# Test forms,

# Isolation of ESBL/AmpC- and carbapenemase-producers from matrices

|  |
| --- |
| Username: Contact person:Country:      Date for filling in test forms:  |

**SAMPLES**

**Reception date and exact time of opening the parcel of the proficiency test samples at the laboratory:            (date and time is required)**

**Temperature of the contents of the parcel at arrival:      °C**

How many samples did your laboratory process in 2023 for monitoring of ESBL/AmpC detection in relation to 2020/1729/EU? (Choose only one option)

[ ]  none

[ ]  less than 100

[ ]  101-200

[ ]  201-300

[ ]  301-400

[ ]  401- 1000

[ ]  more than 1000

Which kind of samples did your laboratory process in 2023 for monitoring of ESBL/AmpC detection in relation to 2020/1729/EU? (You may choose more than one option)

 [ ]  caecal, swine and cattle

 [ ]  meat, pork and beef

[ ]  none

 [ ]  other matrices, please specify:

How many samples did your laboratory process in 2023 for monitoring of carbapenemases in relation to 2020/1729/EU? (Choose only one option)

[ ]  none

[ ]  less than 100

[ ]  101-200

[ ]  201-300

[ ]  301-400

[ ]  401- 1000

[ ]  more than 1000

Which kind of samples did your laboratory process in 2023 for monitoring of carbapenemase-production in relation to 2020/1729/EU? (you may choose more than one option)

 [ ]  caecal, swine and cattle

 [ ]  meat, pork and beef

[ ]  none

 [ ]  other matrices, please specify:

Any other comments:      **METHODS**

####

1. Method used for selective isolation of ESBL/AmpC in this EQAS:

Regarding the methods used for selective isolation of ESBL/AmpC in this EQAS, please indicate if you had any modifications to the selective isolation procedure using the EURL recommended protocols that refer to the EU decision 2020/1729/EU:

[ ]  The protocol was used without modifications (please jump to question 2)

[ ]  The protocol was used, however, the pre-enrichment was modified (please respond to question 1.1)

[ ]  The protocol was used, however, the selective isolation procedures were modified (please respond to question 1.2)

[ ]  The protocol was used, however, the incubation conditions in the selective plating were modified (please respond to question 1.3)

1.1- If you modified the pre-enrichment, please indicate the differences introduced:

 Different sample amount (weight) used for the enrichment procedure:

      g in meat samples

      g for caecal samples

 Different volume of enrichment in the isolation step:

      ml for meat samples

      ml for caecal samples

 Different pre-enrichment medium:

Different incubation conditions in pre-enrichment      °C/     h;

 Please justify these changes:

 1.2- Did you make changes in the selective isolation procedure:

 Different sample amount (weight) used for the enrichment procedure

       for meat samples

       for caecal samples

 Different concentration of cefotaxime**:** mg/L

Different antimicrobial

 Different medium

Please justify these changes:

 1.3- If you used different incubation conditions in the selective plating, please indicate the conditions used:      °C/     h;

 Please justify these changes:

1. Method used for selective isolation of carbapenemase-producers in this EQAS:

Selective isolation procedure using the EURL recommended protocols for isolation of carbapenemase-producers:

 [ ]  The protocol was used without modifications

 [ ]  The protocol was modified

 Plates used (brand/type)

 Volume of sample plated

 Please justify any changes:

 Comments:

1. Method used for confirmation of *E. coli* species identification. Please indicate the primary *E. coli* identification method used (choose only one option; if you used more than one method, please explain in the comments field)

[ ]  PCR using published methods

[ ]  PCR using in-house method

 [ ]  Biochemical tests

 [ ]  MALDI-ToF

 [ ]  DNA Sequencing

 [ ]  Chromogenic media

Comments:

1. Method used for general antimicrobial susceptibility testing of the strains (choose only one option)

[ ]  Microbroth dilution test on EUVSEC3 panel

[ ]  Microbroth dilution test on another panel

[ ]  Agar dilution method

 [ ]  E-test

 [ ]  Disk diffusion test

1. Method used for phenotypic confirmatory testing of ESBL/AmpC/Carbapenemase presumptive strains (choose only one option)

[ ]  Microbroth dilution test on EUVSEC2 panel

[ ]  Microbroth dilution test on another panel

[ ]  Agar dilution method

 [ ]  E-test

 [ ]  Disk diffusion test

1. Additional comments. Please include here description and justification of your choice if you modified something in relation to the method defined in the EU regulation 2020/1729/EU:

