Myths About Mastitis Therapy

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Myths and old wives’ tales abound in the dairy industry just as they do in other segments of agriculture and society. Dr. Ron Erskin, a veterinarian at Michigan State University, discussed several myths about mastitis therapy in a paper included in the proceedings of a conference on milk quality held this past spring in Wisconsin. Below are brief summaries of some of the myths Dr. Erskin addressed.

Myth 1. Once a Staph aureus cow, always a Staph aureus cow. Although very difficult, intramammary infections caused by this organism can be cured. Depending on the herd, 30 to 70% of individual quarters may be cured during the dry period, the best time to try treatment. Prolonged use of therapy (multiple regimes of labeled doses) may also increase efficacy, and vaccination prior to therapy may augment efficacy as well. Cows with multiple infected quarters, or that are chronically infected are poor therapeutic candidates.

Myth 2. Keep on treating a clinical mastitis case until the milk returns to normal. The cow’s immune system eliminates infectious organisms. Antimicrobials act in a supporting role. While treating with antimicrobials can be helpful, non-responsive cases should be recognized as failures of the immune system. This is especially the case for recurring infections. Additionally, non-responsive quarters are often the sign of resistant organisms. Thus, it should be a very rare situation where a clinical mastitis case is treated more than 4 to 5 days.

Myth 3. A double dose of tubes is better. With a few exceptions, the most critical factor in successful antimicrobial therapy is the length of time that the drug concentration in milk and mammary tissue is above the level needed to be effective on the causative organism. It is more beneficial to extend the therapeutic time period beyond the typical two or three days for most commercial preparations, rather than increase the concentration level.

Myth 4. Extra label products are more effective. The effectiveness for most antimicrobials has not been tested in relation to the presence of milk and mammary inflammation. Some of the typical extra-label drugs used for mammary infusions have been demonstrated to be detrimental to leukocyte function. Drug clearance and withholding is usually unknown, especially in mastitic cows. The majority of studies that have investigated extra-label drug use for the treatment of mastitis have determined that there is little positive effect as compared to cure rates achieved by labeled drug regimes.

Myth 5. If after two treatments there are still clots and flakes, I need to switch to a new antibiotic. This is the opposite of sound pharmacodynamics. The key to successful therapy is staying with the same drug for as long as possible. Switching drugs starts the therapeutic clock all over again, and can lead to bacterial resistance. Use of drug susceptibility results can be useful for predicting therapeutic efficacy.

Before you mis-treat cows in your herd with intramammary infections because you are following one of these myths or others you have heard, discuss the practice with your veterinarian. Always be sure you are properly using mastitis therapy drugs.