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 September 19, 2014, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was informed by the Office Manager at Facility "A" of a gastrointestinal (GI) illness outbreak among facility residents. The problem was first identified on September 17, 2014 and initial symptomology of the ill residents was diarrhea. The outbreak investigation began on September 19, 2014.

METHODS

Epidemiology

On September 19, 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 was lab confirmed with a GI agent since September 17, 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 September 17, 2014.

A **suspect case** was defined as a resident, staff member, or visitor of Facility "A" who was not lab confirmed a GI agent but anecdotally had diarrhea and/or vomiting (along with possible other GI illnesses) since September 17, 2014.

Laboratory

Laboratory testing for GI illness was recommended for ill residents in order to identify the etiologic agent. Laboratory testing was mainly focused on identifying norovirus.

One laboratory was conducted and the specimen collected was a stool sample.

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".

RESULTS

Epidemiology

A total of 24 probable cases were reported. Illness onset dates ranged between September 17 and September 18, 2014. The epidemic curve is presented in Figure 1 and shows the distribution of illness onset dates.

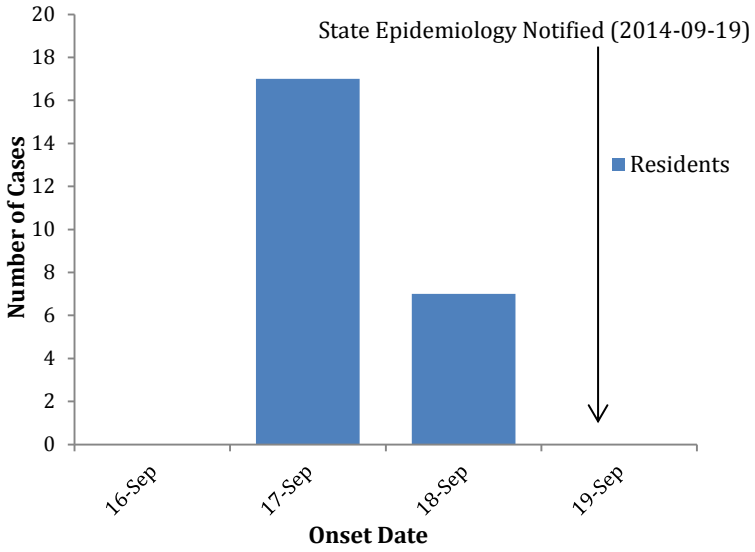

Figure 1. The epidemic curve of diarrheal illness (n=24) associated with an assisted living facility in Clark County, Nevada, from September 17-18, 2014

The peak illness onset date was September 17, 2014. Among the 24 cases, the average age was 84 years old (range 60-96 years) and males comprised 33.3% of the cases.

Symptomatic cases reported diarrhea (100 %) and abdominal pain (100%). The average duration of illness was approximately 4 days (range 3 to 4 days). The resident attack rate was 31.6%.

Laboratory

The result of the laboratory test remained pending once the outbreak investigation closed.

Mitigation

Although the cause of the outbreak was undetermined, DPBH reiterated to the facility the recommendations for preventing and controlling future norovirus gastroenteritis outbreaks.

CONCLUSIONS

A GI illness outbreak occurred among residents at Facility "A," an assisted living facility in Clark County, Nevada, from September 17 through September 18, 2014. The confirmatory test result was pending for norovirus resulting in the outbreak classification: diarrheal illness not otherwise specified. The mode of transmission for this outbreak is unknown.

In total, 24 persons were classified as probable cases and all were residents of the facility. Symptoms included diarrhea and abdominal pain with illness duration lasting an average of 4 days. The resident attack rate was 31.6%. The epidemiologic link between cases was believed to be the facility in which the residents lived.

The outbreak ceased as of September 19, 2014.

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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