Welcome to the **Ninth External Quality Assurance programme on antimicrobial susceptibility testing of Campylobacter spp.** organised by Statens Serum Institut (SSI) for the ECDC (**CAMP-EQA9-AST**).

In this scheme, you will be asked to report:

- methods applied for antibiotic susceptibility testing (AST)
 - Campylobacter species and method used to determine it
- measured DD and/or MIC values
- phenotypic interpretation based on clinical breakpoints, along with the clinical breakpoint used

 A preview of the reporting scheme is available at this website: EQAs in FWD Net under CAMP-EQA9-AST

For any questions, please contact ast.eqa@ssi.dk

Country

(2) ◯ Albania

(26) ◯ Austria

(3) ◯ Belgium

(27) ◯ Bosnia and Hercegovina

(4) ◯ Bulgaria

(5) ◯ Croatia

(6) ◯ Cyprus

(7) ◯ Czech Republic

(8) ◯ Denmark

(9) ◯ Estonia

(10) ◯ France

(11) ◯ Germany

(12) ◯ Greece

(33) ◯ Hungary

(13) ◯ Iceland

(14) ◯ Ireland

(15) ◯ Italy

(28) ◯ Kosovo

(16) ◯ Liechtenstein

(17) ⭘ Lithuania

(18) ⭘ Luxembourg

(19) ⭘ Malta

(29) ⭘ Montenegro

(30) ⭘ North Macedonia

(20) ⭘ Poland

(21) ⭘ Portugal

(22) ⭘ Romania

(31) ⭘ Serbia

(23) ⭘ Slovakia

(24) ⭘ Slovenia

(25) ⭘ Spain

(32) ⭘ Turkey

Upon completion of the EQA, you will receive an Individual report with your results.

Please specify the name of your Institution and Laboratory, as you would like it to appear on the Individual Report.

Name of the Institute

_____

Name of the Laboratory

_____

Lab ID

Your unique Lab_ID was provided in the cover letter that you received together with the package. It starts with the international, two-letter code for your country.

_____

Reporting results for mandatory and optional antimicrobials for Campylobacter strains

 There are three mandatory and one optional antimicrobial for which you can report data for Campylobacter.

For each of the antimicrobials, you will be able to:enter details about the used methodreport your values for each strain (DD and/or MIC)report the clinical interpretation based on EUCAST clinical breakpoints You will also be asked to report species for each of the strains, growth medium and incubation temperature.

Growth medium (Disk diffusion)

(1) ○ Mueller-Hinton agar

(2) ○ Mueller-Hinton agar + 5% defibrinated horse blood

(3) ○ Mueller-Hinton agar + 5% defibrinated horse blood + 20 mg/L beta-NAD

(4) ○ I did not perform Disk diffusion

(5) ○ Other (please specify below): _____

Growth medium (microbroth dilution)

(1) ○ Mueller-Hinton broth

(2) ○ Mueller-Hinton agar

(3) ○ Mueller-Hinton broth + 5% defibrinated horse blood

(4) ○ Mueller-Hinton broth + 5% defibrinated horse blood + 20 mg/L beta-NAD

(5) ○ I did not perform microbroth dilution

(6) ○ Other (please specify below): _____

Incubation temperature used in CAMP-EQA9-AST for Campylobacter strains (in degree Celsius)

(3) ○ 37°C +/- 1°C

(4) ○ 41°C +/- 1°C

(6) ○ Other (please specify below): _____

Please report the species for each Campylobacter strain

	C. jejuni	C. coli	Not determined
EQA-AST.C24.01	(1) ○	(2) ○	(3) ○
EQA-AST.C24.02	(1) ○	(2) ○	(3) ○
EQA-AST.C24.03	(1) ○	(2) ○	(3) ○
EQA-AST.C24.04	(1) ○	(2) ○	(3) ○
EQA-AST.C24.05	(1) ○	(2) ○	(3) ○

Method used for species determination

(1) ❑ MALDI-TOF

(2) ❑ PCR

(3) ❑ Biochemical

(4) ❑ WGS

(5) ❑ Other (please specify): _____

Reason for not reporting the species

_____

_____

_____

_____

_____

_____

Ciprofloxacin (mandatory)

Please select for which method you would like to report the results for.

