

Calving Ease

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Hard Calvings: Impact on Calves

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- **Managing pathogen exposure**

Stress at calving: impact on calves

Deliveries requiring assistance are quite common among Holstein dams and less common among Jersey dams. National data show that among Holsteins first-lactation dams with mild to severe hard calvings (dystocia) were 19 percent and second and greater lactation dams were 11 percent (Schuenemann).

One study followed hard delivery or “dystocia” calves for their first 120 days of life (Lombard & Others). They found that calves born with a severe calving assistance score of 5 (in references below click on Schuenemann for a description of scoring) had over a six times chance of dying compared to calves requiring no or little assistance. When these two classes of calves are compared the chances of respiratory illness was 1.6 times greater. And, the chances of scours was 1.3 times greater for the severe delivery scores. Thus, hard delivery calves, even when they survive, usually are “high risk” animals.

Managing stress at calving: timely intervention

Timely diagnosis and interventions in hard calving can affect the amount of assistance needed. Assistance provided at the right time generally means less stress on the calf. Schuenemann (page 6) has a good table describing signs of “normal” births along with a timetable for each sign. Having a regular observation schedule for monitoring close-up animals is a best management practice with direct consequences for reducing calf stress. A “hands-on” session with the herd veterinarian is essential to prepare persons working with calving dams for effective and timely intervention.

Managing stress at calving: proper intervention techniques

“Three general causes of dystocia are:

1. Fetal-maternal size mismatch
2. Fetal malpresentation
3. Maternal related causes.” (Arthur and Others)

With first-calf heifers, fetal-maternal size mismatch is the dominant cause. In contrast, with second and greater lactation cows fetal malpresentation or maternal causes are most common. These causes,

therefore, suggest that the best management practice is having well-trained personnel available to deal with a wide range of calving problems.

Managing Pathogen Exposure

Dr. Shelia McGuirk (Professor Emeritus, University Wisconsin) uses the phrase, “manure meals” to describe the problem of early exposure of calves to the pathogens in adult cow manure. One way to reduce “manure meals” is to remove the calf from the dam and the manure-contaminated environment soon after birth.

But, you may ask, “What is the ideal amount of time for a calf to spend with her dam?” Well, it depends. From the perspective of the dam’s reproductive health more time rather than less could be beneficial in promoting (1) uterine health and (2) adequate let-down of colostrum. Also, if the dam is actively licking and mothering the calf, more time rather than less may result in greater stimulation which improves both breathing and circulation in the newborn calf.

On the down side, pathogen exposure for the calf may go up dramatically the longer she spends with her dam and the calving environment. The longer the dam licks and breathes on the calf the pathogen exposure goes up and up. Once the calf stands and begins to walk the chances of getting coliform bacteria in her mouth go up dramatically. In order to reduce the risk of illness, the most important best management practice is to get colostrum into the calf before she gets a “manure meal.”

Is it possible on your dairy to find a compromise between stimulation by the dam and undesirable bacteria exposure? One dairy rolls newborns into sturdy small fiberglass water tubs – thus allowing the dam to continue stimulating the calf and keeps the calf isolated from environmental pathogens. Another dairy that collects colostrum in the calving pen first locks the dam in a headlock for udder prep and milking. Then, they place the newborn in front of the dam so she can continue stimulating the baby. Each dairy can evaluate the most practical way to control newborn pathogen exposure and, at the same time, take advantage of the dam’s natural instinctive drive to stimulate the calf.

As a final note on avoiding the newborn calf’s pathogen exposure let us remember our responsibility to feed clean, low bacteria count colostrum. A best management practice is to regularly (monthly, quarterly) collect “as-fed” samples of colostrum and have a lab culture them for bacteria. Our goals are less than 5,000cfu/ml coliforms and less than 50,000cfu/ml total plate count. Click [HERE](#) for a sampling protocol for collecting samples (also available in Spanish).

For more tips on calf management Google “Calves with Sam” – his blog in addition to the www.calffacts.com calf management resource library.

Schuenemann, G. M., “Calving management in dairy herds: timing of intervention and stillbirth.” Ohio State University publ. VME-29, accessed 2/28/2019 <https://ohioline.osu.edu/factsheet/VME-29> or click [CalvingResourceHERE](#).
Arthur, G.H.,D.E. Noakes and H. Pearson, 1989 Veterinary Reproduction and Obstetrics. Pp 178-179 in Part III Dystocia and Other Disorders Associated with Parturition, General considerations, Types of Dystocia within the Species. 6th Ed. Bailliere Tindall, London, UK.
Lombard, J.E., F.B. Garry, S. M. Tomlinson and L.P. Garber, “Impacts of Dystocia on Health and Survival of Dairy Calves.” Journal of Dairy Science 90:1751-1760.

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