

## Significance

Intramammary antibiotic treatment prepartum in heifers is effective at reducing IMI at freshening, and appears to significantly reduce SCC during the first month and over the lactation as a whole, but has no effect on milk production. Treated heifers had a significantly ( $P=0.01$ ) lower number of IMI at calving, but by 30 DIM, there was no significant difference in number of infections. This suggests that the antibiotic therapy was successful at reducing the number of infected fresh heifers, but is of questionable value, as heifers clear infections on their own during the first 30 DIM. Therapy also appears to significantly reduce raw ( $P=0.018$ ) and linear ( $P=0.015$ ) SCC taken during the first 30 DIM (first test data). The difference in SCC observed between the control and treated heifers (206,000 vs 61,000) would allow for a milk quality bonus for the treated heifers.

However, no significant differences were observed in SCC during any of the other test periods, but overall, the treated heifers had a significantly lower ( $P=0.02$ ) SCC for the first 180 DIM. Milk production, fat correct milk and 305 ME between the control group and the treated group did not vary during the first 180 DIM. Clinical infections were low in this group of heifers in the first month after calving. Only one heifer exhibited signs of mastitis (clots and flakes in milk) early in the lactation, and she was a control animal. Therefore prepartum treatment may be beneficial in preventing clinical episodes of mastitis in fresh heifers. This data supports the use of prepartum therapy in heifers if the goal is to reduce early IMI and reduce SCC in order to obtain milk quality bonuses. Individual farms would have to determine if the bonus would pay for the cost of therapy.

## Effect of Pre-milking Stimulation on Milking Performance

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### Introduction

While pre-milking stimulation from forestripping has been traditionally recommended, some recent literature has disputed its biological need and some parlor managers have questioned its utility in parlor efficiency. The objective of our trial was to study the importance of manual forestripping on milking performance and the extent to which it needs to be performed.

### Materials and Methods

Four commercial dairies milking 400 to 2000 head in New York state enrolled cows in the study. Cows were randomized to one of four treatment groups: 1) no forestripping, 2) three strips of milk from one quarter, 3) three strips of milk from each of the four quarters, or 4) 12 strips of milk from one quarter. Cows in all treatment groups were treated the same otherwise: pre-dip prior to forestripping, wipe pre-dip after 60-70 seconds and attach milking unit 90 seconds after pre-dip application. All intervals were monitored with a digital stopwatch. All milking performance outcomes were measured with a cow-side continuous mass flow meter

(Lactocorderâ). Data analysis was performed using commercially available software (SAS v.9.1).

### Results

A total of 705 cow-milkings were randomized to treatment groups. Percent bimodality was 63.1 in the no-forestrip group, 55.5 in the three-strips group, 41.3 in the three-strips from four quarters group and 42.4 in the 12 strips from one quarter group. They were statistically different from each other. Two-minute milk production was significantly greater in the three-forestrip groups (11.2-11.9 lb; 5.1-5.4 kg) than in the no-forestrip group (10.1 lb; 4.6 kg). Total unit-on time was significantly greater in the no-forestrip group (6.2 min) than in the other three groups (5.6 – 5.8 min).

### Significance

Forestripping in any manner resulted in better milking performance. A systemic oxytocin response is suggested, as opposed to a teat-specific response. Spending time forestripping may increase milking performance, including parlor throughput.