##### Antimicrobial susceptibility testing of *Escherichia coli*, enterococci and staphylococci

TEST FORMS

|  |
| --- |
| Name:  Name of laboratory:  Name of institute:  City:  Country:  E-mail:  Fax: |

#### Comments:

#### **TEST FORMS METHODS – Enterococci**

* Which method did you use for antimicrobial susceptibility testing of *enterococci* in this EQAS:

MIC – Broth microdilution

MIC – Agar dilution (not evaluated in the final report)

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

CLSI

EUCAST

ISO 20776-1:2006

TREK

* Which incubation conditions do you use?      °C/     h
* Which solvent was used for the preparation of the 0.5 McFarland solution?

Water

Saline

Mueller Hinton broth

* Please describe how you prepared the inoculum:

The inoculum was prepared by adding       µl of 0.5 McFarland solution to       ml MH broth

* What is the expected inoculum concentration (e.g. 1\*105 CFU/ml)?       CFU/ml

Comments or additional information:

#### **TEST FORMS METHODS – Staphylococci**

* Which method did you use for antimicrobial susceptibility testing of *S. aureus* in this EQAS:

MIC – Broth microdilution

MIC – Agar dilution (not evaluated in the final report)

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

CLSI

EUCAST

ISO 20776-1:2006

TREK

* Which incubation conditions do you use?      °C/     h
* Which solvent was used for the preparation of the 0.5 McFarland solution?

Water

Saline

Mueller Hinton broth

* Please describe how you prepared the inoculum:

The inoculum was prepared by adding       µl of 0.5 McFarland solution to       ml MH broth

* What is the expected inoculum concentration (e.g. 1\*105 CFU/ml)?       CFU/ml

Comments or additional information:

**TEST FORMS METHODS – *Escherichia coli***

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

MIC – Broth microdilution

MIC – Agar dilution (not evaluated in the final report)

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

CLSI

EUCAST

ISO 20776-1:2006

TREK

* Which incubation conditions do you use?      °C/     h
* Which solvent was used for the preparation of the 0.5 McFarland solution?

Water

Saline

Mueller Hinton broth

* Please describe how you prepared the inoculum:

The inoculum was prepared by adding       µl of 0.5 McFarland solution to       ml MH broth

* What is the expected inoculum concentration (e.g. 1\*105 CFU/ml)?       CFU/ml

Comments or additional information:

#### **TEST FORM - Enterococci**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| Enterococci  EURL ENT. 14.1  *E. faecium*  *E. faecalis* | Ampicillin, AMP |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Daptomycin, DAP |  |  |  |
| Erythromycin, ERY |  |  |  |
| Gentamicin, GEN |  |  |  |
| Linezolid, LZD |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Teicoplanin, TEI |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Vancomycin, VAN |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| Enterococci  EURL ENT. 14.2  *E. faecium*  *E. faecalis* | Ampicillin, AMP |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Daptomycin, DAP |  |  |  |
| Erythromycin, ERY |  |  |  |
| Gentamicin, GEN |  |  |  |
| Linezolid, LZD |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Teicoplanin, TEI |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Vancomycin, VAN |  |  |  |

#### **TEST FORM - Enterococci**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| Enterococci  EURL ENT. 14.3  *E. faecium*  *E. faecalis* | Ampicillin, AMP |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Daptomycin, DAP |  |  |  |
| Erythromycin, ERY |  |  |  |
| Gentamicin, GEN |  |  |  |
| Linezolid, LZD |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Teicoplanin, TEI |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Vancomycin, VAN |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| Enterococci  EURL ENT. 14.4  *E. faecium*  *E. faecalis* | Ampicillin, AMP |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Daptomycin, DAP |  |  |  |
| Erythromycin, ERY |  |  |  |
| Gentamicin, GEN |  |  |  |
| Linezolid, LZD |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Teicoplanin, TEI |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Vancomycin, VAN |  |  |  |

#### **TEST FORM - Enterococci**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| Enterococci  EURL ENT. 14.5  *E. faecium*  *E. faecalis* | Ampicillin, AMP |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Daptomycin, DAP |  |  |  |
| Erythromycin, ERY |  |  |  |
| Gentamicin, GEN |  |  |  |
| Linezolid, LZD |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Teicoplanin, TEI |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Vancomycin, VAN |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| Enterococci  EURL ENT. 14.6  *E. faecium*  *E. faecalis* | Ampicillin, AMP |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Daptomycin, DAP |  |  |  |
| Erythromycin, ERY |  |  |  |
| Gentamicin, GEN |  |  |  |
| Linezolid, LZD |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Teicoplanin, TEI |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Vancomycin, VAN |  |  |  |

