## 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] | < 24 new cases per 100 cows per year (about 2 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 | 5-15% 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 | <20% |
| 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% |

[a]numerators 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; [c]cases which are detected but do not receive initial antimicrobial treatments should be included in this calculation; [d]herds that use quarter milkers to discard milk from selected quarters should include those cows in the numerator