OrbeSeal aids in the prevention of new intramammary infections throughout the dry period.

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CLINICAL EFFECTS AND ECONOMIC BENEFIT
of an internal teat sealant at dry-off

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THE BOVINE PRACTITIONER – VOL. 44, NO. 1

INTRODUCTION

Treating all quarters of all cows with a long-acting, dry-cow antibiotic at the time of dry-off is widely recommended in North America.

Although a keratin plug typically seals the teat after dry-off, 23% of teats, and up to 46% in high producing cows, are still open 6 weeks later³.

In North America, an internal teat sealant (ITS) used with antimicrobial dry-cow therapy (ADCT) was shown to decrease new intramammary infections (IMI) by 30% and clinical mastitis (CM) in the first 60 days by 33%⁴.

An average economic benefit of US$5.38 per cow was reported in a study in 3 herds in Wisconsin⁵.

“The objective of this clinical trial was to compare the efficacy and economic benefit of OrbeSeal + antibiotic dry cow treatment versus antibiotic dry cow treatment alone in reducing the incidence of clinical mastitis in early lactation.”

METHODS

• 1,334 cows from 12 dairy farms were randomly assigned to ADCT or ADCT + Orbesa treatment in all 4 quarters at dry-off.

• Only cows with dry periods of 28 to 120 days were included.

• Cows were monitored for CM from calving to 105 DIM.

• Milk samples were cultured from CM cases.

• Production data were obtained from herds’ computerized health records (VALACTA; DSA).

• Data including herd, parity, treatment group, dates of calving, CM, culling, milk culture results, and DHI data from the first 3 tests of lactation were analyzed in multivariable logistic, Poisson and Cox statistical models.

• Economic analysis was conducted using Cook’s method⁶ with milk price = $0.71 CDN/L and cost of ITS = $10 CDN/cow.
Statistical analysis of the data showed that the risk of CM decreased by 25%.

39% less likely to have clinical coliform mastitis.

No difference in risk of CM caused by Streptococci.

Net economic benefit of the OrbeSeal group of $20 CDN per cow.

RESULTS

ADCT + OrbeSeal (accounting for parity, season and herd)

- Statistical analysis of the data showed that the risk of CM decreased by 25%.
- 39% less likely to have clinical coliform mastitis.
- No difference in risk of CM caused by Streptococci.
- Net economic benefit of the OrbeSeal group of $20 CDN per cow.

CONCLUSION

Under field conditions, ADCT+OrbeSeal at dry-off lowered the incidence of CM between calving and 105 DIM by approximately 25%.

The impact is particularly significant for the risk of mastitis caused by E.coli.

On average in the present study, adding OrbeSeal to the established dry-cow treatment profitably reduced the incidence of CM at the start of lactation.
• At all times, dry-cow materials should be kept away or shielded from possible fecal/urine contamination.
• Disposable gloves should be worn during the disinfection process.
• OrbeSeal must be stored at room temperature (between 60°F-85°F, 15°C-30°C).
• If OrbeSeal becomes difficult to administer in extremely cold weather, it should be warmed to room temperature before use.

**Individual tubes should not be immersed in water.**

• OrbeSeal requires no milk or preslaughter withdrawal. If OrbeSeal is used in conjunction with a dry-cow mastitis treatment program, follow the labelled withdrawal period of the antibiotic.

References
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Acknowledgement
This study was supported by Zoetis Canada. We are grateful to the producers and practitioners whose participation made the study possible.