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 February 26, 2015, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was informed by the Infection Control Nurse at Facility "A" of a gastrointestinal (GI) illness outbreak among residents and staff at Facility "A". The problem was first identified by staff on February 24, 2015 and Initial reported symptomology of the ill individuals included abdominal cramps, vomiting, diarrhea, and nausea. The outbreak investigation began on February 27, 2015.

METHODS

Epidemiology

On February 26, 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 was lab confirmed with GI agent since February 24, 2015.

A **probable case** was defined as a resident, staff member, 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 24, 2015.

A **suspect case** was defined as a resident, staff member, or visitor of Facility "A" who was not lab confirmed with GI agent but anecdotally had diarrhea and/or vomiting (along with possible other GI illnesses) since February 24, 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.

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

RESULTS

Epidemiology

A total of 22 cases were reported. Illness onset occurred between February 24 and March 9, 2015. The epidemic curve is presented in Figure 1 and shows the distribution of illness onset dates.

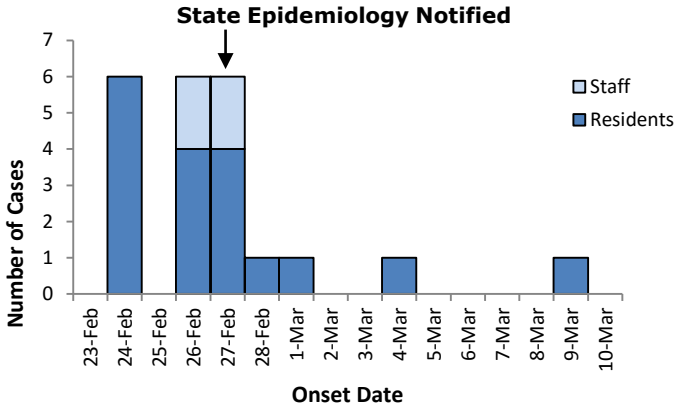

Figure 1. The epidemic curve of GI illness (n=22) associated with an Assisted Living Facility in Clark County, Nevada from February 24-March 9, 2015

The peak illness onset dates were February 24, 26 and 27, 2015. Among the 22 cases, the average age was 77 years old (range 39-98 years) and males comprised 4.5% of the cases.

Symptomatic cases reported diarrhea (100%), vomiting (63.6%), fatigue (40.9%), nausea (27.3%), malaise (9.1%), and abdominal pain (4.5%). Average duration of illness could not be calculated because information on illness duration was not reported. The resident attack rate was 16.7%, the staff attack rate was 6.7%, and the overall attack rate was 13.1%.

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 recommendations for preventing and controlling future GI outbreaks with an emphasis on norovirus.

CONCLUSIONS

A GI outbreak occurred among residents and staff at Facility "A," an assisted living facility in Clark County, Nevada from February 24 through March 9. Confirmatory test were not conducted resulting in the outbreak being classified as a GI outbreak.

In total, 22 persons were classified as cases; 18 residents and 4 staff of the facility. Symptoms included diarrhea, vomiting, fatigue, nausea, malaise and abdominal pain. Residents of the facility had the highest attack rate at 16.7%. The epidemiologic link between cases was believed to be the facility in which the residents lived and the staff worked.

The outbreak ceased March 10, 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.
- 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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