**TEST FORM – SAMPLE ‘EURL M-9.1’**

**Date the isolation procedure was started:**

**Please describe the results you have observed regarding this sample:**

Visible growth in pre-enrichment:

 Yes [ ] / No[ ]

Growth on ESBL/AmpC-selective plates:

 Yes [ ]  / No [ ]

**Please describe the growth observed on ESBL/AmpC-selective plates? (choose only one option)**

[ ]  Mixed culture containing typical *E. coli* colonies

[ ]  Mixed culture without typical *E. coli* colonies

[ ]  Pure culture of typical *E. coli* colonies

[ ]  Pure culture without typical *E. coli* colonies

[ ]  No growth

**Results of species identification:** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive ESBL/AmpC isolate identified as *E. coli* (sample considered positive)

Comments:

Growth on CARBA-selective plates:

 Yes [ ]  / No [ ]

Growth on OXA-48 selective plates:

 Yes [ ]  / No [ ]

**Results of species identification (isolates from carbapenemase selective plating):** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive other carbapenemase isolate identified as *E. coli* (sample considered positive)

*[ ]* Presumptive OXA-48 isolate identified as *E. coli* (sample considered positive)

Comments:

**If you have found a presumptive carbapenemase positive isolate, please insert the results of antimicrobial susceptibility testing for the selected *E. coli* isolate, if you do not have a carbapenemase positive isolate and you have an ESBL presumptive isolate, please insert the results for this isolate (only one *E.coli* isolate is expected to be tested and these results will be evaluated in our database against the expected results).**

**Please confirm where the isolate tested for antimicrobial susceptibility originated from (compulsory):**

[ ]  ESBL/ampC isolation on MacConkey with cefotaxime

[ ]  CARBA plate

[ ]  OXA-48 plate

**Based on the results from the first AST panel, was the isolate found resistant to cefotaxime, ceftazidime or meropenem so that the second panel was tested?**

Yes [ ]  / No [ ]

**AST results**

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.1 | Amikacin AMI       |       |       |       |
| Ampicillin, AMP       |       |       |       |
| Azithromycin, AZI |       |       |       |
| Cefotaxime, FOT or CTX  |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Chloramphenicol, CHL  |       |       |       |
| Ciprofloxacin CIP       |       |       |       |
| Colistin, COL |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Nalidixic acid, NAL  |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Tetracycline, TET  |       |       |       |
| Tigecycline, TGC |       |       |       |
| Trimethoprim, TMP  |       |       |       |

**Second *E. coli* AST panel** (confirmatory testing for ESBL/AmpC/carbapenemase-production)

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.1 | Cefepime, FEP |       |       |       |
| Cefotaxime + clavulanic acid F/C or CTX/CLA |       |       |       |
| Cefotaxime, FOT or CTX |       |       |       |
| Cefoxitin, FOX |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Ceftazidime+ clavulanic acid T/C or CAZ/CLA |       |       |       |
| Ertapenem, ETP |       |       |       |
| Imipenem, IMI |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Temocillin, TRM |       |       |       |

**Conclusions of confirmatory phenotypic testing:** (choose only one option and please note that the final result will be evaluated by the database)

**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 – SAMPLE ‘EURL M-9.2’**

**Date the isolation procedure was started:**

**Please describe the results you have observed regarding this sample:**

Visible growth in pre-enrichment:

 Yes [ ] / No[ ]

Growth on ESBL/AmpC-selective plates:

 Yes [ ]  / No [ ]

**Please describe the growth observed on ESBL/AmpC-selective plates? (choose only one option)**

[ ]  Mixed culture containing typical *E. coli* colonies

[ ]  Mixed culture without typical *E. coli* colonies

[ ]  Pure culture of typical *E. coli* colonies

[ ]  Pure culture without typical *E. coli* colonies

[ ]  No growth

**Results of species identification:** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive ESBL/AmpC isolate identified as *E. coli* (sample considered positive)

Comments:

Growth on CARBA-selective plates:

 Yes [ ]  / No [ ]

Growth on OXA-48 selective plates:

 Yes [ ]  / No [ ]

**Results of species identification (isolates from carbapenemase selective plating):** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive other carbapenemase isolate identified as *E. coli* (sample considered positive)