#### **TEST FORM - Enterococci**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| Enterococci  EURL ENT. 14.7  *E. faecium*  *E. faecalis* | Ampicillin, AMP |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Daptomycin, DAP |  |  |  |
| Erythromycin, ERY |  |  |  |
| Gentamicin, GEN |  |  |  |
| Linezolid, LZD |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Teicoplanin, TEI |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Vancomycin, VAN |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| Enterococci  EURL ENT. 14.8  *E. faecium*  *E. faecalis* | Ampicillin, AMP |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Daptomycin, DAP |  |  |  |
| Erythromycin, ERY |  |  |  |
| Gentamicin, GEN |  |  |  |
| Linezolid, LZD |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Teicoplanin, TEI |  |  |  |
| Tetracycline, TET |  |  |  |
| Tigecycline, TGC |  |  |  |
| Vancomycin, VAN |  |  |  |

#### **TEST FORM - Enterococci**

Antimicrobial susceptibility testing of reference strain *Enterococcus faecalis* ATCC 29212

|  |  |
| --- | --- |
| Antimicrobial | MIC-value (μg/ml) |
| Ampicillin, AMP |  |
| Chloramphenicol, CHL |  |
| Ciprofloxacin, CIP |  |
| Daptomycin, DAP |  |
| Erythromycin, ERY |  |
| Gentamicin, GEN |  |
| Linezolid, LZD |  |
| Quinupristin-Dalfopristin (Synercid), SYN |  |
| Teicoplanin, TEI |  |
| Tetracycline, TET |  |
| Tigecycline, TIG |  |
| Vancomycin, VAN |  |

#### **TEST FORMS - Staphylococci**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *S. aureus*  EURL ST 14.1 | Cefoxitin, FOX |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Clindamycin, CLN |  |  |  |
| Erythromycin, ERY |  |  |  |
| Fusidic acid, FUS |  |  |  |
| Gentamicin, GEN |  |  |  |
| Kanamycin, KAN |  |  |  |
| Linezolid, LZD |  |  |  |
| Mupirocin, MUP |  |  |  |
| Penicillin, PEN |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Rifampicin, RIF |  |  |  |
| Streptomycin, STR |  |  |  |
|  | Sulfamethoxazole, SMX |  |  |  |
|  | Tetracycline, TET |  |  |  |
|  | Tiamulin (TIA) |  |  |  |
|  | Trimethoprim, TMP |  |  |  |
|  | Vancomycin, VAN |  |  |  |

|  |  |
| --- | --- |
| Methicillin resistance (MRSA) | Positive  Negative |

#### **TEST FORMS - Staphylococci**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *S. aureus*  EURL ST 14.2 | Cefoxitin, FOX |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Clindamycin, CLN |  |  |  |
| Erythromycin, ERY |  |  |  |
| Fusidic acid, FUS |  |  |  |
| Gentamicin, GEN |  |  |  |
| Kanamycin, KAN |  |  |  |
| Linezolid, LZD |  |  |  |
| Mupirocin, MUP |  |  |  |
| Penicillin, PEN |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Rifampicin, RIF |  |  |  |
| Streptomycin, STR |  |  |  |
|  | Sulfamethoxazole, SMX |  |  |  |
|  | Tetracycline, TET |  |  |  |
|  | Tiamulin (TIA) |  |  |  |
|  | Trimethoprim, TMP |  |  |  |
|  | Vancomycin, VAN |  |  |  |

|  |  |
| --- | --- |
| Methicillin resistance (MRSA) | Positive  Negative |

#### **TEST FORMS - Staphylococci**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *S. aureus*  EURL ST 14.3 | Cefoxitin, FOX |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Clindamycin, CLN |  |  |  |
| Erythromycin, ERY |  |  |  |
| Fusidic acid, FUS |  |  |  |
| Gentamicin, GEN |  |  |  |
| Kanamycin, KAN |  |  |  |
| Linezolid, LZD |  |  |  |
| Mupirocin, MUP |  |  |  |
| Penicillin, PEN |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Rifampicin, RIF |  |  |  |
| Streptomycin, STR |  |  |  |
|  | Sulfamethoxazole, SMX |  |  |  |
|  | Tetracycline, TET |  |  |  |
|  | Tiamulin (TIA) |  |  |  |
|  | Trimethoprim, TMP |  |  |  |
|  | Vancomycin, VAN |  |  |  |

