



OrbeSeal[®]

The future of **mastitis reduction**
is here **today**



FOR ANIMALS. FOR HEALTH. FOR YOU.™

zoetis

What are your main concerns?

How can I reduce the impact of mastitis on my business?

What will be the cost of mastitis this month?

Will my highest-yielding cows get through the first 100 days without mastitis?

How much extra labour time will I have to spend on mastitis?

How much milk will I have to throw away?



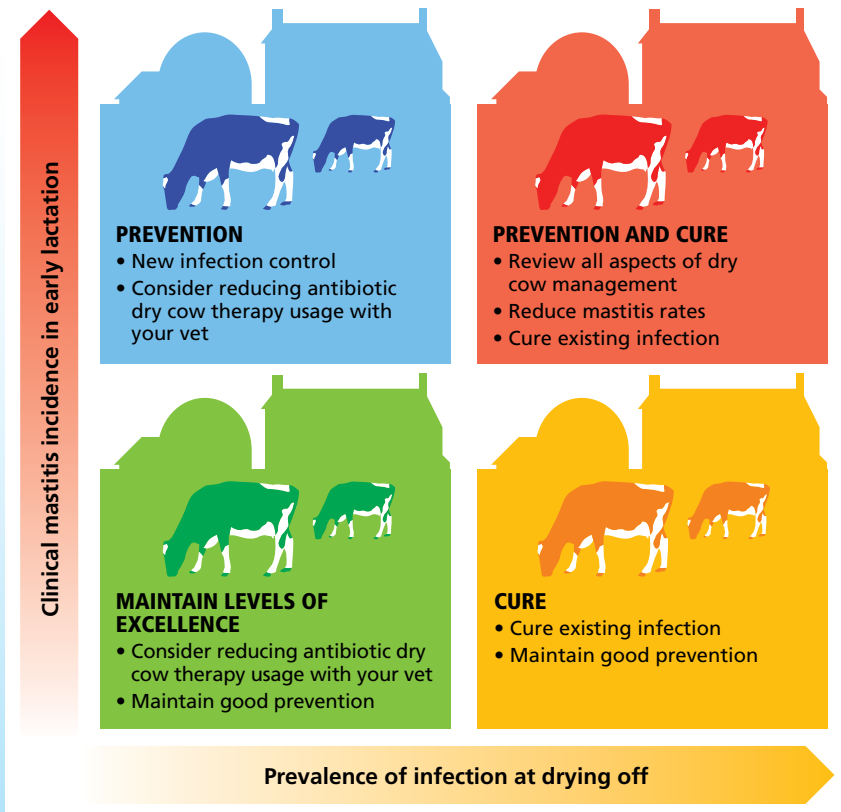
Targeting the dry cow period to improve the management of mastitis will help you to achieve your udder health goals

What is your priority for mastitis management?

Not all dry periods are the same

The dry period presents an opportunity for both curing existing infections as well as preventing new ones. The priority for prevention versus cure will depend on both farm and individual cow factors.

Prioritisation based on herd situation



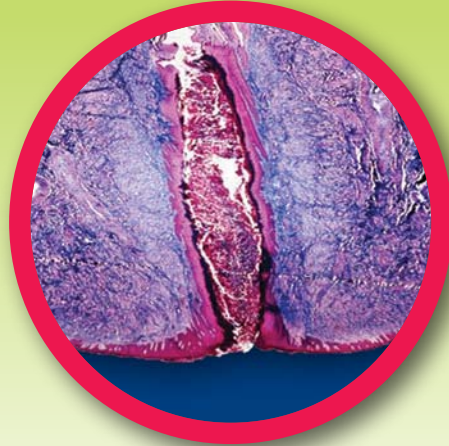
Not all farms are the same

- Aims for udder health management in the dry period will differ between farms

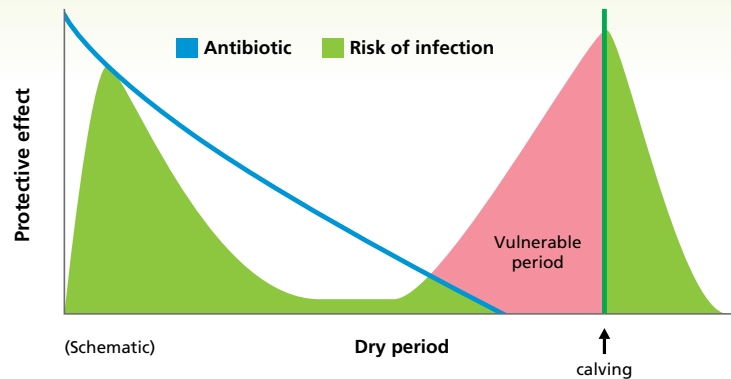
Clinical mastitis – the importance of the dry period

