

Making a plan for chronically high SCC cows

by Megan Weisenbeck, DVM, Northern Valley Dairy Production Medicine Center
www.dairymed.com | www.facebook.com/northernvalleydairy

Number 591. She is high *again* on the monthly SCC test. This is the 4th time! She is now what we consider a chronic cow. What are you going to do with her? Sell her? Ignore her? Treat her or culture and treat? What is *your* plan? Some farmers do not have any sort of plan and only address cows like this when the herd SCC gets too high. Subclinical infections are a much larger part of the SCC story than clinical mastitis, so having a subclinical mastitis plan will have a large impact on udder health and farm economics.

First, why do cows become chronically high, never show clinical mastitis, and show no bacterial growth on milk culture? Dr. Pam Ruegg from the University of Wisconsin-Madison believes these chronic cows are animals with failed immune responses that did not fully clear the organisms from the udder. Chronically high SCC cows that culture negative likely have such low levels of organisms that we cannot detect them. Remember, subclinical mastitis is different than clinical mastitis, which is when the inflammatory response causes changes in the milk, udder, or signs of systemic illness. Blanket treating cows with subclinical mastitis is not recommended. The biggest reason is because you do not need to discard milk from untreated, subclinical cows since the milk looks normal so the cost of treatment becomes greater than the value of discarded milk.

Back to the plan: what to do with them? Since test day generates several lists of cows based on SCC, one might use the following method.

1. The first list is new infections. These are cows that were low on previous test, or in the case of fresh cows, low at the last test in the previous lactation, but are high on the current test.
 - a. Examine the list of new infections. Remove any cows that have been treated for clinical mastitis since the recent test. Consider removing cows that are more than about 200 days in milk or more than 150 days pregnant since these animals will be dried up soon. There are not many lactation days left to pay for possible improvements in milk production due to treatment, and they will be treated at dry up. The remaining animals on this list would be good candidates to examine for signs of clinical mastitis or to take samples for milk culture. Use the CMT paddle test if you are unsure of the quarter affected.
2. The second list is chronic cows. These are cows that have been high for two consecutive tests, or if fresh, high at dry up and after calving.
 - a. First, identify fresh cows that had a high first test and high last test in the previous lactation. Look at their records from the last lactation. Cows that had more three or four consecutive high tests last lactation should be considered as do-not-treat cows except if they are toxic. This means that should they get clinical mastitis this lactation, they will not be treated, but milk discarded until the appearance returns to normal. Understand that the appearance of the milk has little to do with infection status, and most cows' milk will return to normal four to six days after abnormal milk first appeared, treated or not. Cows that have persistent high somatic cell counts are not likely to respond to treatment, so marking them as "do not treat" saves money and hassle. Cows that have four or more high consecutive tests (on herds that test monthly) are not likely to respond to treatment for clinical mastitis, so they should be marked as do-not-treat cows as well. Cows with two high tests should be put on a watch list. Once they have three or four consecutive high tests they should be

marked as do not treat. Many dairies treat cows with clinical mastitis without looking to see if they have chronically high somatic cell counts and thus treat cows that have little change of responding to treatment. To complicate matters, since milk returns to normal whether cured or not, owners and managers often think treated cows responded when in fact, they did not.

3. Culturing the milk only makes sense if you plan to do something with the results. That something might be antibiotic treatment, or it might be culling if your reason for culture was to look for Prototheca, Staph aureus or other contagious organisms.