



COVID-19 mythbusting series

Mink and COVID-19: The Denmark Mutation

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Mink and COVID-19 - The Denmark mutation. SARS-Cov-2 infection was first detected in farmed mink in the Netherlands this Spring, Spring 2020, and the source is thought to have been infected workers. Farmers identified the disease by noting an increase in mortality of their stock.

Infection has now been confirmed in mink in other countries as well as the Netherlands, including Spain and Denmark and the USA and both *Mustela vison* and *Neovison vison* species of intensively farmed mink are affected. Currently, no infections have been confirmed in Africa or Asia and from this initial outbreak, no infections have yet been confirmed to have passed from mink through to humans.

However, this summer, a mutation of SARS-CoV-2 occurred in infected mink in farms in Denmark and during this outbreak, the subsequent outbreak transmission from mink to humans has now been confirmed. Mink have been shown to spread infection fairly efficiently between themselves and the mutation has now been found in human patients. We have also been able to demonstrate that there is onward transmission of this mutation in humans, so humans have tested positive for this without direct association or contact with mink or having been on a mink farm premises. So that can be potentially quite serious.

Clinical signs and severity of disease are fairly similar with this mutation to those in SARS-CoV-2. However, antibodies developed from infection with SARS-CoV-2 do not seem to inhibit the new mutated virus as efficiently and this means that there is a gap, or a potential, for a subsequent infection in an individual, and this is actually quite important.

The World Health Organisation has made several recommendations, initially that all countries perform whole-genome sequencing for SARS-CoV-2 and that they share these results so that everybody understands when and where the mutations are happening. They've, the World Health Organisation has also recommended that symptomatic workers in contact with susceptible species should isolate and that

appropriate PPE should be worn when working with intensively farmed mink, and farm visits or visitors should be limited or prohibited.

All countries should strengthen farming biosafety and biosecurity procedures, to include culling where appropriate and today 17 million mink have been culled in Denmark. And finally, the World Health Organisation urges all countries to take action to limit the risks of zoonotic events associated with SARS-CoV-2.

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