An increasing amount of attention has been given by researchers the last few years to the problem of how to deal with mastitis prevention and treatment in heifers before they freshen the first time. While the infection incidence rate varies from herd to herd, as does the predominant kind(s) of organisms causing the infections, this research attention has come about because the prevalence of udder infections in heifers is higher than most people realized and expected.

One approach to dealing with the prepartum mastitis clinical infections in heifers is to detect and treat the infections prior to freshening. A group of researchers in Norway recently reported in the Journal of Dairy Science on their studies of the effectiveness of this procedure. They also looked at the outcome of clinical mastitis in heifers that were detected and treated before parturition. Heifers that were treated for clinical mastitis prior to parturition or within 14 days postpartum were reexamined approximately 1 month after treatment. Clinical examination of the heifers and microbiological examination of quarter milk samples were carried out on both occasions. Of the 1000 heifers included in the study, 10.9% were culled within 28 days after treatment. Udder damage caused by mastitis was the only or main reason for culling in 96% of those heifers. In comparison, 4.5% of non-mastitic heifers from the same herds were culled within 30 days postpartum (less than half of the percentage culled that had clinical mastitis). Twenty-five percent of those heifers that were not culled at day 28 after treatment had at least one nonfunctional quarter at that time. One thousand one hundred twenty-two quarters that were clinically affected at the time of treatment were reexamined; 22% were nonfunctional, 14% were still affected by clinical mastitis, 12% had subclinical mastitis, 5% had a latent infection with coagulase-positive staphylococci or Streptococcus dysgalactiae, and 46% were bacteriologically negative and had a normal cell count at the time of reexamination. High percentages of nonfunctional quarters were observed among those quarters that were infected with Arcanobacterium pyogenes or with coagulase-positive staphylococci at treatment. When all quarters that were clinically affected at treatment were considered, 40% of quarters were cured and were still in lactation at reexamination. Quarters infected with coagulase-negative staphylococci had a higher cure rate than quarters infected with other organisms. At reexamination, clinical signs of teat-end inflammation were observed in many of those quarters that were nonfunctional following the episode of clinical mastitis and also in 25% of lactating quarters in which clinical mastitis persisted. Thus, treatment of clinical udder infections prepartum was a beneficial practice that reduced the incidence rate and lowered the early lactation culling rate.

Dr. Steve Oliver at the University of Tennessee, and other researchers are suggesting that all heifers (not just those that have an observed infection) be infused with a lactating cow mastitis treatment product 14 days before the expected freshening date. This procedure will prevent milk infections and clinical mastitis cases, and will result in more milk and net income the first lactations of the heifers. Consult with our veterinarian or Extension dairy agent about the cautions to consider before implementing this practice in your herd.