

## Notes from the Field

### Heightened Precautions for Imported Dogs Vaccinated with Potentially Ineffective Rabies Vaccine — United States, August 2021–April 2024

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The United States has been free of dog-maintained rabies virus variants since 2007 (1). Proof of vaccination against rabies is required for dogs imported into the United States from countries with a high risk for rabies<sup>\*,†</sup>; however, some vaccines licensed abroad might not meet international vaccine production standards, and therefore, might not provide adequate protection (2). In July 2021 and January 2022, two dogs imported into Canada from Iran received a diagnosis of rabies (3,4). Both dogs had documentation of vaccination with Canvac R (Dyntec)<sup>§</sup> rabies vaccine, manufactured in the Czech Republic (Canadian Food Inspection Agency and Public Health Agency, Canada, personal communication, 2021). At the time of these importations, global rabies laboratory reference centers had concerns about this vaccine's potency and alerted Canadian and U.S. officials to a potential issue regarding dogs vaccinated with this product. A 2023 evaluation of eight veterinary rabies vaccines marketed in Sri Lanka reported that the Canvac R vaccine did not meet international potency standards (2).

#### Investigation and Outcomes

In July 2021, CDC enacted a temporary suspension of dog importations from countries with a high risk for rabies to address an increase in the number of imported dogs with inadequate documentation of rabies vaccination during the COVID-19 pandemic.<sup>¶</sup> Under this suspension, one option for persons importing dogs from high-risk countries that had been vaccinated abroad was to apply for a CDC dog import permit.<sup>\*\*</sup> CDC's dog import permit collected administered rabies vaccine

product information. The conditions of the permit required that these dogs receive a rabies vaccine booster from a USDA-accredited U.S. veterinarian within 10 days after arriving in the United States; however, compliance was not routinely confirmed. In January 2022, CDC implemented retrospective and prospective monitoring of rabies revaccination among dogs who received Canvac R before importation. Among 63,618 approved permits, CDC identified 132 (0.2%) permits issued during August 2021–April 2024 for dogs vaccinated with Canvac R. These dogs originated in 17 high-risk countries and had final destinations in 28 U.S. states.

CDC emailed 132 applicants who had filed permit requests for dogs vaccinated with Canvac R prior to importation to obtain confirmation of revaccination in the United States. If no response was received after two attempts, the applicant's information was shared for follow-up with the state public health veterinarian in the dog's destination state.

Applicants of eight permits reported they did not import their dogs into the United States. For the remaining 124, importers of 102 (82%) dogs provided CDC proof of revaccination. The remaining 22 cases were referred to state and local health departments, which were able to confirm revaccination for an additional 14 dogs (Table). Either CDC or the dog's destination state confirmed revaccination for 116 dogs (94%) and, as of May 2024, no signs of rabies had been reported in any of the dogs.

#### Preliminary Conclusions and Actions

Because CDC import permit applications collected vaccine product information, CDC was able to implement public health precautions for dogs vaccinated with Canvac R, a rabies vaccine with demonstrated low potency (2). CDC worked with state and local health departments to ensure that these dogs received a U.S. Department of Agriculture–licensed rabies vaccine after arrival, protecting dogs, pet owners, and U.S. communities. Although CDC might not be able to monitor and respond to all reports of vaccine failure, this investigation is an example of best practices for preventing importation and possible reintroduction of dog-maintained rabies virus variants into the United States. To increase CDC's ability to close this gap, CDC's updated dog importation regulation, effective August 1, 2024, requires revaccination upon arrival of all foreign-vaccinated dogs from high-risk countries at a CDC-registered animal care facility, regardless of the preimportation vaccine administered.

\* <https://www.federalregister.gov/documents/2024/05/13/2024-09676/control-of-communicable-diseases-foreign-quarantine-importation-of-dogs-and-cats>

† <https://www.cdc.gov/importation/dogs/high-risk-countries.html>

§ <https://dyntec.cz/en/product/canvac-r-en/>

¶ <https://www.federalregister.gov/documents/2021/06/16/2021-12418/temporary-suspension-of-dogs-entering-the-united-states-from-high-risk-rabies-countries>; <https://www.federalregister.gov/documents/2023/07/10/2023-14342/extension-of-temporary-suspension-of-dogs-entering-the-united-states-from-countries-with-a-high-risk>

\*\* As an alternative to applying for a permit, importers had the option of making a reservation at a CDC-registered animal care facility, where their dog's rabies vaccination records were reviewed, and any necessary follow-up services (including rabies revaccination) were provided.

**TABLE. Public health follow-up and revaccination rates for imported dogs with a history of receiving Canvac R rabies vaccine\* before importation — United States, August 2021–April 2024**

Country of origin	No. of CDC dog import permits issued	No. (%) <sup>†</sup> of dogs that traveled to United States	Proof of rabies revaccination provided to CDC	Proof of rabies revaccination provided to state <sup>§</sup>	Total no. (%) <sup>¶</sup> with proof of revaccination provided
India	46	44 (96)	37	5	42 (95)
Iran	39	34 (87)	26	6	32 (94)
Qatar	15	14 (93)	14	0	14 (100)
United Arab Emirates	10	10 (100)	7	0	7 (70)
Pakistan	4	4 (100)	4	0	4 (100)
Uganda	3	3 (100)	3	0	3 (100)
Bangladesh	2	2 (100)	0	2	2 (100)
Morocco	2	2 (100)	2	0	2 (100)
Peru	2	2 (100)	2	0	2 (100)
Tanzania	2	2 (100)	1	1	2 (100)
Georgia	1	1 (100)	1	0	1 (100)
Jordan	1	1 (100)	1	0	1 (100)
Lebanon	1	1 (100)	1	0	1 (100)
Moldova	1	1 (100)	1	0	1 (100)
Nepal	1	1 (100)	0	0	0 (—)
Senegal	1	1 (100)	1	0	1 (100)
Togo	1	1 (100)	1	0	1 (100)
<b>Total</b>	<b>132</b>	<b>124 (94)</b>	<b>102</b>	<b>14</b>	<b>116 (94)</b>

\* <https://dyntec.cz/en/product/canvac-r-en/>

<sup>†</sup> Percentage of dogs for which an import permit was issued.

<sup>§</sup> California (five), Virginia (three), New Jersey (two), Pennsylvania (two), Illinois (one), and Texas (one).

<sup>¶</sup> Percentage of dogs vaccinated with Canvac R that traveled to the United States.

## Summary

### What is already known about this topic?

Prearrival rabies vaccination is required for dogs imported into the United States from countries at high risk for dog-maintained rabies virus variants; however, some commercial rabies vaccines used outside the United States might not provide adequate protection.

### What is added by this report?

During August 2021–May 2024, a total of 132 dogs imported from high-risk countries and vaccinated outside the United States with a potentially ineffective vaccine were identified and revaccinated.

### What are the implications for public health?

Requiring detailed information about importers and dogs' vaccination histories permits targeted interventions if specific vaccine products are suspected to be ineffective.

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