# 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):