



# Antimicrobial Susceptibility Testing Standing Committee

## Guidance

### Susceptibility testing of *Helicobacter pylori*

Disc diffusion methods are not suitable for testing *Helicobacter pylori* as this species is slow growing and results may not be accurate. The recommended method of susceptibility testing is Etest (follow technical guide instructions).

Suspend colonies from a 2-3 day culture on a blood agar plate in sterile distilled water and adjust the density to equal a McFarland 3 standard.

Use a swab dipped in the suspension to inoculate evenly the entire surface of the plate. The medium of choice is Mueller-Hinton agar or Wilkins-Chalgren agar with 5-10% horse blood.

Allow the plate to dry and apply Etest strip.

Incubate at 35°C in microaerophilic conditions for 3-5 days.

Read the MIC at the point of complete inhibition of all growth, including hazes and isolated colonies. Tentative interpretative criteria for MICs are given in Table 1.

Table 1: MIC breakpoints for *Helicobacter pylori* based on epidemiological “cut-off” values (ECOFFs), which distinguish “wild-type” isolates from those with reduced susceptibility

Antimicrobial agent	MIC breakpoint (mg/L)		
	R >	I	S ≤
Amoxicillin	0.12	-	0.12
Clarithromycin	0.5	0.5	0.25
Levofloxacin	1	-	1
Tetracycline	1	-	1
Metronidazole	8	-	8
Rifampicin	1	-	1