

EPIDEMIOLOGIC INVESTIGATION SUMMARY

NOROVIRUS OUTBREAK AMONG RESIDENTS AND STAFF OF A SKILLED NURSING FACILITY IN WASHOE COUNTY, NEVADA, 2018

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

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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 January 25, 2018, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was informed by a concerned family member of a resident of a gastrointestinal (GI) illness among residents of Facility "A." The outbreak or increase in illness was first identified by staff of the facility on January 22, 2018. Initial symptomology of the ill residents included nausea, vomiting, and diarrhea. The outbreak investigation began on January 25, 2018.

CASE DEFINITIONS

Clinical criteria An illness with gastroenteritis that presents with the following symptoms: vomiting, diarrhea, abdominal cramps or stomach ache, nausea, with or without fever between date to date.

Vomiting OR Diarrhea OR Abdominal cramping (stomach ache) + fever* OR Nausea + fever*
*fever refers to self-reported fever or measured elevated temp.

Epidemiological criteria Any residents or staff members associated with Facility "A" identified through investigations.

Epidemiology

Onset Date

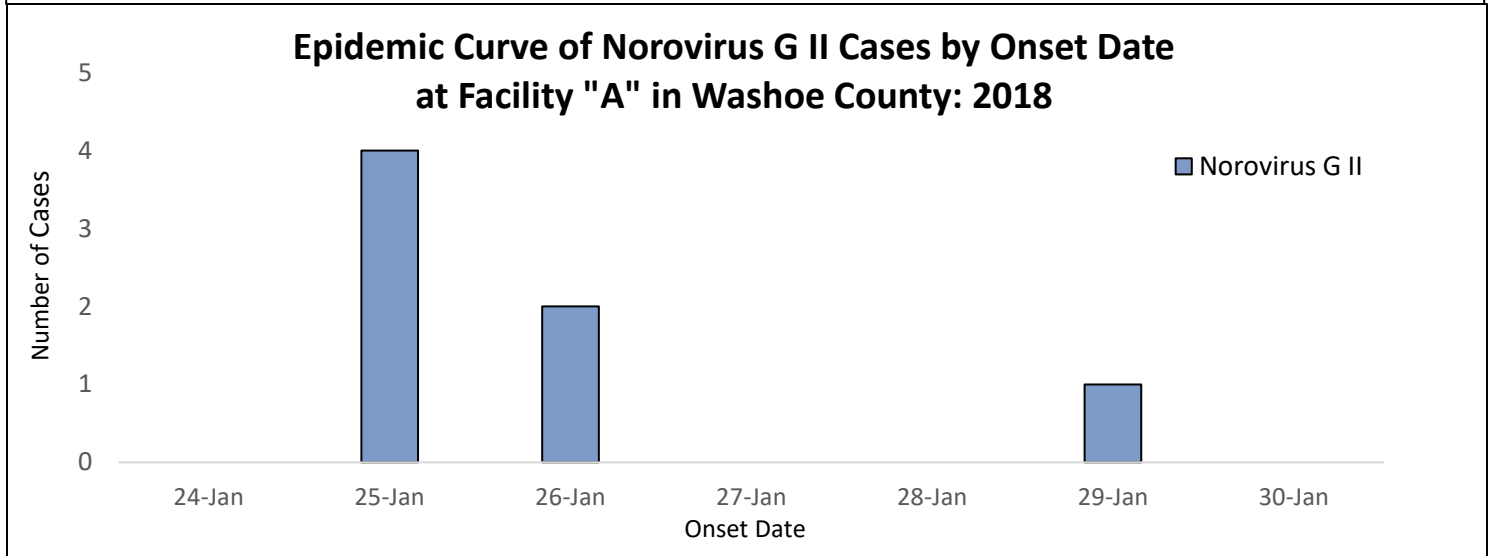
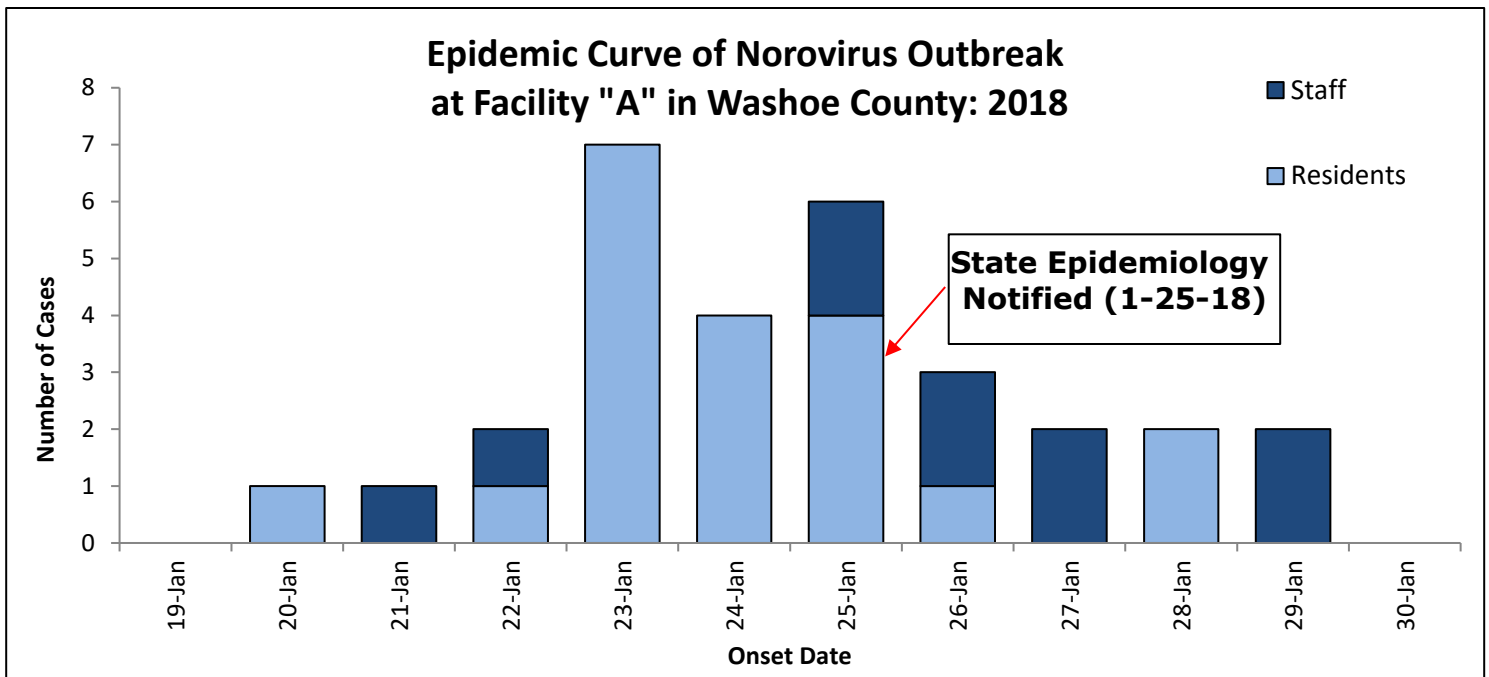
The peak illness onset date was January 23, 2018.

