***E. coli, Salmonella* and *Campylobacter***

TEST FORMS

#### **TEST FORM – *E. coli***

Which method did you use for antimicrobial susceptibility testing of *E. coli* in this EQAS?

MIC - Broth microdilution

Which standard(s)/guideline(s) did you use when performing AST?

CLSI

EUCAST

ISO 20776-1:2019

TREK

Which incubation conditions did you use?      °C/     h

Which solvent was used for the preparation of the 0.5 McFarland solution

Water

Saline

Mueller Hinton broth

The inoculum was prepared by adding       µl of 0.5 McFarland solution in       mL CAMHB broth

What was the expected inoculum size?       \*       ^       CFU/mL (indicate for example 5 times 10 to the power of 5 using this format ‘5 \* 10 ^ 5’)

Comments or additional information:

#### **TEST FORM - *Salmonella***

Which method did you use for antimicrobial susceptibility testing of *Salmonella* in this EQAS?

MIC - Broth microdilution

Which standard(s)/guideline(s) did you use when performing AST?

CLSI

EUCAST

ISO 20776-1:2019

TREK

Which incubation conditions did you use?      °C/     h

Which solvent was used for the preparation of the 0.5 McFarland solution

Water

Saline

Mueller Hinton broth

The inoculum was prepared by adding       µl of 0.5 McFarland solution in       mL cation-adjusted Mueller Hinton broth (CAMHB).

What was the expected inoculum size?       \*       ^       CFU/mL (indicate for example 5 times 10 to the power of 5 using this format ‘5 \* 10 ^ 5’)

Comments or additional information:

**TEST FORM - *Campylobacter***

Which method did you use for antimicrobial susceptibility testing of *Campylobacter* in this EQAS?

MIC - Broth microdilution

Which standard(s)/guideline(s) did you use when performing AST?

CLSI

EUCAST

ISO 20776-1:2019

TREK

Which incubation conditions did you use?

36-37ºC, 48 hours

42ºC, 24 hours

Which solvent was used for the preparation of the 0.5 McFarland solution

Water

Saline

Mueller Hinton broth

The inoculum was prepared by adding       µl of 0.5 McFarland solution in       mL cation-adjusted Mueller Hinton broth supplemented with lysed horse blood (CAMHB-LHB).

What was the expected inoculum size?       \*       ^       CFU/mL (indicate for example 5 times 10 to the power of 5 using this format ‘5 \* 10 ^ 5’)

Comments or additional information:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.1 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.1 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

#### Comments:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.2 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.2 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

#### Comments:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.3 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.3 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

#### Comments:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.4 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.4 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

#### Comments:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.5 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.5 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

#### Comments:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.6 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.6 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

#### Comments:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.7 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.7 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

#### Comments:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.8 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL 2024 EC-19.8 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

#### Comments:

#### **TEST FORM**

AST of reference strain *E. coli* ATCC 25922

|  |  |  |
| --- | --- | --- |
|  | Antimicrobial | MIC-value (μg/ml) |
| 1st panel | Amikacin, AMI |  |
| Ampicillin, AMP |  |
| Azithromycin, AZI |  |
| Cefotaxime, FOT |  |
| Ceftazidime, TAZ |  |
| Chloramphenicol, CHL |  |
| Ciprofloxacin, CIP |  |
| Colistin, COL |  |
| Gentamicin, GEN |  |
| Meropenem, MERO |  |
| Nalidixic acid, NAL |  |
| Sulfamethoxazole, SMX\* |  |
| Tetracycline, TET |  |
| Tigecycline, TGC |  |
| Trimethoprim, TMP |  |
| 2nd panel | Cefepime, FEP |  |
| Cefotaxime, FOT |  |
| Cefotaxime + clavulanic acid, F/C |  |
| Cefoxitin, FOX |  |
| Ceftazidime, TAZ |  |
| Ceftazidime+ clavulanic acid, T/C |  |
| Ertapenem, ETP |  |
| Imipenem, IMI |  |
| Meropenem, MERO |  |
| Temocillin, TRM |  |

\* for the testing of the *E. coli* ATCC25922 reference strain, sulfamethoxazole and sulfisoxazole, are regarded as comparable, i.e. the obtained MIC-value from the testing of sulfamethoxazole will be evaluated against the acceptance range listed in CLSI M100 for sulfisoxazole (CLSI M100, Table 5).

