##### 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 – Microtitre

 [ ]  MIC – Agar dilution

 Brand**:**

How many *Enterococcus* spp. isolates does your laboratory annually isolate:

How many *Enterococcus* spp. isolates does your laboratory annually test for antimicrobial susceptibility by a MIC method:

Which method was followed for the preparation of the inoculum? Please describe:

* Which standard was followed (TREK, CLSI…)
* Which solvent was used for the preparation of the 0.5 McFarland solution (water, saline)
* Please describe in detail how you prepared the dilution of the inoculum (including the volume in final MH-dilution and intended dilution level; e.g. diluted 1:1000 by adding 10µl of 0.5 McFarland solution in 10 ml MH broth, for an expected inoculum of 1\*105 CFU/ml)

Comments or additional information:

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

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

 [ ]  MIC – Microtitre

 [ ]  MIC – Agar dilution

 Brand**:**

How many *Staphylococcus* spp. isolates does your laboratory annually isolate:

How many *Staphylococcus* spp. isolates does your laboratory annually test for antimicrobial susceptibility by a MIC method:

Which method was followed for the preparation of the inoculum? Please describe:

* Which standard was followed (TREK, CLSI…)
* Which solvent was used for the preparation of the 0.5 McFarland solution (water, saline)
* Please describe in detail how you prepared the dilution of the inoculum (including the volume in final MH-dilution and intended dilution level; e.g. diluted 1:1000 by adding 10µl of 0.5 McFarland solution in 10 ml MH broth, for an expected inoculum of 1\*105 CFU/ml)

Comments or additional information:

|  |  |
| --- | --- |
| Antimicrobial  | General informationThe relevant information in the four columns below should be reported |
| Test-range for MIC (μg/ml) | Resistant(μg/ml) | Intermediate(μg/ml) | Susceptible(μg/ml) |
| Cefoxitin, FOX  |       | ≤       |       | ≥       |
| Chloramphenicol, CHL |       | ≤       |       | ≥       |
| Ciprofloxacin, CIP  |       | ≤       |       | ≥       |
| Clindamycin, CLN |       | ≤       |       | ≥       |
| Erythromycin, ERY  |       | ≤       |       | ≥       |
| Gentamicin, GEN  |       | ≤       |       | ≥       |
| Linezolid, LZD |       | ≤       |       | ≥       |
| Mupirocin, MUP |       | ≤       |       | ≥       |
| Quin.-Dalf. (Synercid), SYN  |       | ≤       |       | ≥       |
| Sulfamethoxazole, SMX  |       | ≤       |       | ≥       |
| Sulfamethoxazole + trimethoprim, SXT |       | ≤       |       | ≥       |
| Tetracycline, TET  |       | ≤       |       | ≥       |
| Tiamulin (TIA) |       | ≤       |       | ≥       |
| Trimethoprim, TMP  |       | ≤       |       | ≥       |
| Vancomycin, VAN |       | ≤       |       | ≥       |

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

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

 [ ]  MIC – Microtitre

 [ ]  MIC – Agar dilution

 Brand**:**

 Incubation conditions:      °C/     h

How many *E. coli* isolates does your laboratory annually isolate:

How many *E. coli* isolates does your laboratory annually test for antimicrobial susceptibility by a MIC method:

Which method was followed for the preparation of the inoculum? Please describe:

* Which standard was followed (TREK, CLSI…)
* Which solvent was used for the preparation of the 0.5 McFarland solution (water, saline)
* Please describe in detail how you prepared the dilution of the inoculum (including the volume in final MH-dilution and intended dilution level; e.g. diluted 1:1000 by adding 10µl of 0.5 McFarland solution in 10 ml MH broth, for an expected inoculum of 1\*105 CFU/ml)

Comments or additional information:

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

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (μg/ml) | S / R |
| EnterococciEURL ENT. 11.1[ ]  *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 |
| EnterococciEURL ENT. 11.2[ ]  *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 |
| EnterococciEURL ENT. 11.3[ ]  *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 |
| EnterococciEURL ENT. 11.4[ ]  *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 |
| EnterococciEURL ENT. 11.5[ ]  *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 |
| EnterococciEURL ENT. 11.6[ ]  *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 |
| EnterococciEURL ENT. 11.7[ ]  *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 |
| EnterococciEURL ENT. 11.8[ ]  *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 11.1 | Cefoxitin, FOX |       |       |       |
| Chloramphenicol, CHL |       |       |       |
| Ciprofloxacin, CIP  |       |       |       |
| Clindamycin, CLN |       |       |       |
| Erythromycin, ERY  |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Linezolid, LZD |       |       |       |
| Mupirocin, MUP |       |       |       |
| Quinu-dalfopristin (Synercid), SYN |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Sulfamethoxazole+Trimethoprim, SXT |       |       |       |
| 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 11.2 | Cefoxitin, FOX |       |       |       |
| Chloramphenicol, CHL |       |       |       |
| Ciprofloxacin, CIP  |       |       |       |
| Clindamycin, CLN |       |       |       |
| Erythromycin, ERY  |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Linezolid, LZD |       |       |       |
| Mupirocin, MUP |       |       |       |
| Quinu-dalfopristin (Synercid), SYN |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Sulfamethoxazole+Trimethoprim, SXT |       |       |       |
| 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 11.3 | Cefoxitin, FOX |       |       |       |
| Chloramphenicol, CHL |       |       |       |
| Ciprofloxacin, CIP  |       |       |       |
| Clindamycin, CLN |       |       |       |
| Erythromycin, ERY  |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Linezolid, LZD |       |       |       |
| Mupirocin, MUP |       |       |       |
| Quinu-dalfopristin (Synercid), SYN |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Sulfamethoxazole+Trimethoprim, SXT |       |       |       |
| 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 11.4 | Cefoxitin, FOX |       |       |       |
| Chloramphenicol, CHL |       |       |       |
| Ciprofloxacin, CIP  |       |       |       |
| Clindamycin, CLN |       |       |       |
| Erythromycin, ERY  |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Linezolid, LZD |       |       |       |
| Mupirocin, MUP |       |       |       |
| Quinu-dalfopristin (Synercid), SYN |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Sulfamethoxazole+Trimethoprim, SXT |       |       |       |
| 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 11.5 | Cefoxitin, FOX |       |       |       |
| Chloramphenicol, CHL |       |       |       |
| Ciprofloxacin, CIP  |       |       |       |
| Clindamycin, CLN |       |       |       |
| Erythromycin, ERY  |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Linezolid, LZD |       |       |       |
| Mupirocin, MUP |       |       |       |
| Quinu-dalfopristin (Synercid), SYN |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Sulfamethoxazole+Trimethoprim, SXT |       |       |       |
| 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 11.6 | Cefoxitin, FOX |       |       |       |
| Chloramphenicol, CHL |       |       |       |
| Ciprofloxacin, CIP  |       |       |       |
| Clindamycin, CLN |       |       |       |
| Erythromycin, ERY  |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Linezolid, LZD |       |       |       |
| Mupirocin, MUP |       |       |       |
| Quinu-dalfopristin (Synercid), SYN |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Sulfamethoxazole+Trimethoprim, SXT |       |       |       |
| 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 11.7 | Cefoxitin, FOX |       |       |       |
| Chloramphenicol, CHL |       |       |       |
| Ciprofloxacin, CIP  |       |       |       |
| Clindamycin, CLN |       |       |       |
| Erythromycin, ERY  |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Linezolid, LZD |       |       |       |
| Mupirocin, MUP |       |       |       |
| Quinu-dalfopristin (Synercid), SYN |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Sulfamethoxazole+Trimethoprim, SXT |       |       |       |
| 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 11.8 | Cefoxitin, FOX |       |       |       |
| Chloramphenicol, CHL |       |       |       |
| Ciprofloxacin, CIP  |       |       |       |
| Clindamycin, CLN |       |       |       |
| Erythromycin, ERY  |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Linezolid, LZD |       |       |       |
| Mupirocin, MUP |       |       |       |
| Quinu-dalfopristin (Synercid), SYN |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Sulfamethoxazole+Trimethoprim, SXT |       |       |       |
| 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  |       |
| Gentamicin, GEN  |       |
| Linezolid, LZD |       |
| Mupirocin, MUP |       |
| Quinupristin-dalfopristin (Synercid), SYN |       |
| Sulfamethoxazole, SMX  |       |
| Sulfamethoxazole + trimethoprim, SXT |       |
| 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 11.1 | 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) or meropenem (MERO) should be included for testing in the second panel confirmatory tests for ESBL or carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.1.1 E. coli*’*.*

