CALIFORNIA State FACE Program
Fatality Assessment & Control Evaluation™

REPORT#: 25CA004 REPORT DATE: 8/05/2026

DATE:
March 6th, 2025

TIME:
12:07 p.m.

VICTIM:
26-year-old male Hispanic hotel worker

INDUSTRY/NAICS CODE:
Hotels & motels/721110

EMPLOYER:
Hotel

SAFETY & TRAINING:
Written IIPP but no exposure control plan or adequate worker training

SCENE:
Hotel bellhop/storage area

LOCATION:
California

EMPLOYER SIZE:
80 employees at hotel

EVENT TYPE:
Exposure to hantavirus

A Hotel Worker Dies from Hantavirus Infection After Exposure to Deer Mice Droppings — California

SUMMARY

On March 6th, 2025, a 26-year-old Hispanic male hotel worker (victim) died from hantavirus pulmonary syndrome. Exposure was likely at work to aerosolized viral particles from deer mouse droppings. The victim first went to the hospital's emergency room (ER) with flu-like symptoms on March 5th, 2025. He was diagnosed with atypical pneumonia and discharged with antibiotics. The next day a friend called paramedics, who found the victim unresponsive. He was transported to the hospital where he was pronounced dead…**Read Full Report>**

CONTRIBUTING FACTORS

Key contributing factors identified in this investigation include:

- Lack of an effective Injury and Illness Prevention Program (IIPP), including elements of an aerosol transmissible disease (ATD) control plan
- Insufficient worker training on proper hantavirus safety protocols during cleaning tasks
- Atypical hantavirus presentation making screening for infection at the hospital's ER challenging…**Learn More>**

RECOMMENDATIONS

The California FACE (CA/FACE) investigator determined that, in order to prevent hantavirus infections, hotel employers in hantavirus endemic areas should:

- Establish, implement, and maintain an effective written IIPP that includes procedures for preventing exposures to zoonotic aerosol transmissible disease pathogens

In addition, physicians or other licensed professional healthcare providers should:

- Receive training in how to identify and treat people with hantavirus infections…**Learn More>**

Fatality Assessment and Control Evaluation (FACE) Program

This case report was developed to draw the attention of employers and employees to a serious safety hazard and is based on preliminary data only. This publication does not represent final determinations regarding the nature of the incident, cause of the injury, or fault of employer, employee, or any party involved.

This case report was developed by the California Fatality Assessment and Control Evaluation (FACE) Program. California FACE is a NIOSH-funded occupational fatality surveillance program with the goal of preventing fatal work injuries by studying the worker, the work environment, and the role of management, engineering, and behavioral changes in preventing future injuries. The California FACE program is located in the Occupational Health Branch, California Department of Public Health.

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INTRODUCTION

On Wednesday, March 5th, 2025, a 26-year-old Hispanic male hotel worker (the victim) went to a local emergency room (ER) with flu-like symptoms including fever, cough, decreased appetite, nausea and diarrhea over the prior four days. He was diagnosed with suspected atypical pneumonia and discharged with antibiotics. The next day (March 6th), the victim called a friend to take him to the hospital, but he collapsed in the hallway of his apartment walking to the friend's car. Paramedics were called to the scene. They found the victim not breathing and transported him to the hospital where he died at 12:07 pm. The coroner determined the cause of death to be hantavirus pulmonary syndrome. The CA/FACE investigator received notification of this incident on October 19, 2025, from the weekly summary from the California Department of Industrial Relations Public Information Office. The Cal/OSHA investigation, medical report, sheriff, and coroner's reports were requested and reviewed.

INVESTIGATION DETAILS

The medical record review from the victim's initial ER visit on March 5th showed that he was negative for respiratory syncytial virus (RSV), COVID-19, and influenza A and B. He was afebrile with normal O_2 saturation of 98%. Examination of the lungs was normal. A chest radiograph showed left lower lobe bronchial thickening without consolidation. No environmental or occupational history was obtained. The victim was diagnosed with atypical pneumonia and discharged on antibiotics. The following day (March 6th) when the victim returned, the attending physician in the ER considered hantavirus infection as a possible cause of the victim's cardiopulmonary arrest. During the post-mortem analysis on March 11th, 2025, 350 ml of bloody fluid was removed from his pericardial cavity and subsequently tested positive for hantavirus.

