

## **BBD-PP-08**

### **TITLE**

ANTIMICROBIAL SUSCEPTIBILITY MONITORING OF RESPIRATORY 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 respiratory pathogens are presented hereafter.

**Material & Methods:** Lung or nasal samples were collected from animals with acute clinical signs of respiratory disease, not recently treated with antibiotics, in 8 EU countries. Among other bacterial species, *Actinobacillus pleuropneumoniae* (Ap), *Bordetella bronchiseptica* (Bb) and *Pasteurella multocida* (Pm) 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 415 isolates were recovered.

The majority of the 164 Ap isolates were susceptible to antibiotics for which a CLSI clinical breakpoint is available. Susceptibilities were as follows: tetracycline 70.1%, tilmicosin 80.5%, tiamulin 95.1%, enrofloxacin 97.6%, tulathromycin 98.8%, ceftiofur 100% and florfenicol 100%. Similar MIC ranges (0.008 to 8mg/l) were determined for the tested fluoroquinolones with mono-modal MIC distribution patterns.

Susceptibility of the 171 Pm isolates to ceftiofur and tilmicosin was 100%, while susceptibility to penicillin, enrofloxacin, florfenicol and tulathromycin ranged from 96.5 to 99.4%. Tetracycline resistance was 10.5%. Similar MIC ranges with mono-modal distribution patterns were observed for the tested fluoroquinolones (0.004 to 2mg/l).

The susceptibility of the 80 tested Bb isolates to tulathromycin was 100%. Resistance of Bb to florfenicol (52.5%) was identified. MIC<sub>90</sub> ranges of 1.0 to 4.0 mg/l were determined for danofloxacin, doxycycline, enrofloxacin, gamithromycin, marbofloxacin and tetracycline.

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