Zoetis offers the newest mastitis treatments. Evaluate your options.

<table>
<thead>
<tr>
<th>Brand consistency</th>
<th>SPECTRAMAST® LC (ceftiofur hydrochloride) Sterile Suspension</th>
<th>PIRSU® (pirlimycin hydrochloride) Sterile Solution</th>
<th>ToDAY®/Cefa-Lak® (cephapirin sodium)</th>
<th>Amoxi-Mast® (amoxicillin)</th>
<th>Dariclox® (sodium cloxacillin)</th>
<th>Hetacin-K® (hetacillin potassium)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active ingredient</td>
<td>Ceftiofur 125 mg</td>
<td>Pirlimycin 50 mg</td>
<td>Cephapirin 200 mg</td>
<td>Amoxicillin 62.5 mg</td>
<td>Cloxacillin 200 mg</td>
<td>Hetacillin potassium 62.5 mg</td>
</tr>
<tr>
<td>Indications</td>
<td>Treatment of clinical mastitis</td>
<td>Treatment of clinical and subclinical mastitis</td>
<td>Treatment of mastitis</td>
<td>Treatment of subclinical mastitis</td>
<td>Treatment of clinical mastitis</td>
<td>Treatment of acute, chronic and subclinical mastitis</td>
</tr>
<tr>
<td>Labeled pathogens</td>
<td>Strep dysgalactiae Coagulase-negative staphylococci E. coli</td>
<td>Staph aureus</td>
<td>Strep agalactiae Staph aureus</td>
<td>Strep agalactiae Staph aureus</td>
<td>Strep agalactiae Staph aureus</td>
<td>Strep agalactiae Staph aureus E. coli</td>
</tr>
<tr>
<td>Treatment/</td>
<td>2-8 treatments 24-hour interval</td>
<td>2-8 treatments 24-hour interval</td>
<td>2 treatments 12-hour interval</td>
<td>3 treatments 12-hour interval</td>
<td>3 treatments 12-hour interval</td>
<td>3 treatments 24-hour interval</td>
</tr>
<tr>
<td>dosing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-slaughter</td>
<td>2 days</td>
<td>9 days following 2 infusions; 21 days following greater than 2 infusions</td>
<td>4 days</td>
<td>12 days</td>
<td>10 days</td>
<td>10 days</td>
</tr>
<tr>
<td>withdrawal*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milk discard*</td>
<td>72 hours</td>
<td>36 hours</td>
<td>96 hours</td>
<td>60 hours</td>
<td>48 hours</td>
<td>72 hours</td>
</tr>
<tr>
<td>Availability</td>
<td>Rx</td>
<td>Rx</td>
<td>OTC</td>
<td>Rx</td>
<td>Rx</td>
<td>Rx</td>
</tr>
<tr>
<td>Extended therapy</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

*After last administration (or treatment)

**KEY FEATURES:**
- Treats E. coli and other major mastitis pathogens
- Once-a-day dosing — convenient for you, convenient for your milking crew
- 72-hour milk discard — residue trials show that no matter how many days you decide to treat per label directions, milk is safe for human consumption after 72 hours post-last treatment
- Two-day pre-slaughter meat withdrawal — the shortest withhold time available provides more options for greater management flexibility
- Extended therapy — its unique flexible label allows you to treat for 2 to up to 8 days to achieve a bacteriological cure

**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 should not be used in animals found to be hypersensitive to the product.

**KEY FEATURES:**
- Only lactating product for Strep uberis
- Unique clinical and subclinical label
- Short, 36-hour milk discard
- Once-per-day dosing
- Extended therapy — its unique flexible label allows you to treat for 2 to up to 8 days to achieve a bacteriological cure

**Important Safety Information:** Inappropriate dosage or treatment intervals for PIRSU® or failure to adhere to proper milk discard or meat withdrawal will result in violative milk or meat residues. As with all intramammary products, aseptic technique is essential. Repeated infusion during extended duration therapy regimens can result in elevated somatic cell counts and/or clinical mastitis, which can result in animal death. If acute clinical mastitis or other clinical signs of illness develop, discontinue therapy immediately and contact your veterinarian.

