

# **New quarantine scheme could reduce risk of rabies reintroduction in the EU following Russian invasion, study finds**

April 26 2024

---



Credit: Pixabay/CC0 Public Domain

Rabies is a major concern to both human and animal health, with rabies in dogs and cats widespread in Eastern Europe, and there are concerns the war in Ukraine could pose a greater risk of rabies being reintroduced to the European Union (EU). A four-month period of home isolation of dogs and cats could reduce this risk, new University of Bristol research has shown.

Following the Russian invasion of Ukraine in 2022, the European Commission eased the importation requirements for the pets of Ukrainian refugees (to allow refugees to get their pets out of Ukraine rapidly) through modification of the rules of the EU Pet Travel Scheme (EU PETS), a process referred to as "derogation."

The Derogation Scheme includes a four-month period of home isolation for pets following their arrival in the EU, as compared to the regular three-month waiting period in the home country. However, as [rabies](#) in dogs and cats remains widespread in Ukraine, the importation of animals poses a continual threat to rabies spreading in the EU.

Bristol Veterinary School researchers wanted to investigate whether the change in regulations and the easing of importation requirements for the pets of Ukrainian refugees increased the risk of rabies introduction to the EU.

To assess this, the team used a mathematical modeling approach to compare different levels of compliance by [pet owners](#) for the EU PETS scheme, and the Derogation Scheme (for the pets of Ukrainian refugees). The study is [published](#) in the journal *Zoonoses and Public Health*.

Their results showed that when pet owners complied 100% with the new rules under the Derogation Scheme, the annual risk of rabies introduction from Ukraine into the EU was not increased, and indeed

rather unexpectedly, it was significantly lower than previously.

The researchers also modeled what could be expected if some pet owners didn't comply with the rules (by not undertaking vaccination, blood testing or a border check), both under the original EU PETS Scheme and Derogation Scheme. A reduced level of compliance from pet owners had a large effect on the annual risk of rabies entry within both schemes, leading to a 74-fold increase in risk under the Derogation Scheme, and a ten-fold increase under the EU PETS scheme, compared with full compliance.

Nevertheless, the annual risk remained at least as low under the Derogation Scheme as it had been under EU PETS and was likely even lower.

The researchers suggest the significantly lower risk from the Derogation Scheme compared to EU PETS could be explained by the four-month period of home isolation, which removes contact with other animals during the waiting period.

The research concluded the Derogation to the EU PETS scheme, which includes a four-month quarantine, rather than a waiting period in Ukraine, has a significantly reduced annual risk of rabies introduction compared to the current EU PETS scheme alone, when owners are 100% compliant. Even in the scenario of reduced compliance, this risk remained reduced under the Derogation Scheme, although this was not statistically significant.

Tirion Cobby, lead author at the Bristol Veterinary School, who conducted the study for her final MSc Global Wildlife Health and Conservation research dissertation, said, "Our findings suggest a four-month period of quarantine, as modeled for the derogation scenario, could reduce the annual risk of rabies entry. The suggested scheme could

also be a viable solution to accommodating the pets of refugees while managing risk to disease-free areas in times of crisis."

Professor Mark Eisler, Chair in Global Farm Animal Health at Bristol Veterinary School, added, "Modification of the rules to make it easier and quicker for Ukrainian refugees escaping into the EU to take their dogs with them might actually have reduced the risk of entry of the deadly zoonotic disease rabies, from which the EU (and the UK) is currently largely free. This has considerable potential implications for management of any similar crises in the future."

**More information:** Tirion Rebecca Cobby et al, Risk of rabies reintroduction into the European Union as a result of the Russo-Ukrainian war: A quantitative disease risk analysis, *Zoonoses and Public Health* (2024). [DOI: 10.1111/zph.13135](https://doi.org/10.1111/zph.13135)

Provided by University of Bristol

Citation: New quarantine scheme could reduce risk of rabies reintroduction in the EU following Russian invasion, study finds (2024, April 26) retrieved 9 May 2024 from <https://phys.org/news/2024-04-quarantine-scheme-rabies-reintroduction-eu.html>

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.