AST of the EURL-AR Internal Quality Control (QC) strain *Acinetobacter baumannii* (2012-70-100-69)

|  |  |  |
| --- | --- | --- |
|  | Antimicrobial | MIC-value (μg/ml) |
| 1st panel | Ampicillin, AMP |  |
| Azithromycin, AZI |  |
| Cefotaxime, FOT |  |
| Ceftazidime, TAZ |  |
| Chloramphenicol, CHL |  |
| Ciprofloxacin, CIP |  |
| Colistin, COL |  |
| Gentamicin, GEN |  |
| Meropenem, MERO |  |
| Nalidixic acid, NAL |  |
| Sulfamethoxazole, SMX\* |  |
| Tetracycline, TET |  |
| Tigecycline, TGC |  |
| Trimethoprim, TMP |  |
| 2nd panel | Cefepime, FEP |  |
| Cefotaxime, FOT |  |
| Cefotaxime + clavulanic acid, F/C |  |
| Cefoxitin, FOX |  |
| Ceftazidime, TAZ |  |
| Ceftazidime+ clavulanic acid, T/C |  |
| Ertapenem, ETP |  |
| Imipenem, IMI |  |
| Meropenem, MERO |  |
| Temocillin, TRM |  |

\* Sulfamethoxazole and sulfisoxazole, are regarded as comparable, i.e. the obtained MIC-value from the testing of sulfamethoxazole will be evaluated against the acceptance range listed in CLSI M100 for sulfisoxazole (CLSI M100, Table 5).

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.1 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.1 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

#### Comments:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.2 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.2 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

Comments:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.3 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.3 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

Comments:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.4 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.4 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

Comments:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.5 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.5 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

Comments:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.6 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.6 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

Comments:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.7 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.7 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

Comments:

**TEST FORM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.8 | Amikacin, AMI |  |  |  |
| Ampicillin, AMP |  |  |  |
| Azithromycin, AZI |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin CIP |  |  |  |
| Colistin, COL |  |  |  |
| Gentamicin, GEN |  |  |  |
| Meropenem, MERO |  |  |  |
| Nalidixic acid, NAL |  |  |  |
| Sulfamethoxazole, SMX |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Trimethoprim, TMP |  |  |  |

All strains resistant to cefotaxime (FOT), ceftazidime (TAZ) or meropenem (MERO) must be included for testing in the second panel as part of confirmatory tests for ESBL-, AmpC or carbapenemase production. See further description in the protocol, section ‘3.3’.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| / > | MIC-value (μg/ml) | S / R |
| *Salmonella* EURL 2024 S-19.8 | Cefepime, FEP |  |  |  |
| Cefotaxime, FOT |  |  |  |
| Cefotaxime + clavulanic acid, F/C |  |  |  |
| Cefoxitin, FOX |  |  |  |
| Ceftazidime, TAZ |  |  |  |
| Ceftazidime+ clavulanic acid, T/C |  |  |  |
| Ertapenem, ETP |  |  |  |
| Imipenem, IMI |  |  |  |
| Meropenem, MERO |  |  |  |
| Temocillin, TRM |  |  |  |

**Interpretation of PANEL 2 results**:

|  |  |  |
| --- | --- | --- |
| ESBL-phenotype  ESBL+AmpC-phenotype | AmpC-phenotype  Carbapenemase-phenotype | Other phenotype  Susceptible (to panel 2 antimicrobials) |

Comments:

#### **TEST FORM**

AST of reference strain *E. coli* ATCC 25922

|  |  |  |
| --- | --- | --- |
|  | Antimicrobial | MIC-value (μg/ml) |
| 1st panel | Amikacin, AMI |  |
| Ampicillin, AMP |  |
| Azithromycin, AZI |  |
| Cefotaxime, FOT |  |
| Ceftazidime, TAZ |  |
| Chloramphenicol, CHL |  |
| Ciprofloxacin, CIP |  |
| Colistin, COL |  |
| Gentamicin, GEN |  |
| Meropenem, MERO |  |
| Nalidixic acid, NAL |  |
| Sulfamethoxazole, SMX\* |  |
| Tetracycline, TET |  |
| Tigecycline, TGC |  |
| Trimethoprim, TMP |  |
| 2nd panel | Cefepime, FEP |  |
| Cefotaxime, FOT |  |
| Cefotaxime + clavulanic acid, F/C |  |
| Cefoxitin, FOX |  |
| Ceftazidime, TAZ |  |
| Ceftazidime+ clavulanic acid, T/C |  |
| Ertapenem, ETP |  |
| Imipenem, IMI |  |
| Meropenem, MERO |  |
| Temocillin, TRM |  |

\* for the testing of the *E. coli* ATCC25922 reference strain, sulfamethoxazole and sulfisoxazole, are regarded as comparable, i.e. the obtained MIC-value from the testing of sulfamethoxazole will be evaluated against the acceptance range listed in CLSI M100 for sulfisoxazole (CLSI M100, Table 3).

