

Treatment of Mastitis

Mastitis is persistent inflammation of the udder tissue caused by infection or physical trauma. Mild mastitis can resolve after a few days without treatment. Moderate and severe mastitis often requires antibiotic treatment. In each scenario, the bacteria can persist even after a visible cure, resulting in a permanently high somatic cell count (SCC).

AIMS OF TREATMENT

The two main aims of treatment during lactation are:

- 1) Returning the milk to normal with an acceptable SCC so that the milk is saleable.
- 2) Ridding the quarter of the mastitis bacteria. This "bacteriological cure" is harder to achieve than visibly normal milk alone.

INTRAMAMMARY VS SYSTEMIC ANTIBIOTICS?

The treatment of mastitis frequently involves the administration of antibiotics, which are administered by injection (systemic) or by direct infusion into the affected quarter through the teat canal (intramammary).

- Intramammary antibiotics are generally the first-line treatment for cows with mild uncomplicated mastitis in a single quarter. High concentrations of antibiotic can be achieved at the site of infection.
- Systemic antibiotics tend to be used when multiple quarters are affected; or, when there are visible changes in the affected quarter; or, when the cow is obviously ill.
- Combination therapy, with both systemic and intramammary antibiotics, may increase bacteriological cure rates but should only be used under veterinary advice.

PAIN RELIEF

Pain-relief medicines (also called Non-steroidal anti-inflammatory drugs, NSAIDs) help reduce the inflammation and pain associated with mastitis. Research has shown their use is beneficial in the treatment of mastitis by improving cure rates and post-infection somatic cell count.

TREATMENT 'FAILURE'

Apparent "failure" of a treatment occurs for several reasons:

- **Inappropriate choice of antibiotic** - the bacteria causing mastitis are not responsive to the chosen treatment.
- **Inappropriate concentration of antibiotic (too low) for an inappropriate period (too short)** - most of the bacteria causing mastitis are killed but some remain at the end of treatment. This causes a relapse of the infection.
- **Re-infection** - bacteriological cure has been achieved with treatment but the cow becomes re-infected with either the same or different bacteria.
- **Persistent infection** - some bacteria cause irreversible damage to the udder which prevents the antibiotic from penetrating the area of infection with sufficient concentration.

ProDairy treatment protocols guide the usage of antibiotics and pain relief medicines for the treatment of mastitis. They include when to use intramammary vs systemic antibiotics and when to use combined treatment, as well as guidance on when not to treat because the cow is unlikely to respond. Pain relief medications are also included in these protocols. Speak with your ProDairy vet for advice on mastitis diagnosis, treatment and prevention.

