

EPIDEMIOLOGIC INVESTIGATION SUMMARY

NOROVIRUS OUTBREAK AMONG RESIDENTS AND STAFF OF AN ASSISTED LIVING FACILITY IN WASHOE COUNTY, NEVADA, 2017

*Department of Health and Human Services
Division of Public and Behavioral Health
Office of Public Health Informatics and Epidemiology*

**June 2017
Edition 1.0
2017 volume, issue 18**

PURPOSE

The purpose of this newsletter is to provide the scientific community, decision makers, healthcare providers, and the public a summary of the outbreak investigations conducted by the Division of Public and Behavioral Health.

BACKGROUND

On May 30, 2017, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was informed by the Executive Director of Facility "A" of a gastrointestinal (GI) illness outbreak among residents and staff of Facility "A." The problem was first identified by staff on May 26, 2017 and initial reported symptomology of the ill individuals included diarrhea, vomiting, and nausea. The outbreak investigation began on May 30, 2017.

METHODS

Epidemiology

On May 30, 2017, DPBH provided recommendations to reduce and prevent the spread of illness in Facility "A," including the submission of outbreak line list data to OPHIE until further notice, isolation of ill residents, exclusion of symptomatic employees from the facility until 72 hours after symptoms resolved, and laboratory testing to identify the pathological agent(s).

A **confirmed case** was defined as a resident, staff member, or visitor of Facility "A" who was lab confirmed with norovirus since May 26, 2017.

A **probable case** was defined as a resident, staff member, or visitor of Facility "A" who was not lab confirmed with norovirus but had diarrhea and/or vomiting (along with possible other GI illnesses) since May 26, 2017.

A **suspect case** was defined as a resident, staff member, or visitor of Facility "A" who was not lab confirmed with norovirus but anecdotally had diarrhea and/or vomiting (along with possible other GI illnesses) since May 26, 2017.

Laboratory

Laboratory testing for GI illness was highly recommended for ill residents in order to identify the etiologic agent, target infection prevention measures and control the outbreak within Facility "A." Laboratory testing was focused on the presence of norovirus.

Two laboratory tests were conducted and the specimens collected were stool samples.

In order to prevent further spread of illness, the OPHIE Outbreak Response Team disseminated recommendations for the prevention and control of norovirus gastroenteritis outbreaks to facility "A."

RESULTS

Epidemiology

A total of 35 cases (33 probable and 2 confirmed) were reported. Illness onset occurred between May 26 and June 1,

2017. The epidemic curve is presented in Figure 1 and shows the distribution of illness onset dates.

The outbreak included one suspect case which was not counted in the final numbers due to a lack of information on symptoms.

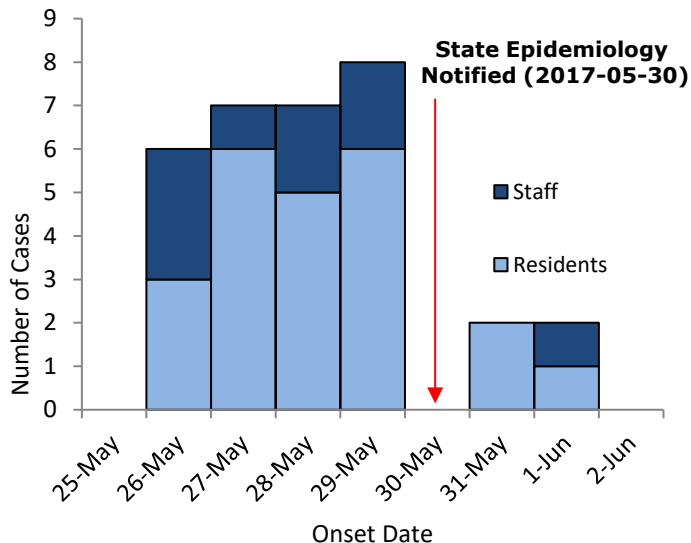


Figure 1. The epidemic curve of norovirus (n=35) associated with an assisted living facility in Washoe County, Nevada from May 26-June 1, 2017.