AST of the EURL-AR Internal Quality Control (QC) strain *Acinetobacter baumannii* (2012-70-100-69)

|  |  |  |
| --- | --- | --- |
|  | Antimicrobial | MIC-value (μg/ml) |
| 1st panel | Ampicillin, AMP |  |
| Azithromycin, AZI |  |
| Cefotaxime, FOT |  |
| Ceftazidime, TAZ |  |
| Chloramphenicol, CHL |  |
| Ciprofloxacin, CIP |  |
| Colistin, COL |  |
| Gentamicin, GEN |  |
| Meropenem, MERO |  |
| Nalidixic acid, NAL |  |
| Sulfamethoxazole, SMX\* |  |
| Tetracycline, TET |  |
| Tigecycline, TGC |  |
| Trimethoprim, TMP |  |
| 2nd panel | Cefepime, FEP |  |
| Cefotaxime, FOT |  |
| Cefotaxime + clavulanic acid, F/C |  |
| Cefoxitin, FOX |  |
| Ceftazidime, TAZ |  |
| Ceftazidime+ clavulanic acid, T/C |  |
| Ertapenem, ETP |  |
| Imipenem, IMI |  |
| Meropenem, MERO |  |
| Temocillin, TRM |  |

\* Sulfamethoxazole and sulfisoxazole, are regarded as comparable, i.e. the obtained MIC-value from the testing of sulfamethoxazole will be evaluated against the acceptance range listed in CLSI M100 for sulfisoxazole (CLSI M100, Table 3).

#### **TEST FORM**

|  |  |  |  |
| --- | --- | --- | --- |
| Strain | Antimicrobial | Interpretation | |
| MIC-value (μg/ml) | S / R |
| *Campylobacter*  EURL 2024 C-19.1  *C. jejuni*  *C. coli* | Chloramphenicol |  |  |
| Ciprofloxacin |  |  |
| Ertapenem |  |  |
| Erythromycin |  |  |
| Gentamicin |  |  |
| Tetracycline |  |  |
| *Campylobacter*  EURL 2024 C-19.2  *C. jejuni*  *C. coli* | Chloramphenicol |  |  |
| Ciprofloxacin |  |  |
| Ertapenem |  |  |
| Erythromycin |  |  |
| Gentamicin |  |  |
| Tetracycline |  |  |
| *Campylobacter*  EURL 2024 C-19.3  *C. jejuni*  *C. coli* | Chloramphenicol |  |  |
| Ciprofloxacin |  |  |
| Ertapenem |  |  |
| Erythromycin |  |  |
| Gentamicin |  |  |
| Tetracycline |  |  |
| *Campylobacter*  EURL 2024 C-19.4  *C. jejuni*  *C. coli* | Chloramphenicol |  |  |
| Ciprofloxacin |  |  |
| Ertapenem |  |  |
| Erythromycin |  |  |
| Gentamicin |  |  |
| Tetracycline |  |  |

#### 

#### **TEST FORM**

|  |  |  |  |
| --- | --- | --- | --- |
| Strain | Antimicrobial | Interpretation | |
| MIC-value (μg/ml) | S / R |
| *Campylobacter*  EURL 2024 C-19.5  *C. jejuni*  *C. coli* | Chloramphenicol |  |  |
| Ciprofloxacin |  |  |
| Ertapenem |  |  |
| Erythromycin |  |  |
| Gentamicin |  |  |
| Tetracycline |  |  |
| *Campylobacter*  EURL 2024 C-19.6  *C. jejuni*  *C. coli* | Chloramphenicol |  |  |
| Ciprofloxacin |  |  |
| Ertapenem |  |  |
| Erythromycin |  |  |
| Gentamicin |  |  |
| Tetracycline |  |  |
| *Campylobacter*  EURL 2024 C-19.7  *C. jejuni*  *C. coli* | Chloramphenicol |  |  |
| Ciprofloxacin |  |  |
| Ertapenem |  |  |
| Erythromycin |  |  |
| Gentamicin |  |  |
| Tetracycline |  |  |
| *Campylobacter*  EURL 2024 C-19.8  *C. jejuni*  *C. coli* | Chloramphenicol |  |  |
| Ciprofloxacin |  |  |
| Ertapenem |  |  |
| Erythromycin |  |  |
| Gentamicin |  |  |
| Tetracycline |  |  |

#### **TEST FORM**

Susceptibility testing of *Campylobacter jejuni* reference strain ATCC 33560

|  |  |  |  |
| --- | --- | --- | --- |
| Strain | Antimicrobial | MIC-value (μg/ml) | |
| 36 °C/48 hours | 42 °C/24 hours |
| *C. jejuni* ATCC 33560 | Chloramphenicol |  |  |
| Ciprofloxacin |  |  |
| Ertapenem |  |  |
| Erythromycin |  |  |
| Gentamicin |  |  |
| Tetracycline |  |  |

AST of the EURL-AR Internal Quality Control (QC) strain *Campylobacter coli* 215-QC-ETP

|  |  |  |  |
| --- | --- | --- | --- |
| Strain | Antimicrobial | MIC-value (μg/ml) | |
| 36 °C/48 hours | 42 °C/24 hours |
| *C. jejuni* ATCC 33560 | Chloramphenicol |  |  |
| Ciprofloxacin |  |  |
| Ertapenem |  |  |
| Erythromycin |  |  |
| Gentamicin |  |  |
| Tetracycline |  |  |