



Implementation of precalving vaccination programme against rotavirus, coronavirus and enterotoxigenic *E. coli* (F5) and effect on dairy calf survival

Dagni-Alice Viidu*, Carmen Kuningas, Kerli Mõtus

Institute of Veterinary Medicine and Animal Sciences, Estonian University of Life Sciences, Tartu, Estonia

Aim: assess precalving vaccination programme

Implementation in Estonian dairy cow herds and effect on calf mortality

13 herds

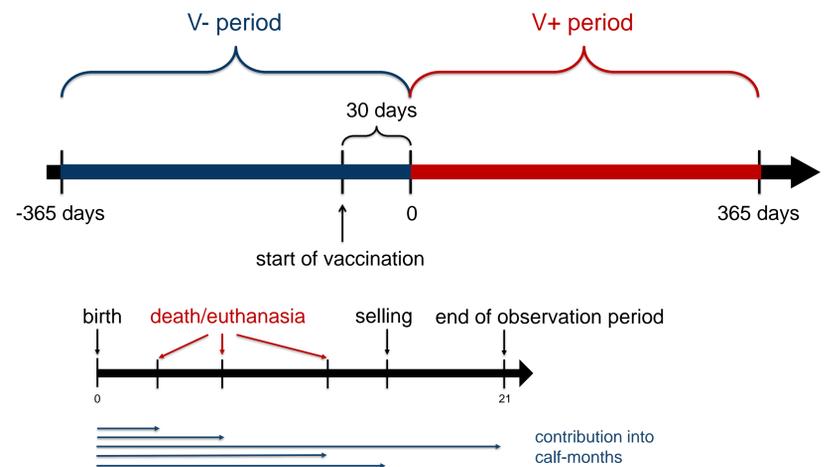
Questionnaire about vaccination procedures and calf feeding practices

2 groups

6 correct users and 7 incorrect users based on vaccination programme

2 observation periods

Event of interest in survival analysis were calf death and euthanasia

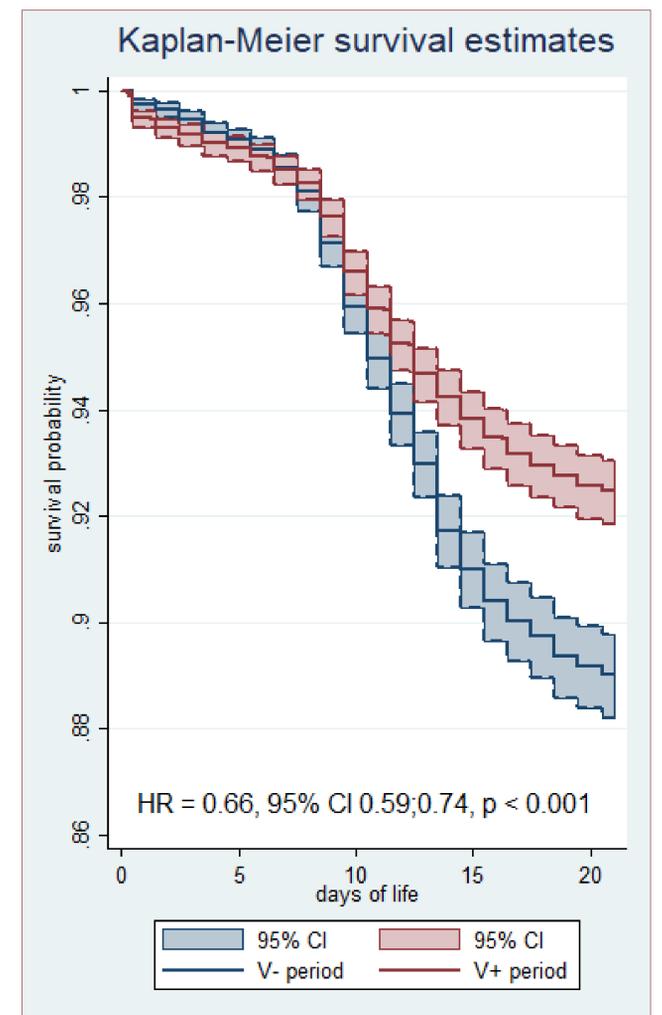


Correct vaccination programme

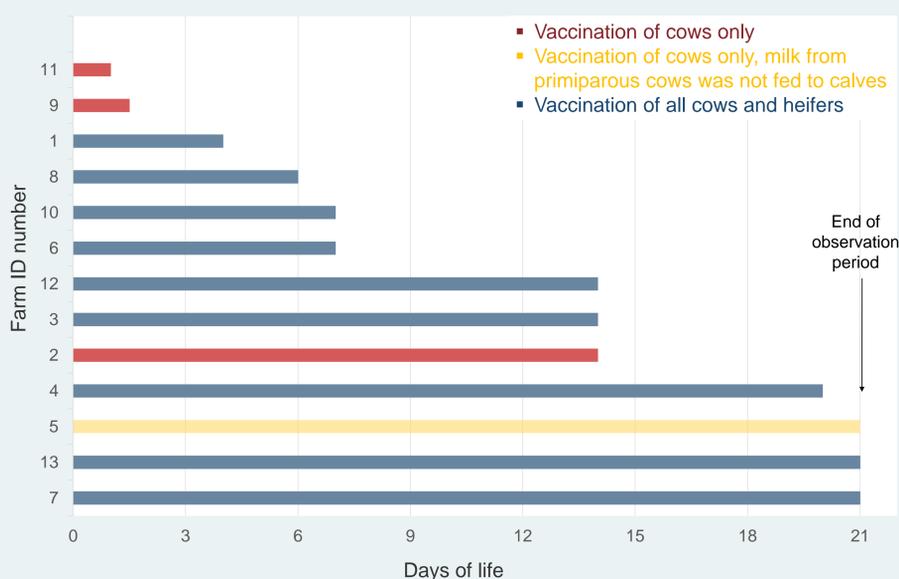
- ❖ All cows and heifers were vaccinated 3-12 weeks before expected calving
- ❖ Calves were fed whole milk from fresh (up to four days in milk) vaccinated cows at least during first 14 days of life

14,610 calf-based observations among the six farms that were implementing correct vaccination program

Kaplan-Meier survival curve and the result of mixed-effects Cox regression model presenting calf mortality hazard during vaccination (V+) period compared to pre-vaccination (V-) period in 6 farms



Duration of feeding colostrum (milk of first four lactation days) of vaccinated cows to calves and vaccinated animal groups



Conclusions

- ❖ Vaccination protocols and practices of feeding calves colostrum from vaccinated cows varied greatly
 - ❖ 31% of farms did not vaccinate heifers
 - ❖ 46% of farms fed calves milk from fresh cows for less than 14 days
- ❖ By implementing correct vaccination programme calf mortality hazard decreased 34% on average in six study farms

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*Corresponding author:
Dagni-Alice Viidu
dagni-alice.viidu@emu.ee