METRITIS: A FOUL DISEASE WITH FINANCIAL COSTS

Fresh cows are the most important, and most fragile, group of cattle on every dairy farm. Healthy calvings and smooth transitions into milk production are critical for lactation performance while still having adequate energy to prepare the reproductive system for timely rebreeding. And yet, this time period is when cows are most uniquely challenged by a suppressed immune system and negative energy balance, making them susceptible to metabolic and infectious diseases. One of the more common fresh cows facing early lactation females is metritis. Most often diagnosed within the first 10 days in milk, clinical metritis is a uterine infection accompanied by the presence of foul-smelling, watery vaginal or uterine discharge. Fever also may be noticed, with temperatures of 103°F or higher. Incidence rates for metritis and subclinical endometritis range from 10% to 30% in herds.1

Financial costs add up
Metritis is a reproductive challenge that cannot be completely prevented on a dairy, and most dairies have cows that need to be treated. The disease is responsible for a number of performance challenges that impact fresh cow profitability:

• Cows diagnosed with metritis average 4.9 pounds per day less milk production for the first 120 days post-calving.2
• Metritis causes a depression in fertility, resulting in an increase of 18 days open and a decline in 21-day pregnancy rate of 3 to 6 percentage units.3
• Cows affected with metritis have an increased culling risk of 5.3% during the first 60 days in milk. After the first 60 days in milk, and when combined with the breeding period, the total attributable culling risk was 14%.4

“A case of metritis reduces performance in a number of different ways, including fertility depression, less milk production, and a greater risk for culling,” explains Mike Overton, DVM, formerly with the University of Georgia. “Each of these performance reductions also has a financial cost associated with it.” Dr. Overton has estimated that each case of metritis costs producers between $304 and $354 from losses in production and performance.4

• Costs from culling within the first 60 days of milk are estimated at $71 per case.
• Total losses from all cows due to metritis are estimated at $178 per case.
• Costs associated with a decrease in fertility and reproductive performance due to metritis are estimated at $108 per case.
• Treatment costs and associated milk withdrawal range from $58 to $108 depending on antibiotic chosen.

“For a 1,000-cow dairy with a typical incidence rate of 22%, that represents a loss of $79,000 a year due to costs associated with metritis,” says Dr. Overton.

Part of overall plan
Cows that experience fresh cow disease are at a greater risk of culling during the first 60 days of lactation. An effective transition cow management plan includes postpartum health monitoring that requires training and supervision of health technicians as well as the establishment of a proper standard operating procedure for treatment. Fresh cow handlers must learn to identify sick cows and treat them early and correctly. Producers and herd employees should consider rectal temperature, changes in milk production, appetite, vaginal discharge and attitude of the cow as tools for diagnosis.

Producers should work with their herd veterinarian to establish farm protocols and effectively train individuals who will be working with fresh cows. Responsible use of antibiotics under the supervision of a herd veterinarian also is critical to ensure that animals are safely and responsibly treated for disease while minimizing risks to the wholesomeness of meat and milk. Zoetis, along with your herd veterinarian, can help you set up a fresh cow program to keep cows healthy and producing high-quality milk with minimal milk discard. The key elements of the program include good nutrition, careful monitoring, proper diagnostics, early intervention and fast, effective treatment. Metritis disease is one challenge every dairy will face in its fresh cow management, but through proper monitoring and prevention, producers can reduce the impact of the disease and return fresh cows to healthy, timely reproductive cycling.

REFERENCES:

According to University of Florida professor Carlos Rico, DVM, managing the at-risk postpartum cow should involve a timeline approach until first breeding. “Our goal is to get cows through the challenging transition period in a healthy manner and prepare them for a timely return to A.I. service,” Dr. Rico adds. “If we’re able to maintain dry matter intake, these early lactation females should be better withstanding metabolic diseases and return to reproductive cycling earlier in lactation.”

**DAIRY WELLNESS MAKES A DIFFERENCE**

**DYSOCIA**
2.1 x greater risk

**RETAINED PLACENTA**
6 x greater risk

**STILLBIRTH**
1.5 x greater risk

**KETOSIS**
1.7 x greater risk

**TWIN BIRTH**
10 x more likely to have dystocia

**MANAGEMENT RED FLAGS**
Overcrowding
Easily sorted transition rations
Too heavy or too thin
Increased incidence of fresh cow disease
Stressful environment
Frequent pen moving

**FINANCIAL COSTS**
MILK LOSS
$77 per case

FERTILITY REDUCTION
$98 per case

INCREASED CULLING
$71 per case

TREATMENT COSTS
$58 to $108 per case

TOTAL COSTS
$305 to $354 per case

**IDENTIFYING AND MANAGING AT-RISK COWS**

Optimize immune function during the transition period (30-120 days until calving) for reduced calving-related disorders. The transition ration must be properly balanced for dietary calcium:phosphorus (Ca:PO4) difference, energy, fiber, vitamins, and mineral content. Cows should be eating 24 to 26 pounds of dry matter per day, and they should have 30 inches of bunk space and adequate shelter. Body condition should be monitored and targeted at 3.5 to 3.7.

Calving should involve trained personnel able to identify and properly treat dystocia, milk fever, retained fetal membranes and uterine infections. The calving area also must be clean and well designed.

Monitor health during early postpartum (10 days postpartum) for early disease diagnosis and treatment to assure that all postpartum cows are examined daily.

Optimize performance during postpartum (10-40 days postpartum) by providing proper transition cow care, housing, and adequate feed bunk space, as well as limiting transition pen environments. This will help to promote an early return to positive energy balance.

Optimize pregnancy rate at the end of voluntary waiting period (60–80 days postpartum) through the use of Oxytocin® or other synchronization programs.

**RECOMMENDATIONS**

- Facilities and management red flags
- Increased financial costs
- Areas to monitor and evaluate to reduce risks
- Identification and treatment to reduce costs
- Economic implications of fresh cow diseases

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