|  |  |
| --- | --- |
| Methicillin resistance (MRSA) | Positive  Negative |

#### **TEST FORMS - Staphylococci**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *S. aureus*  EURL ST 14.4 | Cefoxitin, FOX |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Clindamycin, CLN |  |  |  |
| Erythromycin, ERY |  |  |  |
| Fusidic acid, FUS |  |  |  |
| Gentamicin, GEN |  |  |  |
| Kanamycin, KAN |  |  |  |
| Linezolid, LZD |  |  |  |
| Mupirocin, MUP |  |  |  |
| Penicillin, PEN |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Rifampicin, RIF |  |  |  |
| Streptomycin, STR |  |  |  |
|  | Sulfamethoxazole, SMX |  |  |  |
|  | Tetracycline, TET |  |  |  |
|  | Tiamulin (TIA) |  |  |  |
|  | Trimethoprim, TMP |  |  |  |
|  | Vancomycin, VAN |  |  |  |

|  |  |
| --- | --- |
| Methicillin resistance (MRSA) | Positive  Negative |

#### **TEST FORMS - Staphylococci**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *S. aureus*  EURL ST 14.5 | Cefoxitin, FOX |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Clindamycin, CLN |  |  |  |
| Erythromycin, ERY |  |  |  |
| Fusidic acid, FUS |  |  |  |
| Gentamicin, GEN |  |  |  |
| Kanamycin, KAN |  |  |  |
| Linezolid, LZD |  |  |  |
| Mupirocin, MUP |  |  |  |
| Penicillin, PEN |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Rifampicin, RIF |  |  |  |
| Streptomycin, STR |  |  |  |
|  | Sulfamethoxazole, SMX |  |  |  |
|  | Tetracycline, TET |  |  |  |
|  | Tiamulin (TIA) |  |  |  |
|  | Trimethoprim, TMP |  |  |  |
|  | Vancomycin, VAN |  |  |  |

|  |  |
| --- | --- |
| Methicillin resistance (MRSA) | Positive  Negative |

#### **TEST FORMS - Staphylococci**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *S. aureus*  EURL ST 14.6 | Cefoxitin, FOX |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Clindamycin, CLN |  |  |  |
| Erythromycin, ERY |  |  |  |
| Fusidic acid, FUS |  |  |  |
| Gentamicin, GEN |  |  |  |
| Kanamycin, KAN |  |  |  |
| Linezolid, LZD |  |  |  |
| Mupirocin, MUP |  |  |  |
| Penicillin, PEN |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Rifampicin, RIF |  |  |  |
| Streptomycin, STR |  |  |  |
|  | Sulfamethoxazole, SMX |  |  |  |
|  | Tetracycline, TET |  |  |  |
|  | Tiamulin (TIA) |  |  |  |
|  | Trimethoprim, TMP |  |  |  |
|  | Vancomycin, VAN |  |  |  |

|  |  |
| --- | --- |
| Methicillin resistance (MRSA) | Positive  Negative |

#### **TEST FORMS - Staphylococci**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *S. aureus*  EURL ST 14.7 | Cefoxitin, FOX |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Clindamycin, CLN |  |  |  |
| Erythromycin, ERY |  |  |  |
| Fusidic acid, FUS |  |  |  |
| Gentamicin, GEN |  |  |  |
| Kanamycin, KAN |  |  |  |
| Linezolid, LZD |  |  |  |
| Mupirocin, MUP |  |  |  |
| Penicillin, PEN |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Rifampicin, RIF |  |  |  |
| Streptomycin, STR |  |  |  |
|  | Sulfamethoxazole, SMX |  |  |  |
|  | Tetracycline, TET |  |  |  |
|  | Tiamulin (TIA) |  |  |  |
|  | Trimethoprim, TMP |  |  |  |
|  | Vancomycin, VAN |  |  |  |

|  |  |
| --- | --- |
| Methicillin resistance (MRSA) | Positive  Negative |

#### **TEST FORMS - Staphylococci**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *S. aureus*  EURL ST 14.8 | Cefoxitin, FOX |  |  |  |
| Chloramphenicol, CHL |  |  |  |
| Ciprofloxacin, CIP |  |  |  |
| Clindamycin, CLN |  |  |  |
| Erythromycin, ERY |  |  |  |
| Fusidic acid, FUS |  |  |  |
| Gentamicin, GEN |  |  |  |
| Kanamycin, KAN |  |  |  |
| Linezolid, LZD |  |  |  |
| Mupirocin, MUP |  |  |  |
| Penicillin, PEN |  |  |  |
| Quin.-Dalf. (Synercid), SYN |  |  |  |
| Rifampicin, RIF |  |  |  |
| Streptomycin, STR |  |  |  |
|  | Sulfamethoxazole, SMX |  |  |  |
|  | Tetracycline, TET |  |  |  |
|  | Tiamulin (TIA) |  |  |  |
|  | Trimethoprim, TMP |  |  |  |
|  | Vancomycin, VAN |  |  |  |

|  |  |
| --- | --- |
| Methicillin resistance (MRSA) | Positive  Negative |

#### **TEST FORM - Staphylococci**

Antimicrobial susceptibility testing of reference strain *S. aureus* ATCC 29213 (MIC)

