Calculating Monthly Clinical Case Rates

The monthly clinical case rate is calculated by dividing the number of clinical quarters by the number of lactating cows in the herd and multiplying by 100. A clinical case (quarter) is defined as abnormal milk with or without visible signs such as: swelling, hardness, redness, fever, inappetence and recumbency. The number of lactating cows in a herd is an average of the lactating cows present during the past month. If the same quarter is affected within 14 days, it should not be counted as a new case. This calculation is useful for determining the cost of clinical mastitis and it allows comparison of rates between herds. It is most accurate when calculated from farm records.

Example: Annual treatment records for a herd averaging 100 lactating cows is listed below:

Month	# Cases	
January	0	quarters treated
February	2	quarters treated
March	2	quarters treated
April	3	quarters treated
May	4	quarters treated
June	5	quarters treated
July	8	quarters treated
August	6	quarters treated
September	4	quarters treated
October	3	quarters treated
November	2	quarters treated
December	1	quarters treated
Yearly Total	40	quarters treated

July Treatment Records

COW ID	DATE	RR LR	RF LR	CLINICAL SIGNS
88	7/1	X		Flakes
Lilly	7/5		X	Flakes
36	7/5	X	X	Fever, Swelling Clots
42	7/8			Flakes
			X	
36	7/15	X		Swelling, Clots
42	7/12			Flakes
		X		
88	7/25	X		Fever, Swelling Clots
36	7/29			Swelling, Clots
		X		

Clinical case rate = (40 quarters/ 100 cows) X 100 = 40%

Discussion: Cow **#88** had 2 clinical episodes in July because the same quarter was affected twice and more than 14 days elapsed between episodes. Cow **#36** had 3 clinical episodes, the first two occurred within 14 days in the same quarters so are only counted once. The last episode was in a different quarter so is counted as a new case even though it occurred within 14 days. Cow **#42** had 2 episodes within 14 days but in different quarters, therefore they are counted as 2 cases.

* The method for calculating clinical case rate may vary. The calculations cited above will be used in "Milk Money" for validity and repeatability. This fact sheet prepared by Dr. Pamela Ruegg and Dr. Michael Maroney, October, 2001.