

Texas Dairy Matters

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POSTPARTUM UTERINE DISEASES IN DAIRY COWS

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As a result of genetic improvement from years of selection, dairy cows have become more efficient in producing milk. New challenges face producers trying to optimize animal performance. For example, the modern cow is more sensitive to small changes and less tolerant to some disease challenges.

Postpartum uterine diseases (metritis, clinical and subclinical endometritis) are some of the most important illnesses during the postpartum period. These diseases are very costly to treat and the consequences can carry over throughout lactation.



The clinical definition for metritis is watery, fetid, reddish/darkish uterine discharge, with or without fever (103.5 °F). Clinical endometritis is characterized as purulent or mucopurulent discharge (> 50 % pus). Also, subclinical endometritis is defined based on an increased number of inflammatory cells in the uterus.

In a recent study, California researchers reported that up to 68 % of cows had a postpartum uterine disease within the first two weeks

postpartum. Metritis accounted for 11 and 14 % of the cases within 7 and 14 days of lactation, respectively. When subclinical endometritis was assessed at 35 days postpartum, 43 % of the cows had subclinical endometritis. In this study, days open increased by 27 days and milk

production decreased in cows with subclinical endometritis, when compared to cows without the disease.

Postpartum uterine diseases are often caused by bacterial contamination of the uterus immediately after parturition. Antibiotic therapy is the main treatment, which is very costly due to treatment costs, milk discard, and liability from use of non-approved therapy. At the 2008 Dairy Cattle Reproduction Council Conference, the estimated cost of each case of metritis was calculated, based on treatment cost, milk withdrawal, labor, animal's death/culling, and milk production change after recovery from the symptoms. The total cost estimate for one case of metritis ranged between \$ 330 and \$ 386 depending on the therapy used and whether discarded milk was fed to calves or dumped. Based on the prevalence of metritis (14 %) reported previously, a dairy with 1,000 milking cows calving per year could incur an economic loss of over \$46,000/year just for the treatment of metritis.

Intrauterine infusion with antibiotics is still controversial among veterinarians and in the literature. In the US no product is labeled for intrauterine infusion. Using drugs off-label is an issue, not only because it is illegal, but also because withholding periods have not been established. Antibiotics may be found in milk, which leads to an even bigger issue for the dairy.

Since postpartum uterine diseases are very costly, the best clinical approach to postpartum uterine diseases is prevention. In a study from the University of Wisconsin, cows with severe metritis reduced dry matter intake starting 10 weeks before calving. These, and similar results from other studies, indicate that anything decreasing feed intake in late gestation may be a risk factor for postpartum uterine diseases.

Minimizing drastic ration changes, not overcrowding cows during the dry-off and close-up period, and creating a good environment for late gestation cows helps prevent decreased feed intake during the prepartum period. Finally, providing a clean maternity area and using clean procedures, whenever an animal needs assistance during calving, are practices that aid in the prevention of uterine contamination during or immediately after parturition.

References

Overton, M., and J. Fetrow. 2008. Economics of Postpartum Uterine Health. Proc. Of the Dairy Cattle Reproduction Council. Pp. 39-43.