

EPIDEMIOLOGIC INVESTIGATION SUMMARY

DIARRHEAL ILLNESS OUTBREAK AMONG RESIDENTS AND STAFF OF AN ASSISTED LIVING FACILITY CLARK COUNTY, NEVADA, 2013

*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 December 20, 2013, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was informed by the director of health services at Facility “A” of a gastrointestinal illness among residents. The problem was first identified by facility staff on December 14, 2013. Symptomology of the ill residents included diarrhea, nausea, and vomiting. The outbreak investigation began on December 20, 2013.

METHODS

Epidemiology

On December 20, 2013, 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, and exclusion of symptomatic employees from the facility until 72 hours after symptoms resolve.

A **suspect case** was defined as a resident, employee, or staff member of Facility “A” who was not lab confirmed with norovirus GI, GII, or untyped, but who anecdotally had diarrhea, vomiting, and/or other gastrointestinal illnesses since December 14, 2013.

A **probable case** was defined as a resident, employee, or staff member of Facility “A” who was not lab confirmed with norovirus GI, GII, or untyped, but who had diarrhea, vomiting, and/or other symptoms of norovirus since December 14, 2013.

A **confirmed case** was defined as a resident, employee, or staff member of Facility “A” who was lab confirmed with norovirus GI, GII, or untyped since December 14, 2013.

Laboratory

Laboratory testing for gastrointestinal illness was not recommended for ill residents, as stool samples were not collectable because ill individuals no longer exhibited diarrhea when they received physician orders.

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 43 probable cases were reported. Illness onset ranged between December 14 and December 26, 2013. The epidemic curve is presented in Figure 1 and shows the distribution of illness onset dates.

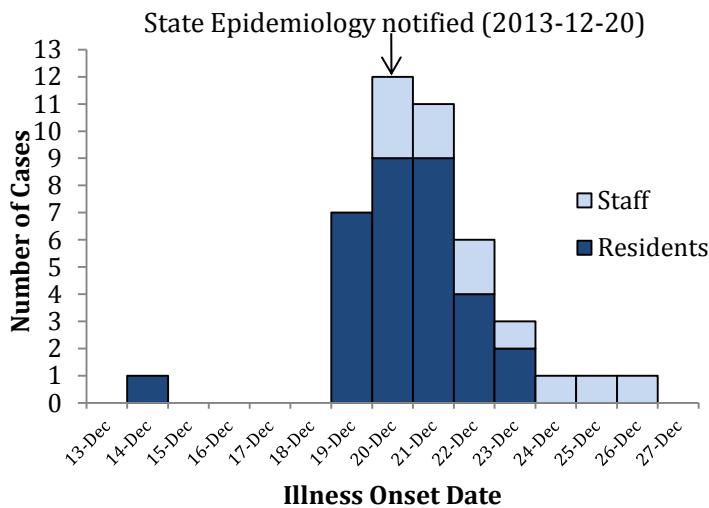


Figure 1. The epidemic curve of diarrheal illness (n=43) associated with an assisted living facility in Clark County, Nevada from December 14-26, 2013.

The peak illness onset date was December 20, 2013. Among the 43 cases, the median age was 75 years old (range 19-95 years). Males comprised 18.6 % of cases.

Symptomatic cases reported diarrhea (93%), vomiting (48.8%), and nausea (2.3%). The duration of illness of most cases was 2 days (range 1-4 days). The resident attack rate was 25.8%, the staff attack rate was 13.9%, and the overall attack rate was 21.2%.

Laboratory

No specimens were able to be collected or tested.

Mitigation

Although the cause of the outbreak was undetermined, DPBH reiterated to the facility the recommendations for preventing and controlling future norovirus gastroenteritis outbreaks.

CONCLUSIONS

A diarrheal illness outbreak occurred among residents and staff at Facility “A,” an assisted living facility in Clark County, Nevada from December 14 through December 26, 2013. No confirmatory test results were conducted, resulting in the

outbreak classification: diarrheal illness not otherwise specified. It was most likely transmitted person-to-person.

In total, 43 persons were classified as probable cases, 32 residents and 11 staff of the facility. Symptoms included diarrhea, nausea, and vomiting with illness duration lasting an average of 2 days. Residents of the facility had the highest attack rate (25.8%). The epidemiological link between cases was believed to be the facility in which the residents lived and the staff worked.

The outbreak ceased as of December 27, 2013.

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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