive results (n = 40) obtained with the Hp StAR™ 90% were confirmed with the RIDASCREEN® and 87,5% were confirmed with the Generic Assays. All discrepancies (n = 4) between the Hp StAR™ and the RIDASCREEN® were also negative with the Generic (table 1).

The negative results (n = 36) obtained with The Hp StAR™ were all confirmed with the other two tests.

Table 1. 40 positive results Hp StAR™ vs. Ridascreen® and Generic Assay

	R-Biopharm RIDASCREEN® Helicobacter	Generic Assays Helicobacter pylori Antigen
Positive	36	35
Negative	4	5
Total	40	40

Discussion

The Hp StAR™ has been shown to be an accurate stool test for diagnosis of patients with *H.pylori* infection². However the rather laborious handling of samples before automation and the relative high cost were reasons to compare it with other tests with less handling. Both RIDASCREEN® and Generic Assays were comparable in performance to Hp StAR™.

Conclusions

1. Both RIDASCREEN® and the Generic Assays are high quality assays for the detection of *Helicobacter* antigen in feces.
2. Both these assays only need diluting the stool samples before fully automation using an ELISA robot.
3. We implemented the R-Biopharm RIDASCREEN® Helicobacter in our routine to replace the OXIOD Amplified IDEIA Hp StAR™.

References

1. Accuracy of monoclonal stool antigen test for the diagnosis of *H. pylori* infection: a systematic review and meta-analysis. Gisbert JP, et al. Am J Gastroenterol 2006;101(8):1921–30.
2. Comparative accuracy of 3 monoclonal stool tests for diagnosis of *Helicobacter pylori* infection among patients with dyspepsia. Calvet X, et al. Clin Infect Dis 2010;50(3): 323-8.

