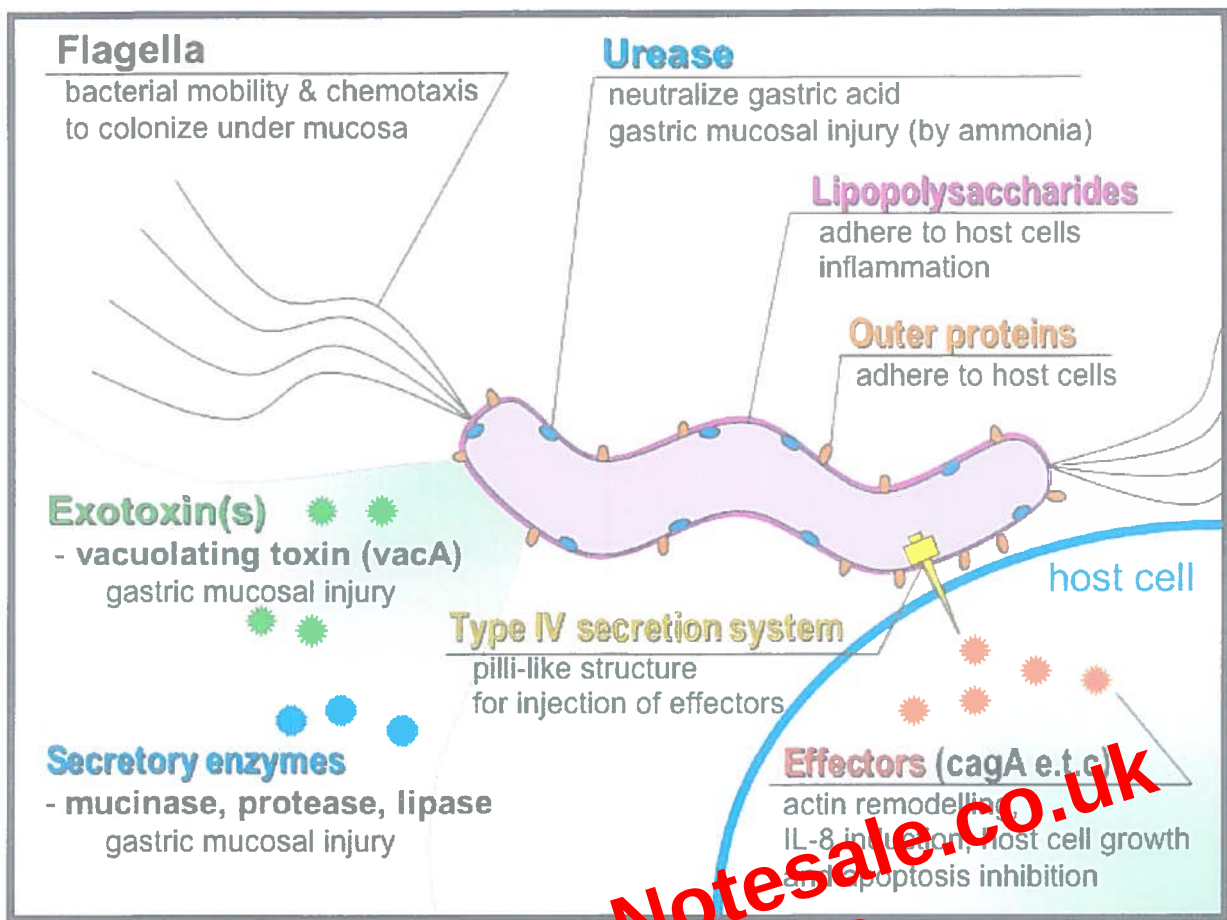




Laboratory diagnosis:

A- Invasive method:

- 1- **Specimen:** gastric mucosa biopsy obtained by endoscopy.
- 2- **Rapid urease test** in which gastric biopsy is placed in a medium containing urea with pH indicator.
If *H. pylori* present, the urease enzyme splits urea and results in color change.
- 3- **Direct smear:** are stained with Gram, stain or special histologic stains to detect the characteristic morphology.
- 4- **Culture** is done on **Skirrow's medium** at 37°C in micro-aerophilic humid environment and incubated for up to one week.
- 5- **Growing colonies are identified:** morphologically and biochemically.

VIBRIOS

- ★ comma shaped Gram-negative rods.
- ★ They are commonly found as saprophytes in surface water, mainly saltwater, and soil.
- ★ Some members can cause disease in man or animal.
- ★ The most clinically important species is **V. cholerae**.

Classification :

Halophilic vibrios

- ★ V. parahaemolyticus
- ★ V. alginolyticus
- ★ V. vulnificus
- ★ V. mimicus

Non-halophilic vibrios

- ★ V. cholera O1:
 1. Classical
 2. El Tor .
- ★ Non-O1 V. cholerae (NCV or NAG)



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VIBRIO CHOLERA

Morphology:

- ★ Gram negative curved bacilli on primary isolation.
- ★ They are motile with single polar flagellum.
- ★ Motility is characteristic and appears in darting form.

Cultural characters:

- ★ Highly aerobic organism.
- ★ can grow on ordinary media.
- ★ Growth is favored by alkaline pH (8.5 - 9.5).
- ★ it grows on alkaline peptone water, forming a surface pellicle.