(1) ○ Disk Diffusion only

(2) ○ MIC determination only

(3) ○ Disk Diffusion and MIC determination

Ciprofloxacin, Disk Diffusion

Brand of disk

(1) ○ BD BBL

(2) ○ Biomaxima SA

(3) ○ Bio-Rad

(4) ○ Conda

(5) ○ i2a diagnostics

(6) ○ Liofilchem

(7) ○ Mastdiscs

(8) ○ Oxoid

(9) ○ Rosco

(10) ○ Other (please specify below) _____

Did you use the recommended disk load for Ciprofloxacin (5 µg)?

(1) ○ Yes

(2) ○ No (specify other concentration and provide explanation): _____

Comments (if needed)

_____
_____
_____
_____

_____

_____

Specify zone diameter (mm) for Ciprofloxacin for all Campylobacter strains

Please write "99" in case you were not able to determine the zone diameter.

ATCC 33560	_____
EQA-AST.C24.01	_____
EQA-AST.C24.02	_____
EQA-AST.C24.03	_____
EQA-AST.C24.04	_____
EQA-AST.C24.05	_____

Comments (if needed)

_____

_____

_____

_____

_____

_____

Please indicate the clinical interpretation (S, I or R) for each strain for Ciprofloxacin (disk diffusion) along with the clinical breakpoint value that you used.

	S	I	R
ATCC 33560	(1) ○	(3) ○	(2) ○
EQA-AST.C24.01	(1) ○	(3) ○	(2) ○
EQA-AST.C24.02	(1) ○	(3) ○	(2) ○
EQA-AST.C24.03	(1) ○	(3) ○	(2) ○
EQA-AST.C24.04	(1) ○	(3) ○	(2) ○
EQA-AST.C24.05	(1) ○	(3) ○	(2) ○

Clinical breakpoint value applied for Ciprofloxacin (disk diffusion method)

S <=	_____
R >	_____

Ciprofloxacin, MIC determination

Which MIC determination method did you use?

(1) ○ Microdilution

(2) ○ Gradient strip

Brand of panel / strips

(1) ○ bioMerieux

(2) ○ Liofilchem

(3) ○ Sensititre

(4) ○ ThermoFisher Scientific

(5) ○ VITEK 2, bioMerieux

(6) ○ Other (specify below): _____

Did you cover the recommended range for Ciprofloxacin (0.12-32 mg/L)?

(1) ○ Yes

(2) ○ No (specify the covered range below and provide explanation) _____

Comments (if needed)

_____
_____
_____
_____
_____
_____

Name of panel

(1) ○ EUCAMP2

(2) ○ EUCAMP3

(4) ○ in-house

(3) ○ Other (specify below): _____

Report MIC values obtained with microbroth dilution for Ciprofloxacin for each Campylobacter strain

If you used E-test to determine MIC value, please use the E-test calculator

available from this link to convert your values in log2-scale, so that comparison with microbroth dilutions is possible.

Please mark "Not determined" if you were unable to obtain a value.

	<= 0.12	0.25	0.5	1	2	4	8	> 16	Not determined
ATCC 33560	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○
EQA-AST.C24.01	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○
EQA-AST.C24.02	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○
EQA-AST.C24.03	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○
EQA-AST.C24.04	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○
EQA-AST.C24.05	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○

Comments (if needed)

_____
_____
_____
_____

_____

_____

Please indicate the clinical interpretation (S, I or R) for each strain for Ciprofloxacin (MIC determination) along with the clinical breakpoint value that you used.

	S	I	R
ATCC 33560	(1) ○	(3) ○	(2) ○
EQA-AST.C24.01	(1) ○	(3) ○	(2) ○
EQA-AST.C24.02	(1) ○	(3) ○	(2) ○
EQA-AST.C24.03	(1) ○	(3) ○	(2) ○
EQA-AST.C24.04	(1) ○	(3) ○	(2) ○
EQA-AST.C24.05	(1) ○	(3) ○	(2) ○

Clinical breakpoint value applied for Ciprofloxacin (MIC determination)

S <=	_____
R >	_____

Erythromycin (mandatory)

Please select for which method you would like to report the results for.

