

EPIDEMIOLOGIC INVESTIGATION SUMMARY

GASTROINTESTINAL ILLNESS OUTBREAK AMONG RESIDENTS AND STAFF OF AN ASSISTED LIVING FACILITY IN CLARK COUNTY, NEVADA, 2015

*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 April 29, 2015, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was informed by the Administrator of Facility "A" of a gastrointestinal (GI) illness outbreak among residents and staff at Facility "A." The problem was first identified by staff on April 23, 2015. Initial reported symptomology of the ill residents and staff included diarrhea, and nausea. The outbreak investigation began on April 29, 2015.

METHODS

Epidemiology

On April 29, 2015, 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 gastrointestinal agent who has diarrhea or vomiting (and possibly other GI symptoms as well e.g. nausea, abdominal pain) since April 23, 2015.

A **probable case** was defined as a resident, staff member, or visitor of Facility "A" who is not lab confirmed with a gastrointestinal agent but who has diarrhea or vomiting (and possibly other GI symptoms as well e.g. nausea, abdominal pain) since April 23, 2015.

A **suspect case** was defined as a resident, staff member, or visitor of Facility "A" who is not lab confirmed with a

gastrointestinal agent but who anecdotally has diarrhea or vomiting (and possibly other GI symptoms as well e.g. nausea, abdominal pain) since April 23, 2015.

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 norovirus.

No laboratory specimens were collected and tested during this outbreak.

Mitigation

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

Additionally, the facility incorporated its own prevention measures at the beginning of this outbreak. Facility “A” isolated residents as a precaution.

RESULTS

Epidemiology

A total of 14 probable cases were reported. Illness onset occurred between April 23 and May 2, 2015. The epidemic curve is presented in Figure 1 and shows the distribution of illness onset dates.

The outbreak included two suspect cases which were not counted in the final numbers due to a lack of information on symptoms.

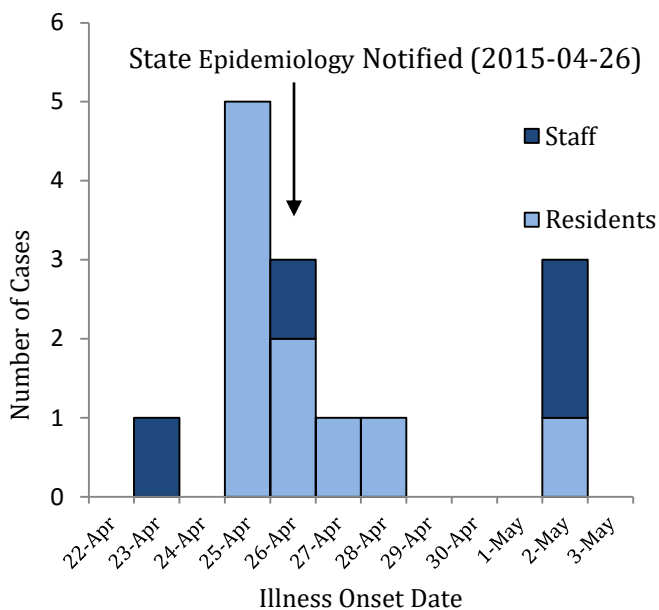


Figure 1. The epidemic curve of a gastrointestinal outbreak (n=16) associated with an assisted living facility in Clark County, Nevada from April 23-May 2, 2015

The peak illness onset date was April 25, 2015. Among the 14 cases, the average age was 68 years old (range 22-94 years). Males comprised 28.6% of cases.

Symptomatic cases reported diarrhea (71%), vomiting (43%), nausea (14%), cough (14%), and fever (14%). The average duration of illness for cases was approximately three days (range two–five days). The resident attack rate was 7.9%, the staff attack rate was 5.7%, and the overall attack rate was 7.1%.

Laboratory

No laboratory specimens were collected and tested during this outbreak.

Mitigation

Although the cause of the outbreak was undetermined, DPBH reiterated to the facility the same information given at the start of the outbreak investigation for preventing and controlling norovirus gastroenteritis outbreaks.

CONCLUSIONS

A GI illness outbreak occurred among residents and staff at Facility “A,” an assisted living facility in Clark County, Nevada from April 23 through May 2, 2015. Confirmatory test results indicated norovirus of unknown genogroup was the causative agent and the mode of transmission was believed to be person-to-person.

In total, 14 persons were classified as cases; 10 residents and 6 staff. Symptoms included diarrhea, vomiting, nausea, cough, and fever with illness duration lasting an average of three days. Residents of the facility had the highest attack rate (7.9%) and one resident received emergency room care. 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 May 3, 2015.

RECOMMENDATIONS

To prevent such 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 or GI illness.
- Use gowns and gloves when in contact with or caring for patients who are symptomatic with norovirus or GI illness.
- Routinely clean and disinfect high touch patient surfaces and equipment with an Environmental Protection Agency-approved product with a label claim for norovirus or GI illness.

- Remove and wash contaminated clothing and linens.
- Exclude healthcare workers who have symptoms consistent with norovirus or GI 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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