

EPIDEMIOLOGIC INVESTIGATION SUMMARY

DIARRHEAL ILLNESS OUTBREAK AMONG RESIDENTS OF AN ASSISTED LIVING FACILITY CLARK COUNTY, NEVADA, 2014

*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 29, 2014, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was informed by a resident that Facility "A" was experiencing a gastrointestinal (GI) illness outbreak. The ill were first identified on January 28, 2014, and the outbreak investigation began on January 29, 2014. Initial symptomology of the ill residents included diarrhea and vomiting.

METHODS

Epidemiology

On January 29, 2014, DPBH provided recommendations to reduce and prevent the spread of illness in Facility "A" including the submission of outbreak case report forms to OPHIE until further notice, 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, employee, or visitor of Facility "A" who was lab confirmed with GI agent since January 28, 2014.

A **probable case** was defined as a resident, employee, or visitor of Facility "A" who was not lab confirmed with GI agent, but had diarrhea and/or vomiting (along with possible other GI illnesses) since January 28, 2014.

A **suspect case** was defined as a resident, employee, or visitor of Facility "A" who was not lab confirmed with a GI agent but anecdotally had diarrhea and/or vomiting (along with possible other GI illnesses) since January 28, 2014.

Site Visit

A site visit was conducted at Facility "A" on January 30, 2014. The reason for the site visit was the facility's poor performance during past inspections, warranting the visit from the Outbreak Investigation Team. Interviews were conducted with the facility's administrators and nurses.

Laboratory

Laboratory testing for gastrointestinal illness was recommended for ill residents and one stool sample was collected. One resident provided a stool samples and three residents provided urine samples.

Mitigation

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

RESULTS

Epidemiology

A total of 8 probable cases were reported. Illness onset occurred between January 28, and January 30, 2014. The epidemic curve is presented in Figure 1 and shows the distribution of illness onset dates.

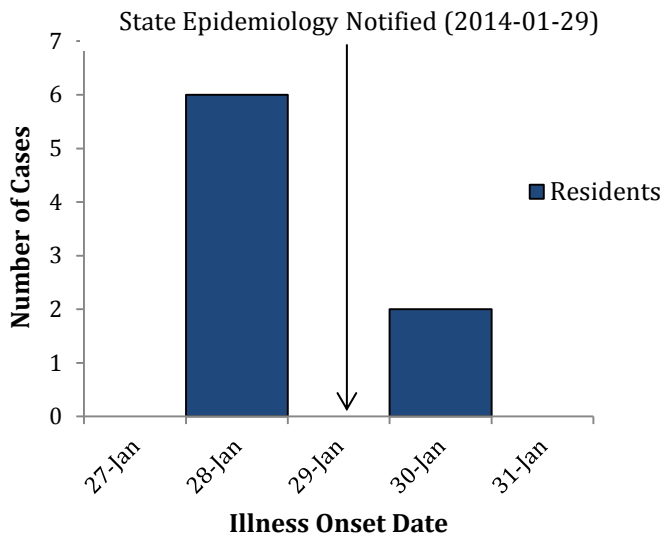


Figure 1. The epidemic curve of diarrheal illness (n=8) associated with an assisted living facility in Clark County, Nevada from January 28-30, 2014.

The peak illness onset date was January 28, 2014. Among the 8 cases, the average age was 69 years old (range 59-88 years). Males comprised 50% of the cases.

Symptomatic cases reported diarrhea (100%), vomiting (100%), and nausea (62.5%). The average duration of illness was 3 days (range 2-3 days). The attack rate was 6.9% among residents.

Site Visit

OPHIE emphasized the use of sanitizers on high touch surfaces meant to kill norovirus, the proper cleaning of soiled linens, and the importance of hanging signs indicating residents were ill. The kitchen was inspected during the site visit and led to the discovery of a broken freezer thermometer, cooking staff not cleaning food thermometers when switching to different food items, and cockroaches being found in the kitchen and throughout the facility. Before ending the site visit, educational materials including CDC recommendations were given to the facility.

Laboratory

Ova, parasites, or norovirus were not detected in the specimens tested. Of the 3 urine specimens tested, the results were indeterminate.

Mitigation

Although the cause of the outbreak was undetermined, DPBH reiterated to the facility the recommendations for preventing and controlling future norovirus gastroenteritis outbreaks along with guidance for fixing issues found during the site visit.

CONCLUSIONS

A diarrheal illness outbreak occurred among residents at Facility "A", an assisted living facility in Clark County, Nevada from January 28, through January 30, 2014. Test results were unable to determine the causative agent, resulting in the outbreak classification: diarrheal illness not otherwise specified. Mode of transmission remains unknown.

In total, 8 persons were classified as probable cases, all of them were residents. Symptoms included diarrhea, nausea, and vomiting with illness duration lasting an average of 3 days. Residents of the facility had an attack rate of 6.9%. The epidemiologic link between cases was believed to be the facility in which the residents lived.

The outbreak ceased as of January 31, 2014.

RECOMMENDATIONS

To prevent diarrheal illness outbreaks in healthcare settings, the following public health measures are recommended:

- Follow hand-hygiene guidelines, and carefully wash hands with soap and water after contact with patients with diarrheal illness.
- Use gowns and gloves when in contact with, or caring for patients who are symptomatic.
- Routinely clean and disinfect high touch patient surfaces and equipment.
- Remove and wash contaminated clothing and linens.

- Exclude healthcare workers who have symptoms consistent with diarrheal illness from work.¹

REFERENCES

1. Centers for Disease Control and Prevention. *Norovirus in Healthcare Settings*. February 25, 2013. Retrieved January 28, 2014, from <http://www.cdc.gov/HAI/organisms/norovirus.html>.

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