A new head-to-head study for leading mastitis tubes has brought a fresh twist to mastitis mathematics.

Two equals five. Two tubes of ToDAY® tackle the most common forms of mastitis just as effectively as five days of treatment with Spectramast® LC.

**Table:**

<table>
<thead>
<tr>
<th></th>
<th>ToDAY®</th>
<th>Spectramast LC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POUNDS OF MILK PER DAY</strong></td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td><strong>DAYS OF MILK DISCARDED</strong></td>
<td>4.5</td>
<td>7</td>
</tr>
<tr>
<td><strong>TOTAL POUNDS OF MILK DISCARDED</strong></td>
<td>315</td>
<td>490</td>
</tr>
<tr>
<td><strong>VALUE OF MILK DISCARDED ($17.50/cwt.)</strong></td>
<td>$55.12</td>
<td>$85.75</td>
</tr>
<tr>
<td><strong>VALUE OF TUBES ($2.50/Tube)</strong></td>
<td>$60.12</td>
<td>$103.55</td>
</tr>
<tr>
<td><strong>TOTAL COST PER COW</strong></td>
<td>$18,036</td>
<td>$31,065</td>
</tr>
</tbody>
</table>

**NEW MATH FOR MASTITIS:**

**TWO EQUALS FIVE.**

**ARE FIVE-DAY EXTENDED THERAPY TREATMENTS MILKING YOU FOR EVERYTHING?**

**WHEN YOU ADD THE COST OF TUBES AND THE TOTAL MILK DISCARDED, EXTENDED THERAPY TREATMENTS JUST DON’T ADD UP:**

- At $17.50 per hundredweight on a 1,000-cow dairy, with a 30 percent mastitis occurrence, you’re throwing away $13,029 more when treating with Spectramast® LC.

- There was no difference in clinical cure among all pathogens between TODAY® (cephapirin sodium) and Spectramast LC. Use of extended intramammary antimicrobial therapy resulted in the least-expected monetary value.

- Using the two-tube, one-day treatment of ToDAY will add to your bottom line.

**References:**

3. Hess JL, Neuder LM, Sears PM. Rethinking clinical mastitis therapy. Presented at the 42nd Annual Meeting of the National Mastitis Council; Jan. 27, 2003; Fort Worth, TX.
**The newest studies show five mastitis treatments are three treatments too many.**

**Think positive. All mastitis cases should not be treated equal.**

- Culturing milk will help determine what treatment path to take.
- Intramammary mastitis treatment of Gram-positive infections is widely reported as beneficial, so those infections should be the focus of treatment.

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**Distribution of Infections**

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Gram-Positive (%)</th>
<th>Gram-Negative (%)</th>
<th>No Growth (%)</th>
<th>Other (%)</th>
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<tr>
<td>When treatment is limited to Gram-positive mastitis cases, treatment can be reduced.</td>
<td>35%</td>
<td>26%</td>
<td>28%</td>
<td>9%</td>
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<td>The bacteriological cure for non-severe Gram-positive pathogens was 68 percent for a 12-hour treatment with TODAY and 67 percent for a five-day treatment with Spectramast LC.</td>
<td></td>
<td></td>
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</tbody>
</table>

**Today Positive Warnings**

1. Milk that has been taken from animals during treatment and for 96 hours after the last treatment must not be used for food.
2. Treated animals must not be slaughtered for food until 4 days after the last treatment.
3. Administration of more than the prescribed dose may lead to residue violations.

**Today Residue Warnings**

- Using two tubes instead of five lowers the chances of antibiotic residue violations, costs your business less money, and helps build consumer confidence.
- The Compose Food Safety Authority suggests limiting the use of ultrasound — first- and fourth-generation cephalosporins for production animals to manage the public health risks.

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**LEADING MASTITIS RESEARCHERS HAVE RELEASED NEW DATA THAT CONFIRMS TWO TUBES OF TODAY® POSSESS A WIDE RANGE OF ANTIMICROBIAL ACTIVITY AGAINST GRAM-POSITIVE ORGANISMS.**

- TODAY® and Spectramast® compounds of the active ingredients in ToDay® and Spectramast® possess a wide range of antimicrobial activity against Gram-positive organisms.

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<td>Minimum inhibitory concentrations of cephalosporin compounds and their active metabolites for selected mastitis pathogens.</td>
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**Conclusion: No difference in clinical cure**

<table>
<thead>
<tr>
<th>CURE RATES FROM 129 CASES (WITH COMPLETE OBSERVATIONS)</th>
<th>TODAY®</th>
<th>Spectramast®</th>
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<tr>
<td>Clinical Cure in Infection Status: Positive</td>
<td>62%</td>
<td>64%</td>
</tr>
<tr>
<td>Clinical Cure in Infection Status: Negative</td>
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**Non-inferiority trial comparing a first-generation cephalosporin with a third-generation cephalosporin in the treatment of non-severe clinical mastitis dairy cows.**

- The author stated, “Some herds that do not utilize a culture-based approach for the treatment of clinical mastitis may have an economic benefit from selecting cephalosporins with the shorter non-saleable milk duration (4 vs. 8 days).”

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**When an antibiotic is administered at the correct concentration, the antibiotic begins to metabolize in a more controlled fashion, disrupting pathogens for TOday® and 67 percent for a five-day treatment with Spectramast LC.**

**This study was conducted to determine the distribution of minimal inhibitory concentration (MIC) values for the parent compounds of the active ingredients in TODAY® and Spectramast®.** Antibiotic performance differs widely when therapy is in the cow’s body, than when tested in a lab.

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**When treatment is limited to Gram-positive mastitis cases, treatment can be reduced.**

- A study titled “Treatments for Gram-positive mastitis — an evidence-based approach” supports the notion that antibiotic treatment of mastitis is not recommended.
- Extended therapy against Gram-negative infections results in long periods of antibiotic use.

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**A 12-hour, two-tube treatment of TODAY can help reduce overall antibiotic use per day, while achieving the same clinical cure rates you would get with five tubes of Spectramast®.**

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**The universally accepted truth on antibiotics is less more.**

— Dr. Pamela Ruegg, University of Wisconsin, Madison

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**ToDay possesses a wide range of antimicrobial activity against Gram-positive organisms.**

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**Dr. Ynte Schukken, Cornell University**

-“These results indicated that the first-generation cephalosporin was not inferior with regard to clinical cure and bacteriological cure of Gram-positive bacteria,”タイト Dr. Schukken.

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**How to read the table:**

- S = Susceptible: The antibiotic has stopped the bacteria’s growth.
- I = Intermediate: The antibiotic might work;
- R = Resistant: The antibiotic has not stopped the bacteria’s growth.
- M = Minimum inhibitory concentration (MIC) values for the parent compounds of the active ingredients in TODAY® and Spectramast®.
- Non-saleable milk duration [4.5 vs. 8 days], as the first treatment of choice.”

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