

The importance of immunization in calves

Data from Danish herds within the Robust Calves project

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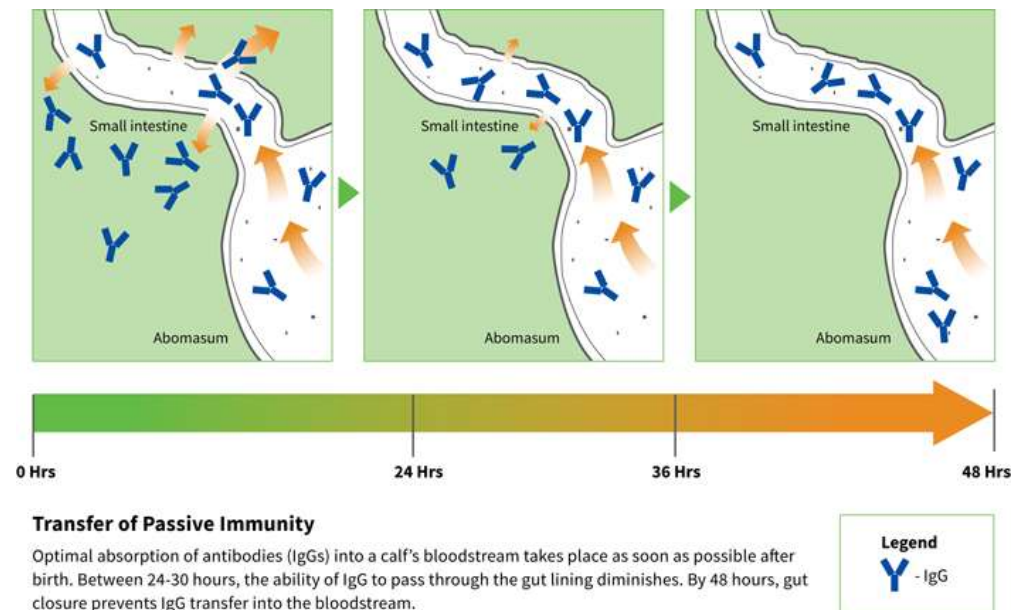


Care for calves

Free workshop on calf care for international employees

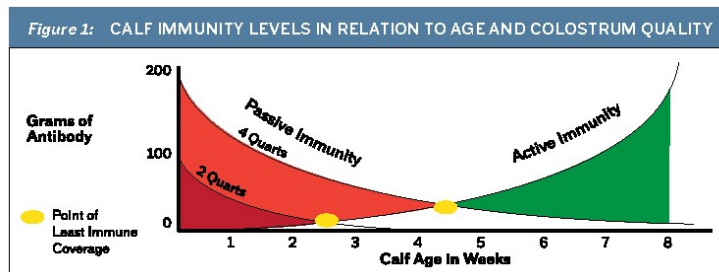
How does immunization work?

- Immunization requires the presence of antibodies in the blood (immunoglobulines)
- Calves are born without these immunoglobulins
- Passive immunization is achieved through feeding of colostrum



Quality check – why?

- The concentration of antibodies in the colostrum is important for prolonged immunization
- IgG -> systemically/blood
- IgA and lactoferrin -> locally/ GI tract



