

Streptococcus agalactiae: A Practical Summary for Controlling Mastitis

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The incidence of *Streptococcus agalactiae* (*S. agalactiae*) mastitis in the United States has been significantly reduced in recent decades. However, some farms continue to struggle with the control of this contagious pathogen. Similarly, this pathogen still plagues other countries of the world that lack proper control programs. A successful control program includes prompt treatment of cases, the use of proper milking procedures, and dry cow therapy. All streptococci bacteria are Gram-positive and similar in structure to *Staphylococcus* spp. Milk culturing laboratories can distinguish *Strep. agalactiae* from other streptococci using standard biochemical tests.

Where Are These Organisms Found?

The reservoir for *Strep. agalactiae* is **infected udders**. This pathogen is an obligate parasite of the udder in dairy cows. Unlike *S. aureus*, *Strep. agalactiae* does not readily colonize damaged teat skin or teat lesions.

How Does *Strep. agalactiae* Spread to the Mammary Gland?

The spread of *Strep. agalactiae* can occur through **washcloths and teat cup liners**. During milking, irregular vacuum fluctuations can force bacteria up into the teat canal, leading to the potential for new infection.

How Can You Prevent and Control Mastitis Caused by *Strep. agalactiae*?

Proper milking procedures, including the use of efficacious **pre- and post-milking teat disinfectants**, will help to reduce the number of new infections. Important milking-time considerations that will help reduce the spread to uninfected cows include the **use of gloves and**

single-use towels and milking infected cows last. Furthermore, a backflush system may help reduce bacterial numbers within the liners, but rinsing units by hand is not recommended. **Testing new herd mates** will help to identify reservoirs of these contagious bacteria. Finally, **dry cow therapy should be administered to all quarters of all cows** at the time of milk cessation.

When Are *Strep. agalactiae* Mastitis Infections Most Likely to Occur?

Due to the contagious nature of these bacteria, new infections are likely to occur during lactation. **Cows in early lactation are at increased risk** for new infections due to the increased stress and immune suppression associated with the postpartum period. Cows with high milk production are not at greater risk than cows with low milk production.

How Likely Is *Strep. agalactiae* to Cure?

Successful treatment of *Strep. agalactiae* is easily achieved with the use of a broad-spectrum intramammary antibiotic preparation. **New clinical infections should be treated promptly** and appropriately. In some instances, herd outbreaks of *Strep. agalactiae* have been reported. In these situations, treatment of all culture-positive animals at one time is recommended, followed with bacteriologic testing to confirm success. Retreatment may be necessary, as well as monitoring culture-negative cows to make sure they remain uninfected. This process is repeated until all animals are culture-negative for *Strep. agalactiae*. During a whole-herd treatment, those administering the treatment must be diligent about cleaning the teat ends prior to antibiotic infusion. Improper cleaning prior to administration can yield the introduction of a new pathogen into the

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gland. In general, use of a strip cup or similar device is strongly recommended for detecting abnormal milk. The use of Dairy Herd Improvement somatic cell count records in addition to visual observation of forestripped milk and milk culture results will indicate effectiveness of treatment.

Quick Notes

- *Strep. agalactiae* is a contagious mastitis pathogen spread from cow to cow at milking.
- New herdmates should be tested prior to entering the milking string; they should be separated from other cows until their tests are culture-negative.
- Use of gloves, efficacious pre- and post-milking teat disinfectants, single-use towels, and dry cow therapy will help control this pathogen.
- *Strep. agalactiae* responds well to antibiotic therapy.