

Etest APPLICATION SHEET

*Haemophilus
influenzae*

EAS 005

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SPECIMEN	Blood, CSF, sterile site (joint fluid, eye) and respiratory (sputum, tracheal aspirate, middle ear, nasopharynx)
PROCEDURE	<p>Agar medium Haemophilus Test Medium (HTM) (NCCLS) or Mueller Hinton + 1% haemoglobin + 1% IsoVitaleX™¹⁾ if validated against NCCLS</p> <p>Inoculum Suspension in broth to 0.5 McFarland (1 McFarland if mucoid)</p> <p>Incubation 35°C/ 5% CO₂/ 20-24h</p>
LITERATURE	Package insert, product labels, Etest Technical Guide, Media/Inoculum/Incubation, Reading & Trouble Shooting charts and Etest reference list.

QUALITY CONTROL (MIC µg/mL)		<i>H. influenzae</i> ATCC® 49247	<i>H. influenzae</i> ATCC® 49766
Ampicillin	AM	2-8	-
Amoxi/Clav 2/1 ¹⁾	XL	2-16	-
Azithromycin (ambient) ³⁾	AZ	1-4	-
Azithromycin (CO ₂) ³⁾⁴⁾	AZ	4-16	-
Cefotaxime	CT	0.125-0.5	-
Ceftriaxone	TX	0.064-0.25	-
Cefuroxime	XM	-	0.25-1.0
Chloramphenicol	CL	0.25-1	-
Clarithromycin (ambient) ³⁾	CH	4-16	-
Clarithromycin (CO ₂) ³⁾⁴⁾	CH	8-32	-
Levofloxacin	LE	0.008-0.032	-
Meropenem	MP	-	0.032-0.125
Tetracycline	TC	4-32	-
Trim/Sulfa 1/19 ¹⁾	TS	0.032-0.25	-

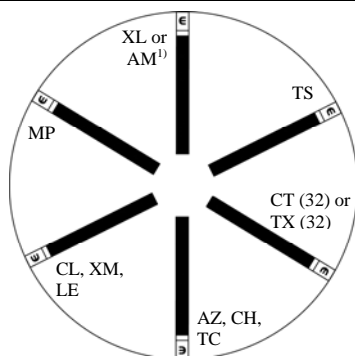
INTERPRETATION NCCLS MIC Criteria (µg/mL) ²⁾	S	I	R	S	I	R	
Ampicillin	≤1	2	≥4	Chloramphenicol	≤2	4	≥8
Amoxi/Clav 2/1 ¹⁾	≤4	-	≥8	Clarithromycin (ambient) ³⁾	≤8	16	≥32
Azithromycin (ambient) ³⁾	≤4	-	-	Clarithromycin (CO ₂) ³⁾⁴⁾	≤16	32	≥64
Azithromycin (CO ₂) ³⁾⁴⁾	≤8	-	-	Levofloxacin	≤2	-	-
Cefotaxime	≤2	-	-	Meropenem	≤0.5	-	-
Ceftriaxone	≤2	-	-	Tetracycline	≤2	4	≥8
Cefuroxime	≤4	8	≥16	Trim/Sulfa 1/19 ¹⁾	≤0.5	1-2	≥4

Notes

- Value on the MIC scale refers to the first component of the combination.
- NCCLS M100-S14, 2004.
- In the USA, for investigational use only.**
- NCCLS broth microdilution uses ambient incubation while agar based methods use CO₂ incubation that causes a pH decrease and may affect activity of macrolides. Quality control ranges and interpretive criteria for Etest are adjusted for CO₂ incubation.

READING PRECAUTIONS	<ol style="list-style-type: none"> For bactericidal drugs, read the MIC at complete inhibition of all growth including microcolonies, hazes and isolated colonies. For bacteriostatic drugs, read the MIC at 80% inhibition when trailing is seen.
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ANTIBIOGRAM



Example only, please use your own formulary

Note
1. Use ampicillin with β-lactamase negative strains only.

REFERENCES	<ol style="list-style-type: none"> Jorgensen et al. (1991). Quantitative antimicrobial susceptibility testing of <i>H. influenzae</i> and <i>S. pneumoniae</i> by using Etest. <i>JCM</i>. 29(1): 109-114. Bolmström et al. (1996). Effects of CO₂ incubation on MICs of macrolides. ICAAC. poster no. D38. Thornsberry et al. (1997). Surveillance of antimicrobial resistance in <i>S. pneumoniae</i>, <i>H. influenzae</i> and <i>M. catarrhalis</i> in the United States in 1996-1997 respiratory season. <i>DMID</i>. 29: 249-257.
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