Passive immunization is achieved at serum levels of 10 g IgG/L

INDIRECT
On farm

MILK
Refractometer, Brix %



BLOOD
IgG concentration



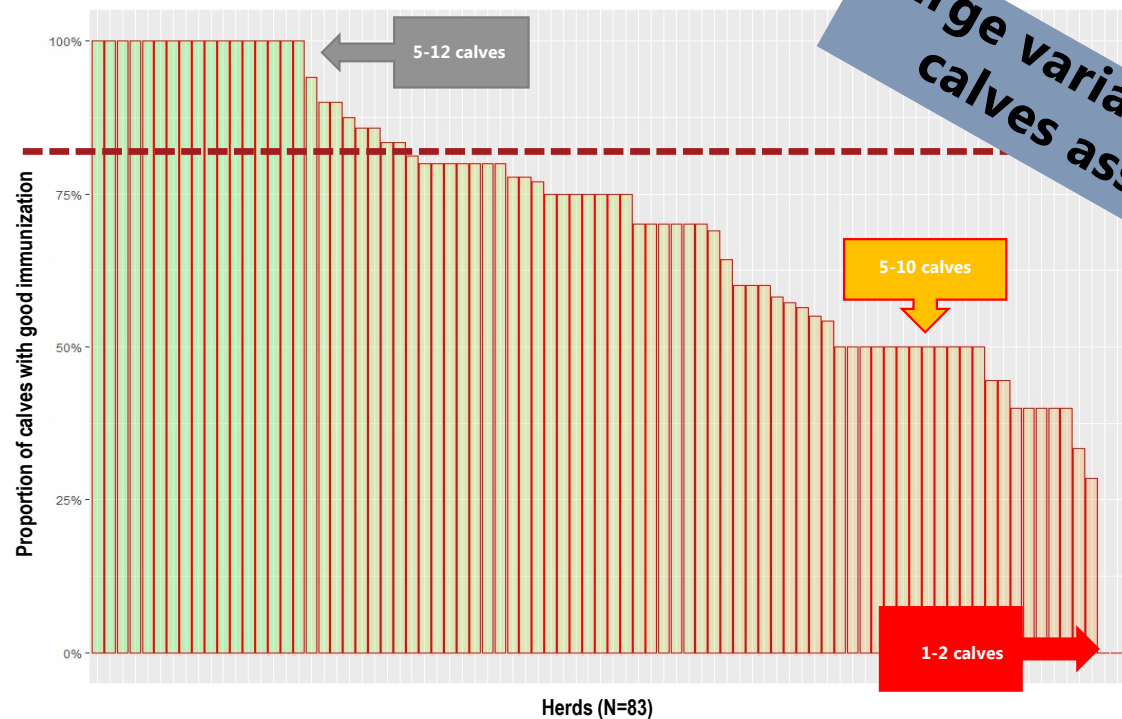
DIRECT
Vet

Immune status in Danish dairy calves



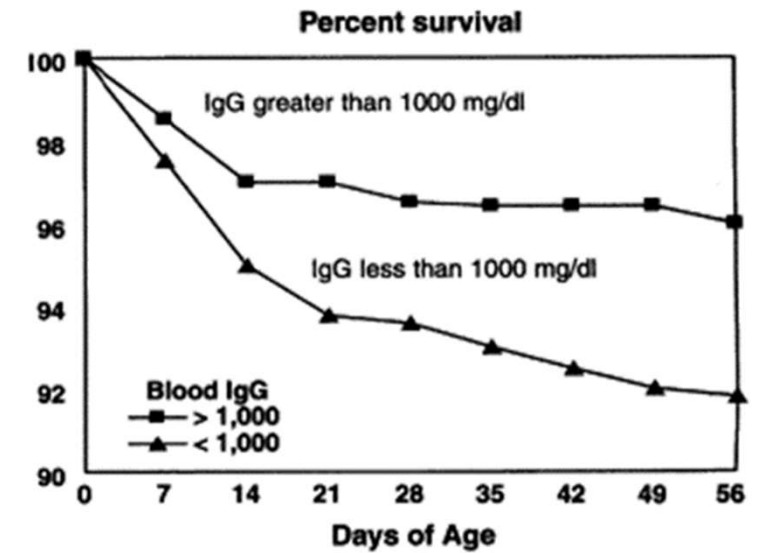
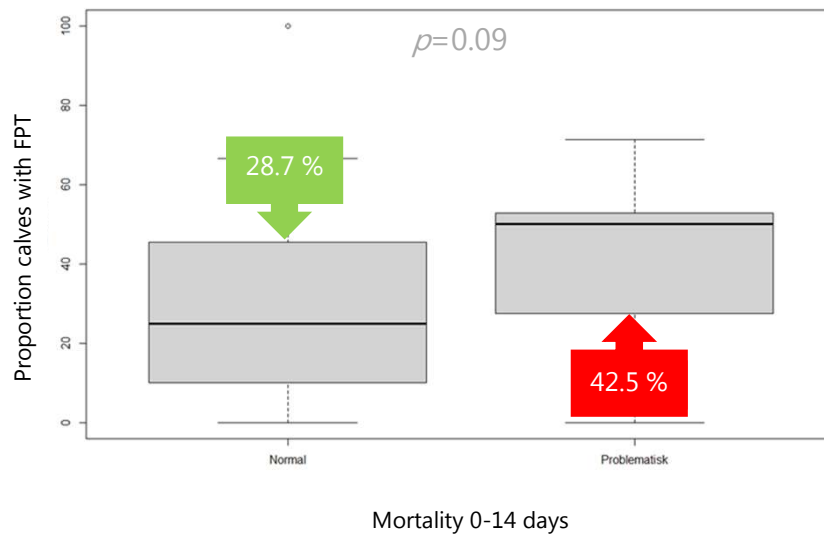
**Passive transfer succeeds at IgG
in serum min 10 g/L**

