

NEW MEXICO HEALTH ALERT NETWORK (HAN) ALERT
Increased Numbers of Hantavirus Cases in New Mexico in 2023

May 24, 2023

Background: The New Mexico Department of Health has identified five cases of Hantavirus Pulmonary Syndrome (HPS) in New Mexico residents in the first five months of 2023, already exceeding the average annual case count. These cases all resided in McKinley or San Juan Counties; the Arizona Department of Health Services has also identified five cases of HPS this year. This is only the third year that five cases have been identified by May since the Sin Nombre virus (SNV) was first identified in 1993. While transmission dynamics are complex, recent increased precipitation in the Four Corners region may have contributed to a rise in rodent populations, increasing opportunities for human exposure.

Early HPS symptoms are nonspecific and are consistent with a viral prodrome, including fatigue, fever, and myalgias. Roughly half of patients also experience gastrointestinal symptoms including nausea, vomiting, diarrhea, and abdominal pain. Four to ten days after symptom onset, late symptoms of HPS appear, including coughing and shortness of breath. This can rapidly progress to a cardiopulmonary phase characterized by pulmonary edema, reduced cardiac output, and shock. HPS has a mortality rate of 38%. Upper respiratory symptoms, such as coryza, rhinorrhea, and pharyngitis, are not typically seen in HPS patients.

Recommendations for Clinicians: Healthcare providers are encouraged to include HPS on their differential for individuals who have known or possible rodent exposure; rodent infestation in and around the home remains the primary risk for hantavirus exposure. No human-to-human transmission of Sin Nombre virus has been documented. Patients with possible hantavirus infection should be monitored carefully as clinical deterioration can be abrupt; early referral to a facility with ECMO capacity should be considered.

Definitive diagnosis relies on serologic detection of IgM antibodies specific to the Sin Nombre virus. Assays available through clinical laboratories are non-specific and are susceptible to false positives; results should be interpreted in conjunction with clinical correlation and must be confirmed with SNV-specific antibody testing at the New Mexico State Laboratory Division. Clinically, utilization of five criteria in aggregate from the peripheral blood smear can be useful in supporting a presumptive diagnosis of HPS: thrombocytopenia, hemoconcentration, granulocytic left shift, lack of toxic changes, and the presence of immunoblasts. The presence of any four of the five criteria has a sensitivity of 96% and a specificity of 99% in detecting HPS¹; presence of three of the five criteria is considered equivocal and those patients should be followed closely. Providers with suspected hantavirus patients are encouraged to call the PALS line to consult with the on-

¹ Koster F, Foucar K, Hjelle B, Scott A, Chong YY, Larson R, McCabe M. Rapid presumptive diagnosis of hantavirus cardiopulmonary syndrome by peripheral blood smear review. *Am J Clin Pathol.* 2001 Nov;116(5):665-72. doi: 10.1309/CNWF-DC72-QYMR-M8DA. PMID: 11710682.

call infectious disease physician available 24/7 at the University of New Mexico Hospital at 505-272-2000 or 1-888-UNM-PALS.

Clinicians should routinely inquire about potential rodent exposure in or around patients' homes or work. Deer mice can become persistently and asymptotically infected with SNV. The incubation period is approximately 1-8 weeks after exposure to infected rodent urine, droppings, or saliva. High-risk activities include spending time in or cleaning homes, sheds, or vehicles that are contaminated with rodent excreta. Resources are available to educate the public on how to reduce risk of transmission and how to safely clean areas with rodent urine, droppings, or nests. In addition to referencing the links below, providers and the public can call the New Mexico Department of Health at (505) 827-0006 for more information regarding reducing risk of hantavirus exposure.

Additional Resources:

[CDC - Hantavirus Pulmonary Syndrome \(HPS\) - Hantavirus](#)

[Facts About Hantaviruses \(cdc.gov\)](#)

[How to Control Wild Rodent Infestations | Healthy Pets, Healthy People | CDC](#)

[You Can Prevent Hantavirus—How to Protect Yourself and Your Family from Hantavirus Pulmonary Syndrome in the United States \(cdc.gov\)](#)

[Hantavirus \(nmhealth.org\)](#)

New Mexico Health Alert Network: To register for the NM Health Alert Network, please visit the following site <https://nm.readyop.com/fs/4cjZ/10b2> Please fill out the registration form completely and click Submit at the bottom of the page, to begin receiving Important health alerts, advisories, and updates.

Please Note that our system also utilizes text messaging to notify members of important health information. Due to FCC Regulation changes that are designed to decrease the amount of unwanted spam text messages sent each year to citizens, please save, this phone number **(855) 596-1810** as the **“New Mexico Health Alert Network”** default phone number for your account used for text messages on the mobile device(s) you register with us.