All trademarks are the property of Zoetis Inc., its affiliates and/or its licensors. All other trademarks are the property of their respective owners. ©2013 Zoetis Inc. All rights reserved. GCA13188
Using data that included isolates from cows with mastitis, zone diameter interpretive criteria and PIRSE® Sterile Solution

The Clinical and Laboratory Standards Institute (CLSI, formerly National Committee of Clinical Laboratory Services) establishes criteria for determining susceptibility of isolates to antimicrobial agents. To determine susceptibility, interpretive criteria should be employed that were determined by the CLSI. Use of interpretive criteria that were not determined by the CLSI may result in invalid results.

Pirlimycin hydrochloride is a lincosaminide antibiotic. Each 10 mL PLASTET® Disposable Syringe contains:

**Clinical and Laboratory Standards Institute (CLSI)**

Each 10 mL PLASTET® Disposable Syringe contains:

<table>
<thead>
<tr>
<th>Chemical Structure of Pirlimycin Hydrochloride</th>
<th>Chemical Structure of Pirlimycin Hydrochloride</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="https://example.com/structure.png" alt="Chemical Structure of Pirlimycin Hydrochloride" /></td>
<td><img src="https://example.com/structure.png" alt="Chemical Structure of Pirlimycin Hydrochloride" /></td>
</tr>
</tbody>
</table>

**Chemical Name:** Pirlimycin hydrochloride

**CAS Number:** 127-22-8

**Formula:** C₁₇H₂₆N₂O₅·HCl

**Synonyms:** Pirlimycin, Pirlimycin hydrochloride, Pirlimycin HCl

**Activities:** Pirlimycin hydrochloride is a lincosaminide antibiotic. It has activity against Gram-positive mastitis pathogens. It may be used in the treatment of clinical mastitis in lactating dairy cattle as associated with Streptococcus mastitis, Staphylococcus aureus, and Escherichia coli.

**Stability:** Pirlimycin hydrochloride is stable under normal conditions of storage. It may be repeated for up to 8 consecutive days.

**DOSAGE AND ADMINISTRATION**

**Effective ZIAD: (1) Inject the treatment pathogen at 14 and 21 days post-treatment; 3) a protocol that is failure-prone and should be avoided. A study was conducted to determine the safety of extended duration therapy. Twelve lactating dairy cows were initially treated with pirlimycin for 48 hours, followed by extended duration therapy with pirlimycin for 48 hours, and finally treated with pirlimycin for 48 hours. The statistical analysis revealed a significant difference between the groups, with the extended duration therapy group showing a lower incidence of clinical mastitis.

**INDICATIONS FOR USE**

PIRSE® Sterile Solution is indicated for the treatment of clinical and subclinical mastitis associated with the isolates from field studies evaluating clinical mastitis (Table 1).

**ADVERSE REACTIONS**

Pirlimycin hydrochloride is a lincosaminide antibiotic. It has activity against Gram-positive mastitis pathogens. It may be used in the treatment of clinical mastitis in lactating dairy cattle as associated with Streptococcus mastitis, Staphylococcus aureus, and Escherichia coli.

**STORAGE CONDITIONS**

Pirlimycin hydrochloride is a lincosaminide antibiotic. It has activity against Gram-positive mastitis pathogens. It may be used in the treatment of clinical mastitis in lactating dairy cattle as associated with Streptococcus mastitis, Staphylococcus aureus, and Escherichia coli.

**STORAGE CONDITIONS**

**Storage/Stability:** Pirlimycin hydrochloride is stable under normal conditions of storage. It may be repeated for up to 8 consecutive days.

**Use of this product in a manner other than indicated under 'CLSI guidelines' may result in the infusion of environmental mastitis pathogens.**

**KEEP OUT OF REACH OF CHILDREN**

**WARNINGS**

**Adverse Effects:** Adverse effects of pirlimycin include gastrointestinal disturbances, such as nausea, vomiting, and diarrhea. In a study conducted to determine the safety of extended duration therapy, twelve lactating dairy cows were initially treated with pirlimycin for 48 hours, followed by extended duration therapy with pirlimycin for 48 hours, and finally treated with pirlimycin for 48 hours. The statistical analysis revealed a significant difference between the groups, with the extended duration therapy group showing a lower incidence of clinical mastitis.

**INDICATIONS FOR USE**

PIRSE® Sterile Solution is indicated for the treatment of clinical and subclinical mastitis associated with the isolates from field studies evaluating clinical mastitis (Table 1).