

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 February 3, 2014, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was informed by an anonymous consumer complaint that Facility "A" was experiencing a gastrointestinal (GI) illness outbreak among its residents. The problem was first identified on January 31, 2014. Initial symptomology of the ill residents included diarrhea and vomiting and the outbreak investigation began on February 3, 2014.

METHODS

Epidemiology

On February 3, 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, staff member, or visitor of Facility "A" who is lab confirmed with a GI agent since January 31, 2014.

A **probable case** was defined as a resident, staff member, or visitor of Facility "A" who was not lab confirmed with a GI agent but had diarrhea and/or vomiting (along with possible other GI illnesses) since January 31, 2014.

A **suspect case** was defined as a resident, employee, or staff member of Facility "A" who was not lab confirmed with a GI agent, but who anecdotally had diarrhea and/or vomiting (along with possible other GI illnesses) since January 31, 2014.

Site Visit

A site visit was conducted at Facility "A" on February 3, 2014. The reason for the site visit was the facility's poor performance during past inspections, warranting the visit from the Outbreak Investigation Team. Two nurses and the Administrator were on duty at the time of the site visit.

Laboratory

Laboratory testing for GI illness was recommended for ill residents in order to identify the etiologic agent, target infection prevention measures, and control the outbreak within Facility "A". Stool samples were the recommended specimen type for laboratory testing.

No laboratory tests were conducted for this outbreak.

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 to Facility "A".

The facility conducted its own prevention measures during the outbreak. The facility kept their clients in their rooms and fed them individually. Symptomatic staff members were also sent home and were only allowed back 72 hours after their symptoms had ceased. Lastly, community areas of the facility were closed.

RESULTS

Epidemiology

A total of 6 probable cases were reported. Illness onset ranged between June 31, and February 4, 2013. The epidemic curve is presented in Figure 1 and shows the distribution of illness onset dates.

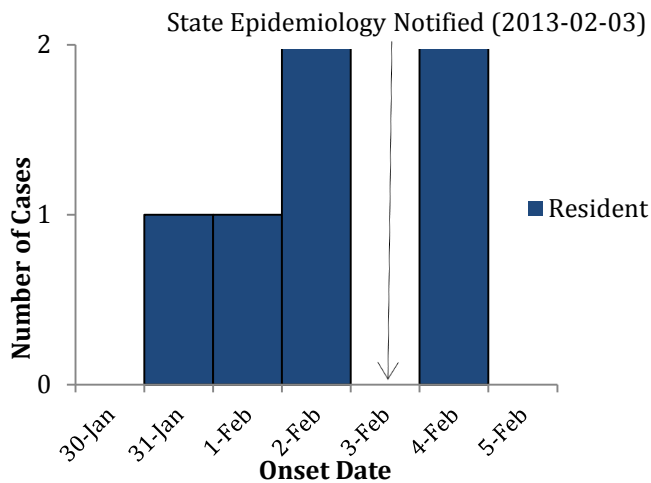


Figure 1. The epidemic curve of diarrheal illness (n=6) associated with an assisted living facility in Clark County, Nevada from January 31, to February 4, 2014

The peak illness onset date was February 2, 2014, and February 4, 2014. Among the 6 cases, the average age was 88 years old (range 83-95 years) and males comprised 66.7% of the cases.

Symptomatic cases reported diarrhea (100%), nausea (50%), and vomiting (33.3%). The average duration of illness was 4 days and the resident attack rate was 12.5%.

Site Visit

During the site visit the following infection control practices performed by the facility were observed: signs posted throughout the facility indicating a possible outbreak was occurring, staff used water/bleach solution for cleaning, and terminal cleaning occurred whenever possible. The

following recommendations were given to Facility “A” following the site visit: re-educate staff on outbreak procedures, use of infection control materials given by Outbreak Investigation Team, and emphasis on the importance of client GI illness surveillance.

Laboratory

No specimens were 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 along with guidance for fixing issues found during the site visit.

CONCLUSIONS

A GI illness outbreak occurred among residents at Facility “A”, an assisted living facility in Clark County, Nevada from January 31, through February 4, 2014. Facility “A” was unable to meet the request to collect and test laboratory specimens resulting in the outbreak classification: diarrheal illness not otherwise specified. The mode of exposure for this outbreak was unknown.

In total, 6 persons were classified as probable cases and all were residents of Facility “A”. Symptoms included diarrhea, nausea, and vomiting with illness duration lasting an average of four days with a resident attack rate of 12.5%. 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 February 5, 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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