Fitness for transport – how do we assess it?

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Approximately 200,000 cattle are transported to slaughter in Denmark each year. EU legislation on the protection of animals during transport states that in order to protect animals from undue suffering during transport, animals must be fit for transport. However, farmers, drivers and even veterinarians find it challenging to assess fitness, as not only must the current health state of the animal be assessed, but also if and how the transport is likely to affect the animal. The legislation offers only very broad and unspecific guidelines and so far little research has dealt with this subject.

The purpose of this project is to gain knowledge of how short distance transport by road (< 8h) affect the welfare of dairy cows during and after transport, and to identify clinical and behavioural manifestations prior to transport likely to increase the risk of a cow being judged unfit for transport when reassessed after transport.

The project (2014 through 2016) is an observational study of approximately 500 Danish dairy cows transported to slaughter by road. Culled cows from 23 farms are included, and each cow is examined before and after transport to the slaughterhouse. Examinations include behavioural and clinical observations, e.g. grinding of teeth and locomotion score. In addition, production data such as gestational age and factors relating to the vehicles used for transport and the transport itself e.g. use of partitions between animals and duration will be recorded. Data analysis will include a comparison of the examinations made before and after transport. Potential risk factors for cows unfit for transport will be identified by multivariable analysis.

Based on the findings, we aim to develop a reliable and easy manageable tool in the form of a scoring system for assessing fitness for transport of dairy cows. In the future, such a scoring system may be used by farmers, drivers or veterinarians to identify cows which are fit for transport and cows which are not. This could successively lead to improved welfare for cows transported to slaughter.

Figure 1. Sequence of recordings during study:
1) Clinical examination on farm, 2) Monitoring of loading, transport and unloading, 3) Clinical examination at slaughterhouse.