



# Sheep and farm level factors associated with contagious ovine digital dermatitis (CODD): a longitudinal repeated cross-sectional study of sheep on six farms

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## Introduction

Contagious ovine digital dermatitis (CODD) is a cause of severe lameness in sheep in the UK currently affecting approximately 50% of farms. Six farms were studied in North Wales to investigate:

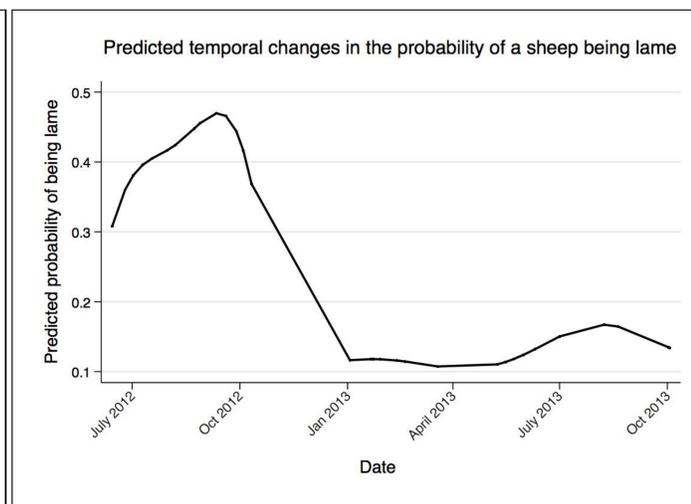
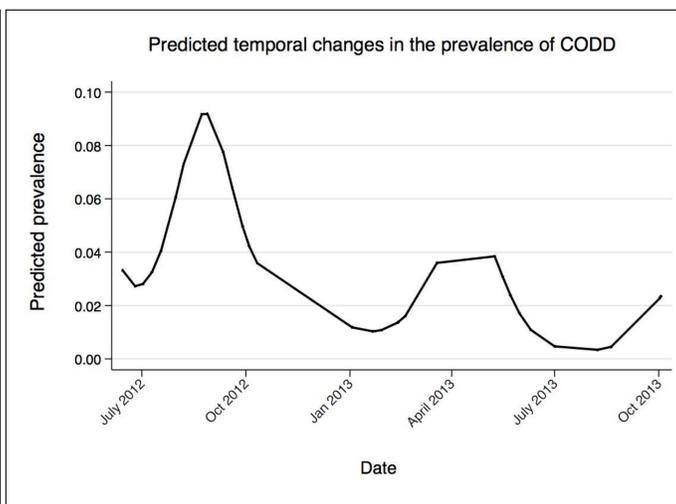
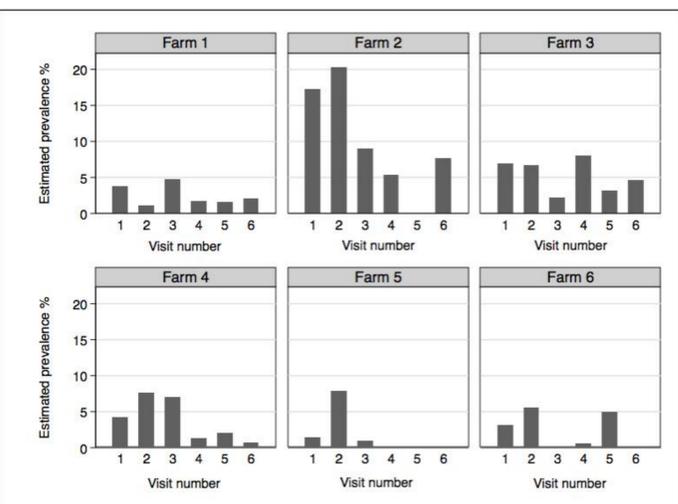
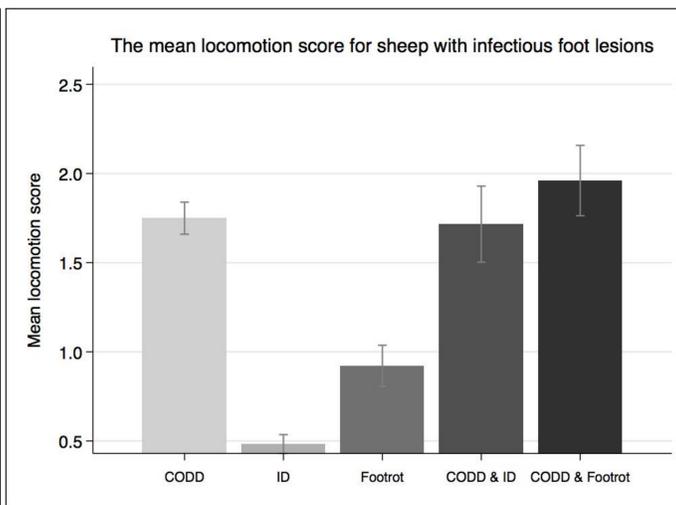
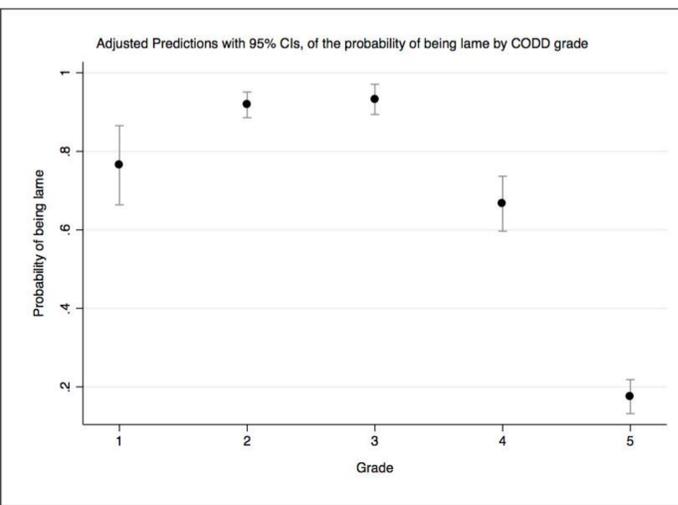
- 1) the prevalence dynamics of CODD
- 2) the association between sheep with CODD and potential risk factors
- 3) the impact of CODD on lameness in sheep

