

## **BBD-PP-09**

### **TITLE**

ANTIMICROBIAL SUSCEPTIBILITY MONITORING OF SYSTEMIC PATHOGENS AND ENTERIC TRACT PATHOGENS ISOLATED FROM DISEASED SWINE ACROSS EUROPE BETWEEN 2015 AND 2016

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### **CONTENT**

**Background:** VetPath is an ongoing pan-European antimicrobial susceptibility monitoring program for veterinary pathogens isolated from diseased cattle, swine and poultry. Results for swine systemic and enteric pathogens are presented hereafter.

**Materials & Methods:** Lung, central nervous system, joint fluid, nasal or enteric samples were collected from animals with acute clinical signs, not recently treated with antibiotics, in 8 EU countries. Among other bacterial species, *Haemophilus parasuis* (Hp), *Streptococcus suis* (Ss) and *Escherichia coli* (Ec) were isolated (one isolate per species/farm/outbreak). Susceptibility to 21 commonly used antibiotics was determined in a central laboratory by broth micro-dilution as per CLSI standards. Results were interpreted using CLSI clinical breakpoints (VET08, 2018) where available.

**Results:** Overall 448 isolates were recovered.

The majority (78%) of the antibiotics tested against the 49 Hp isolates showed MIC<sub>90</sub> values of 0.06 to 2.0 mg/l with mono-modal MIC distribution patterns. For Hp no clinical breakpoints are available. The MIC<sub>90</sub> values ranged from 0.06 to 0.25 mg/l for ceftiofur, danofloxacin, enrofloxacin, marbofloxacin, cefquinome and penicillin/streptomycin. MIC<sub>90</sub> values of 1.0 to 4.0 mg/l were determined for amoxicillin, gamithromycin, tetracycline, trimethoprim/sulfamethoxazole (TMS), tulathromycin, tiamulin and tilmicosin.

Susceptibilities of the 131 tested Ss isolates were determined for enrofloxacin (93.1%), florfenicol (88.6%) and penicillin (89.3%). MIC<sub>90</sub> ranges of 0.06 to 1.0 mg/l were determined for amoxicillin, amoxicillin/clavulanic acid (AMC), cefquinome, ceftiofur, danofloxacin, enrofloxacin, marbofloxacin, penicillin and penicillin/streptomycin.

268 Ec isolates showed susceptibility to AMC of 91.8% and 86.2% for gentamicin. Resistance of Ec isolates to TMS (60.8%) and tetracycline (69.8%) were determined. MIC<sub>90</sub> ranges of 4.0 to 16.0 mg/l were determined for AMC, colistin, danofloxacin, enrofloxacin, marbofloxacin and gentamicin.

**Conclusions:** The results show a low prevalence of antimicrobial resistance among the major systemic and enteric tract pathogens isolated from diseased non-treated swine across the EU.