Laboratory criteria Any laboratory confirmation by PCR or other method from a human specimen for an enteric etiology.

Case classification

A **confirmed case** A case meeting clinical, epidemiological, and laboratory criteria.

A **probable case** A case meeting the following clinical criteria and epidemiological criteria.



Epidemiology Summary

A total of 30 cases met the confirmed and probable case definition (7 lab-confirmed and 23 probable). There were no deaths or hospitalizations associated with this outbreak.

The resident attack rate was 50% (n=40) and the staff attack rate was 20% (n=50). The overall attack rate was 33.3%.

Age- The median age was 69 (range: 19 – 98 years).

Age	n	Total N	%
10-19 years	1	30	3.3%
20-49 years	7	30	23.3%
50-74 years	6	30	20.0%
> = 75	16	30	53.3%

Sex- Male n=10 (33.3%), Female n=20 (66.7%)

Incubation period- The incubation period for norovirus is 12-48 hours¹.

Duration of illness- The average duration of illness was approximately three days (range one – ten days).

Summary of Symptoms-

Symptoms	n	Total N	%
Abdominal Pain	1	30	3%
Diarrhea	17	30	57%
Fever	0	30	0%
Nausea	20	30	67%
Vomiting	24	30	80%

Laboratory

There was a total of twelve specimens tested, seven of which were positive for norovirus genogroup II.

Data Sources

Residents who reported complaints consistent with GI illness. (line listing form)

Staff who called in with complaints consistent with GI illness. (line listing form)

CONCLUSIONS

The latest onset date occurred on January 29, 2018. The facility completed two incubation periods with no new cases, therefore the outbreak investigation was closed on February 5, 2018.

Mitigation

After lab results confirmed that the cause of the outbreak was norovirus, which has an incubation period of 12-48 hours¹, DPBH reiterated the importance of continued outbreak control measures in order to interrupt further transmission. The facility continued their own mitigation efforts as well.

RECOMMENDATIONS

To prevent 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, which is effective against norovirus, as directed on the product label. If no such cleaning product is available, you can mix a solution with ½ cup of bleach to one gallon of water.

- Remove and wash contaminated clothing and linens.
- Exclude healthcare workers who have symptoms consistent with norovirus from work for 48 hours after the resolution of symptoms.
- During outbreaks, place patients with norovirus gastroenteritis on Contact Precautions for a minimum of 48 hours after the resolution of symptoms to prevent further exposure to susceptible patients.

REFERENCES

1. <https://www.cdc.gov/hai/pdfs/norovirus/229110-anorocasefactsheet508.pdf>

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