

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 May 19, 2015, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was informed by the memory care Director of Facility "A" of a gastrointestinal (GI) illness outbreak among residents and staff at Facility "A." The problem was first identified by staff on May 17, 2015. Initial reported symptomology of the ill residents and staff included diarrhea, vomiting, and fever. The outbreak investigation began on May 19, 2015.

METHODS

Epidemiology

On May 19, 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 May 17, 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 May 17, 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 May 17, 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, rotavirus, and *C. difficile*.

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” increased the cleaning of high touch surfaces, isolated cases, closed down the dining room and all community activity areas as well as educate visitors.

RESULTS

Epidemiology

A total of 29 probable cases were reported. Illness onset occurred between May 17 and May 20, 2015. The epidemic curve is presented in Figure 1 and shows the distribution of illness onset dates.

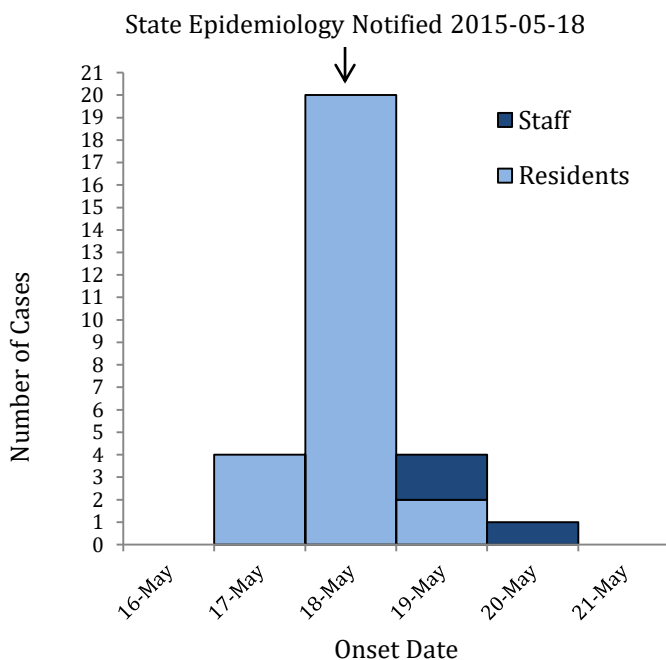


Figure 1. The epidemic curve of a gastrointestinal outbreak (n=34) associated with an assisted living facility in Clark County, Nevada from May 17-May 20, 2015

The outbreak included one suspect case which is not counted in the final number due to lack of information. The peak illness onset date was May 18, 2015. Among the 29 cases, the average age was 79 years old (range 23-98 years). Males comprised 27.6% of cases.

Symptomatic cases reported diarrhea (83%), vomiting (52%), and fever (3%). The average duration of illness for cases was approximately 2 days (range 1–5 days). The resident attack rate was 63.4%, the staff attack rate was 13.6%, and the overall attack rate was 46.0%.

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 May 17 through May 20, 2015. Confirmatory test were not conducted resulting in the outbreak being classified as GI illness outbreak. The mode of transmission was believed to be person-to-person.

In total, 29 persons were classified as probable cases; 26 residents and 3 staff. Symptoms included diarrhea, vomiting, and fever with illness duration lasting an average of 2 days. Residents of the facility had the highest attack rate (63.4%). 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 21, 2015.

RECOMMENDATIONS

To prevent such GI illness 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 GI illness.
- Use gowns and gloves when in contact with or caring for patients who are symptomatic with 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.

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

For additional information regarding this publication, contact:

Office of Public Health Informatics and Epidemiology
4126 Technology Way, Ste 200
Carson City NV 89706
Email: outbreak@health.nv.gov
Tel: (775) 684-5911



Brian Sandoval
Governor
State of Nevada

Richard Whitley, MS
Director
Department of Health and Human Services

Cody L Phinney, MPH
Administrator
Division of Public and Behavioral Health



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