The victim worked as a bellhop and spent most of his time in the ski/valet entrance near the front desk in the lobby of a large hotel. According to co-worker interviews conducted by Cal/OSHA, employees were expected to clean up mouse droppings. Management said that this cleaning was optional, and employees could call housekeeping or management to clean. Management reported that if employees chose to clean mouse droppings, they were supposed to use wet cleaning methods, bleach, gloves, and an N95 disposable filtering facepiece respirator (hereafter, "N95"). Management also stated that a third-party contractor was used to clean up rodent droppings if there was an infestation.

Employees stated they did not recall receiving prior training in proper cleaning procedures for rodent droppings, and that use of N95s was optional. They were not fit-tested or given formal training on how to use respirators. Management stated employees were provided with a high-efficiency particulate air (HEPA) filter vacuum cleaner if they needed to clean the floors, but at the time of the Cal/OSHA inspection the vacuum cleaner was not equipped with a HEPA filter.

According to a co-worker, mice were seen running around the bellhop area and droppings were found behind a refrigerator where the trash was located. It is not known if the victim had cleaned rodent droppings in the weeks prior to his death. The victim's co-worker reported that the victim had observed mice in his room in the employer-provided housing around two years ago.

EMPLOYER

The employer was a company that owned 19 ski resort properties nationally and employed approximately 25,000 workers. Eighty staff worked at the hotel which was constructed in 1958. The employer provided employee housing to the victim and his co-workers.

WRITTEN SAFETY PROGRAMS and TRAINING

The company maintained a written Injury & Illness Prevention Program (IIPP). The hotel manager stated that they had two different hantavirus policies, one of which recommended the use of N95s for hantavirus exposure. Employees, including the victim, may have received and signed the hantavirus policies, but no

formal training on hantavirus exposure occurred prior to the incident, as indicated by several employees. The company's written respiratory protection program included voluntary employee usage of respirators, as outlined in Appendix D of §5144 Respiratory Protection. One employee reported that they were given a copy of Appendix D during the pandemic, but there was no formal training on N95s. Another bellhop stated that he cleaned up mouse droppings. He thought gloves and an N95 were optional for this task, and management never made it clear they were mandatory. Management also provided a hantavirus clean up kit, which contained an N95 but had no instructions to wear it when cleaning up deer mice droppings. Workers reported that they had safety tailgate talks, but there was no documentation of topics or who was in attendance. It is not known what training the victim received.

WORKER INFORMATION

The victim was a 26-year-old Hispanic male bellhop who had worked at the hotel for 2.5 years. His shift was from 2:30 p.m. to 11 p.m., 5 days per week. The victim primarily worked at the ski/valet entrance to the hotel by the front desk but would also go to guest rooms to deliver and pick up bags. The victim lived with two roommates in an employee housing apartment complex (built in 2004) which was located approximately four miles from the hotel.

INCIDENT SCENE

The incident scene was a bellhop area and storage area at the hotel where mouse droppings were found. The bellhop area was adjacent to the hotel lobby. The bellhop area was relatively well ventilated with outside air, given its proximity to the lobby's main door. The storage area was approximately 30 x 15 feet and had boxes and equipment (Photo 1 is an example of such a storage area). The storage area likely had less ventilation, and several deer mice droppings were detected by a California Department of Public Health (CDPH) investigator. The victim worked in the bellhop area, but it is unknown if he spent time in the storage area. The victim's apartment had been cleaned, and no deer mice droppings were found in the apartment during the Cal/OSHA investigation.

Photo 1: Example of a storage area with deer mice harborage. Courtesy of CDPH.

CAUSE OF DEATH

According to the county coroner, the cause of death was hantavirus pulmonary syndrome.

CONTRIBUTING FACTORS

Occupational injuries, illnesses, and fatalities are often the result of one or more contributing factors or key events in a larger sequence of events that ultimately result in injury, illness, or fatality. CA/FACE investigators

identified the following hazards as key contributing factors in this incident:

- Lack of an effective IIPP, including an aerosol transmissible disease control plan
- Insufficient worker training on how to protect themselves from hantavirus when cleaning
- Atypical hantavirus presentation making screening for infection at the hospital's ER challenging

RECOMMENDATIONS / DISCUSSION

The CA/FACE investigator determined that, in order to prevent hantavirus infections, hotel employers in hantavirus endemic areas should:

Recommendation #1: Establish, implement, and maintain an effective written IIPP that includes procedures for preventing exposures to zoonotic aerosol transmissible disease pathogens. [1]