*[ ]* Presumptive OXA-48 isolate identified as *E. coli* (sample considered positive)

Comments:

**If you have found a presumptive carbapenemase positive isolate, please insert the results of antimicrobial susceptibility testing for the selected *E. coli* isolate, if you do not have a carbapenemase positive isolate and you have an ESBL presumptive isolate, please insert the results for this isolate (only one *E.coli* isolate is expected to be tested and these results will be evaluated in our database against the expected results).**

**Please confirm where the isolate tested for antimicrobial susceptibility originated from (compulsory):**

[ ]  ESBL/ampC isolation on MacConkey with cefotaxime

[ ]  CARBA plate

[ ]  OXA-48 plate

**Based on the results from the first AST panel, was the isolate found resistant to cefotaxime, ceftazidime or meropenem so that the second panel was tested?**

Yes [ ]  / No [ ]

**AST results**

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.2 | Amikacin AMI       |       |       |       |
| Ampicillin, AMP       |       |       |       |
| Azithromycin, AZI |       |       |       |
| Cefotaxime, FOT or CTX  |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Chloramphenicol, CHL  |       |       |       |
| Ciprofloxacin CIP       |       |       |       |
| Colistin, COL |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Nalidixic acid, NAL  |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Tetracycline, TET  |       |       |       |
| Tigecycline, TGC |       |       |       |
| Trimethoprim, TMP  |       |       |       |

**Second *E. coli* AST panel** (confirmatory testing for ESBL/AmpC/carbapenemase-production)

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.2 | Cefepime, FEP |       |       |       |
| Cefotaxime + clavulanic acid F/C or CTX/CLA |       |       |       |
| Cefotaxime, FOT or CTX |       |       |       |
| Cefoxitin, FOX |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Ceftazidime+ clavulanic acid T/C or CAZ/CLA |       |       |       |
| Ertapenem, ETP |       |       |       |
| Imipenem, IMI |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Temocillin, TRM |       |       |       |

**Conclusions of confirmatory phenotypic testing:** (choose only one option and please note that the final result will be evaluated by the database)

**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 – SAMPLE ‘EURL M-9.3’**

**Date the isolation procedure was started:**

**Please describe the results you have observed regarding this sample:**

Visible growth in pre-enrichment:

 Yes [ ] / No[ ]

Growth on ESBL/AmpC-selective plates:

 Yes [ ]  / No [ ]

**Please describe the growth observed on ESBL/AmpC-selective plates? (choose only one option)**

[ ]  Mixed culture containing typical *E. coli* colonies

[ ]  Mixed culture without typical *E. coli* colonies

[ ]  Pure culture of typical *E. coli* colonies

[ ]  Pure culture without typical *E. coli* colonies

[ ]  No growth

**Results of species identification:** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive ESBL/AmpC isolate identified as *E. coli* (sample considered positive)

Comments:

Growth on CARBA-selective plates:

 Yes [ ]  / No [ ]

Growth on OXA-48 selective plates:

 Yes [ ]  / No [ ]

**Results of species identification (isolates from carbapenemase selective plating):** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive other carbapenemase isolate identified as *E. coli* (sample considered positive)

*[ ]* Presumptive OXA-48 isolate identified as *E. coli* (sample considered positive)

Comments:

**If you have found a presumptive carbapenemase positive isolate, please insert the results of antimicrobial susceptibility testing for the selected *E. coli* isolate, if you do not have a carbapenemase positive isolate and you have an ESBL presumptive isolate, please insert the results for this isolate (only one *E.coli* isolate is expected to be tested and these results will be evaluated in our database against the expected results).**

**Please confirm where the isolate tested for antimicrobial susceptibility originated from (compulsory):**

[ ]  ESBL/ampC isolation on MacConkey with cefotaxime

[ ]  CARBA plate

[ ]  OXA-48 plate

**Based on the results from the first AST panel, was the isolate found resistant to cefotaxime, ceftazidime or meropenem so that the second panel was tested?**

Yes [ ]  / No [ ]