The natural barrier is not efficient enough

- During the dry period cows close the teat with a keratin plug
- Many cows never form a complete keratin plug and it may become **disrupted at the end of the dry period** when internal pressure builds within the udder
- Cows with higher yields at drying off are less likely to form a complete keratin plug and are at much higher risk of **clinical mastitis in the subsequent lactation**¹

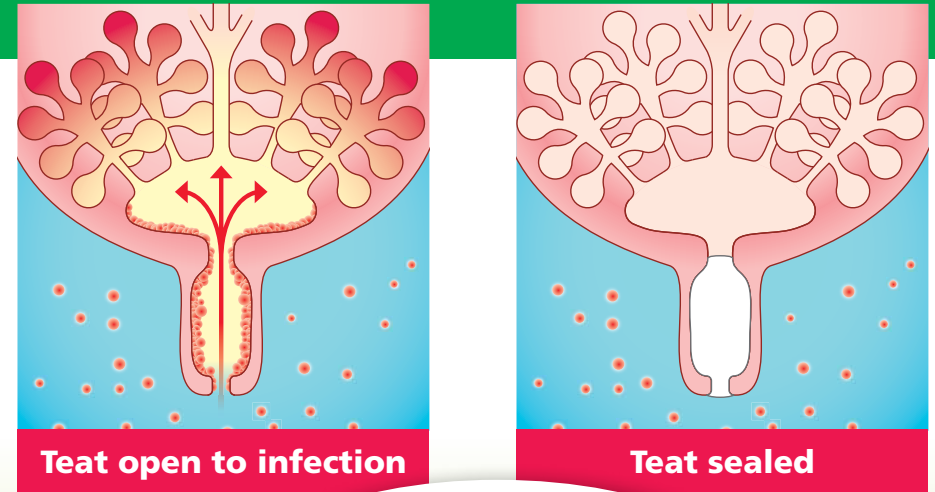


Antibiotic dry cow therapy provides limited protection



- Keratin plug formation is variable, especially in high-yielding cows
- Dry period acquired infections cause mastitis in the subsequent lactation
- On some farms infections acquired in dry cows are responsible for more than 70% of all mastitis cases²

The OrbeSeal effect – a very efficient barrier



OrbeSeal is highly efficient at totally sealing the teats and creates a high level physical barrier



By sealing teats, OrbeSeal offers an easy way to prevent new infection and to reduce mastitis

The OrbeSeal effect – improved profit

Clinical mastitis is an expensive disease. Just look at this example.

Current mastitis rate ³ on farm	70
Mastitis rate using OrbeSeal	35%
Reduction	35%
Number of cases saved	46
Average cost of a case	24
Reduction in mastitis rate saves over	£313
	£7500

OrbeSeal consistently reduces mastitis by around 35%⁴

- Savings highly likely for farms with existing mastitis rates of more than 10 -15 cases per 100 cows per year

The higher your mastitis rate the better off you would be to use OrbeSeal

OrbeSeal reduces the use of antibiotics



What is targeted therapy?

- All cows benefit from maximum protection with OrbeSeal
- Not all cows are the same
- Not all cows need an antibiotic treatment at dry off
- Targeted therapy means that cows are treated differently according to their udder health status

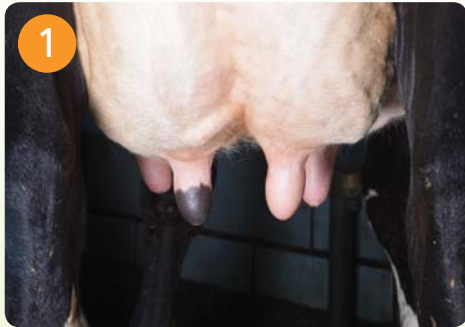
Why bother with targeting?