Discussion: In this incident, the victim was employed at a hotel in a county that was known to have a high prevalence of deer mice infected with the Sin Nombre virus (SNV) (Figure 1), a variant of hantavirus. SNV is spread through inhalation of aerosolized virus from mouse feces, urine, or saliva. The deer mice population had been reported to be especially high that year in the region where the victim died. Infection with hantavirus may occur when people are exposed to deer mice droppings, saliva, urine, or bedding materials. Risk factors for exposure and infection with hantavirus infection include exposure to infected deer mice droppings, saliva, urine, or bedding materials in non-ventilated indoor areas. Symptoms of hantavirus include fever, fatigue, muscle aches, cough, shortness of breath, or other flu-like symptoms. Hantavirus exposure may lead to hantavirus pulmonary syndrome, a potentially fatal disease if not treated. Between 1993 and 2020, 31% of hantavirus infections reported in California residents were fatal (Jackson et al. 2025).

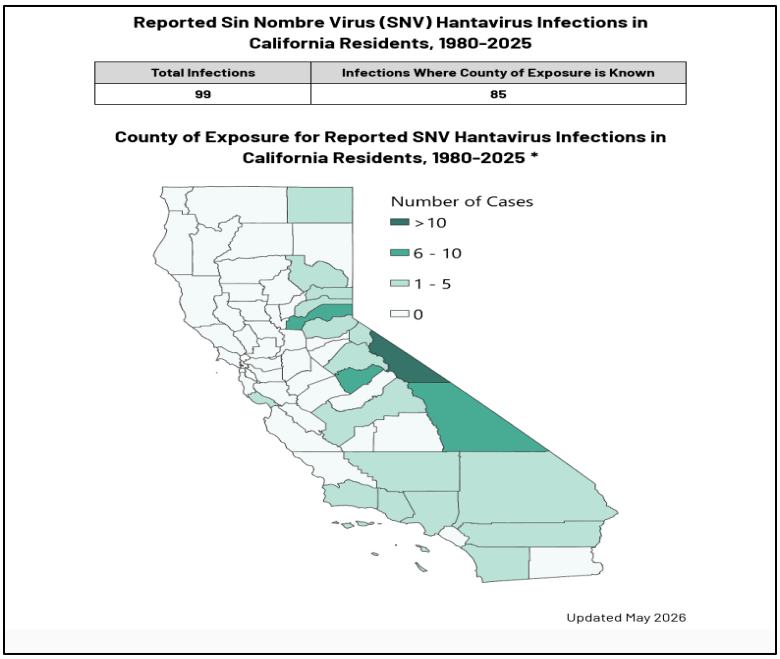

Figure 1: Reported Sin Nombre Virus (SNV) Hantavirus Infections in California Residents, 1980-2025. Courtesy of CDPH.

[1] California has a specific workplace regulation (California Code of Regulations, title 8, section 5199.1) that requires certain employers with employees exposed to zoonotic aerosol transmissible disease pathogens to have effective written safety procedures, provide protective equipment as needed, and train employees on safety procedures. See *Exposure to Zoonotic Aerosol Transmissible Disease* Hazards: https://www.dir.ca.gov/dosh/dosh_publications/Zoonotic-ATD-Hazards.pdf

In this incident, co-workers stated deer mice droppings were in the victim's work area, which included the bellhop area and potentially the storage area. No rodent droppings were observed in employee housing where the victim lived, and the victim's roommate had not seen mice recently in their apartment. Another co-worker reported seeing only one mouse during his eight years of living in employee housing. While it is not known whether the victim cleaned deer mouse droppings at work in the weeks prior to his death, evidence from co-worker interviews suggests that his workplace was a likely source of his infection. Moreover, local county environmental health department personnel did not observe mouse activity in his living space, while they did observe some mice in the workplace. According to the Cal/OSHA investigation report, the victim did not have activities in the weeks before his illness that increased his exposure to mice or their droppings.