**AST results**

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.3 | Amikacin AMI       |       |       |       |
| Ampicillin, AMP       |       |       |       |
| Azithromycin, AZI |       |       |       |
| Cefotaxime, FOT or CTX  |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Chloramphenicol, CHL  |       |       |       |
| Ciprofloxacin CIP       |       |       |       |
| Colistin, COL |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Nalidixic acid, NAL  |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Tetracycline, TET  |       |       |       |
| Tigecycline, TGC |       |       |       |
| Trimethoprim, TMP  |       |       |       |

**Second *E. coli* AST panel** (confirmatory testing for ESBL/AmpC/carbapenemase-production)

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.3 | Cefepime, FEP |       |       |       |
| Cefotaxime + clavulanic acid F/C or CTX/CLA |       |       |       |
| Cefotaxime, FOT or CTX |       |       |       |
| Cefoxitin, FOX |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Ceftazidime+ clavulanic acid T/C or CAZ/CLA |       |       |       |
| Ertapenem, ETP |       |       |       |
| Imipenem, IMI |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Temocillin, TRM |       |       |       |

**Conclusions of confirmatory phenotypic testing:** (choose only one option and please note that the final result will be evaluated by the database)

**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 – SAMPLE ‘EURL M-9.4’**

**Date the isolation procedure was started:**

**Please describe the results you have observed regarding this sample:**

Visible growth in pre-enrichment:

 Yes [ ] / No[ ]

Growth on ESBL/AmpC-selective plates:

 Yes [ ]  / No [ ]

**Please describe the growth observed on ESBL/AmpC-selective plates? (choose only one option)**

[ ]  Mixed culture containing typical *E. coli* colonies

[ ]  Mixed culture without typical *E. coli* colonies

[ ]  Pure culture of typical *E. coli* colonies

[ ]  Pure culture without typical *E. coli* colonies

[ ]  No growth

**Results of species identification:** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive ESBL/AmpC isolate identified as *E. coli* (sample considered positive)

Comments:

Growth on CARBA-selective plates:

 Yes [ ]  / No [ ]

Growth on OXA-48 selective plates:

 Yes [ ]  / No [ ]

**Results of species identification (isolates from carbapenemase selective plating):** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive other carbapenemase isolate identified as *E. coli* (sample considered positive)

*[ ]* Presumptive OXA-48 isolate identified as *E. coli* (sample considered positive)

Comments:

**If you have found a presumptive carbapenemase positive isolate, please insert the results of antimicrobial susceptibility testing for the selected *E. coli* isolate, if you do not have a carbapenemase positive isolate and you have an ESBL presumptive isolate, please insert the results for this isolate (only one *E.coli* isolate is expected to be tested and these results will be evaluated in our database against the expected results).**

**Please confirm where the isolate tested for antimicrobial susceptibility originated from (compulsory):**

[ ]  ESBL/ampC isolation on MacConkey with cefotaxime

[ ]  CARBA plate

[ ]  OXA-48 plate

**Based on the results from the first AST panel, was the isolate found resistant to cefotaxime, ceftazidime or meropenem so that the second panel was tested?**

Yes [ ]  / No [ ]

**AST results**

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.4 | Amikacin AMI       |       |       |       |
| Ampicillin, AMP       |       |       |       |
| Azithromycin, AZI |       |       |       |
| Cefotaxime, FOT or CTX  |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Chloramphenicol, CHL  |       |       |       |
| Ciprofloxacin CIP       |       |       |       |
| Colistin, COL |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Nalidixic acid, NAL  |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Tetracycline, TET  |       |       |       |
| Tigecycline, TGC |       |       |       |
| Trimethoprim, TMP  |       |       |       |

**Second *E. coli* AST panel** (confirmatory testing for ESBL/AmpC/carbapenemase-production)

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.4 | Cefepime, FEP |       |       |       |
| Cefotaxime + clavulanic acid F/C or CTX/CLA |       |       |       |
| Cefotaxime, FOT or CTX |       |       |       |
| Cefoxitin, FOX |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Ceftazidime+ clavulanic acid T/C or CAZ/CLA |       |       |       |
| Ertapenem, ETP |       |       |       |
| Imipenem, IMI |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Temocillin, TRM |       |       |       |

**Conclusions of confirmatory phenotypic testing:** (choose only one option and please note that the final result will be evaluated by the database)

**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 – SAMPLE ‘EURL M-9.5’**

**Date the isolation procedure was started:**

**Please describe the results you have observed regarding this sample:**

Visible growth in pre-enrichment:

 Yes [ ] / No[ ]