|  |  |
| --- | --- |
| Antimicrobial | MIC-value (μg/ml) |
| Cefoxitin, FOX |  |
| Chloramphenicol, CHL |  |
| Ciprofloxacin, CIP |  |
| Clindamycin, CLN |  |
| Erythromycin, ERY |  |
| Fusidic acid, FUS |  |
| Gentamicin, GEN |  |
| Kanamycin, KAN |  |
| Linezolid, LZD |  |
| Mupirocin, MUP |  |
| Penicillin, PEN |  |
| Quin.-Dalf. (Synercid), SYN |  |
| Rifampicin, RIF |  |
| Streptomycin, STR |  |
| Sulfamethoxazole, SMX |  |
| Tetracycline, TET |  |
| Tiamulin (TIA) |  |
| Trimethoprim, TMP |  |
| Vancomycin, VAN |  |

#### **TEST FORM – *E. coli***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.1 | Ampicillin, AMP |  |  |  |
| Azithromycin, AZT |  |  |  |
| 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) and/or meropenem (MERO) should be tested in the second panel for confirmatory tests for ESBL/AmpC/carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.3.1 E. coli*’*.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.1 | 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 phenotypes  Susceptible (to panel 2 antimicrobials) |

Comments (include optional genotype or other results):

#### **TEST FORM – *E. coli***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.2 | Ampicillin, AMP |  |  |  |
| Azithromycin, AZT |  |  |  |
| 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) and/or meropenem (MERO) should be tested in the second panel for confirmatory tests for ESBL/AmpC/carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.3.1 E. coli*’*.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.2 | 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 phenotypes  Susceptible (to panel 2 antimicrobials) |

Comments (include optional genotype or other results):

#### **TEST FORM – *E. coli***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.3 | Ampicillin, AMP |  |  |  |
| Azithromycin, AZT |  |  |  |
| 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) and/or meropenem (MERO) should be tested in the second panel for confirmatory tests for ESBL/AmpC/carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.3.1 E. coli*’*.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.3 | 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 phenotypes  Susceptible (to panel 2 antimicrobials) |

Comments (include optional genotype or other results):

#### **TEST FORM – *E. coli***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.4 | Ampicillin, AMP |  |  |  |
| Azithromycin, AZT |  |  |  |
| 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) and/or meropenem (MERO) should be tested in the second panel for confirmatory tests for ESBL/AmpC/carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.3.1 E. coli*’*.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.4 | 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 phenotypes  Susceptible (to panel 2 antimicrobials) |

Comments (include optional genotype or other results):

#### **TEST FORM – *E. coli***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.5 | Ampicillin, AMP |  |  |  |
| Azithromycin, AZT |  |  |  |
| 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) and/or meropenem (MERO) should be tested in the second panel for confirmatory tests for ESBL/AmpC/carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.3.1 E. coli*’*.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.5 | 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 phenotypes  Susceptible (to panel 2 antimicrobials) |

Comments (include optional genotype or other results):

#### **TEST FORM – *E. coli***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.6 | Ampicillin, AMP |  |  |  |
| Azithromycin, AZT |  |  |  |
| 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) and/or meropenem (MERO) should be tested in the second panel for confirmatory tests for ESBL/AmpC/carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.3.1 E. coli*’*.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.6 | 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 phenotypes  Susceptible (to panel 2 antimicrobials) |

Comments (include optional genotype or other results):

#### **TEST FORM – *E. coli***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.7 | Ampicillin, AMP |  |  |  |
| Azithromycin, AZT |  |  |  |
| 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) and/or meropenem (MERO) should be tested in the second panel for confirmatory tests for ESBL/AmpC/carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.3.1 E. coli*’*.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.7 | 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 phenotypes  Susceptible (to panel 2 antimicrobials) |

Comments (include optional genotype or other results):

#### **TEST FORM – *E. coli***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.8 | Ampicillin, AMP |  |  |  |
| Azithromycin, AZT |  |  |  |
| 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) and/or meropenem (MERO) should be tested in the second panel for confirmatory tests for ESBL/AmpC/carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.3.1 E. coli*’*.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | Antimicrobial | Results and interpretation | | |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*  EURL EC 14.8 | 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 phenotypes  Susceptible (to panel 2 antimicrobials) |

Comments (include optional genotype or other results):

#### **TEST FORM – *E. coli***

Antimicrobial susceptibility testing of reference strain *E. coli* ATCC 25922

|  |  |  |
| --- | --- | --- |
|  | Antimicrobial | MIC-value (μg/ml) |
| 1st panel | Ampicillin, AMP |  |
| Azithromycin, AZT |  |
| 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 |  |