



Whilst we should aim to minimise assisted calvings, when assistance is required it is important that it is carried out competently utilising appropriate facilities and equipment in a clean environment.

Once the calf is born, ensuring optimal colostrum intake within the first few hours of life is vital for immunity, energy and gut development.

CALVING ASSISTANCE AND ENVIRONMENT

Ensure all staff are trained in providing assistance at calving time. This should include:

- Use of equipment
- Knowledge of when to intervene (including who and when to call for further assistance)
- Importance of good hygiene
- Appropriate use of medicines

Suitable handling facilities such as a calving gate in a separate pen should be available to ensure human and cattle safety during interventions.

The degree of calving assistance should be recorded for every calf – alongside:

- Birth dates
- Birth weights
- Stillbirths (calves born dead or which die within the first 24 hours – these losses are often related to issues around calving time)

Calves should be born into a clean and dry environment. Pens should be cleaned and bedded regularly, with good air flow but free of draughts at calf level. Cows with calves should be removed from the dry cow group within 24 hours and the navels of newborn calves should be dipped in 10% iodine.

AIM: Ensure appropriate facilities and training are in place to minimise complications associated with assisted calvings and poor environmental hygiene.



COLOSTRUM MANAGEMENT

Calves are born with a functioning immune system but without any antibodies. As it takes some time for calves to develop their own immunity, antibodies provided in their dam's colostrum are critical to protecting calves from the diseases they will meet on the farm. The process of antibody absorption through the calf's gut from maternal colostrum is called Passive Transfer. When calves do not receive adequate antibodies early in life, this is known as Failure of Passive Transfer (FPT).

FACTORS AFFECTING PASSIVE TRANSFER

Factors which can increase the risk of FPT include assisted calvings, calves not standing quickly after birth, pendulous udders or big teats, poor maternal temperament, maternal ill health etc.

A recent UK study showed that 1 in 3 beef calves do not receive enough colostrum.¹



USE THE 5 Q'S TO REDUCE THE RISK OF FPT IN YOUR CALVES

QUANTITY

Increased quantity of colostrum = more antibodies. A calf requires approximately 20 minutes of continuous suckling to consume 3 litres of colostrum from its dam. The quicker this process starts the better. If factors are present which are likely to affect this, act early and assist by tube or bottle feeding at least 3 litres of clean dam's colostrum within the first 4 hours.

QUICKLY

At birth the calf's gut is porous so it can absorb antibodies directly into its bloodstream. This ability decreases rapidly over the first 24 hours, so it is essential that calves at risk of FPT are assisted quickly, to ensure all calves receive their first colostrum feed within the first 4 hours.

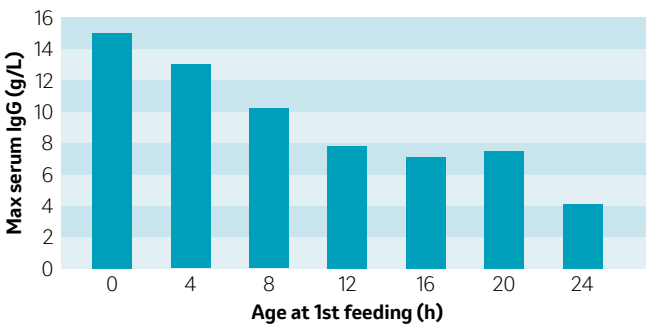


Figure 1: The calf's ability to absorb antibodies declines rapidly over the first 24 hours.²

QUALITY

Colostrum of high quality contains high concentrations of antibodies. Vaccination, dry cow nutrition, and a dry period of at least 5 weeks can all help improve colostrum quality.

AIM: Ensure blood samples are taken from representative calves aged 1-7 days during the calving period to assess for FPT. Assess colostrum quality throughout the calving period. Identify calves at risk of FPT and ensure they receive at least 3 litres of clean, good quality, dam's colostrum within the first 4 hours of life.

Further information: AHDB BRP+ Minimising calving difficulties.

QUANTIFY

Blood samples can be used to assess whether calves have received enough antibodies via Passive Transfer – this is the only method by which we can accurately assess adequacy of colostrum intake. Colostrum quality can also be assessed simply and cheaply on farm using a Brix refractometer, needing only a small drop of colostrum.



Figure 2: Brix refractometer needs only a drop of colostrum to assess quality.

SQUEAKY CLEAN

Colostrum is an excellent medium for bacterial growth as numbers can double every 20 minutes at room temperature. If colostrum becomes contaminated with bacteria this will reduce the uptake of antibodies by the calf, or worse, lead to illness such as septicaemia or scour. Good hygiene is essential when assisting calves to receive colostrum – wear gloves, store harvested colostrum in a clean container in the fridge for up to 3 days if not used immediately, and thoroughly clean and disinfect feeding equipment immediately after use. Frozen colostrum can be stored for up to a year; it should be defrosted in a warm water bath prior to feeding.



References: 1. Bragg R (2018) Prevalence of Failure of Passive Transfer (FPT) in beef calves. Cattle Practice 26 (2): 113.

2. Stott et al. (1980) Colostral immunoglobulin transfer in calves. Journal of Dairy Science 62:1766-1773.

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