Growth on ESBL/AmpC-selective plates:

 Yes [ ]  / No [ ]

**Please describe the growth observed on ESBL/AmpC-selective plates? (choose only one option)**

[ ]  Mixed culture containing typical *E. coli* colonies

[ ]  Mixed culture without typical *E. coli* colonies

[ ]  Pure culture of typical *E. coli* colonies

[ ]  Pure culture without typical *E. coli* colonies

[ ]  No growth

**Results of species identification:** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive ESBL/AmpC isolate identified as *E. coli* (sample considered positive)

Comments:

Growth on CARBA-selective plates:

 Yes [ ]  / No [ ]

Growth on OXA-48 selective plates:

 Yes [ ]  / No [ ]

**Results of species identification (isolates from carbapenemase selective plating):** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive other carbapenemase isolate identified as *E. coli* (sample considered positive)

*[ ]* Presumptive OXA-48 isolate identified as *E. coli* (sample considered positive)

Comments:

**If you have found a presumptive carbapenemase positive isolate, please insert the results of antimicrobial susceptibility testing for the selected *E. coli* isolate, if you do not have a carbapenemase positive isolate and you have an ESBL presumptive isolate, please insert the results for this isolate (only one *E.coli* isolate is expected to be tested and these results will be evaluated in our database against the expected results).**

**Please confirm where the isolate tested for antimicrobial susceptibility originated from (compulsory):**

[ ]  ESBL/ampC isolation on MacConkey with cefotaxime

[ ]  CARBA plate

[ ]  OXA-48 plate

**Based on the results from the first AST panel, was the isolate found resistant to cefotaxime, ceftazidime or meropenem so that the second panel was tested?**

Yes [ ]  / No [ ]

**AST results**

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.5 | Amikacin AMI       |       |       |       |
| Ampicillin, AMP       |       |       |       |
| Azithromycin, AZI |       |       |       |
| Cefotaxime, FOT or CTX  |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Chloramphenicol, CHL  |       |       |       |
| Ciprofloxacin CIP       |       |       |       |
| Colistin, COL |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Nalidixic acid, NAL  |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Tetracycline, TET  |       |       |       |
| Tigecycline, TGC |       |       |       |
| Trimethoprim, TMP  |       |       |       |

**Second *E. coli* AST panel** (confirmatory testing for ESBL/AmpC/carbapenemase-production)

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.5 | Cefepime, FEP |       |       |       |
| Cefotaxime + clavulanic acid F/C or CTX/CLA |       |       |       |
| Cefotaxime, FOT or CTX |       |       |       |
| Cefoxitin, FOX |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Ceftazidime+ clavulanic acid T/C or CAZ/CLA |       |       |       |
| Ertapenem, ETP |       |       |       |
| Imipenem, IMI |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Temocillin, TRM |       |       |       |

**Conclusions of confirmatory phenotypic testing:** (choose only one option and please note that the final result will be evaluated by the database)

**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 – SAMPLE ‘EURL M-9.6’**

**Date the isolation procedure was started:**

**Please describe the results you have observed regarding this sample:**

Visible growth in pre-enrichment:

 Yes [ ] / No[ ]

Growth on ESBL/AmpC-selective plates:

 Yes [ ]  / No [ ]

**Please describe the growth observed on ESBL/AmpC-selective plates? (choose only one option)**

[ ]  Mixed culture containing typical *E. coli* colonies

[ ]  Mixed culture without typical *E. coli* colonies

[ ]  Pure culture of typical *E. coli* colonies

[ ]  Pure culture without typical *E. coli* colonies

[ ]  No growth

**Results of species identification:** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive ESBL/AmpC isolate identified as *E. coli* (sample considered positive)

Comments:

Growth on CARBA-selective plates:

 Yes [ ]  / No [ ]

Growth on OXA-48 selective plates:

 Yes [ ]  / No [ ]

**Results of species identification (isolates from carbapenemase selective plating):** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive other carbapenemase isolate identified as *E. coli* (sample considered positive)

*[ ]* Presumptive OXA-48 isolate identified as *E. coli* (sample considered positive)

Comments:

**If you have found a presumptive carbapenemase positive isolate, please insert the results of antimicrobial susceptibility testing for the selected *E. coli* isolate, if you do not have a carbapenemase positive isolate and you have an ESBL presumptive isolate, please insert the results for this isolate (only one *E.coli* isolate is expected to be tested and these results will be evaluated in our database against the expected results).**