## Methods

- Bi-monthly visits between June 2012 & October 2013
- 6,515 sheep were examined
- Locomotion scoring (Angell and others 2015a)
- CODD diagnosis (Angell and others 2015b)
- All lame sheep and a random sample of non lame sheep examined in detail, ratio lame:not lame - 1:3
- Logistic regression with probability weights

## Results

Environmental risk factors: larger flocks; lowland pasture; lush pasture; poached pasture.  
 Co-infection with footrot in same foot: OR: 7.7 (95%CI: 3.9-15.5)  
 Co-infection with interdigital dermatitis in same foot: OR: 0.04 95%CI:0.02-0.1)  
 Reinfection with CODD occurred in 78 individuals, but no reinfection at foot level.



## Conclusions

Within farm prevalence is variable. Seasonal effects, association with footrot and environmental factors could aid coordinated and targeted intervention strategies. Point prevalence is highly inaccurate in determining the overall disease and associated welfare situation on a farm.

## References

ANGELL, J.W., CRIPPS, P.J., GROVE-WHITE, D.H., DUNCAN, J.S. (2015a) *A practical tool for locomotion scoring in sheep: reliability when used by veterinary surgeons and sheep farmers*. Veterinary Record 176(20), 521-523  
 ANGELL, J.W., BLUNDELL, R., GROVE-WHITE, D.H., DUNCAN, J.S. (2015b) *Clinical and radiographic features of contagious ovine digital dermatitis and a novel lesion grading system*. Veterinary Record 176(21), 544-552

## Acknowledgements

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