

# New threshold could inform rabies postexposure prophylaxis decisions

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A newly defined risk threshold may inform decision-making for the

appropriateness of rabies postexposure prophylaxis, according to a study published online June 9 in *JAMA Network Open*.

Kelly Charniga, Ph.D., from the U.S. Centers for Disease Control and Prevention in Atlanta, and colleagues assessed whether a quantitative rabies risk assessment model could help inform public health professionals' recommendations for rabies postexposure prophylaxis.

The researchers estimate that the median probability that an animal would test positive for rabies virus given that a person was exposed ranged from  $3 \times 10^{-7}$  to 0.97, while the probability that a person would die from rabies given that they were exposed to a suspect rabid animal and did not receive postexposure prophylaxis ranged from  $1 \times 10^{-10}$  to 0.55. Responses from 50 surveyed [public health officials](#) estimated a risk threshold of 0.0004 for postexposure prophylaxis administration.

"Our model is based on more than 900,000 rabies case investigations. It is also the first national tool, to our knowledge, to account for geographic differences in the rabies risk associated with animal exposures," the authors write. "These [estimates](#) may help health care practitioners and public health professionals conduct objective and regionally appropriate rabies risk assessments, particularly when an animal is not available for testing or observation."

**More information:** Kelly Charniga et al, Risk of Rabies and Implications for Postexposure Prophylaxis Administration in the US, *JAMA Network Open* (2023). [DOI: 10.1001/jamanetworkopen.2023.17121](#)

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