Research supports Spectramast LC treatment of Gram-negative mastitis.

**A NEW WAY OF THINKING**

Groundbreaking new research published in the *Journal of Dairy Science*¹ is changing thinking about treatment for Gram-negative mastitis.

Research shows an 89% cure rate of mild or moderate Gram-negative mastitis caused by *Escherichia coli* (E. coli) — in which the cow is not sick or off feed but there are visible signs of mastitis — when using a five-day treatment with Spectramast® LC (ceftiofur hydrochloride) Sterile Suspension.

**SIGNIFICANT RESPONSE TO TREATMENT**

The Cornell University trial, conducted on five large commercial dairy herds in New York, investigated mild and moderate cases of Gram-negative mastitis and evaluated extended duration of therapy.

- For clinical mastitis caused by *E. coli*, 89% of the cows treated with Spectramast LC showed bacteriological — or complete — cures, compared with 53% of untreated control cows.
- Cows with a complete cure gave 8.8 more pounds of milk at the second test day when compared with cows that were not cured.*

8.8 MORE POUNDS OF MILK

- Herd survival was significantly higher in completely cured cows vs. nontreated cows.

*(P<0.05)

**FOR MORE INFORMATION, VISIT SPECTRAMAST.COM OR CONTACT YOUR ZOETIS REPRESENTATIVE.**

**Important Safety Information:** Inappropriate dosage or treatment intervals for Spectramast LC or failure to adhere to proper milk discard period will result in violative milk residues. Spectramast LC requires a 72-hour milk discard period and a two-day pre-slaughter withdrawal period following the last treatment. Spectramast LC should not be used in animals found to be hypersensitive to the product.


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**SPECTRAMAST® LC**

brand of ceftiofur hydrochloride sterile suspension

For Intramammary Infusion in Lactating Cows Only

**FOR USE IN ANIMALS ONLY — NOT FOR HUMAN USE**

CAUTION: Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

**DESCRIPTION:** Ceftiofur hydrochloride is a cephalosporin antibiotic.

Chemical Structure of Ceftiofur Hydrochloride:

![Chemical Structure](image)

Chemical Name of Ceftiofur Hydrochloride:

5-Thia-1-azabicyclo [4.2.0] oct-2-ene-2-carboxylic acid, 7 - [2-(2-amino-4-thiazoyl) ethylamino]- 3 - [2-furanylcarbonyl(thio) methyl]- 8-oxo, hydrochloride.

SPECTRAMAST® LC Sterile Suspension is a modified tris-buffered suspension. Each 10 mL PLASTET™ Disposable Syringe Contains: Ceftiofur Equivalents (as the hydrochloride salt).............125 mg Microcrystalline Wax. ..................................................700 mg Labram M 1944 CS ..........500 mg Cottensation Oil . ..............................0.4 ml

**INDICATIONS FOR USE**

SPECTRAMAST® LC (ceftiofur hydrochloride) Sterile Suspension is indicated for the treatment of clinical mastitis in lactating dairy cattle associated with Streptococcus dysgalactiae, Streptococcus dysgalactiae, and Escherichia coli. Cows with systemic clinical signs caused by mastitis should receive other appropriate therapy under the direction of a licensed veterinarian.

**USAGE**

Inflate one (1) syringe into each affected quarter. Repeat this treatment in 24 hours for extended therapy, once daily treatment may be repeated for up to 8 consecutive days.

**DIRECTIONS FOR USING THE PLASTET DISPOSABLE SYRINGE**

The syringe is designed to provide the choice of either insertion of the full cannula as has traditionally been practiced, or insertion of no more than 1/8 inch of the cannula, as reported by Eberhart RJ et al. 1987. Due to differences in mastitis pathogens, the clinician may choose the most appropriate insertion length (full or partial) to deliver the drug to the site of infection. Three hundred and thirty-seven cows were analyzed for bacterial cure rates, which were 41.3% (19/46) for the 125 mg treatment group compared to 69.4% (75/108) for the 62.5 mg treatment group. The 125 mg intramammary infusion clinical cure rate was significantly greater than the non-treated control (P=0.002). One hundred and forty-six cows were analyzed for bacterial cure rates, which were 41.3% (19/46) for the 125 mg treatment group and 70.4% (86/125) for the 125 mg treatment group. The 125 mg treatment group clinical cure rate was significantly greater than the non-treated control (P=0.006). One hundred and forty-six cows were analyzed for clinical cure rates, which were 54.6% (64/117) for the non-treated control group compared to 69.4% (75/108) for the 62.5 mg treatment group and 70.4% (86/125) for the 125 mg treatment group. The 125 mg treatment group clinical cure rate was significantly greater than the non-treated control (P=0.001) for treatment of clinical mastitis. Thus, Ceftiofur Equivalents (as the hydrochloride salt) Sterile Suspension is indicated for the treatment of clinical mastitis in lactating dairy cattle associated with ceftiofur-negative Staphylococcus, CNS, Streptococcus dysgalactiae, and Escherichia coli.