Per Cal/OSHA regulation 8 CCR 3203, all California employers should establish, implement and maintain an effective, written IIPP, in which they identify all potential hazards in the workplace and develop and implement procedures to protect employees from these identified hazards. Employers in areas with a high risk of exposure to zoonotic aerosol transmissible pathogens, such as hantavirus, should establish, implement, and maintain an effective, written exposure control plan. The exposure control plan would serve to protect workers who may be exposed to zoonotic aerosol transmissible pathogens while performing their job duties. For hantavirus in particular, employers should establish, implement, and maintain an exposure control plan for employees who may be exposed to deer mice droppings, urine, saliva, or bedding materials. Employers in endemic areas (counties with higher risk of environmental exposure to aerosolized transmissible pathogens) should perform an assessment of the risk of employee exposure to hantavirus. If employees may be exposed to deer mice droppings, urine, or bedding materials, employers should establish, implement, and maintain the elements of an effective written ATD exposure control plan, including:

- Employee training
- Seal openings where mice may enter
- Open doors and windows to air out the space for 30 minutes before cleaning an area infested by mice
- Clean up rodent droppings with bleach or other EPA Registered Disinfectant (do not sweep or vacuum)
- Provide personal protective equipment (N95s) for employees, including fit testing if they are required to clean rodent droppings
- Maintain adequate ventilation in enclosed spaces, i.e. use of HEPA filters

If the victim had been trained and utilized these procedures, his exposure to hantavirus may have been prevented. (CDPH, CDC)

Recommendation #2: Physicians or other licensed professional healthcare providers working in areas where hantavirus is endemic should be trained on how to identify and treat people with hantavirus infections. They should follow an algorithmic approach in the management of all patients with a clinical presentation suggestive of hantavirus infection.

Discussion: The day prior to his death, the victim went to the ER where he was thought to have community-acquired pneumonia, provided antibiotics, and discharged. The atypical presentation (no fever or lung consolidation) and the higher likelihood of other respiratory agents circulating contributed to the challenge of recognizing hantavirus. Hantavirus should be suspected with the development of respiratory symptoms after several days of a non-specific febrile illness, often but not always with GI symptoms. The next day, the treating providers considered hantavirus infection as a possible cause of his cardiopulmonary arrest as the victim had consistent symptoms (fevers, myalgias, and cough), emphasizing how rapidly hantavirus disease progresses. All providers, working in areas with endemic hantavirus[2], should undergo training on how to identify and treat patients who present with symptoms of hantavirus infection. Additionally, if hantavirus is considered in the

[2] An area where specific geographic regions where the virus is consistently present in local rodent populations, and consequently where human cases of hantavirus infection occur regularly rather randomly.

differential diagnosis, licensed professional healthcare providers should consider imaging studies to identify people with hantavirus, contact their local health department for testing options and implement the five-point screen for hantavirus (Oliver, et al.2022).

To identify people at risk of hantavirus (Oliver, et al.2022) recommends the use of a five-point screen, which is derived from a complete blood count (CBC) and a peripheral blood smear. People are considered at higher risk of hantavirus if they have 3 of the following lab findings, including: 1) thrombocytopenia, 2) elevated hemoglobin, 3) presence of a left shift in the granulocytic lineage, 4) immunoblasts and plasma cells (primarily of lymphoid cells), and 5) absence of an elevated toxic granulation in neutrophils. People with a 3 of 5 score should be re-evaluated clinically every 12 hours with repeat 5-point screen testing; with a score of 4 or more, arrangements should be made to transfer patients to tertiary care facilities with access to ECMO. Clinicians who suspect HPS may contact the University of New Mexico Physician Access Line Service (UNM PALS) at 505-272-2000 or 888-886-7257 to request an infectious disease consult.

Physicians or other licensed professional healthcare providers, working in areas with endemic hantavirus, should use this five-point screening tool to identify patients at risk of hantavirus infection. Although hantavirus infection was considered in the differential diagnosis at the time of the victim's cardiorespiratory arrest, only a respiratory viral panel and a chest X-ray were ordered. If the screening tool had been applied at the time of the victim's initial ER visit, he may have been identified as having an atypical SNV infection and admitted to the hospital for observation. If his respiratory status then worsened, emergency care could have been immediately implemented.

REFERENCES

California Department of Public Health – Hantavirus Infection. https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/HantavirusPulmonarySyndrome.aspx.

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Oliver TT et al. [2022]. Successful Implementation of a Rapid Screening Tool for Hantavirus Cardiopulmonary Syndrome: 5 Years of Experience from a Community Hospital in an Endemic Region. *Am J Clin Pathol*. 2022;157(4):498-501.

INVESTIGATOR INFORMATION

This investigation was conducted and authored by David Moore, MPH, CIH, CA/FACE Fatality Investigator/Consultant. Additional contributions to the report were provided by Robert Harrison, MD, MPH, CDPH FACE Project Officer; Laura Styles, MPH, FACE Research Scientist; Margaret Murray, MD; Glenn Shor, PhD, and Ryan Furtkamp, Cal/OSHA CFOI program.

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