

Umbilical infections in piglets: Prevalence, prophylaxis and treatment

CPH pig webinar
27 January 2022

Inge Larsen
Assistant professor
Inge@sund.ku.dk

UNIVERSITY OF COPENHAGEN






UNIVERSITY OF COPENHAGEN CPH Pig 27 January 2022 Inge Larsen 2

Umbilical infections in piglets

Outline


- Introduction
- Field study results
 - Prevalence
 - Prophylaxis & Treatment
- Conclusion



UNIVERSITY OF COPENHAGEN CPH Pig 27 January 2022 Inge Larsen 4

Acknowledgements

UNIVERSITY OF COPENHAGEN



Jens Peter Nielsen
Ken Steen Pedersen
Henrik Elvang Jensen
John Elmerdahl Olsen
Kristiane Barington
Egle Kudrinskiene
Trine Hovmand-Hansen
Marie-Louise Hansen
Julie C. Lynegaard
Rasmus Syhler

Veterinærforlig III


SEGES


Poul Bakbo
Tina Birk Jensen
Niels-Peder Nielsen
Julie Krogsdahl-Bache
Mogens Jakobsen
Erik Bach
Janne Jensen
Anna Thordahl

Danish Crown

Marie Gry Bodenhoff Hansen


Farmers





UNIVERSITY OF COPENHAGEN CPH Pig 27 January 2022 Inge Larsen 4

Why are umbilical infections a challenge?



UNIVERSITY OF COPENHAGEN CPH Pig 27 January 2022 Inge Larsen 5

Umbilical infections in piglets as a portal of entry for systemic infection

Conclusion

- This study demonstrates that umbilical infections
- cause a piglet to be unfit
- may be curable for umbilical
- However, it is unclear for which infections and respiratory infections
- appropriate to study
- This study has provided a valuable overview of the infection sites in the
- development of umbilical lesions.

Figure 1. Review necessary for treatment evaluation, the site for the umbilical infection, and the consequences for the animal.

ESPHM 2019

UNIVERSITY OF COPENHAGEN CPH Pig 27 January 2022 Inge Larsen 6

Why are umbilical infections a challenge?

Umbilical outpouchings



Finishers are UNFIT for transport



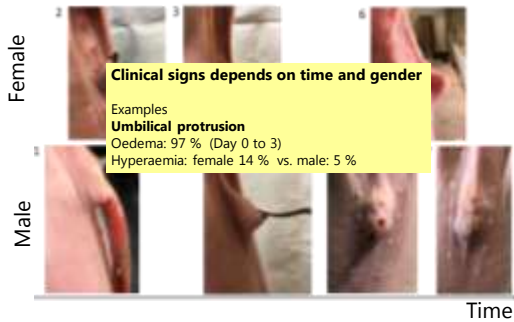
Prevalence of umbilical infections Field study



Umbilical examination: 10 herds 2021 piglets



Clinical examination



Umbilical microbiology, 10 herds 196 piglets

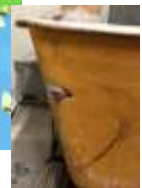


Umbilical microbiology

Preliminary

- As data are not published yet, they are unfortunately not part of these notes.

Prophylaxis and treatment



Herd management

As data are not published yet, they are unfortunately not part of these notes.

PRELIMINARY

Prophylaxis - Antimicrobial alternatives

- Autogenous vaccination
- Iodine spray of the umbilical area
- Herd differences



| Treatment Group | Sows prefarrowing 6 and 3 weeks | Piglets at birth |
|-----------------|---------------------------------|------------------|
| 1 | Placebo | + iodine |
| 2 | Placebo | + iodine |
| 3 | Vaccine | + iodine |
| 4 | Vaccine | + iodine |

CPH Pig 2021

Prophylaxis - Antimicrobial alternatives

- Wet cords disinfected with Chlorhexidine and dipped in Stalosan F® -> tendency to fewer umbilical outpouchings



Master's Thesis in Animal Science 2021
The management of newborn piglets for the prevention of umbilical outpouching development.

Ashley Jane Norval

- Ongoing PhD study. Field trial with interventions on wet umbilical cords with i.e. chlorhexidine and NSAID



Marie-Louise Hansen

New born piglet anatomy

Conclusion

- Prevalence
 - Umbilici with bacteria 68 %
 - Depends on healing stage
- Prophylaxis and Treatment
 - Herd differences
 - Metaphylactic antimicrobials
 - Hygiene
 - Umbilical
 - Environment
 - Management
 - (Genetics)

