

## WHITEPAPER

# Intra Repiderma: The new green standard for navel care of newborn calves

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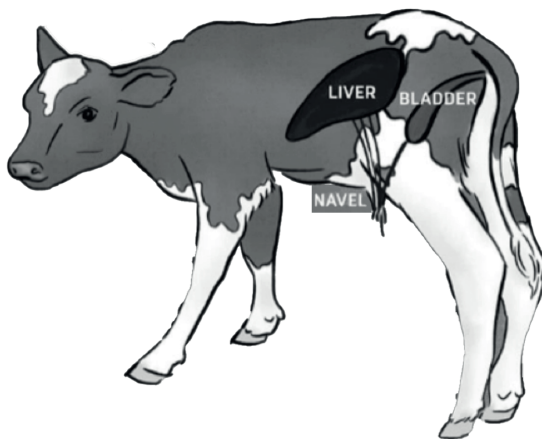


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A navel string/umbilical cord is the highway into a calf's bloodstream and is an open connection with the outside world after birth (Fig. 1). Bacteria like *Streptococcus sp.* and *E. coli* can easily enter the bloodstream through the navel to cause systemic disease. Studies have shown that 29% of illness in calves was attributed to navel associated issues. Although most calves survive these navel infections, their bodyweight gain is reduced in the first 3 months of life. In the worst cases it can result in a mortality rate around 2%.



**Figure 1.** Schematic representation of the blood vessels from the aorta, liver, and bladder, all ending in the navel, providing a potentially open connection with the outside world.

## Which treatments are out there?

Proper management of the navel right after birth can give calves a jump start. In the past an antibiotic spray was often used, but the use of antibiotics has major drawbacks such as the development of resistant pathogens and the inhalation of antibiotics by the user.

Iodine applied in a navel dip cup has also been widely used, although it can be questioned if it is the most hygienic and practical solution, since the navel cups should be (but rarely are) cleaned and refreshed between each use. Each application requires around 35 ml of iodine solution and left-overs often end up in the manure pit. The FDA in the US has recently moved iodine to a list 1 chemical. In concentrated form, iodine is dangerous by inhalation and can irritate skin and eyes. In rare cases, contact may cause allergic skin reactions.



Intra Repiderma, a skin protection product supplied as pressurized aerosol spray, has all the potential to become the new green standard for navel care, since every application is fresh, no refilling is necessary, it sprays well upside down on the navel and all product is sprayed directly on the target spot (no wastage).

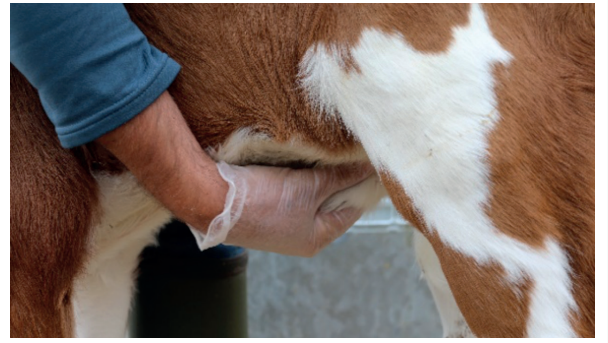
## Comparison in the field

A field study was performed to investigate if the use of Intra Repiderma results in improved navel conditions in comparison to the use of Iodine.

The study was performed at a professional dairy farm in France with 850 dairy cows. The trial began in December 2019 and lasted 3 months. In total, 200 calves were included from 7 different breeds, which were evenly divided into 2 groups: either a single application with 4% iodine (navel dip) or a single application of Intra Repiderma (aerosol spray). Calves born in week 1 were sorted into the iodine group, calves from the next week in the Intra Repiderma group, and so on. Eventually, both groups consisted of 100 calves. The independent trial was executed under the full supervision of Dr. F. Dufresne, Clique Vétérinaire, Oisemont; Dr. C Engel, HLVET Conseil, Lécousse and S. Clech, Synthèse Elevage, Pleumeleuc, and presented at the GTV congress, October 2020.



