

Validation of recordings of locomotor disorders in national cattle databases in the Nordic countries

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AIM

To compare the number of dairy cows recorded with locomotor disorders in the national disease recording systems with those that are observed diseased by farmers.

CONCLUSIONS

We found different sensitivities for locomotor disorders in the four national databases. In all four countries the sensitivity increased when allowing a longer time span between the two recordings.

BACKGROUND

Disease recordings in national cattle databases are used for many purposes including advisory service and research. It is therefore important that these recordings are a valid estimate of the true disease occurrence. The objective of this study was to estimate and compare sensitivities for locomotor disorders recorded in the national cattle databases in Denmark, Finland, Norway and Sweden.

MATERIALS AND METHODS

Farmers in the four Nordic countries recorded observations of all locomotor disorders in their herds during two 2-month periods in 2008. Disease treatments recorded in the national cattle databases for the same period were extracted. 105 to 179 farmers participated in each of the four countries. The farmers were instructed to record date of disease observation and date for veterinary visit (if any) as well as diagnosis and/or symptoms. In the national databases, the disease events also had a diagnostic date reported. A database recording was interpreted as the same case as a farmer observed recording using three different time spans 1) 0 days, 2) ± 7 days and 3) ± 30 days. Sensitivity was calculated with the database recording considered as the diagnostic test and the farmer observation as the gold standard.

RESULTS

The sensitivities varied between the four countries, with Denmark having the highest sensitivity for locomotor disorders and Sweden the lowest. The sensitivity increased in all four countries when allowing for a longer time span (Figure 1).

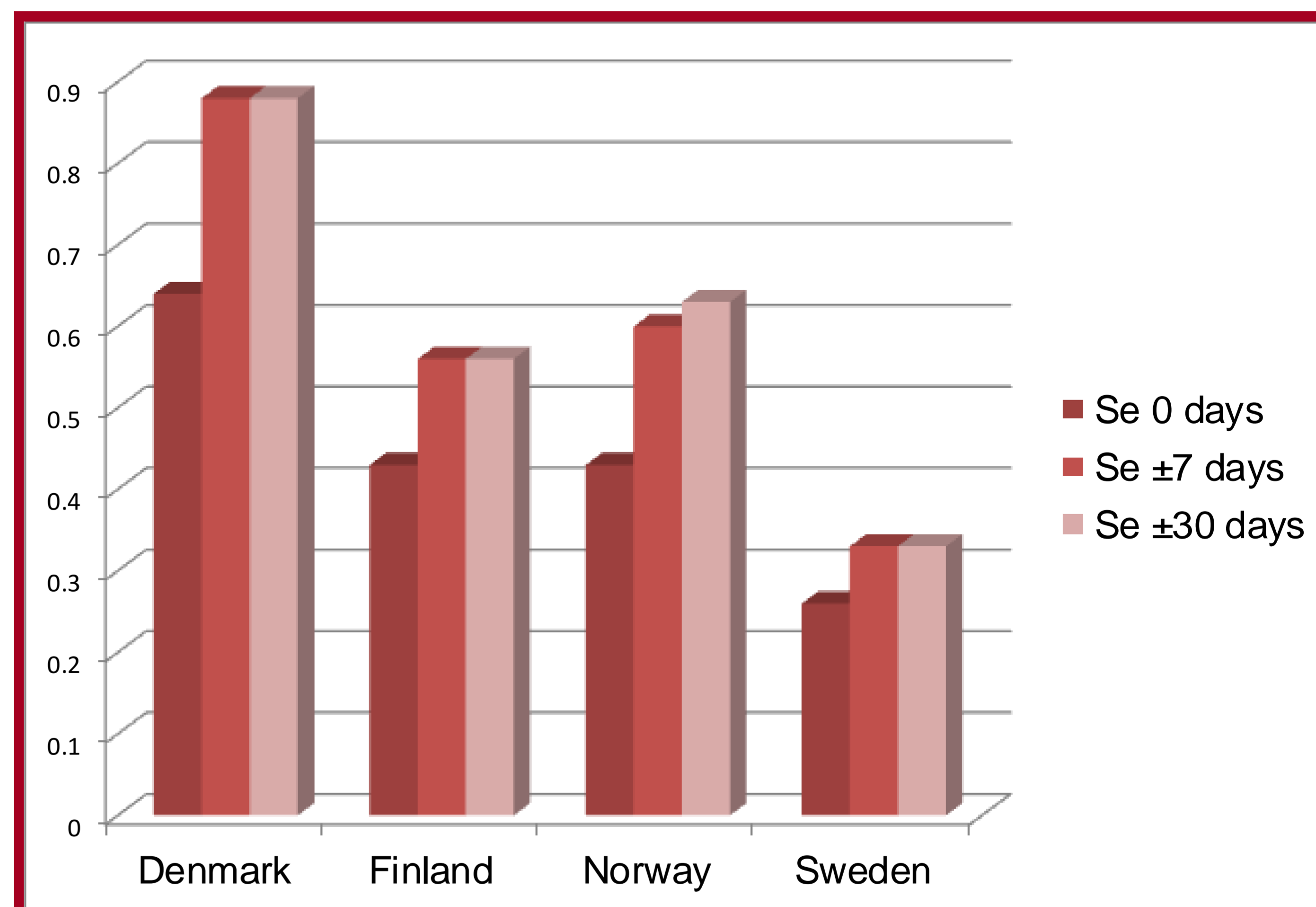


Figure 1. Sensitivities (Se) for locomotor disorders recorded in the four Nordic cattle databases.

