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Section: <b>Respiratory Tract Culture Manual</b>	Subject Title: <b>Gastric Aspirates/Biopsies (for <i>Helicobacter pylori</i>)</b>	
Issued by: <b>LABORATORY MANAGER</b>	Original Date: March 27, 2000	
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### **GASTRIC ASPIRATES/BIOPSIES (for *Helicobacter pylori*)**

#### **I. Introduction**

*Helicobacter pylori* is implicated in the etiology of some cases of gastritis and peptic ulcers.

#### **II. Specimen Collection and Transport**

See [Pre-analytical Procedure - Specimen Collection QPCMI02001](#)

#### **III. Reagents / Materials / Media**

See [Analytical Process - Bacteriology Reagents\\_Materials\\_Media List QPCMI10001](#)

#### **IV. Procedure**

##### A. Processing of Specimen:

See [Specimen Processing Procedure QPCMI06003](#)

##### a) Direct Examination:

- i) Use one half of the tissue to prepare a smear for Gram stain and to directly inoculate a urea slant.
- ii) Incubate the urea slant at 35°C for 1 – 4 hours.
- iii) Macerate the remaining tissue for culture:

##### b) Culture:

<b>Media</b>	<b>Incubation</b>
Blood Agar (BA)	Microaerophilic, 35°C x 7 days
Campylobacter Agar (CAMPY)	Microaerophilic, 35°C x 7 days
Urea (Rapid)	O <sub>2</sub> , 35°C x 4 hours

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B. Interpretation of cultures:

- a) Examine the direct urea slant after 1 and 4 hours incubation. A positive reaction is presumptive evidence of the presence of *H. pylori*.
- b) Examine the plates after 3, 5 and 7 days incubation. Colonies of *H. pylori* are grey, translucent and small (0.5 to 1.0 mm in diameter). See [Identification of \*H. pylori\*](#).

C. Susceptibility Testing:

Not required.

**V. Reporting**

Gram Stain: Presence or absence of small, curved Gram negative bacilli

Culture:

**Preliminary Report:** If rapid Urease is positive and small gram negative bacilli seen in gram stain, report in “ISOLATE window” of the LIS –  
“*Helicobacter pylori*” “probable identification based on positive urease and gram stain result, culture confirmation to follow”.

**Final Report:**

Negative Report: "No *Helicobacter pylori* isolated"

Positive Report: "*Helicobacter pylori* isolated"

**VI. References**

P.R. Murray, E.J. Baron, M.A. Pfaller, R.H. Tenover, R.M. Tenover. 2003. Manual of Clinical Microbiology, 8<sup>th</sup> ed. ASM Press, Washington, D.C.

H.D. Izenberg. 2003. *Helicobacter pylori* Cultures, 3.8.4.1 in Clinical Microbiology Procedures Handbook, 2<sup>nd</sup> ed. Vol.1 ASM Press, Washington, D.C.