**Please confirm where the isolate tested for antimicrobial susceptibility originated from (compulsory):**

[ ]  ESBL/ampC isolation on MacConkey with cefotaxime

[ ]  CARBA plate

[ ]  OXA-48 plate

**Based on the results from the first AST panel, was the isolate found resistant to cefotaxime, ceftazidime or meropenem so that the second panel was tested?**

Yes [ ]  / No [ ]

**AST results**

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.6 | Amikacin AMI       |       |       |       |
| Ampicillin, AMP       |       |       |       |
| Azithromycin, AZI |       |       |       |
| Cefotaxime, FOT or CTX  |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Chloramphenicol, CHL  |       |       |       |
| Ciprofloxacin CIP       |       |       |       |
| Colistin, COL |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Nalidixic acid, NAL  |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Tetracycline, TET  |       |       |       |
| Tigecycline, TGC |       |       |       |
| Trimethoprim, TMP  |       |       |       |

**Second *E. coli* AST panel** (confirmatory testing for ESBL/AmpC/carbapenemase-production)

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.6 | Cefepime, FEP |       |       |       |
| Cefotaxime + clavulanic acid F/C or CTX/CLA |       |       |       |
| Cefotaxime, FOT or CTX |       |       |       |
| Cefoxitin, FOX |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Ceftazidime+ clavulanic acid T/C or CAZ/CLA |       |       |       |
| Ertapenem, ETP |       |       |       |
| Imipenem, IMI |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Temocillin, TRM |       |       |       |

**Conclusions of confirmatory phenotypic testing:** (choose only one option and please note that the final result will be evaluated by the database)

**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 – SAMPLE ‘EURL M-9.7’**

**Date the isolation procedure was started:**

**Please describe the results you have observed regarding this sample:**

Visible growth in pre-enrichment:

 Yes [ ] / No[ ]

Growth on ESBL/AmpC-selective plates:

 Yes [ ]  / No [ ]

**Please describe the growth observed on ESBL/AmpC-selective plates? (choose only one option)**

[ ]  Mixed culture containing typical *E. coli* colonies

[ ]  Mixed culture without typical *E. coli* colonies

[ ]  Pure culture of typical *E. coli* colonies

[ ]  Pure culture without typical *E. coli* colonies

[ ]  No growth

**Results of species identification:** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive ESBL/AmpC isolate identified as *E. coli* (sample considered positive)

Comments:

Growth on CARBA-selective plates:

 Yes [ ]  / No [ ]

Growth on OXA-48 selective plates:

 Yes [ ]  / No [ ]

**Results of species identification (isolates from carbapenemase selective plating):** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive other carbapenemase isolate identified as *E. coli* (sample considered positive)

*[ ]* Presumptive OXA-48 isolate identified as *E. coli* (sample considered positive)

Comments:

**If you have found a presumptive carbapenemase positive isolate, please insert the results of antimicrobial susceptibility testing for the selected *E. coli* isolate, if you do not have a carbapenemase positive isolate and you have an ESBL presumptive isolate, please insert the results for this isolate (only one *E.coli* isolate is expected to be tested and these results will be evaluated in our database against the expected results).**

**Please confirm where the isolate tested for antimicrobial susceptibility originated from (compulsory):**

[ ]  ESBL/ampC isolation on MacConkey with cefotaxime

[ ]  CARBA plate

[ ]  OXA-48 plate

**Based on the results from the first AST panel, was the isolate found resistant to cefotaxime, ceftazidime or meropenem so that the second panel was tested?**

Yes [ ]  / No [ ]

**AST results**

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.7 | Amikacin AMI       |       |       |       |
| Ampicillin, AMP       |       |       |       |
| Azithromycin, AZI |       |       |       |
| Cefotaxime, FOT or CTX  |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Chloramphenicol, CHL  |       |       |       |
| Ciprofloxacin CIP       |       |       |       |
| Colistin, COL |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Nalidixic acid, NAL  |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Tetracycline, TET  |       |       |       |
| Tigecycline, TGC |       |       |       |
| Trimethoprim, TMP  |       |       |       |

