



## BACTERIAL DISEASES

BBD-040

### ASSESSMENT OF *STREPTOCOCCUS SUIS* SEROTYPES IN 148 GERMAN PIG FARMS DURING THE PERIOD OF 2015 TO 2017

K. Lillie-Jaschniski<sup>1</sup>, J. Rohde<sup>2</sup>, S. Hartung<sup>1</sup>, M. Köchling<sup>1</sup>, N. Mertens<sup>1</sup>.

<sup>1</sup>IDT Biologika GmbH, Dessau-Rosslau, Germany; <sup>2</sup>Institute for Microbiology, University of Veterinary Medicine, Foundation, Hannover, Germany.

#### Introduction

*Streptococcus suis* (*S. suis*) infections have a strong impact on health status and growth performance, especially in suckling piglets and nursery. The aim of the present study was to assess different serotypes involved in clinical cases in Germany. The samples came mainly from meningitis, arthritis and polyserositis cases, but also from respiratory disease.

#### Material & Methods

A total of 430 isolates originating from 148 farms were analysed between 2015 and 2017. Submitted isolates were cultured from different locations (serosa, pulmonary tract, central nervous system (CNS), joints) during necropsy from animals with clinical signs associated with *Streptococcus suis* infection. The strains were characterized by multiplex PCR targeting capsular genes to identify the serotype (*cps* typ) 1,2,7 and 9. It should be noted that serotype 1 and serotype 2 are not distinguished from serotypes 14 and 1/2, respectively, with this PCR.

#### Results

The percentages of the isolates (n=430) for *cps* types 1,2,7,9 and untypable strains were 4%, 32%, 13%, 26% and 25%, respectively. For 182 isolates the location of isolation was specified. It could be seen, that the serotypes varied with the localization sampled. Types 2,7,9 were most commonly found in the CNS (39%, 9%, 40%), whereas in the joints also *cps*1 was detected quite frequently (9%). In the serosa (57%) and pulmonary tract (42%) untypable strains were predominant, followed by *cps*2 and *cps*7.

#### Discussion & Conclusion

These findings show that mainly *cps* 1,2,7,9 *S.suis* strains were detected in joints and central nervous system of pigs in Germany. Regarding the isolates of the serosa and pulmonary tract almost half of these strains were not typable with the used PCR and therefore their significance for the clinical signs on these farms could not be assessed. Further examination of virulence-associated factors of the isolated strains could give more information about their clinical relevance.