



## BACTERIAL DISEASES

BBD-064

### ANTIBIOTIC SUSCEPTIBILITY IN *STAPHYLOCOCCUS HYICUS* FROM HEALTHY PIGS

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#### Introduction

*Staphylococcus hyicus* occurs on the skin on healthy pigs, but may also be involved in infections like exudative epidermitis. Information on antibiotic susceptibility in *S. hyicus* from Swedish pigs is scarce. In this study, susceptibility of *S. hyicus* from the skin of healthy sows was investigated.

#### Materials & Methods

Sampling was done by rubbing the skin behind the ears with a sterile cotton-tipped swab on up to three sows per herd in 36 herds. Culture was done on selective agar modified from Devriese. Typical colonies with a turbid zone were selected and subcultured on bovine blood agar. Species identification was done by MALDI-TOF MS. Minimum inhibitory concentrations (MIC) of selected antibiotics were determined by microdilution in accordance with CLSI using VetMIC panels. Evaluation of MICs was done by epidemiological cut-off values (ECOFF) for *S. aureus* issued by EUCAST, except for enrofloxacin where no EUCAST ECOFF is available. Values above ECOFFs were considered non-wild type.

#### Results

In total, 65 isolates of *S. hyicus* from 30 herds were isolated and susceptibility tested. Forty-five isolates (69%) had non-wild type phenotypes for penicillin, 20 isolates (31%) for trimethoprim-sulphamethoxazole, 5 isolates (8%) for clindamycin, 2 isolates (3%) for enrofloxacin and 1 isolate (2%) for gentamicin. Isolates with non-wild type for penicillin produced beta-lactamase. All isolates had wild type phenotypes for cephalotin, cefoxitin, chloramphenicol, erythromycin, fucidic acid, oxacillin and tetracycline.

#### Discussion & Conclusion

Although sampling was done on healthy pigs, the results from this study may be an indication of the antibiotic susceptibility situation in *S. hyicus* that cause infection. In general, the isolates were highly susceptible, with penicillin and trimethoprim-sulphamethoxazole as exceptions. That 69% of the isolates produced beta lactamase indicate doubtful clinical response to penicillin treatment. This is worrisome since penicillin is often used for skin infections in pigs in Sweden.