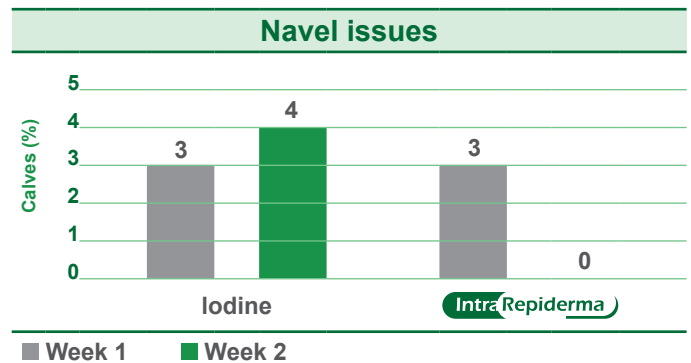
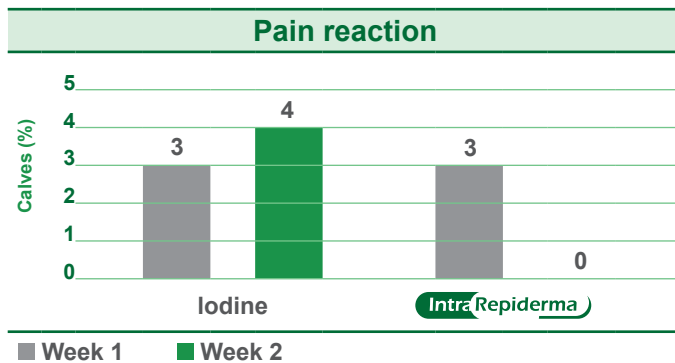
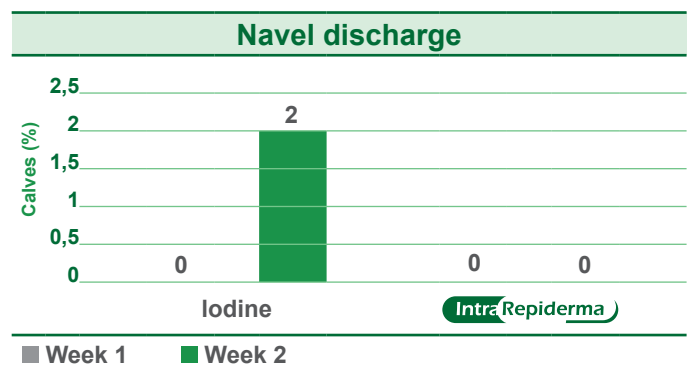
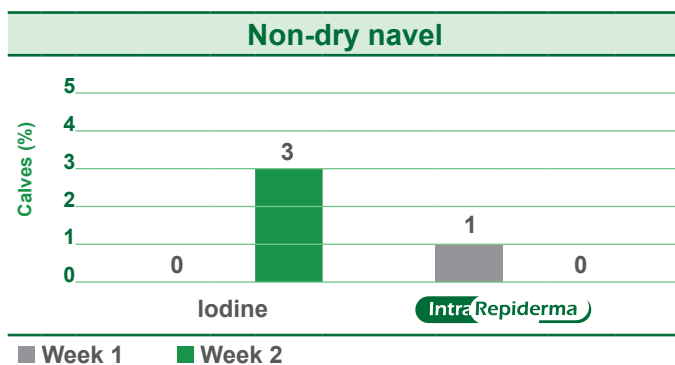
Picture 1. Application of Intra Repiderma.



Picture 2. Evaluation of the navel by farm veterinarian

## Intra Repiderma results in 100% navel care

The charts below give insight into the several parameters which were evaluated by the farm veterinarian: dry/wet navel; navel discharge yes/no; pain reaction yes/no and the total amount of calves having one or more navel issues:



## The charts show

- The iodine group: Measurements for all parameters deteriorated towards the 2<sup>nd</sup> week. In the 2<sup>nd</sup> week, 4 of the 100 calves (4%) had one or more navel issues.
- The Intra Repiderma group: Measurements for all parameters improved. In the 2<sup>nd</sup> week, none of the calves had a navel issue.

Although the results were not significant (for significance, a bigger calf population would be needed), a clear difference can be observed in favour of Intra Repiderma application.

## Clear benefits for the use of Intra Repiderma

Besides optimal navel care with Intra Repiderma, the following benefits have been noted:

- Iodine is 25% more expensive per application as Intra Repiderma (according to this trial)
- The use of iodine product per application is 35 ml, while only 10 ml Intra Repiderma is required per application
- With Intra Repiderma every treatment is “easy, fresh and hygienic”
- Intra Repiderma is sprayed directly onto the navel so no product is wasted

Intra Repiderma gives calves a jump start and farmers the insurance of proper navel care!