

Variation in individual antibody responses to *Mycoplasma bovis*



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Background

Mycoplasma bovis is primarily associated with mastitis and arthritis in cows, and arthritis, otitis and respiratory disease in calves. Traditionally it has been diagnosed with bacterial culture, but this is a time consuming and expensive test. Antibody measurements is cheap and easy, but knowledge about the relationship between clinical signs and antibody response in individual animals lacks.





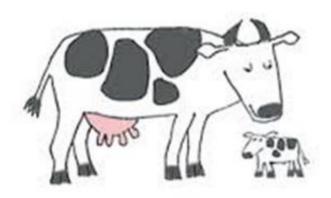
Objective

Explore the variation in the dynamics of antibody responses to *Mycoplasma bovis* associated disease before further analysis.

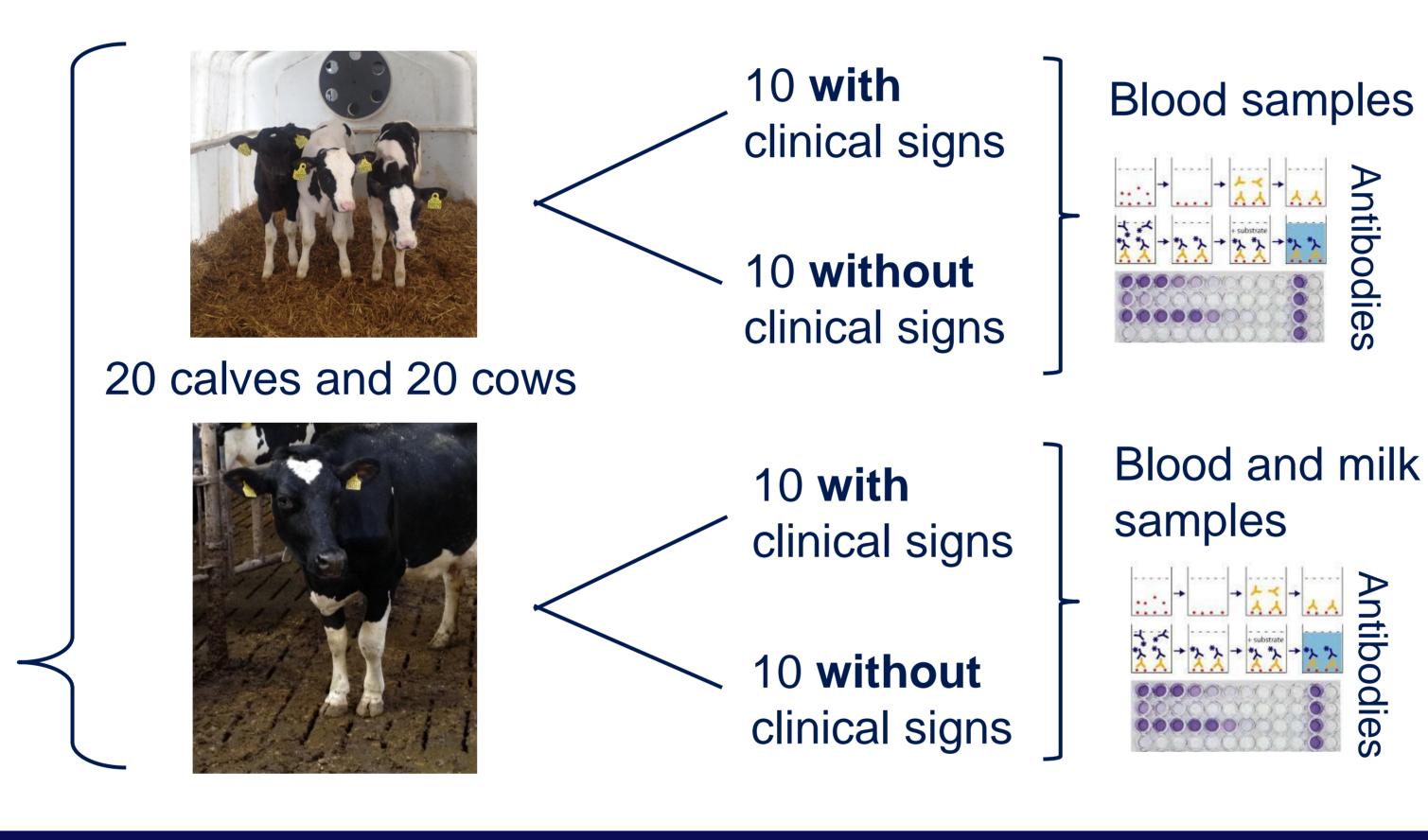


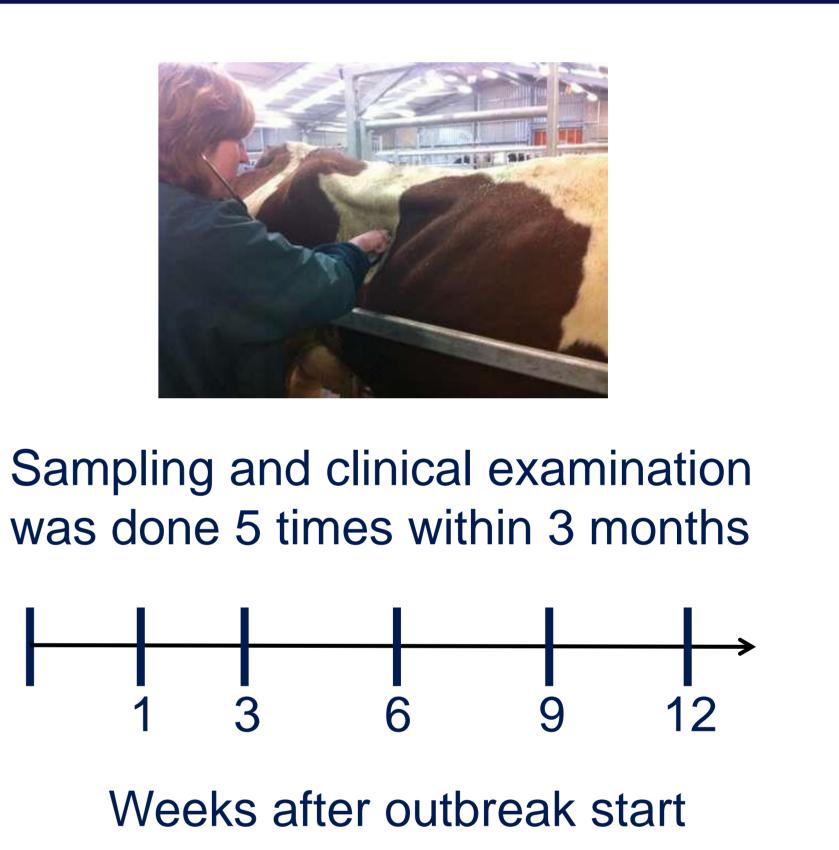
Methods

4 Danish dairy herds with acute outbreak of *Mycoplasma bovis* associated disease



Sampling scheme for each herd



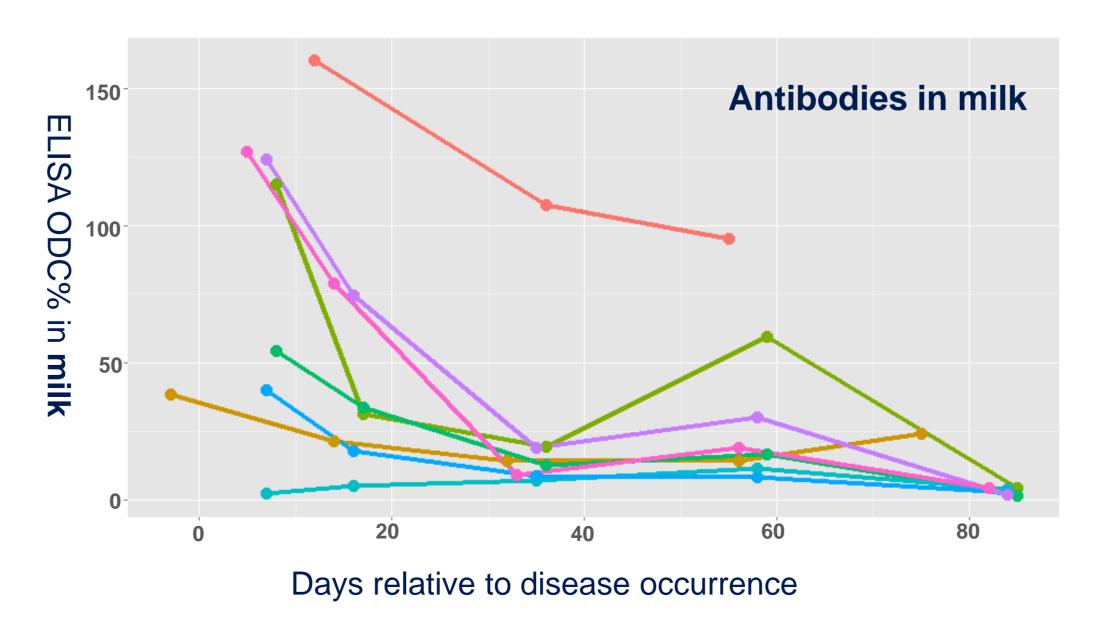


Preliminary results

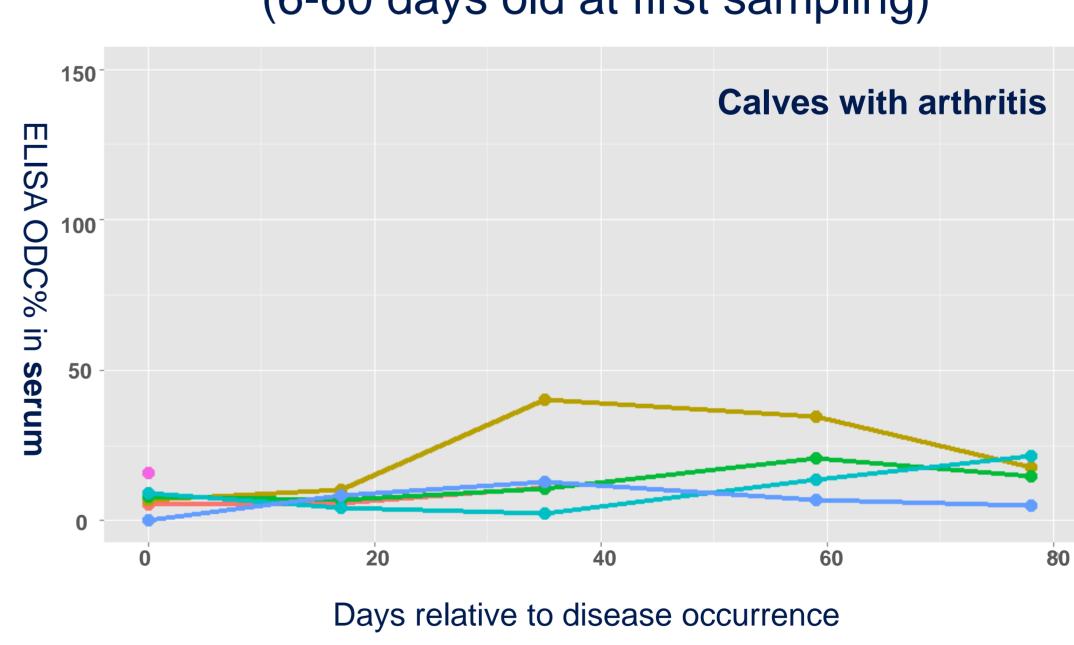
- The antibody response to *Mycoplasma bovis* is highly dynamic in nature
- The antibody response in milk is not a good indicator of arthritis/swollen legs in cows
- Do different disease complexes show different antibody responses?
- In young calves the antibodies do not increase substantially, despite clear indications of Mycoplasma bovis related disease

(with swollen legs/arthritis) Antibodies in serum Days relative to disease occurrence

Cows



Young calves (6-60 days old at first sampling)



Calves with clinical signs of respiratory disease

Days relative to disease occurrence