(1) ○ Disk Diffusion only

(2) ○ MIC determination only

(3) ○ Disk Diffusion and MIC determination

Erythromycin, Disk Diffusion

Brand of disk

(1) ○ BD BBL

(2) ○ Biomaxima SA

(3) ○ Bio-Rad

(4) ○ Conda

(5) ○ i2a diagnostics

(6) ○ Liofilchem

(7) ○ Mastdiscs

(8) ○ Oxoid

(9) ○ Rosco

(10) ○ Other (please specify below) _____

Did you use the recommended disk load for Erythromycin (15 μg)?

(1) ○ Yes

(2) ○ No (specify other concentration and provide explanation): _____

Comments (if needed)

_____
_____
_____
_____

_____

_____

Specify zone diameter (mm) for Erythromycin for all Campylobacter strains

Please write "99" in case you were not able to determine the zone diameter.

ATCC 33560	_____
EQA-AST.C24.01	_____
EQA-AST.C24.02	_____
EQA-AST.C24.03	_____
EQA-AST.C24.04	_____
EQA-AST.C24.05	_____

Comments (if needed)

_____
_____
_____
_____
_____
_____

Please indicate the clinical interpretation (S or R) for each strain for Erythromycin (disk diffusion) along with the clinical breakpoint value that you used.

	S	R
ATCC 33560	(1) ○	(2) ○
EQA-AST.C24.01	(1) ○	(2) ○
EQA-AST.C24.02	(1) ○	(2) ○
EQA-AST.C24.03	(1) ○	(2) ○
EQA-AST.C24.04	(1) ○	(2) ○
EQA-AST.C24.05	(1) ○	(2) ○

Clinical breakpoint value applied for Erythromycin (disk diffusion method)

S <=	_____
R >	_____

Erythromycin, MIC determination

Which MIC determination method did you use?

(1) ○ Microdilution

(2) ○ Gradient strip

Brand of panel / strips

(1) ○ bioMerieux

(2) ○ Liofilchem

(3) ○ Sensititre

(4) ○ ThermoFisher Scientific

(5) ○ VITEK 2, bioMerieux

(6) ○ Other (specify below): _____

Did you cover the recommended range for Erythromycin (1-512 mg/L)?

(1) ○ Yes

(2) ○ No (specify the covered range below and provide explanation) _____

Comments (if needed)

_____

_____

_____

_____

_____

_____

Name of panel

(1) ○ EUCAMP2

(2) ○ EUCAMP3

(4) ○ in-house

(3) ○ Other (specify below): _____

Report MIC values obtained with microbroth dilution for Erythromycin for each Campylobacter strain

If you used E-test to determine MIC value, please use the E-test calculator

available from this link to convert your values in log2-scale, so that comparison with microbroth dilutions is possible.

Please mark "Not determined" if you were unable to obtain a value.

	<= 1	2	4	8	16	32	64	128	256	> 512	Not determined
ATCC 33560	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○	(10) ○	(11) ○
EQA-AST.C24.01	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○	(10) ○	(11) ○
EQA-AST.C24.02	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○	(10) ○	(11) ○
EQA-AST.C24.03	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○	(10) ○	(11) ○
EQA-AST.C24.04	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○	(10) ○	(11) ○
EQA-AST.C24.05	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○	(10) ○	(11) ○

Comments (if needed)

_____

_____

_____

_____

_____

_____

Please indicate the clinical interpretation (S or R) for each strain for Erythromycin (MIC determination) along with the clinical breakpoint value that you used.

	S	R
ATCC 33560	(1) ○	(2) ○
EQA-AST.C24.01	(1) ○	(2) ○
EQA-AST.C24.02	(1) ○	(2) ○
EQA-AST.C24.03	(1) ○	(2) ○
EQA-AST.C24.04	(1) ○	(2) ○
EQA-AST.C24.05	(1) ○	(2) ○

Clinical breakpoint value applied for Erythromycin (MIC determination)

S <=	_____
R >	_____

Tetracycline (mandatory)

Please select for which method you would like to report the results for.

