

## Improving udder health benefits cows and helps safeguard human health

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Antimicrobial resistance (AMR) is considered by the World Health Organization to be one of the highest priorities in global public health. Many factors contribute to the development of AMR, involving both the use of these drugs in humans as well as animals. The ability to resist antibiotics can be transferred between different bacteria and resistant bacteria can be transferred between species, including from animals to humans. As agricultural industries come under increased scrutiny for their use of antibiotics, it is important to ensure we are practicing good stewardship of these products. We need to ensure all of us use antibiotics judiciously to preserve their future efficacy and protect public health.

By far the majority of antimicrobial use in the Canadian dairy industry is for the treatment and prevention of mastitis. Antimicrobial therapy is an important part of udder health; without it cows with severe infections would suffer; some cases would be more likely to spread to other cows or to become chronic. However, treating cows that are unlikely to be cured or who will cure just as fast without treatment, wastes time and money and may increase the risk of AMR development. Ensuring use for the right cases will impact on both the total amount of antibiotics used as well as the likelihood of success. Having the right diagnostic and treatment protocols for the kinds of mastitis that occur in your herd can save you time, money, and reduce the risk of AMR. Judicious use is about giving the right treatment at the right time to the right cow. For example, identifying cows with kinds of mastitis that won't respond to antibiotics based on bacterial culture results and SCC history can substantially reduce both the amount used and avoid ineffective and unnecessary treatments. Developing a mastitis treatment decision tree or standard operating procedures (SOPs) for mastitis treatment with your veterinarian is a valuable way to optimize lactating cow antibiotic use on your farm.

While preserving antibiotics so they can be used for lactating cow therapy is an important pillar of mastitis control, identifying important preventative measures is essential to a successful udder health program that results in low SCCs and the occurrence of very few clinical cases. Preventive measures can include appropriate environmental management (bedding, alleyways, pens), milking equipment maintenance, good milking practices and mastitis vaccination programs. In a 2017 review of the past 100 years of mastitis research in the *Journal of Dairy Science*, Dr. Pamela Ruegg highlighted that the importance of mastitis prevention has been noted since the 1950s. A review published in 1956 by Dr. James Murphy of the New York State Veterinary College noted "the utter futility of thinking that mastitis can be controlled by the treatment of clinical mastitis only, should be obvious. This is merely cutting the tops off the weeds and leaving the roots." Stopping new infections from starting not only reduces the need for antimicrobials, but also saves money.

Milk processors continue to demand the highest quality of milk from P5 dairy producers. As of May 1<sup>st</sup>, 2018 new regulatory requirements for bulk tank somatic cell counts (BTSCCs) come into effect here in Ontario. For details check out the DFO website at <https://www.milk.org/Corporate/News/NewsItem.aspx?id=8481> for a description and a link to a factsheet that clearly explains the new regulatory requirements.

Meeting regulatory requirements is one concern, but beyond that there is more money to be saved in mastitis prevention. To learn more about how to improve udder health on your farm you will have a unique opportunity to attend a comprehensive continuing education event - **the 2018 Regional Meeting of the National Mastitis Council. This event will be held in Guelph on June**

**20-22 – mark your calendars!** The Dairy Farmers of Ontario and the Ontario Association of Bovine Practitioners have partnered with the National Mastitis Council (NMC) to host this meeting, which will be held at the University of Guelph campus. This meeting is held once annually at a site in North America. We are fortunate this year that the NMC is coming to Guelph. This meeting has the unique attribute of bringing together all players in the milk quality industries - dairy producers and farm employees, veterinarians, researchers, milk quality specialists, service company employees and students for a variety of interactive workshops, farm tours, and major presentations from mastitis and milk quality experts.

The theme of the meeting is **“Solutions to Emerging Milk Quality Issues”**, and will bring a host of experts on highly relevant topics including trouble shooting udder health challenges with automated milking systems, the role of bedding on mastitis and milk quality, understanding composted bedding packs, and rational antimicrobial use from both a North American and European perspective, including the use of selective dry cow therapy.

For more information, please visit <http://oabp.ca/nmc-regional-meeting/> . The website will be updated as registration becomes available. Don't miss this excellent opportunity to increase your knowledge of mastitis control and milking management, and to network with others in the dairy community who have a shared interest in producing high quality milk. Hope to see you there!