The peak illness onset date was May 29, 2017. Among the 35 cases, the average age was 76 years old (range 22-98 years) and females comprised 85.7% of the cases.

Symptomatic cases reported diarrhea (80%) and vomiting (54%). The average duration of illness for cases was approximately one day (range one – three days). The resident attack rate was 40.3%, the staff attack rate was 30%, and the overall attack rate was 37%.

Laboratory

Of the two specimens tested, both tested positive for norovirus genogroup II.

Mitigation

After the cause of the outbreak was determined to be norovirus, DPBH reiterated to the facility the same information given at the start of the outbreak for preventing and controlling norovirus gastroenteritis outbreaks.

CONCLUSIONS

A gastrointestinal illness outbreak occurred among residents and staff at Facility “A,” an assisted living facility in Washoe County, Nevada from May 26 through June 1, 2017. Confirmatory test results indicated norovirus was the causative agent and the mode of transmission was believed to be person-to-person.

In total, 35 persons were classified as cases; 26 residents and 9 staff of the facility. Symptoms included diarrhea, vomiting, and nausea with illness duration lasting an average of one day. Residents of the facility had the highest attack rate at 40.3%. The epidemiologic link between cases was believed to be the facility in which the residents lived and the staff worked.

The outbreak ceased June 1, 2017.

RECOMMENDATIONS

To prevent such norovirus outbreaks in healthcare settings, the following public health measures are recommended:

- Follow hand-hygiene guidelines and careful washing of hands with soap and water after contact with patients with norovirus infection.
- Use gowns and gloves when in contact with or caring for patients who are symptomatic with norovirus.
- Routinely clean and disinfect high touch patient surfaces and equipment with an Environmental Protection Agency-approved product with a label claim for norovirus.
- After vomiting or having diarrhea, immediately clean and disinfect contaminated surfaces using a bleach-based household cleaner as directed on the product label. If no such cleaning product is available, you can use a solution made with five tablespoons to 1½ cups of household bleach per one gallon of water.¹
- Remove and wash contaminated clothing and linens.
- Exclude healthcare workers who have symptoms consistent with norovirus from work for 72 hours past their last symptom.²

REFERENCES

1. Centers for Disease Control and Prevention. *Prevent the Spread of Norovirus*. November 20, 2014.
<http://www.cdc.gov/features/norovirus/>
2. Centers for Disease Control and Prevention. *Norovirus in Healthcare Settings*. February 25, 2013. Retrieved from
<http://www.cdc.gov/HAI/organisms/norovirus.html>.

Email: outbreak@health.nv.gov
Tel: (775) 684-5911



Brian Sandoval
Governor
State of Nevada

Richard Whitley, MS
Director
Department of Health and Human Services

Cody L Phinney, MPH
Administrator
Division of Public and Behavioral Health

John DiMuro, D.O., MBA
Chief Medical Officer
Division of Public and Behavioral Health

For additional information regarding this
publication, contact:

Office of Public Health Informatics and Epidemiology
4126 Technology Way, Ste 200
Carson City NV 89706



RECOMMENDED CITATION

Division of Public and Behavioral Health. Office of Public Health Informatics and Epidemiology. Epidemiologic Investigation Summary, *Norovirus Outbreak among Residents and Staff of an Assisted Living Facility in Washoe County, Nevada, 2017*. v 2017. i 18. e 1.0. June 2017.

ACKNOWLEDGEMENTS

Thank you to all persons who contributed to this publication:

Jessica Conner, MPH; Liliana E. Wilbert, MPH; Brian Parrish, MPH; Kimisha Causey, MPH; Adrian Forero, BS; Judy Dumonte; Rick Sowadsky, MSPH; Ihsan Azzam, MD, MPH; Melissa Peek-Bullock; Andrea Rivers.

This report was produced by the Office of Public Health Informatics and Epidemiology of the Division of Public and Behavioral Health with funding from budget account 3219.