**Second *E. coli* AST panel** (confirmatory testing for ESBL/AmpC/carbapenemase-production)

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.7 | Cefepime, FEP |       |       |       |
| Cefotaxime + clavulanic acid F/C or CTX/CLA |       |       |       |
| Cefotaxime, FOT or CTX |       |       |       |
| Cefoxitin, FOX |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Ceftazidime+ clavulanic acid T/C or CAZ/CLA |       |       |       |
| Ertapenem, ETP |       |       |       |
| Imipenem, IMI |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Temocillin, TRM |       |       |       |

**Conclusions of confirmatory phenotypic testing:** (choose only one option and please note that the final result will be evaluated by the database)

**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 – SAMPLE ‘EURL M-9.8’**

**Date the isolation procedure was started:**

**Please describe the results you have observed regarding this sample:**

Visible growth in pre-enrichment:

 Yes [ ] / No[ ]

Growth on ESBL/AmpC-selective plates:

 Yes [ ]  / No [ ]

**Please describe the growth observed on ESBL/AmpC-selective plates? (choose only one option)**

[ ]  Mixed culture containing typical *E. coli* colonies

[ ]  Mixed culture without typical *E. coli* colonies

[ ]  Pure culture of typical *E. coli* colonies

[ ]  Pure culture without typical *E. coli* colonies

[ ]  No growth

**Results of species identification:** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive ESBL/AmpC isolate identified as *E. coli* (sample considered positive)

Comments:

Growth on CARBA-selective plates:

 Yes [ ]  / No [ ]

Growth on OXA-48 selective plates:

 Yes [ ]  / No [ ]

**Results of species identification (isolates from carbapenemase selective plating):** (choose only one option)

[ ]  No isolates tested (sample negative)

*[ ]* Presumptive other carbapenemase isolate identified as *E. coli* (sample considered positive)

*[ ]* Presumptive OXA-48 isolate identified as *E. coli* (sample considered positive)

Comments:

**If you have found a presumptive carbapenemase positive isolate, please insert the results of antimicrobial susceptibility testing for the selected *E. coli* isolate, if you do not have a carbapenemase positive isolate and you have an ESBL presumptive isolate, please insert the results for this isolate (only one *E.coli* isolate is expected to be tested and these results will be evaluated in our database against the expected results).**

**Please confirm where the isolate tested for antimicrobial susceptibility originated from (compulsory):**

[ ]  ESBL/ampC isolation on MacConkey with cefotaxime

[ ]  CARBA plate

[ ]  OXA-48 plate

**Based on the results from the first AST panel, was the isolate found resistant to cefotaxime, ceftazidime or meropenem so that the second panel was tested?**

Yes [ ]  / No [ ]

**AST results**

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.8 | Amikacin AMI       |       |       |       |
| Ampicillin, AMP       |       |       |       |
| Azithromycin, AZI |       |       |       |
| Cefotaxime, FOT or CTX  |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Chloramphenicol, CHL  |       |       |       |
| Ciprofloxacin CIP       |       |       |       |
| Colistin, COL |       |       |       |
| Gentamicin, GEN  |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Nalidixic acid, NAL  |       |       |       |
| Sulfamethoxazole, SMX  |       |       |       |
| Tetracycline, TET  |       |       |       |
| Tigecycline, TGC |       |       |       |
| Trimethoprim, TMP  |       |       |       |

**Second *E. coli* AST panel** (confirmatory testing for ESBL/AmpC/carbapenemase-production)

|  |  |  |
| --- | --- | --- |
| Strain | Antimicrobial  | Results and interpretation |
| > | MIC-value (mg/L) | S / R |
| *E. coli*EURL M-9.8 | Cefepime, FEP |       |       |       |
| Cefotaxime + clavulanic acid F/C or CTX/CLA |       |       |       |
| Cefotaxime, FOT or CTX |       |       |       |
| Cefoxitin, FOX |       |       |       |
| Ceftazidime, TAZ or CAZ |       |       |       |
| Ceftazidime+ clavulanic acid T/C or CAZ/CLA |       |       |       |
| Ertapenem, ETP |       |       |       |
| Imipenem, IMI |       |       |       |
| Meropenem, MERO or MEM |       |       |       |
| Temocillin, TRM |       |       |       |

**Conclusions of confirmatory phenotypic testing:** (choose only one option and please note that the final result will be evaluated by the database)

**Interpretation of PANEL 2 results**:

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

Comments (include optional genotype or other results):