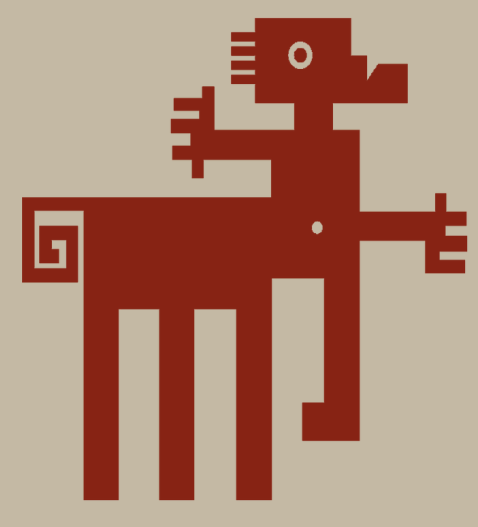


# Impact of calthood diseases on milk production and reproductive performance in dairy heifers



FACULTAT DE  
VETERINÀRIA

Elisa Martí Jové

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UAB

Universitat Autònoma  
de Barcelona

## BACKGROUND

Bovine respiratory disease (BRD) and neonatal diarrhea are common, costly conditions in dairy calves. Both are caused by viruses and bacteria and worsened by stress. Limited data on the effects of these conditions make it difficult to estimate the overall economic losses.

## OBJECTIVES

1. Determine the frequency of respiratory and digestive calthood disease in this farm.
2. Study the possible effects of preweaning diseases on milk production and reproductive parameters.



## MATERIALS AND METHODS

This retrospective cohort study was set on a farm that has an average of 1,000 lactating Holstein cows with a rolling herd-average milk production of 12,500 kg/cow per year. This study included 164 cows from singleton births evenly distributed across seasons.

Very sick animals that did not make it through 1st lactation were excluded.

Animals were classified into groups based on health status.

Statistics: all performed with GraphPad Prism software, with a confidence interval of 95%.

Healthy (n=50)  
Pneumonia (n=32)  
Diarrhea (n=35)  
D+P (n=47)

RECORDS OF:  
Age at first calving  
Age at first insemination  
Age at effective insemination  
305-d milk production  
Pneumonia/Diarrhea

## RESULTS AND DISCUSSION

Prevalence of calthood diarrhea and BRD was found at 49,6% (n=79) and 47,8% (n=82).

No statistical differences were observed within the parameters and different health status.

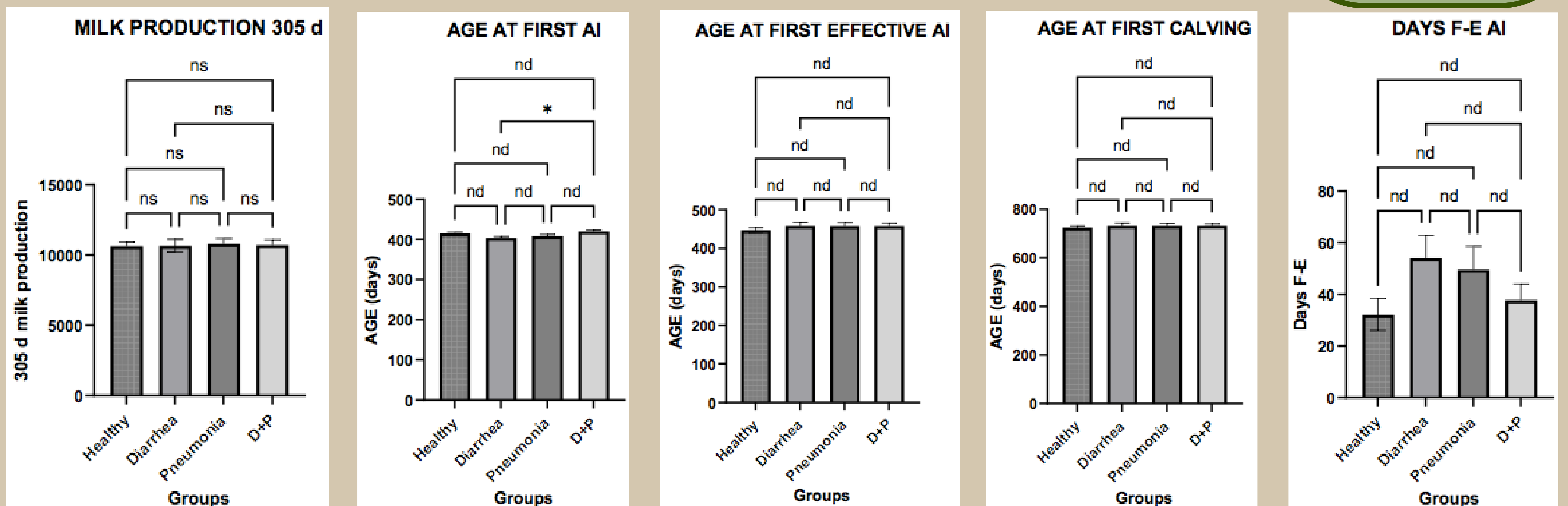


Figure 1. Effects of diseases in production and reproductive performance of dairy heifers

## CONCLUSIONS

- Calthood respiratory and digestive diseases are **expensive** due to calf mortality and treatment cost.
- Results from this study show **no relationship** between diarrhea and/or BRD, first lactation production and reproductive performance of heifers in this herd. However, animals treated for both diseases entered the **reproductive cycle 16.3 days later** than animals only treated for diarrhea.
- **Thoracic ultrasound** should be performed weekly in calves from 0-4 months to detect early lung abnormalities and evaluate the evolution of the pathology.
- **Differentiation** between acute and chronic illness should be taken into account in **further studies**.