(1) ○ Disk Diffusion only

(2) ○ MIC determination only

(3) ○ Disk Diffusion and MIC determination

Tetracycline, Disk Diffusion

Brand of disk

(1) ○ BD BBL

(2) ○ Biomaxima SA

(3) ○ Bio-Rad

(4) ○ Conda

(5) ○ i2a diagnostics

(6) ○ Liofilchem

(7) ○ Mastdiscs

(8) ○ Oxoid

(9) ○ Rosco

(10) ○ Other (please specify below) _____

Did you use the recommended disk load for Tetracycline (30 µg)?

(1) ○ Yes

(2) ○ No (specify other concentration and provide explanation): _____

Comments (if needed)

_____
_____
_____
_____

_____

_____

Specify zone diameter (mm) for Tetracycline for all Campylobacter strains

Please write "99" in case you were not able to determine the zone diameter.

ATCC 33560	_____
EQA-AST.C24.01	_____
EQA-AST.C24.02	_____
EQA-AST.C24.03	_____
EQA-AST.C24.04	_____
EQA-AST.C24.05	_____

Comments (if needed)

_____
_____
_____
_____
_____
_____

Please indicate the clinical interpretation (S or R) for each strain for Tetracycline (disk diffusion) along with the clinical breakpoint value that you used.

	S	R
ATCC 33560	(1) ○	(2) ○
EQA-AST.C24.01	(1) ○	(2) ○
EQA-AST.C24.02	(1) ○	(2) ○
EQA-AST.C24.03	(1) ○	(2) ○
EQA-AST.C24.04	(1) ○	(2) ○
EQA-AST.C24.05	(1) ○	(2) ○

Clinical breakpoint value applied for Tetracycline (disk diffusion method)

S <=	_____
R >	_____

Tetracycline, MIC determination

Which MIC determination method did you use?

(1) ○ Microdilution

(2) ○ Gradient strip

Brand of panel / strips

(1) ○ bioMerieux

(2) ○ Liofilchem

(3) ○ Sensititre

(4) ○ ThermoFisher Scientific

(5) ○ VITEK 2, bioMerieux

(6) ○ Other (specify below): _____

Did you cover the recommended range for Tetracycline (0.5-64 mg/L)?

(1) ○ Yes

(2) ○ No (specify the covered range below and provide explanation) _____

Comments (if needed)

_____
_____
_____
_____
_____
_____

Name of panel

(1) ○ EUCAMP2

(2) ○ EUCAMP3

(4) ○ in-house

(3) ○ Other (specify below): _____

Report MIC values obtained with microbroth dilution for Tetracycline for each Campylobacter strain

If you used E-test to determine MIC value, please use the E-test calculator

available from this link to convert your values in log2-scale, so that comparison with microbroth dilutions is possible.

Please mark "Not determined" if you were unable to obtain a value.

	<= 0.5	1	2	4	8	16	32	> 64	Not determined
ATCC 33560	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○
EQA-AST.C24.01	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○
EQA-AST.C24.02	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○
EQA-AST.C24.03	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○
EQA-AST.C24.04	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○
EQA-AST.C24.05	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○	(9) ○

Comments (if needed)

_____
_____
_____
_____

_____

_____

Please indicate the clinical interpretation (S or R) for each strain for Tetracycline (MIC determination) along with the clinical breakpoint value that you used.

	S	R
ATCC 33560	(1) ○	(2) ○
EQA-AST.C24.01	(1) ○	(2) ○
EQA-AST.C24.02	(1) ○	(2) ○
EQA-AST.C24.03	(1) ○	(2) ○
EQA-AST.C24.04	(1) ○	(2) ○
EQA-AST.C24.05	(1) ○	(2) ○

Clinical breakpoint value applied for Tetracycline (MIC determination)

S <=	_____
R >	_____

Would you like to report your results for Campylobacter and Gentamicin? (optional)

If yes, please select for which method you would like to report the results for.