Max. 20 % of
calves with FPT



**Large variation in the number of
calves assessed per herd!!!**

Associations with mortality



Grouped by Danish mean calf mortality (0-14 days)
> or < 3.7 %

Associations between FPT & health outcomes



Nasal discharge

FPT = 29 %

Immunized = 23 %

OR: 1.40

Calves with FPT had a 40 % higher risk of purulent nasal discharge



Diarrhoea

FPT = 29 %

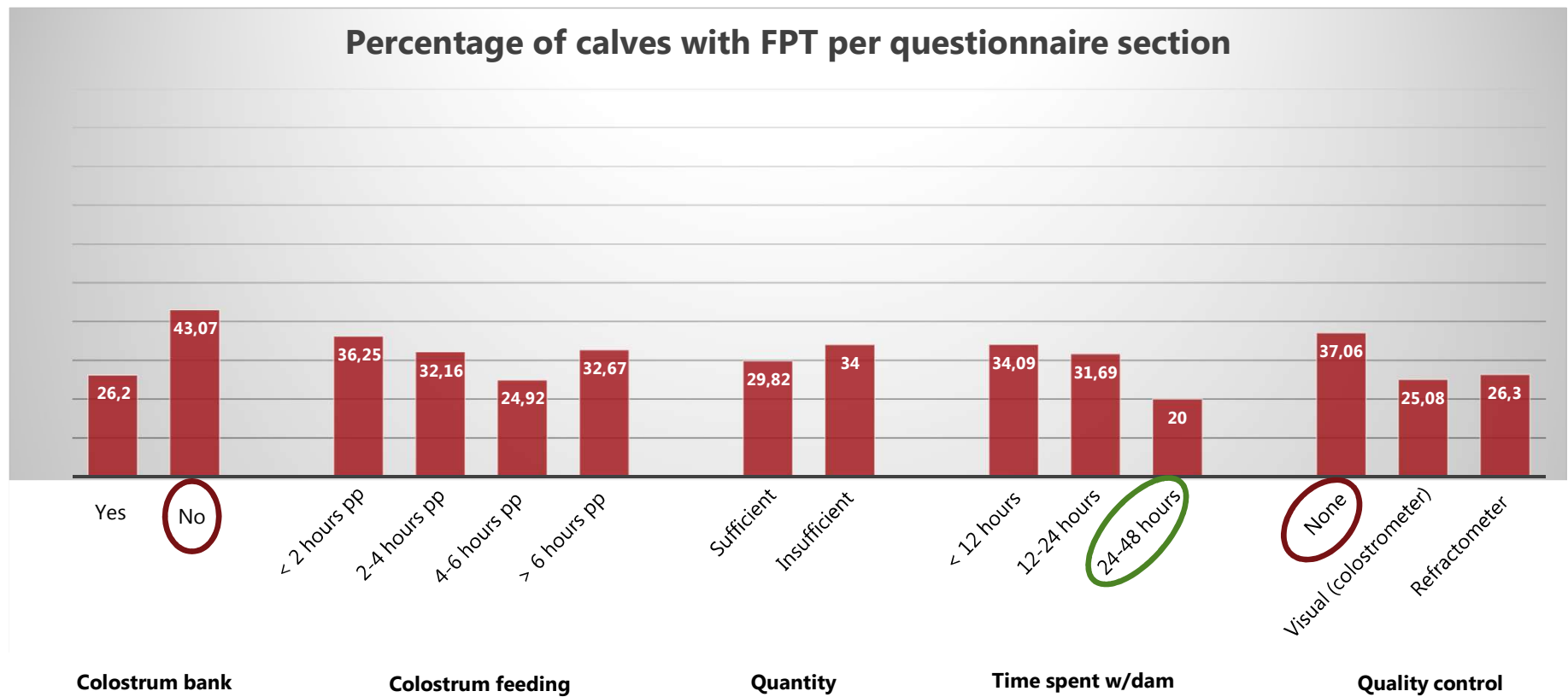
Immunized = 22 %

OR: 1.39

Calves with FPT had a 39 % higher risk of diarrhoea

	Diarrhoea	Normal feces
Purulent nasal discharge	67	162
No nasal discharge	162	546

Colostrum management (BioSecure)



QUESTIONS??