Governments, human health agencies, consumer groups and food retailers are putting greater pressure on food producers to rationalise the use of antibiotics.

- employing selective dry cow therapy could help you improve your mastitis control whilst reducing your reliance on antibiotics

Talk to your vet about the potential role of targeted therapy on your farm

OrbeSeal – how it should be used



Teats should be clean and dry. If teats are not clean, CAREFULLY wash and dry them prior to disinfection.



Always use a new pair of gloves. Disinfect the teat end using either a cotton wool soaked in alcohol or alcohol pads. Repeat until the teat wipe comes away clean.



Disinfect the far teats before the near teats to avoid accidental contamination of previously disinfected teats. If using antibiotic dry cow therapy in combination with OrbeSeal, apply one ADCT tube per quarter (numbered as picture 5) and then repeat the disinfection procedure.



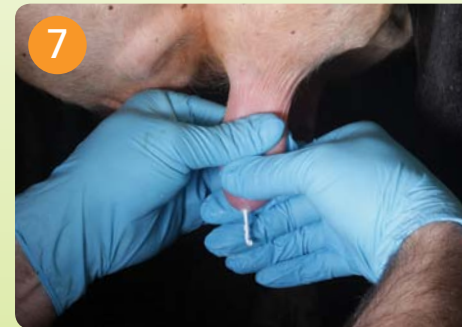
Starting with the teat nearest you, insert the OrbeSeal syringe nozzle into the teat canal, firmly grasp the base of the teat at the udder attachment and slowly inject all contents. Use one syringe per quarter. Do not massage. OrbeSeal must remain in the teat canal.



Insert OrbeSeal into the nearest teats first (as numbered) to minimise contamination of teats that have not been treated.



Apply a post-milking disinfectant to cover 90% of each teat. Mark each treated cow and keep her away from the milk supply. Treated animals should be allowed to stand for 30 minutes to allow the teat to close.



At the end of the dry period aggressively hand-strip every quarter 10 to 12 times before milking. Milkers should grasp the base of the teat above the OrbeSeal plug clamping off the quarter with one hand then strip out with other hand.

- Cows are susceptible to new infections in the dry period
- New infections go on to cause clinical mastitis in the dry period
- Reducing new infection rates in the dry period reduces post-calving mastitis

- OrbeSeal is more effective than antibiotic dry cow therapy at preventing new dry period infections
- If all cows receive OrbeSeal, new infections will be controlled better and mastitis rates will reduce

- Mastitis rates and antibiotic dry cow use are a concern
- Many cases of mastitis originate in the dry period
- OrbeSeal helps to prevent new dry period infections
- OrbeSeal reduces mastitis rates in the subsequent lactation
- OrbeSeal reduces antibiotic usage
- OrbeSeal provides savings, even in farms with modest mastitis rates



OrbeSeal.
The future of **mastitis reduction**
is here **today**

The next step...

- Speak to your vet about setting up a mastitis reduction programme on your farm
- Working together with your vet can make a difference to the number of mastitis cases you see
- A few simple procedures will make a difference to your incidence of mastitis, your peace of mind and your farm profits

For a practical demonstration of how to use OrbeSeal, send for a free DVD or go online to

www.orbeseal-howtouse.com



Product information

Presentation

OrbeSeal is a white to off-white smooth paste. It is presented in syringes each containing 4g intramammary infusion (65% bismuth subnitrate), in a mineral oil vehicle.

Uses

OrbeSeal is indicated for the prevention of new intramammary infections throughout the dry period in dairy cows at the end of lactation.

OrbeSeal forms a physical barrier in the teat and prevents new intramammary infections throughout the dry period.

This should result in a reduction in the incidence of sub-clinical mastitis in cows at calving, and of clinical mastitis in the dry period and the subsequent lactation.

In cows considered likely to be free of sub-clinical mastitis OrbeSeal can be used alone for dry cow management and mastitis control.

Selection of cows for treatment should be based on veterinary clinical judgement.

