

Big Picture Thinking with Respect to Selective Dry Cow Therapy

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As part of the Selective Dry Cow Therapy (SDCT) working group with Lactanet and DFO, our committee had many discussions on cow level criteria for antibiotic use. Certainly the individual cow level decision making is at the crux of a successful SDCT program. In some cases, the decision to treat or not can even go down to the quarter level if on-farm quarter culturing is being done.

As a herd veterinarian, before diving into the nitty-gritty of which cows are appropriate for such a program, some of the first things I consider are farm level factors. Many of these aspects are obvious such as stocking density, herd production, new infection rate in fresh cows and bulk tank SCC. However, before I begin to consider those components, I often assess the human factors of a certain farm at that point in time.

These “nuances”, as I call them, can have a significant impact on the success and commitment to any program on a farm. This is especially true when attempting to implement a new endeavour. Negotiating these factors to come up with a plan that will work with a particular farm is often what will determine whether the outcome of the new endeavour is successful. Below are a few categories with important questions to consider. Some of these can be broadly used to implement a range programs on a farm.

Labour

Is the labour force consistent throughout the year? If we implement a new program, can we carry out the potential extra labour at all points in the year? If not, can the program work if only done during certain times of the year? Do staff follow and adhere to protocols well?

Succession and Buy-in to New Programs

Are there clearly defined roles and decision makers? Who will be responsible for managing the program? Who will carry out the tasks? Will all of the people involved be engaged in the process?

Ability to follow Protocols and Record Data

How successful have other programs requiring data recording and monitoring been? Who is responsible for this? Is there an advisor that can help with this process? What medium (pen/paper, computer, tablet, etc) can we use to ease the recording task?

In addition to those broad questions, tangible and farm oriented questions are also useful. The following are related to implementing a SDCT program:

Barn Design

What type of bedding is used in the far off pen? The calving pen? The fresh pen? Are the dry cows or fresh cows moved or crowded together on a regular basis to achieve another

management task (herd health pregnancy checks)? Where is the close-up or calving pen located in the barn?

Bedding Type

Do we currently bed adequately in the dry cow and fresh pens to mitigate new mastitis cases? If not, what is the barrier (labour, logistics)? Is our existing inventory of bedding sufficient to bed adequately? Are there cost effective options if inventory is short? If we need to bed more often, how does this work into our daily/weekly schedule?

Stocking Density

What are the projected cows due to dry and cows due to calve on a monthly basis? What will the stocking density be at this time? Can we maintain an acceptable level of cleanliness during this time?

Seasonality of Mastitis

Is there a season where late lactation cows SCC tend to be significantly higher? Is there a season where we struggle with fresh cow mastitis?

Heat Abatement - Dry cow and Fresh pen

Is there additional heat abatement for these cows? What is used and is it effective?

Teat End Scores/Leaking at Dry Off

What is the average teat end score of the herd? Is there a difference in lactation number? What needs to occur to improve this? What is the level of leaking that occurs after dry-off? How can this be monitored? How can this be reduced if it is unacceptably high?

Transition Diseases

What is the incidence of transition diseases (milk fever, ketosis, metritis, mastitis etc)? Is the incidence high enough to compromise the fresh cow's immune system?

Have a Good Discussion about Dry Cow Management

In addition to the above questions, the "Assessing mastitis risks around dry cow therapy" guidance document is a useful tool for the producer and herd veterinarian to use to systematically assess their herd level "readiness" to begin a successful SDCT program.

There are 8 broad factors that can be used as an initial assessment of the readiness of the herd to implement SDCT. These include the bulk tank SCC history, prevalence of contagious mastitis pathogens, whether the herd is open or closed, dry period length and the commitment to protocol compliance and recording data. This can begin a useful discussion on where the current focus should be if the herd does not meet these criteria.

If the veterinarian and producer are satisfied with those initial questions, they can then begin to go through the following five risk areas to evaluate dry cow management for readiness for a SDCT program.

1. Will too many mastitis infections go untreated from the previous lactation?

2. Are steps taken to reduce new mastitis cases in the early dry period?
3. Are steps taken to reduce new mastitis in the late dry period?
4. Are steps taken to reduce new mastitis in the calving period?
5. Are there protocols for detecting, monitoring and recording mastitis?

Each of these areas has additional targeted questions to help the producer and veterinarian drill down into the farm level data and the specifics of their farm. This document can be used and revisited over time. It is found on the scc200.ca website, along with other useful tools and risk assessments.

Thinking about antibiotic use can open up a good dialogue about all aspects of dry cow management. Even if antibiotic use is not to be reduced, improvement in dry cow management is a good step towards reducing fresh cow mastitis. In some cases, starting a SDCT program may be a case of “not right now but if we do this...” or, perhaps only during certain times of the year it can be done with success. If you are considering SDCT, or even if you have already implemented it, I urge you to discuss it with your herd veterinarian. Together you can come up with a realistic plan that works with your farm.

This article was provided by Robyn Elgie on behalf of the selective dry cow therapy project advisory committee, which includes project lead Ann Godkin, producer Norm McNaughton, along with Guy Seguin and Ashley Wannamaker from Dairy Farmers of Ontario, Robyn Elgie from the Ontario Association of Bovine Practitioners, Richard Cantin from Lactanet Canada, Dave Kelton from the Ontario Veterinary College and Cynthia Miltenburg from the Ontario Ministry of Agriculture, Food and Rural Affairs.