



## WELFARE & NUTRITION

AWN-050

### THE IMPACT OF CASTRATION METHOD ON TREATMENT RATES IN NURSING PIGS

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#### Introduction

Surgical castration of male piglets is routinely performed to avoid boar taint in pork. However, for welfare reasons, all EU countries has agreed on a declaration that surgical castration is to be phased out by 2018. Replacing surgical castrations with vaccinations against boar taint has the potential to reduce treatments of secondary bacterial infections originating from castration wounds. The aim of this study was to compare treatment rates of nursing piglets before and after surgical castrations were replaced with vaccinations with Improvac (Zoetis Inc.), a vaccine efficient in reducing boar taint.

#### Material & Methods

The study was performed in a closed 120-sow farrow-to-finish herd. Treatment records for seven batches of nursing pigs where male piglets were surgically castrated (CAS) were compared to 12 batches where male piglets were not surgically castrated (NON) but later vaccinated with Improvac. Only antibiotic treatments were compared. Arthritis and overall treatment rates for CAS-batches and NON-batches were compared with an independent-samples t-test.

#### Results

All treatments were parenteral treatments applied to individual piglets. No group treatments were administered. The mean treatment rates for arthritis were 3.3% (range: 2.0 – 5.0%) for CAS-batches and 2.3% (range: 0.5 – 4.6%) for NON-batches. Overall treatment rates were 6.9% (5.5 – 9.2%) for CAS-batches and 3.9% (1.3 – 6.6%) for NON-batches. Overall treatment rates were significantly higher for CAS-batches ( $p=0.004$ ).

#### Discussion & Conclusion

The overall treatment rate of nursing pigs was low in this herd indicating that surgical castrations were performed under hygienic conditions. However, the number of treatments were even further reduced after surgical castrations were replaced with Improvac vaccinations. This shows that there is potential for reducing antibiotic use by minimizing practices such as surgical castration and tail docking where the physical barrier of the skin is damaged and bacteria can enter and spread in the body.