

EXTERNAL QUALITY ASSESSMENT SCHEME ON ANTIMICROBIAL SUSCEPTIBILITY TESTING 2020

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Dear Participant

In this evaluation report your individual results are presented for the sixth external quality assessment on antimicrobial susceptibility testing (EQA6-AST) for national public health laboratories for *Salmonella* and *Campylobacter* in the Food-and Waterborne Diseases and Zoonoses Network (FWD-Net). The EQA was organised by Statens Serum Institut (SSI) in 2020.

Enclosed with this document are 6 pages including the EUCAST ECOFFs and clinical breakpoints for *Campylobacter*, your own submitted results, expected results established by the EQA provider and a comparison of these. Submitted gradient strip results were transformed in a \log_2 base scale in order to compare to micro-broth dilutions. Please study the results carefully and do not hesitate to contact us if you have any questions or suggestions.

Thank you very much for your participation.

Yours sincerely,

EQA team Denmark

SPECIES DESIGNATION AND MIC DETERMINATION

EUCAST ECOFFs and clinical breakpoints used for *Campylobacter*

Antimicrobial agent	MIC determination (µg/mL)				Disk Diffusion (mm)			
	EUCAST ECOFF		EUCAST clinical breakpoint		EUCAST ECOFF		EUCAST Clinical breakpoint	
	WT ≤	NWT >	S ≤	R >	WT ≥	NWT <	S ≥	R <
Mandatory								
Ciprofloxacin	0.5	0.5	0.5	0.5	26	26	26	26
Erythromycin (<i>jejuni</i>)	4	4	4	4	22	22	20	20
Erythromycin (<i>coli</i>)	8	8	8	8	24	24	24	24
Tetracycline (<i>jejuni</i>)	1	1	2	2	30	30	30	30
Tetracycline (<i>coli</i>)	2	2	2	2	30	30	30	30
Optional								
Gentamicin (<i>jejuni</i>)	2	2			20	20		
Gentamicin (<i>coli</i>)	2	2						

SPECIES DESIGNATION AND MIC DETERMINATION

Strain EQA_AST.C20.0001

Species designation

Expected result	Your reported result	In accordance with expected
<i>C. coli</i>	<i>C. coli</i>	Correct

Antimicrobial susceptibility testing

Antimicrobial agents	Expected results as established by EQA provider			Your reported results and interpretation				
	Value (mg/L)	Interpretation based on EUCAST ECOFFs	Interpretation based on Clinical breakpoints	Value (mg/L) ¹	Value in accordance with expected (+/- 1 dilution difference) ²	Interpretation based on EUCAST ECOFFs ³	Interpretation in accordance with expected ⁴	Reported genotypic result
Ciprofloxacin	= 16	NWT	R	>32 (32)	Incorrect	NWT	Correct	-
Erythromycin	= 64	NWT	R	>256 (256)	Incorrect	NWT	Correct	-
Tetracycline	= 64	NWT	R	>256 (256)	Incorrect	NWT	Correct	-
Optional								
Gentamicin	> 16	NWT	NA	>256 (256)	Correct	NWT	Correct	-

NA: Not applicable (no EUCAST ECOFF or clinical breakpoint) ND: Not determined (result not covering the recommended range)

¹Log transformed values are shown in brackets.

²Performance evaluated as correct if the reported MIC value was within +/-1 dilution from the expected MIC established by the EQA provider.

³Value reported by participant interpreted by EQA provider based on EUCAST ECOFFs (EUCAST clinical breakpoint used when no EUCAST ECOFF available).

⁴Value reported by participant interpreted by EQA provider based on EUCAST ECOFFs compared to the expected interpretation as established by EQA provider.

EQA provider's feedback (if relevant)

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SPECIES DESIGNATION AND MIC DETERMINATION

Strain EQA_AST.C20.0002

Species designation

Expected result	Your reported result	In accordance with expected
<i>C. jejuni</i>	<i>C. jejuni</i>	Correct

Antimicrobial susceptibility testing

Antimicrobial agents	Expected results as established by EQA provider			Your reported results and interpretation					
	Mandatory	Value (mg/L)	Interpretation based on EUCAST ECOFFs	Interpretation based on Clinical breakpoints	Value (mg/L) ¹	Value in accordance with expected (+/- 1 dilution difference) ²	Interpretation based on EUCAST ECOFFs ³	Interpretation in accordance with expected ⁴	Reported genotypic result
Ciprofloxacin	<=	0,12	WT	S	=0,094 (0,125)	Correct	WT	Correct	-
Erythromycin	<=	1	WT	S	=0,5 (0,5)	Correct	WT	Correct	-
Tetracycline	<=	0,5	WT	S	=0,064 (0,0625)	Correct	WT	Correct	-
Optional									
Gentamicin	=	0,5	WT	NA	=0,125 (0,125)	Incorrect	WT	Correct	-

NA: Not applicable (no EUCAST ECOFF or clinical breakpoint) ND: Not determined (result not covering the recommended range)

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³Value reported by participant interpreted by EQA provider based on EUCAST ECOFFs (EUCAST clinical breakpoint used when no EUCAST ECOFF available).

