

Key Performance Indicator: Clinical Mastitis

Calculation of suggested key performance indicators for clinical mastitis. For ease of calculation, a case is defined as the occurrence of mastitis in 1 or more quarters of a cow.

Indicator	Calculation ^a	Suggested Goal
Incidence Rate	Sum of first cases occurring in the appropriate time period ^a divided by average number of lactating cows in the same time period ^b	< 25 new cases per 100 cows per year (about 2-3 cases per 100 cows per month)
Proportion of cases scored 3 (severe)	Number of severity score 3 cases occurring divided by the total number of cases occurring	5-20% of total cases
Proportion of cases that die	Number of cows experiencing mastitis cases that resulted in death divided by the total number of cows experiencing mastitis	2%
Proportion of cases requiring treatment changes	Number of cases where the initial protocol is changed or supplemented because of non-response divided by the total number of detected cases ^c	<20%
Proportion of cases that are recurrent (second or greater treatment)	Number of cows with second or greater case of mastitis occurring >14 days post treatment divided by the total number of cases of mastitis	<30%
Proportion of cows with > 1 quarter affected	Number of cases with 2+ quarters affected divided by the total number of cases	<20%
Number of days milk discarded (per case)	Sum of the number of discard days for the time period divided by the total number of cases	4-6 days (unless many cows are receiving extended therapy because of a high prevalence of Staph aureus)
Percent of herd milking with <4 quarters	Number of cows milking with < 4 quarters ^d divided by the number of lactating cows	<5%

^anumerators and denominators should include the statement “in the appropriate time period.” The appropriate time period will vary depending on herd size.;^b a more correct denominator would exclude cows that had previously experienced a clinical case within that lactation; ^ccases which are detected but do not receive initial antimicrobial treatments should be included in this calculation; ^dherds that use quarter milkers to discard milk from selected quarters should include those cows in the numerator