

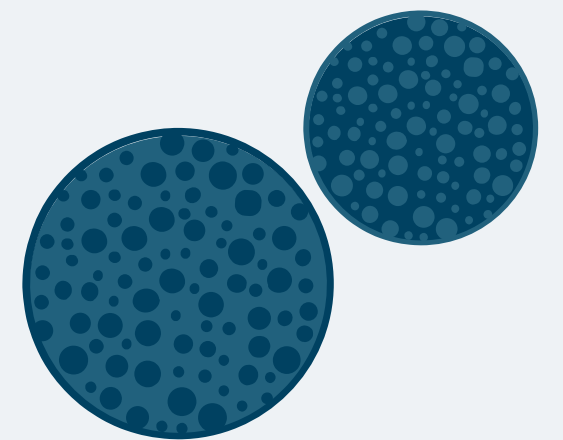


# Penicillin resistant *S. suis* serotype 16 infections in piglets from danish pig farms

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## Background & Objectives

Infection with *Streptococcus suis* (*S. suis*) is a well-known cause of bacteraemia, arthritis and meningitis in young pigs in all pig producing countries. The predominant serotypes vary between countries and continents. The first choice of antimicrobial treatment is simple penicillin and historically all the Danish isolates of *S.suis* have been sensitive to penicillin.

## Materials & Methods

All *S. suis* isolates from routine diagnostic pathology at Kjellerup Veterinary Laboratory, Denmark over a three year period 2021-2023 were included. The isolates were serotyped and MIC tested (minimum inhibitory concentration). Isolates of *S. suis* serotype 16 in the following years also included in the study.

## Results

A total of 346 *S. suis* isolates were isolated between 2021 to 2023. Type 2, 7 and 9 constituted 78 percent of the isolates.

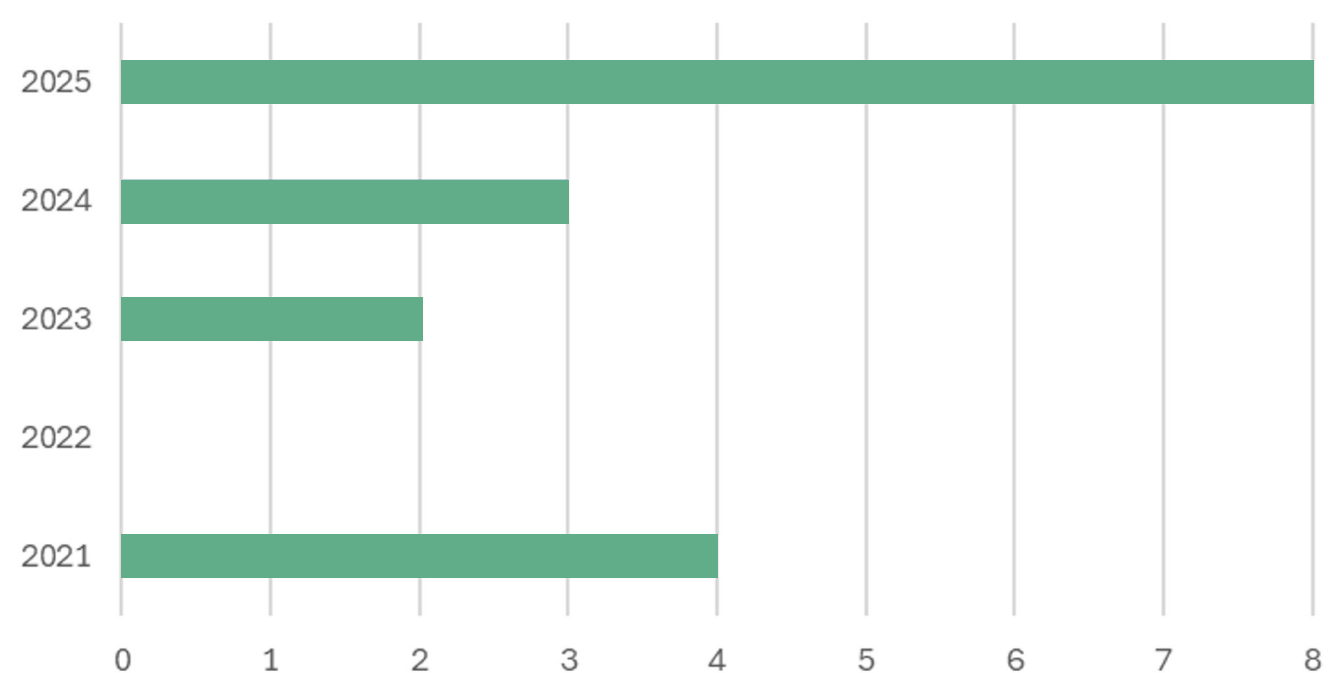
Serotype 16 were identified in 4 cases in 2021, none in 2022 and 2 cases in 2023. From January 2024 until November 2025 additional 11 cases were identified: 3 cases in 2024 and 8 cases in 2025. The 17 cases originated from 11 herds. Fifteen of the isolates originated from piglets with arthritis, while two were isolated from endocarditis. Sixteen of the seventeen isolates of *S. suis* serotype 16 were resistant to penicillin. Among all other Danish *S. suis* isolates from 2021-2025 less than 0.2% were penicillin resistant.

## Discussion & Conclusion

The finding of penicillin resistant *S. suis* serotype 16 in piglets underline the importance of bacteriology and resistance profiles also in the case of *S. suis* arthritis and septicemia. The available vaccine on the Danish market targets serotype 1/2 and serotype 2. In case of other serotypes, it is possible to use autovaccines produced specifically for the serotypes in affected pigherds.



Cases of *S. suis* type 16



**FIGURE 1.** A total of 17 cases from 11 herds were found over five years. The *S. suis* serotype 16 has been isolated from arthritis or endocarditis in piglets.

Sixteen of 17 *S. suis* serotype 16 isolates (94%) were resistant to penicillin.

Less than 0.2% of other Danish *S. suis* isolates from 2021-2025 were penicillin resistant.



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