Selection criteria for the use of OrbeSeal alone may be based on the mastitis and cell count history of individual cows or recognized tests for the detection of sub-clinical mastitis or bacteriological sampling.

As a guide, where individual cell counts are available, cows with an average cell count of less than 200,000 cells/ml before drying off may be given OrbeSeal alone.

A minor increase in cell count during the last 4 weeks before drying off is normal and may be ignored.

Dosage and administration

Dosage

For intramammary infusion only.

Infuse the contents of one syringe of OrbeSeal into each udder quarter immediately after the last milking of the lactation (at drying off). **Do not massage** the teat or udder after infusion of the product.

Administration

As OrbeSeal possesses no antimicrobial activity, it is essential that the teat is thoroughly cleaned and disinfected with surgical spirit or alcohol-impregnated wipes and that it is allowed to dry prior to infusion. Infuse aseptically and take care to avoid contamination of the syringe nozzle.

Following infusion it is advisable to use an appropriate teat dip or spray.

Contra-indications, warnings, etc

Do not use in the lactating cow. OrbeSeal should not be administered during lactation.

If accidentally used in a lactating cow a small (up to two-fold) transient rise in somatic cell counts may be observed.

In such an event strip the seal out manually. No additional precautions are necessary.

1. Dingwell RT et al. (2004). Association of cow and quarter-level factors at drying-off with new intramammary infections during the dry period. *Prev Vet Med.*; 63 (1-2): 75-89. 2. Mütze K, et al. The effect of dry cow antibiotic with and without an internal teat sealant on udder health during the first 100 d of lactation: a field study with matched pairs. *J Dairy Res.* 2012 Nov; 79 (4): 477-84. 3. Green, M.J., Hudson, C.D., Breen, J.E. and Bradley, A.J. (2009). The true costs of mastitis. *Proceedings of the British Mastitis Conference 2009, Stoneleigh Park.* 57-68. 4. Wilson DJ et al., Effect of clinical mastitis on the lactation curve: a mixed model estimation using daily milk weights, *J.Dairy Sci.* 2004 Jul 87 (7): 2073-84.

Do not use OrbeSeal alone in cows with sub-clinical mastitis at drying off. Do not use in cows with clinical mastitis at drying off. It is good practice to observe cows regularly for signs of clinical mastitis.

If a sealed quarter develops clinical mastitis the affected quarter should be stripped out manually before appropriate antibacterial therapy is instituted.

Do not administer any other intramammary product following administration of OrbeSeal.

Most of the OrbeSeal comes out at the first stripping, suckling or milking after calving, but small amounts may occasionally be seen for a few days as flecks on the filter. OrbeSeal can be differentiated from mastitis by its texture.

To reduce the risk of contamination, do not immerse in water. Use the syringe only once.

Wash hands after use. Any unused product, seal stripped from an animal at calving or waste material should be disposed of in accordance with national requirements.

Withdrawal periods

Meat: zero days

Milk: zero days

Pharmaceutical precautions

No special precautions are necessary for storage.

Keep out of reach of children. For animal treatment only.

Legal category

POM-V

Package quantities

24 syringe cartons and 120 syringe tubs are available.

Further information

As OrbeSeal is not absorbed following intramammary infusion, it can be used in pregnant animals.

At calving the seal may be ingested by the calf.

Ingestion by the calf is safe and produces no adverse effects.

Under cold conditions the product may be warmed to room temperature in a warm environment, to aid syringeability. Individual syringes must not be placed in water.

OrbeSeal is not absorbed from the mammary gland, but forms a seal in the teat until physically removed.

Infusion of OrbeSeal into each udder quarter produces a seal in the teat that provides an immediate and long lasting physical barrier to entry of bacteria and other mastitis-causing organisms. By preventing new intramammary infections during the dry period OrbeSeal should also reduce the incidence of clinical mastitis early in the next lactation.

Marketing authorisation number

Vm 00057/4212

FOR ANIMALS. FOR HEALTH. FOR YOU.™

zoetis

For further information please contact your veterinary surgeon or

Zoetis UK Ltd, Walton Oaks, Dorking Road, Walton-on-the-Hill, Tadworth, Surrey KT20 7NS. AH164/13