

Blanket, Selective, or No Dry Cow Therapy: Which Should I Choose?

Author: Benjamin Enger, Assistant Professor, Department of Animal Sciences, enger.5@osu.edu, 330-263-3801.

Blanket dry cow therapy, the infusion of all quarters of all cows with antibiotics following the last milking of the lactation, is a fundamental component of good mastitis control. At current prices for commonly used dry cow preparations, the cost of the antibiotics to dry treat a cow is \$11 to \$16 per cow. In addition to the antibiotics, many producers also infuse all quarters with an internal teat sealant, which costs an additional \$8 to 11 per cow. So, the cost to “dry treat” a cow will range from \$11 to \$27 per cow, or a producer milking 100 cows will spend from \$1,100 to \$2,700 per year to dry treat cows. During challenging economic times, producers may be tempted to reduce costs by eliminating or reducing the use of dry cow therapy.

Blanket dry cow therapy is an effective way to treat all infected quarters at the end of lactation, and many of these treated infections will be eliminated before the next lactation. Blanket dry cow therapy can also prevent new intramammary infections that frequently occur during the first week or two of the dry period.

Selective dry cow therapy is the approach of treating only infected quarters, or all quarters of a cow with at least one infected quarter, at the end of lactation and withholding intramammary antibiotic from uninfected quarters/cows. In herds with good mastitis control, those with a bulk tank somatic cell count (SCC) less than 200,000 cells/mL, a large proportion of quarters receiving blanket dry cow therapy will not be infected. It could be argued that these quarters do not require antibiotic treatment, yet antibiotics may still assist in preventing infections. Some who want to save money may consider selective dry cow therapy and treat only the infected cows or quarters. This approach requires a method for identifying cows or quarters for treatment. There are costs associated with any identification method. Costs arise from personnel’s time dedicated to identifying cows, and culturing milk samples and/or measuring milk SCC via a commercial testing service, such as DHIA, or another diagnostic test.

Obviously, different selection approaches are associated with different costs. No selection method is 100% accurate in identifying infected quarters. Selection approaches should be practical for the dairy operation as assigning antibiotic treatments at the cow level is less complicated than treating individual quarters within a cow.

Producers that use internal teat sealants in combination with intramammary antibiotics may be tempted to stop the use of either the antibiotics, the teat sealant, or both for savings. Use of the teat sealants, in the absence of the antibiotic therapy, is very risky if teat hygiene infusion practices are poor. Establishment of a new infection will likely result, and death of the cow can occur in the most severe of cases. When stringent infusion practices and excellent hygiene are followed, use of only an internal teat sealant is just as effective as using both antibiotics and teat sealant for uninfected quarters. Accordingly, most selective dry cow therapy programs use internal teat sealants for both quarters that do and do not receive antibiotics. Usage of a teat sealant with selective dry cow therapy is highly recommended and may determine the success of this approach. Should economic conditions dictate that only antibiotics or teat sealants can be used, dry cow antibiotics are likely to have greater positive impact on mastitis control.



**Bottom Line:**

Attempts to save money by completely eliminating both dry cow antibiotic therapy and teat sealant is not recommended. Infusion of intramammary antibiotic and internal teat sealant products should be done using excellent hygiene so that no new infections are accidentally established by the operator.

The partial infusion method should be used for both antibiotic and teat sealant products. Selective dry cow therapy may be considered for herds with a consistent SCC less than 200,000 cells/mL, but herds with a SCC greater than 250,000 cells/mL would do best to continue using blanket dry cow therapy. In these higher SCC herds, switching to selective dry cow therapy may save a few dollars in the short run but will very likely cost producers in the future due to increased future bulk milk SCC and increased incidence of clinical cases of mastitis, all leading to reduced milk yields. Farms considering selective dry cow therapy should consult their local veterinarian to determine the suitability of selective dry cow therapy for their farm and for assistance in designing appropriate protocols and review of infusion practices. Selective dry cow therapy programs should be periodically evaluated for success by the farm's veterinarian and milk quality advisor by assessing clinical and subclinical mastitis case rates and evaluating bulk tank SCC.

Factsheet originally published in July 2009, DIBS # 22-09; revised in May 2016, DIBS # 22-16; revised in May 2020, #22-20.