

GUIDELINE 17

Administer dry cow treatments as recommended

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Administration of antibiotic dry cow treatment (DCT) or internal teat sealants (ITS) has some hazards, for cows and operators so it is critical that it is carried out properly. Such hazards include:

- Introducing environmental bacteria into the teat if the teat end is not disinfected properly, or it becomes contaminated before it has sealed. Infection with environmental bacteria can cause severe mastitis.
- Operators can be injured by cows during administration of DCT or ITS. It is important to take your time and have sufficient help.
- Antibiotic residues in milk and meat (including calves) are a risk from cows which are culled during the dry period, or calve earlier than expected. The minimum dry periods and withholding periods after calving, specified for each product, must be observed.



Good Read

[Technote 17 – Administer dry cow treatments as recommended](#)

17.1 Plan for the time and effort that treating cows with DCT or ITS takes.

Administration of DCT and ITS is a critical job. Ensure that the milking team are trained properly in the procedure and supervised well.

To do a good job with DCT, one person can only handle about 20 cows per hour.

More than one person is often needed to do the job well and reduce the hazards associated with the procedure, especially if cows are not used to having their teats handled.

Select reasonable sized groups of cows to be treated after any one milking, especially in seasonal herds. Draft them out during milking, and hold on the yards until the rest of the cows have been milked and the dairy has been washed down. Mark and treat them once the delivery pipe has been disconnected from the vat.



Staff training

Proper teat end preparation and using the correct intramammary infusion are essential. See [Healthy Udder – Treat 3](#) for practical reminders.



Veterinary assistance

Ask your vet to provide a refresher demonstration for the milking team before drying off starts. Some vet practices can provide trained technicians to assist with administration of DCT and/or ITS to cows at drying off.

17.2 Make the choice between Whole Herd or Part Herd antibiotic DCT.

Part Herd DCT should only be considered in herds where:

- Contagious mastitis is considered to be under control
- Bulk milk SCC averages below 200,000 cells/mL
- Full records (clinical treatments, 3 or more herd test results for the past lactation) are available for all cows
- Grazing arrangements after dry off are reasonably clean and allow cows udders to be checked for mastitis after dry off.



Veterinarian consultation required

Consult your vet about the treatment approach that is best suited to your herd's udder health performance.



See [Guideline 14](#) for support to make this decision.

17.3 Do not use antibiotic DCT on cows that are to be culled.

If cows that have received DCT are subsequently culled, adhere to the relevant meat withholding period for these cull cows.

17.4 Use antibiotic DCT only at the cow's last milking for the current lactation.

DCT is registered only for use immediately after a cow's last milking for a lactation. Off-label use is strongly discouraged because drug residue risks increase and cure rates are likely to be reduced.

17.5 Mark the cows for treatment.

The marking system should allow easy recognition of these cows if they re-join the milking herd in error. This is especially important for cows that are dried off and given antibiotic DCT some days or weeks before the whole herd is dried off.

Marking cows before treatment helps reduce errors during treatment, especially if different treatments are being used on different cows. Also a marked cow that has not been treated, by accident, presents a much lesser risk to the bulk tank than a cow that has been treated with DCT and not been marked.

Use spray paint on the udder, tail and legs, or use tail tape to ensure that all milkers can clearly see cows that have been treated with DCT and/or ITS.



Use a two-step marking system

1. Mark cows that require different treatments with particular colours of tail paint
2. Apply a second highly distinctive mark once treatments have been given, especially if dry cows are remaining on the same farm as milking cows.



See [Healthy Udder - Treat 1](#) for reminders about MRS T and marking systems.



Use distinctive markings for cows that have received antibiotic DCT.

17.6 Administer the treatments as recommended ensuring the teat ends are sanitised properly.

It is essential that teats are prepared properly and products infused carefully to maximise the benefits of DCT and/or ITS.



Partial insertion technique

This technique, whereby only the first 2-3 mm are inserted into the teat can be considered. This creates less damage in the teat canal, and can reduce the risk of new infections. See [Technote 17](#) for more information.



See [Healthy Udder - Treat 3](#) for reminders about the correct technique for preparing the teat end and infusing the products.



Ensure teats are thoroughly cleaned before inserting the treatment tube.

17.7 Treat all quarters of cows to receive antibiotic DCT, except blind or dry quarters.

If a quarter is dry, absorption of the antibiotic Dry Cow Treatment in the quarter will be changed. Off-label use is strongly discouraged because drug residue risks increase and cure rates are likely to be reduced.



Consult your veterinarian

Injectable antibiotics may be an option for cows that have had a quarter dried off earlier in lactation.

17.8 Thoroughly spray teats with freshly made teat disinfectant after treatment.

Manually apply the teat spray after treating with antibiotic DCT and/or ITS, if you usually use an automatic teat spraying systems.

Make sure that all surfaces of the teats are covered with teat spray.

17.9 Record cow ID, date and product details of all treatments at dry off.

If cows calve early, or a decision to cull them during the dry period is made, the date of treatment and the withholding period of the particular product must be known.

For each batch of cows treated, mark the earliest calving date allowable for the meat withholding period and minimum dry period to pass. Calves born before this date may contain antibiotics, whether they have suckled or not. They should not be sold for slaughter until the meat withholding period for that product has elapsed. Check the label.

17.10 Put cows in clean areas after treatment.

Avoid allowing them to lie down on bare ground or areas that are soiled with manure in the two hours immediately after you give antibiotic DCT or ITS.

Graze cows in dry, clean paddocks (not heavily soiled with manure, no bare ground, and no exposure to dairy effluent) for up to 14 days after giving DCT or ITS, or until the udders appear to have dried off or involuted (swelling lessens and udder starts to shrink).

These paddocks should be well away from the milking herd as it is essential that cows treated with antibiotic DCT are not able to re-join the herd in error. If they enter the dairy they will probably let-down milk (reducing teat plug formation) and may have the cups put on, leading to a serious antibiotic contamination of the vat.

17.11 Transport or move cows within the first 24h of giving DCT and ITS, or delay until 14 days after dry off.

If cows are being moved to places that have facilities to regularly check cows for mastitis, they can be moved within the first 24 hours after dry off.

If such facilities are not available it is best to delay moving them until involution is evident e.g. 10-14 days after dry off.

For herds that cannot perform close inspection of cows after dry off, whole herd antibiotic DCT or a combination of DCT and ITS are highly recommended at dry off.



Dry period checks

See [Guideline 18](#) for the recommended checks for the first days and weeks after dry off.