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 28, 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 18, 2015. Initial reported symptomology of the ill residents included diarrhea, vomiting, and nausea. The outbreak investigation began on April 28, 2015.

METHODS

Epidemiology

On April 25, 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 a gastrointestinal agent who had diarrhea or vomiting (and possibly other GI symptoms as well e.g. nausea, abdominal pain) since 4/18/15.

A **probable case** was defined as a resident, staff member, or visitor of Facility "A" who was not lab confirmed with a gastrointestinal agent but who had diarrhea or vomiting (and possibly other GI symptoms as well e.g. nausea, abdominal pain) since 4/18/15.

A **suspect case** was defined as a resident, staff member, or visitor of Facility "A" who was not lab confirmed with a gastrointestinal agent but who anecdotally had diarrhea or vomiting (and possibly other GI symptoms as well e.g. nausea, abdominal pain) since 4/18/15.

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."

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 gastrointestinal illness outbreaks to Facility "A."

Additionally, the facility incorporated its own prevention measures at the beginning of this outbreak. Facility "A" closed its dining rooms and instead provided food to patients in their rooms using food trays. Housekeeping

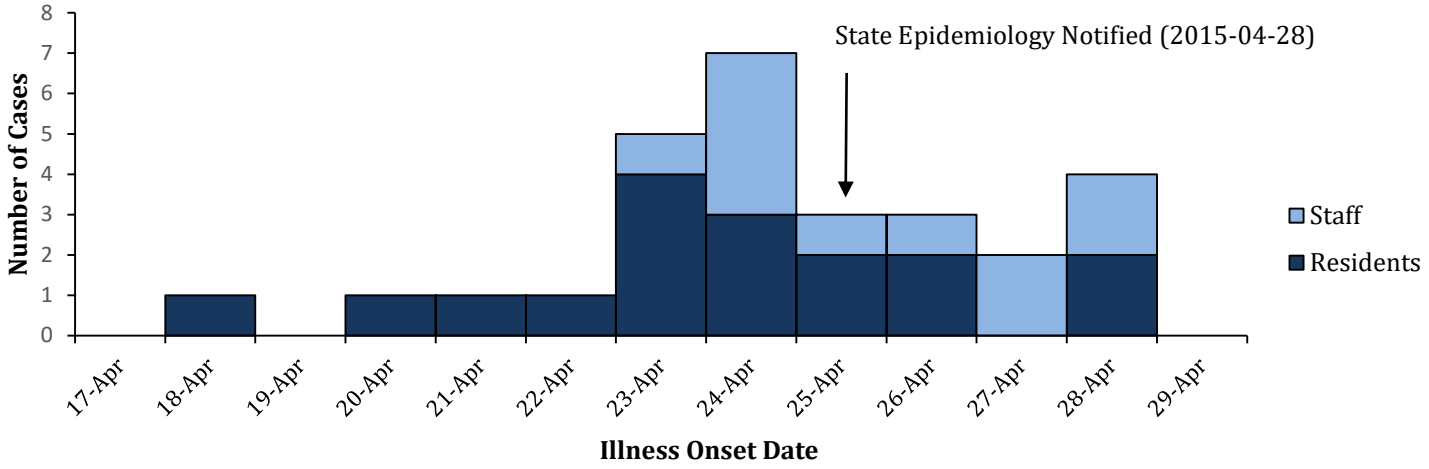

Figure 1. The epidemic curve of a gastrointestinal outbreak (n=28) associated with an assisted living facility in Washoe County, Nevada from April 18-April 28, 2015

conducted terminal cleaning and staff were re-educated on infection control practices along with proper hand hygiene and glove use.

RESULTS

Epidemiology

A total of 28 probable cases were reported. Illness onset occurred between April 18 and April 28, 2015. The epidemic curve is presented in Figure 1 and shows the distribution of illness onset dates.

The peak illness onset date was April 24, 2015. Among the 28 cases, the average age was 65 years old (range 20-93 years). Males comprised 32.1% of cases.

Symptomatic cases reported diarrhea (93%), vomiting (89%), nausea (75%), fever (7.1%), and abdominal pain (4%). The average duration of illness for cases was approximately 3 days (range 1–4 days). The resident attack rate was 16.8%, the staff attack rate was 15.9%, and the overall attack rate was 16.5%.

Laboratory

No laboratory specimens were collected and tested during this outbreak.

Mitigation

After the cause of the outbreak was determined to be gastrointestinal illness, DPBH reiterated to the facility the same information given at the start of the outbreak investigation for preventing and controlling gastrointestinal illness outbreaks.

CONCLUSIONS

A GI illness outbreak occurred among residents and staff at Facility "A," a skilled nursing facility in Washoe County, Nevada from April 18 through April 28, 2015.

In total, 28 persons were classified as probable cases; 17 residents and 11 staff. Symptoms included diarrhea, vomiting, nausea, abdominal pain, and fever with illness duration lasting an average of 3 days. Residents of the facility had the highest attack rate (16.8%). 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 April 29, 2015.

RECOMMENDATIONS

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