**ANIMAL SAFETY**

A pivotal GLP udder irritation study was conducted in 40 cows to assess udder irritation following infusion of an oil-based suspension containing 125 mg of ceftiofur for up to 8 consecutive days. A transient and clinically insignificant rise in SCC (to levels <200,000 cell/mL) was observed following infusion in normal cows with very low pre-infusion SCC (<10,000 cell/mL). This elevation is not unexpected with oil-based suspensions. The duration of therapy did not affect this elevation. No udder clinical signs of irritation (swelling, pain, or redness) were noted after the intramammary infusion twice at a 24-hour interval as was effective in the treatment of clinical mastitis in lactating dairy cows associated with ceftiofur-negative Staphylococcus, CNS, Streptococcus dysgalactiae, and Escherichia coli.

**EFFECTIVENESS**

In 1999 to 2000, the efficacy of ceftiofur was demonstrated in a pivotal multi-location field study in lactating cattle with clinical mastitis in one quarter. Ceftiofur was formulated in stable cotteded sodium sterile suspension manufactured under GMP guidelines. One hundred and thirty-five cows with mastitis were enrolled in the study if visually abnormal milk (clots, fawkes, or watery secretion) or if udder swelling, heat, pain or redness were present and the milk was not visibly abnormally Treated (CMT) and the control group gave results of 2 or greater. A total of 13 trials enlisted 352 cows in the study. Cows assigned to one of three treatment groups: non-treated control, 62.5 mg ceftiofur, and 125 mg ceftiofur. Each treatment group received an intramammary infusion twice at a 24-hour interval in the affected quarter. The clinical cure rates were 41.3% (19/46) for the 125 mg ceftiofur group and 54.6% (64/117) for the non-treated control group compared to 69.4% (75/108) for the 62.5 mg treatment group and 70.4% (86/125) for the 125 mg treatment group. The 125 mg treatment group clinical cure rate was significantly greater than the non-treated control (P=0.001). One hundred and forty-six cows were analyzed for clinical cure rates, which were 41.3% (19/46) for the 125 mg treatment group and 70.4% (86/125) for the 125 mg treatment group. The 125 mg treatment group clinical cure rate was significantly greater than the non-treated control (P=0.001) for treatment of clinical mastitis. Thus, Ceftiofur Equivalents (as the hydrochloride salt) Sterile Suspension is indicated for the treatment of clinical mastitis in lactating dairy cattle associated with ceftiofur-negative Staphylococcus, CNS, Streptococcus dysgalactiae, and Escherichia coli. Cows with systemic clinical signs caused by mastitis should receive other appropriate therapy under the direction of a licensed veterinarian.

**STORAGE CONDITIONS**

Store at Controlled Room Temperature 20° to 25° C (68° to 77° F) and protected from freezing. Do not expose to high temperature (above 40° C), direct sunlight, or freezing. The residual ceftiofur ceftiofur is shipped under GMP guidelines. Cows with mastitis were enrolled in the study if visually abnormal milk (clots, fawkes, or watery secretion) or if udder swelling, heat, pain or redness were present and the milk was not visibly abnormally (CMT) and the control group gave results of 2 or greater. A total of 13 trials enlisted 352 cows in the study. Cows assigned to one of three treatment groups: non-treated control, 62.5 mg ceftiofur, and 125 mg ceftiofur. Each treatment group received an intramammary infusion twice at a 24-hour interval in the affected quarter. The clinical cure rates were 41.3% (19/46) for the 125 mg ceftiofur group and 54.6% (64/117) for the non-treated control group compared to 69.4% (75/108) for the 62.5 mg treatment group and 70.4% (86/125) for the 125 mg treatment group. The 125 mg treatment group clinical cure rate was significantly greater than the non-treated control (P=0.001). One hundred and forty-six cows were analyzed for clinical cure rates, which were 41.3% (19/46) for the 125 mg treatment group and 70.4% (86/125) for the 125 mg treatment group. The 125 mg treatment group clinical cure rate was significantly greater than the non-treated control (P=0.001) for treatment of clinical mastitis. Thus, Ceftiofur Equivalents (as the hydrochloride salt) Sterile Suspension is indicated for the treatment of clinical mastitis in lactating dairy cattle associated with ceftiofur-negative Staphylococcus, CNS, Streptococcus dysgalactiae, and Escherichia coli. Cows with systemic clinical signs caused by mastitis should receive other appropriate therapy under the direction of a licensed veterinarian.

**STORAGE CONDITIONS**

Store at Controlled Room Temperature 20° to 25° C (68° to 77° F) [See USP]. Protect from light. Store plasitens in carton until used.

**HOW SUPPLIED**

SPECTRAMAST® LC Sterile Suspension is available in cartons containing one (1) unbroken package of 12-10 mL PLASTET™ Disposable Syringes with 12 individually wrapped 70% isopropyl alcohol pads and one (1) unbroken package of 12-20 mL PLASTET™ Disposable Syringes with 12 individually wrapped 70% isopropyl alcohol pads. 

**NADA# 141-238, Approved by FDA**

www.spectramast.com or call 1-800-733-5500

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Made in France.