Amoxi-Mast®
(amoxicillin intramammary infusion)

TECH SUMMARY

MERCK Animal Health

Comparison Study of AMOXI-MAST® (amoxicillin intramammary infusion) vs. SPECTRAMAST® LC (ceftiofur hydrochloride) for Treating Gram-positive Mastitis[1]

Three treatments of AMOXI-MAST was comparable in efficacy to five treatments of SPECTRAMAST LC

Overview

This study compares the effectiveness of two intramammary antibiotics against clinical mastitis (CM) caused by Gram-positive bacteria. Cow- and quarter-level outcomes were evaluated using an on-label 1.5-day treatment of AMOXI-MAST versus 5 days of treatment with SPECTRAMAST LC.

Method

Lactating cows diagnosed with non-severe CM caused by Gram-positive bacteria were allocated to three treatment groups, as outlined in the table.

Treatment Groups	Amoxi-Mast® (amoxicillin intramammary infusion)	SPECTRAMAST LC	Control
Type of Antibiotic Treatment	Narrow-Spectrum, Targeted	Broad-Spectrum, Not Targeted	No Treatment
Ingredient	Amoxicillin, 62.5 mg	Ceftiofur Hydrochloride, 125 mg	No Treatment
Number of Intramammary Treatments	Three, 12 hours apart	Five, 24 hours apart	No Treatment

Data Collection

- Quarter cases evaluated = 477
- Cow-level assessments = Up to 90 days after CM diagnosis
- Quarter-level assessments = Up to 14 +/- 3 days after CM diagnosis*

**Clinical and Bacteriological Cures*
A quarter was considered clinically cured if both milk and mammary gland showed normal appearance in the clinical examination carried out by a member of the research team 14 days after enrollment. A quarter was considered bacteriologically cured if no bacteria were isolated from a milk sample collected 14 +/- 3 days after enrollment.

Results

Compared with the control group, quarters receiving antimicrobial therapy had lower somatic cell and bacterial counts. Clinical cure rates exceeded 80% for quarters treated with AMOXI-MAST and SPECTRAMAST LC. No significant difference was detected between the two antimicrobials on overall clinical or bacteriological cure at 14 days after CM diagnosis, or on reoccurrence of CM or cow survival up to 90 days after enrollment. Cows treated with AMOXI-MAST produced 3.5 pounds more milk than cows in the SPECTRAMAST LC group on the second test day after CM diagnosis.

Results of this study showed that there was no difference in efficacy between short-duration treatment with AMOXI-MAST and long-duration treatment with SPECTRAMAST LC. Coupled with only four days out of the tank compared to eight days for SPECTRAMAST LC, AMOXI-MAST is an effective and affordable mastitis treatment option.

For more information, talk to your veterinarian or visit AmoxiMast.com

AMOXI-MAST Warnings: Milk taken from animals during treatment and for 60 hours (2.5 days) after the last treatment must not be used for food. Treated animals must not be slaughtered for food purposes within 12 days after the last treatment.
For complete information, refer to the product label.

Amoxi-Mast®
(amoxicillin intramammary infusion)

LACTATING COW FORMULA

Intramammary Infusion

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

Amoxi-Mast (amoxicillin intramammary infusion) is specially prepared for the treatment of bovine mastitis in lactating cows.

DESCRIPTION:
Amoxi-Mast is a stable, nonirritating suspension of amoxicillin trihydrate containing the equivalent of 62.5 mg of amoxicillin per disposable syringe. Amoxi-Mast is manufactured by a nonsterilizing process.

Amoxicillin trihydrate is a semisynthetic penicillin derived from the penicillin nucleus, 6-amino-penicillanic acid. Chemically, it is d(-)-α-amino-p-hydroxybenzyl penicillin trihydrate.

ACTION:
Amoxicillin trihydrate is bactericidal in action against susceptible organisms. It is a broad-spectrum antibiotic which is effective against common infectious mastitis pathogens, namely Streptococcus agalactiae and penicillin-sensitive Staphylococcus aureus.

In vitro studies have demonstrated the susceptibility of the following strains of bacteria: α- and β-haemolytic streptococci, nonpenicillinase-producing staphylococci, and Escherichia coli. Susceptibility has not been demonstrated against penicillinase-producing bacteria, particularly resistant staphylococci. Most strains of Pseudomonas, Klebsiella, and Enterobacter are resistant. The clinical or subclinical significance of these in vitro studies is not known.

INDICATIONS:
Amoxi-Mast is indicated in the treatment of subclinical infectious bovine mastitis in lactating cows due to Streptococcus agalactiae and penicillin-sensitive Staphylococcus aureus. Early detection and treatment of mastitis is advised.

WARNINGS:
Milk taken from animals during treatment and for 60 hours (2.5 days) after the last treatment must not be used for food. Treated animals must not be slaughtered for food purposes within 12 days after the last treatment.

PRECAUTION:
Because it is a derivative of 6-amino-penicillanic acid, Amoxi-Mast has the potential for producing allergic reactions. Such reactions are rare; however, should they occur, the subject should be treated with the usual agents (antihistamines, pressor amines).

DOSAGE AND ADMINISTRATION:
Milk out udder completely. Wash udder and teats thoroughly with warm water containing a suitable dairy antiseptic. Dry thoroughly. Clean and disinfect the teat with alcohol swabs provided in the carton. Remove the syringe tip cover and insert the tip of the syringe into the teat orifice. Express the suspension into the quarter with gentle and continuous pressure. Withdraw the syringe and grasp the end of the teat firmly. Massage the medication up into the milk cistern.

For optimum response, the drug should be administered by intramammary infusion in each infected quarter as described above. Treatment should be repeated at 12-hour intervals for a total of 3 doses. At the next routine milking after the last dose, the treated quarter should be milked out and the milk discarded.

Each carton contains 12 alcohol swabs to facilitate proper cleaning and disinfecting of the teat orifice.

HOW SUPPLIED:
Amoxi-Mast is supplied in cartons of 12 single-dose syringes with 12 alcohol swabs. Each 10-mL, disposable syringe contains amoxicillin trihydrate equivalent to 62.5 mg of amoxicillin activity.

Do Not Store Above 24°C (75°F)

NADA #55-100, Approved by FDA

Manufactured by:
G.C. Hanford Mfg. Co.
Syracuse, NY 13201

INS15427 03

MERCK Animal Health

[1]Efficacy of AMOXI-MAST® (amoxicillin intramammary infusion) Compared with SPECTRAMAST® LC (ceftiofur hydrochloride) for Treatment of Non-severe Clinical Mastitis Caused by Gram-positive Pathogens, Merck Animal Health technical bulletin, 2021.

MAHCattle.com · 800-521-5767

MERCK Animal Health