

EPIDEMIOLOGIC INVESTIGATION SUMMARY

DIARRHEAL ILLNESS OUTBREAK AMONG RESIDENTS AND STAFF OF A SKILLED NURSING FACILITY LYON 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 February 4, 2014, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was informed by a skilled nursing facility staff member of a gastrointestinal (GI) illness among residents and staff of Facility "A". The problem was first identified by staff of the facility on February 4, 2014. Initial symptomology of the ill residents and staff included diarrhea, nausea, and vomiting. The outbreak investigation began on February 5, 2014.

METHODS

Epidemiology

On February 5, 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 February 4, 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 February 4, 2014.

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 rotavirus, *Clostridium difficile*, and norovirus. Due to the short duration of symptoms and the outbreak, laboratory testing could not be conducted.

Mitigation

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

RESULTS

Epidemiology

A total of 4 probable cases were reported. Illness onset occurred February 4, 2014. The epidemic curve is presented in Figure 1.

The peak illness onset date was February 4, 2014. Among the 4 cases, the median age was 65 and females comprised 100% of cases.

Symptomatic cases reported diarrhea (100%), vomiting (50%), and nausea (25%). The duration of illness of resident cases was 1 day and there were no hospitalizations. Duration of illness for staff cases was not available. The resident attack rate was 4.7%, the staff attack rate was 3.2%, and the overall attack rate was 3.8%.

In total, 4 persons were classified as cases: 2 residents and 2 staff of the facility. Symptoms included diarrhea, nausea, and vomiting with illness duration lasting an average of 1 day. Residents of the facility had the highest attack rate (4.7%). The epidemiologic link between cases was believed to be the facility in which the residents lived and the staff worked.

The outbreak ceased as of February 5, 2014.

RECOMMENDATIONS

To prevent such GI 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.
- Remove and wash contaminated clothing and linens.
- Exclude healthcare workers who have symptoms consistent with norovirus 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>.

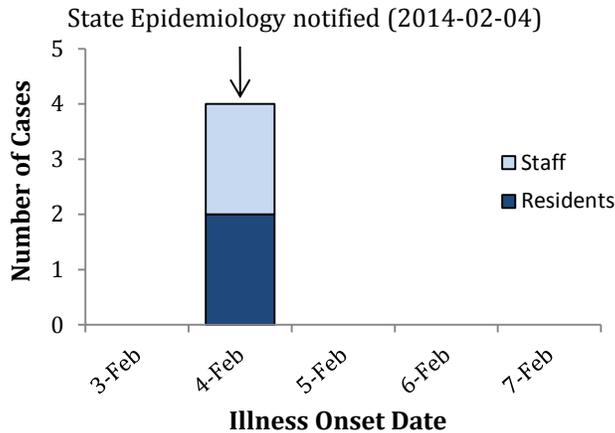


Figure 1. The epidemic curve of gastrointestinal illness (n=4) associated with a skilled nursing facility in Lyon County, Nevada, on February 4, 2014.

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 GI illness outbreak occurred among residents and staff at Facility “A”, a skilled nursing facility in Lyon County, Nevada, on February 4, 2014. No confirmatory test results were conducted, resulting in the outbreak classification: diarrheal illness not otherwise specified. Mode of transmission remains unknown.

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