⁴Value reported by participant interpreted by EQA provider based on EUCAST ECOFFs compared to the expected interpretation as established by EQA provider.

EQA provider's feedback (if relevant)

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SPECIES DESIGNATION AND MIC DETERMINATION

Strain EQA_AST.C20.0003

Species designation

Expected result	Your reported result	In accordance with expected
<i>C. coli</i>	<i>C. coli</i>	Correct

Antimicrobial susceptibility testing

Antimicrobial agents	Expected results as established by EQA provider			Your reported results and interpretation					
	Value (mg/L)	Interpretation based on EUCAST ECOFFs	Interpretation based on Clinical breakpoints	Value (mg/L) ¹	Value in accordance with expected (+/- 1 dilution difference) ²	Interpretation based on EUCAST ECOFFs ³	Interpretation in accordance with expected ⁴	Reported genotypic result	
Ciprofloxacin	= 4	NWT	R	=3 (4)	Correct	NWT	Correct	-	
Erythromycin	> 128	NWT	R	>256 (256)	Correct	NWT	Correct	-	
Tetracycline	= 2	WT	S	=3 (4)	Correct	NWT	Incorrect	-	
Optional									
Gentamicin	= 1	WT	NA	=0,25 (0,25)	Incorrect	WT	Correct	-	

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³Value reported by participant interpreted by EQA provider based on EUCAST ECOFFs (EUCAST clinical breakpoint used when no EUCAST ECOFF available).

⁴Value reported by participant interpreted by EQA provider based on EUCAST ECOFFs compared to the expected interpretation as established by EQA provider.

EQA provider's feedback (if relevant)

SPECIES DESIGNATION AND MIC DETERMINATION

Strain EQA_AST.C20.0004

Species designation

Expected result	Your reported result	In accordance with expected
<i>C. coli</i>	<i>C. coli</i>	Correct

Antimicrobial susceptibility testing

Antimicrobial agents	Expected results as established by EQA provider			Your reported results and interpretation					
	Value (mg/L)	Interpretation based on EUCAST ECOFFs	Interpretation based on Clinical breakpoints	Value (mg/L) ¹	Value in accordance with expected (+/- 1 dilution difference) ²	Interpretation based on EUCAST ECOFFs ³	Interpretation in accordance with expected ⁴	Reported genotypic result	
Ciprofloxacin	= 16	NWT	R	>32 (32)	Incorrect	NWT	Correct	-	
Erythromycin	> 128	NWT	R	>256 (256)	Correct	NWT	Correct	-	
Tetracycline	> 64	NWT	R	>256 (256)	Correct	NWT	Correct	-	
Optional									
Gentamicin	= 0,5	WT	NA	=0,25 (0,25)	Correct	WT	Correct	-	

NA: Not applicable (no EUCAST ECOFF or clinical breakpoint) ND: Not determined (result not covering the recommended range)

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³Value reported by participant interpreted by EQA provider based on EUCAST ECOFFs (EUCAST clinical breakpoint used when no EUCAST ECOFF available).

⁴Value reported by participant interpreted by EQA provider based on EUCAST ECOFFs compared to the expected interpretation as established by EQA provider.

EQA provider's feedback (if relevant)

SPECIES DESIGNATION AND MIC DETERMINATION

Strain EQA_AST.C20.0005

Species designation

Expected result	Your reported result	In accordance with expected
<i>C. jejuni</i>	<i>C. jejuni</i>	Correct

Antimicrobial susceptibility testing

Antimicrobial agents	Expected results as established by EQA provider			Your reported results and interpretation					
	Mandatory	Value (mg/L)	Interpretation based on EUCAST ECOFFs	Interpretation based on Clinical breakpoints	Value (mg/L) ¹	Value in accordance with expected (+/- 1 dilution difference) ²	Interpretation based on EUCAST ECOFFs ³	Interpretation in accordance with expected ⁴	Reported genotypic result
Ciprofloxacin	<=	0,12	WT	S	=0,094 (0,125)	Correct	WT	Correct	-
Erythromycin	<=	1	WT	S	=0,5 (0,5)	Correct	WT	Correct	-
Tetracycline	=	64	NWT	R	>256 (256)	Incorrect	NWT	Correct	-
Optional									
Gentamicin	=	0,5	WT	NA	=0,19 (0,25)	Correct	WT	Correct	-

NA: Not applicable (no EUCAST ECOFF or clinical breakpoint) ND: Not determined (result not covering the recommended range)

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³Value reported by participant interpreted by EQA provider based on EUCAST ECOFFs (EUCAST clinical breakpoint used when no EUCAST ECOFF available).

⁴Value reported by participant interpreted by EQA provider based on EUCAST ECOFFs compared to the expected interpretation as established by EQA provider.

EQA provider's feedback (if relevant)