(1) ◯ Disk Diffusion only

(2) ◯ MIC determination only

(3) ◯ Disk Diffusion and MIC determination

(4) ◯ I don't want to report results for Gentamicin

Gentamicin, Disk Diffusion

Brand of disk

(1) ◯ BD BBL

(2) ◯ Biomaxima SA

(3) ◯ Bio-Rad

(4) ◯ Conda

(5) ◯ i2a diagnostics

(6) ◯ Liofilchem

(7) ◯ Mastdiscs

(8) ◯ Oxoid

(9) ◯ Rosco

(10) ◯ Other (please specify below) _____

Did you use the recommended disk load for Gentamicin (10 μg)?

(1) ◯ Yes

(2) ◯ No (specify other concentration and provide explanation): _____

Comments (if needed)

_____

_____

_____

_____

_____

_____

Specify zone diameter (mm) for Gentamicin for all Campylobacter strains

Please write "99" in case you were not able to determine the zone diameter.

ATCC 33560	_____
EQA-AST.C24.01	_____
EQA-AST.C24.02	_____
EQA-AST.C24.03	_____
EQA-AST.C24.04	_____
EQA-AST.C24.05	_____

Comments (if needed)

_____

_____

_____

_____

_____

_____

Please indicate the clinical interpretation (S or R) for each strain for Gentamicin (disk diffusion) along with the clinical breakpoint value that you used.

	S	R
ATCC 33560	(1) ○	(2) ○
EQA-AST.C24.01	(1) ○	(2) ○
EQA-AST.C24.02	(1) ○	(2) ○
EQA-AST.C24.03	(1) ○	(2) ○
EQA-AST.C24.04	(1) ○	(2) ○
EQA-AST.C24.05	(1) ○	(2) ○

Clinical breakpoint value applied for Gentamicin (disk diffusion method)

S <= _____

R > _____

Gentamicin, MIC determination

Which MIC determination method did you use?

(1) ○ Microdilution

(2) ○ Gradient strip

Brand of panel / strips

(1) ○ bioMerieux

(2) ○ Liofilchem

(3) ○ Sensititre

(4) ○ ThermoFisher Scientific

(5) ○ VITEK 2, bioMerieux

(6) ○ Other (specify below): _____

Did you cover the recommended range for Gentamicin (0.25-16 mg/L)?

(1) ○ Yes

(2) ○ No (specify the covered range below and provide explanation) _____

Comments (if needed)

_____
_____
_____
_____
_____
_____

Name of panel

(1) ○ EUCAMP2

(2) ○ EUCAMP3

(4) ○ in-house

(3) ○ Other (specify below): _____

Report MIC values obtained with microbroth dilution for Gentamicin for each Campylobacter strain

If you used E-test to determine MIC value, please use the E-test calculator available from this link to convert your values in log2-scale, so that comparison with microbroth dilutions is possible.

Please mark "Not determined" if you were unable to obtain a value.

	<= 0.25	0.5	1	2	4	8	> 16	Not determined
ATCC 33560	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○
EQA-AST.C24.01	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○
EQA-AST.C24.02	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○
EQA-AST.C24.03	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○
EQA-AST.C24.04	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○
EQA-AST.C24.05	(1) ○	(2) ○	(3) ○	(4) ○	(5) ○	(6) ○	(7) ○	(8) ○

Comments (if needed)

_____
_____
_____
_____
_____
_____

Please indicate the clinical interpretation (S or R) for each strain for Gentamicin (MIC determination) along with the clinical breakpoint value that you used.

	S	R
ATCC 33560	(1) ○	(2) ○
EQA-AST.C24.01	(1) ○	(2) ○
EQA-AST.C24.02	(1) ○	(2) ○
EQA-AST.C24.03	(1) ○	(2) ○
EQA-AST.C24.04	(1) ○	(2) ○
EQA-AST.C24.05	(1) ○	(2) ○

Clinical breakpoint value applied for Gentamicin (MIC determination)

S <=	_____
R >	_____

Thank you for filling out the reporting scheme.

Press "Finish" if you are ready to submit your results.

You will receive a confirmation of submission of your results.

In case of questions, please send an email to ast.eqa@ssi.dk