

EPIDEMIOLOGIC INVESTIGATION SUMMARY

DIARRHEAL ILLNESS OUTBREAK AMONG RESIDENTS AND STAFF 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*

**September 2014
Edition 1.0
2014 volume, issue 5**

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 3, 2014, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was informed by the Executive Director at Facility "A" of a gastrointestinal (GI) illness outbreak among its residents. The problem was first identified on February 1, 2014, with initial symptomology of the ill being diarrhea and vomiting. The outbreak investigation began on February 3, 2014.

METHODS

Epidemiology

On February 3, 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 February 1, 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 February 1, 2014.

A **suspect case** was defined as resident, staff member, or visitor of Facility "A" who was not lab confirmed with a GI agent but anecdotally had diarrhea and/or vomiting (along with possible other GI illnesses) since February 1, 2014.

Laboratory

Laboratory testing for GI illness was highly recommended for ill residents and staff in order to identify the etiologic agent, target infection prevention measures, and control the outbreak within Facility "A".

No laboratory specimens were collected or tested during this outbreak.

Mitigation

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

To further prevent the spread of illness, Facility "A" conducted its own prevention measures including: terminal cleaning, the use of disinfectants/sanitizers on high touch surfaces, cleaning with bleach/water solution, and double bagging soiled linens. The Administrator of Facility "A" also had precautionary signs placed around the facility regarding

the outbreak and re-trained staff on proper glove use and hand hygiene.

RESULTS

Epidemiology

A total of 30 probable cases were reported. Illness onset ranged between February 1, and February 7, 2014. The epidemic curve is presented in Figure 1 and shows the distribution of illness onset dates.

The outbreak included three suspect cases which were not counted in the final numbers because there was not enough information available to determine if they were a case or not. Suspect cases were determined due to a lack of information on symptoms and patient name.

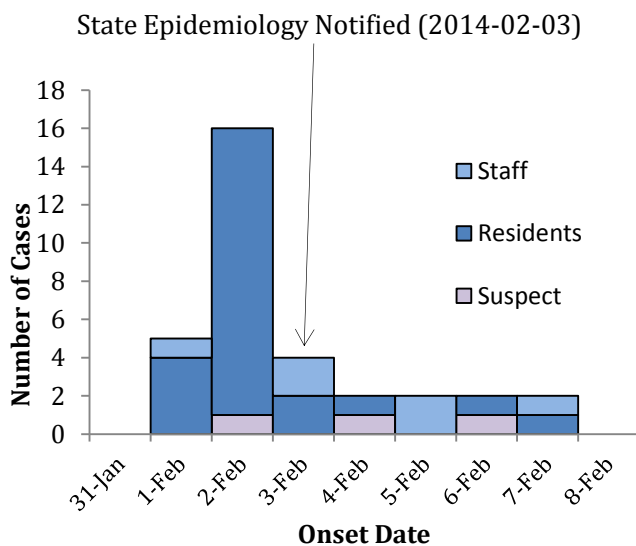


Figure 1. The epidemic curve of diarrheal illness (n=30) associated with an assisted living facility in Clark County, Nevada from February 1 to February 7, 2014

The peak illness onset date was February 2, 2014. Among the 30 cases, the average age was 75 years old (range 84-100 years) and males contributed 23.3% of the cases.

Symptomatic cases reported diarrhea (83.3%) and vomiting (36.7%). The average duration of illness was two days (range 1-3 days). The resident attack rate was 24%, the staff attack rate was 11.3%, and the overall attack rate was 19.6%.

Laboratory

No specimens were collected or tested.

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 diarrheal illness outbreak occurred among residents and staff at Facility "A", an assisted living facility in Clark County, Nevada from February 1, to February 7, 2014. Facility "A" was unable to meet the request to collect and test laboratory specimens resulting in the outbreak classification: diarrheal illness not otherwise specified. The illness was believed to be transmitted person-to-person.

In total, 30 persons were classified as probable cases; 24 residents and six staff of the facility. Symptoms included diarrhea and vomiting with illness duration lasting an average of two days. Residents of the facility had the highest attack rate at 24%. The epidemiological link between cases was believed to be the facility in which the residents lived and the staff worked.

The outbreak ceased as of February 8, 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>.

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

Romaine Gilliland
Director
Department of Health and Human Services

Richard Whitley, MS
Administrator
Division of Public and Behavioral Health

Tracey D Green, MD
Chief Medical Officer
Division of Public and Behavioral Health



RECOMMENDED CITATION

Division of Public and Behavioral Health. Office of Public Health Informatics and Epidemiology. Epidemiological Investigation Summary, *Diarrheal Illness Outbreak among Residents and Staff of an Assisted Living Facility in Clark County, Nevada, 2014*. v 2014. i 5. e 1.0. September 2014.

ACKNOWLEDGEMENTS

Thank you to all persons who contributed to this publication:

Danika Williams, MPH; Maximillian Wegener, MPH; Brian Parrish, MPH; Peter Dieringer, MPH; Kimisha Griffin, MPH; Adrian Forero, BS; Judy Dumonte; Rick Sowadsky, MSPH; Julia Peek, MHA; Ihsan Azzam, MD, MPH; Jay Kvam, MSPH

This report was produced by the Office of Public Health Informatics and Epidemiology of the Division of Public and Behavioral Health with funding from budget account 3219.