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*EURL EC 11.1 | 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**:

|  |  |  |
| --- | --- | --- |
| [ ]  Presumptive ESBL[ ]  Presumptive ESBL+ AmpC | [ ]  Presumptive AmpC[ ]  Presumptive carbapenemase | [ ]  Other phenotype[ ]  Susceptible |

#### 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 11.2 | 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) or meropenem (MERO) should be included for testing in the second panel confirmatory tests for ESBL or carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.1.1E. coli*’*.*

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*EURL EC 11.2 | 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**:

|  |  |  |
| --- | --- | --- |
| [ ]  Presumptive ESBL[ ]  Presumptive ESBL+ AmpC | [ ]  Presumptive AmpC[ ]  Presumptive carbapenemase | [ ]  Other phenotype[ ]  Susceptible |

#### 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 EC11.3 | 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) or meropenem (MERO) should be included for testing in the second panel confirmatory tests for ESBL or carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.1.1 E. coli*’*.*

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*EURL EC 11.3 | 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**:

|  |  |  |
| --- | --- | --- |
| [ ]  Presumptive ESBL[ ]  Presumptive ESBL+ AmpC | [ ]  Presumptive AmpC[ ]  Presumptive carbapenemase | [ ]  Other phenotype[ ]  Susceptible |

#### 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 11.4 | 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) or meropenem (MERO) should be included for testing in the second panel confirmatory tests for ESBL or carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.1.1 E. coli*’*.*

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*EURL EC 11.4 | 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**:

|  |  |  |
| --- | --- | --- |
| [ ]  Presumptive ESBL[ ]  Presumptive ESBL+ AmpC | [ ]  Presumptive AmpC[ ]  Presumptive carbapenemase | [ ]  Other phenotype[ ]  Susceptible |

#### 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 11.5 | 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) or meropenem (MERO) should be included for testing in the second panel confirmatory tests for ESBL or carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.1.1 E. coli*’*.*

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*EURL EC 11.5 | 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**:

|  |  |  |
| --- | --- | --- |
| [ ]  Presumptive ESBL[ ]  Presumptive ESBL+ AmpC | [ ]  Presumptive AmpC[ ]  Presumptive carbapenemase | [ ]  Other phenotype[ ]  Susceptible |

#### 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 11.6 | 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) or meropenem (MERO) should be included for testing in the second panel confirmatory tests for ESBL or carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.1.1 E. coli*’*.*

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*EURL EC 11.6 | 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**:

|  |  |  |
| --- | --- | --- |
| [ ]  Presumptive ESBL[ ]  Presumptive ESBL+ AmpC | [ ]  Presumptive AmpC[ ]  Presumptive carbapenemase | [ ]  Other phenotype[ ]  Susceptible |

#### 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 11.7 | 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) or meropenem (MERO) should be included for testing in the second panel confirmatory tests for ESBL or carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.1.1 E. coli*’*.*

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*EURL EC 11.7 | 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**:

|  |  |  |
| --- | --- | --- |
| [ ]  Presumptive ESBL[ ]  Presumptive ESBL+ AmpC | [ ]  Presumptive AmpC[ ]  Presumptive carbapenemase | [ ]  Other phenotype[ ]  Susceptible |

#### 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 11.8 | 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) or meropenem (MERO) should be included for testing in the second panel confirmatory tests for ESBL or carbapenemase production. See further description of confirmatory tests in the protocol section ‘*3.1.1 E. coli*’*.*

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (μg/ml) | S / R |
| *E. coli*EURL EC 11.8 | 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**:

|  |  |  |
| --- | --- | --- |
| [ ]  Presumptive ESBL[ ]  Presumptive ESBL+ AmpC | [ ]  Presumptive AmpC[ ]  Presumptive carbapenemase | [ ]  Other phenotype[ ]  Susceptible |

#### 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 |       |