

Prevalence of colds and pneumonia in cows can be controlled

November 5 2013



Respiratory diseases in cattle are a great threat to animal welfare and lead to financial losses in the cattle industry. The bovine respiratory syncytial virus (BRSV) is one of the main causes of respiratory disease in cattle. A study of the prevalence and infection distribution of the virus shows that it is possible to control the virus, even though it occurs very frequently.

The BRS virus is equivalent to the human RS virus and causes most of the cases of serious pneumonia that lead to fatalities in calves and to epidemics which can spread to a large number of farms in the same area. The study focused on the prevalence and [infection](#) distribution of the virus between Norwegian cattle herds and found that during the course of one year, nearly half of the [cattle herds](#) were newly infected, while almost as many herds became free of infection. It therefore appears that the virus does not survive for a long time in one herd and that it should be possible to reduce the number of infections by preventing the herds becoming re-infected.

The infection dynamics of the BRSV virus was studied in 134 randomly selected Norwegian [dairy herds](#). Five calves in the herds were tested for antibodies against this virus and then again six months later. A herd was defined as positive if at least one animal aged between 150-365 days was shown to have antibodies against the virus. The young age of the animals tested would indicate that they probably were infected quite recently, i.e. during the course of the last year.

During the study period, a large proportion - 54% - of the herds was shown to be BRSV-positive. The prevalence of the virus varied a great deal in different parts of the country. Several herds with negative test results were located in close proximity to herds infected by the virus and some of the former remained free of the virus, in spite of the presence of several newly infected herds in the neighbouring area. This indicates that it is possible to prevent a herd becoming infected, even in areas with a high prevalence of the virus.

42% of the herds that showed negative results on the first test, showed positive results during the following six months. The frequency of new infections was the same, irrespective of the season. 33% of the herds which had originally tested positive managed to get rid of the infection after six months.

The findings of this study indicate that monitoring the prevalence of the [virus](#) in order to identify negative herds and focusing on measures to combat infection in these herds ought to be effective strategies for limiting the prevalence and the consequences of BRSV infection in cattle. Knowledge about the most effective methods of preventing herds from becoming infected is still lacking. The research group "Viral infections in cattle" at the Norwegian School of Veterinary Science, which carried out this study, is currently engaged in projects that seek to identify the most effective ways of preventing new infections in [herds](#).

More information: [veterinaryrecord.bmj.com/cont...
10/23/vr.101936.long](https://veterinaryrecord.bmj.com/content/10/23/vr.101936.long)

Provided by Norwegian School of Veterinary Science

Citation: Prevalence of colds and pneumonia in cows can be controlled (2013, November 5)
retrieved 19 September 2024 from
<https://phys.org/news/2013-11-prevalence-colds-pneumonia-cows.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--