

EPIDEMIOLOGIC INVESTIGATION SUMMARY

SCABIES 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*

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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 January 13, 2014, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was first informed by another governmental agency of a rash among residents of Facility "A". The problem was first identified by staff of the facility on January 2, 2014. Initial reported symptomology of the ill residents included a rash that itched. The outbreak investigation began on January 13, 2014. The outbreak was thought to have ceased on January 10, 2014, and was subsequently closed. There were 7 probable cases reported and all were residents of the facility.

On March 19, 2014, OPHIE was informed by another governmental agency of a rash reoccurring among residents of Facility "A". The problem was re-identified by staff of the facility on March 18, 2014. Reported symptoms included rash, itching, and bumps. The outbreak investigation was reopened March 19, 2014.

METHODS

Epidemiology

On January 13, 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 and laboratory testing for dermal illness. Recommendations were reiterated and provided again when the outbreak investigation was re-opened on March 19, 2014.

A **confirmed case** was defined as a resident, staff member, or visitor of Facility "A" who was lab confirmed with scabies since January 2, 2014.

A **probable case** was defined as a resident, staff member, or visitor of Facility "A" who was not lab confirmed with scabies, but had rash, itching, and/or bumps (along with possible other dermal illnesses) since January 2, 2014.

A **suspect case** was defined as a resident, staff member, or visitor of Facility "A" who was not lab confirmed with scabies but anecdotally had rash, itching, and/or bumps (along with possible other dermal illnesses) since January 2, 2014.

Laboratory

Laboratory testing for dermal illness was recommended to identify the etiologic agent, and thereby target infection prevention measures and control the outbreak within Facility "A". Laboratory testing was focused on detecting the presence of scabies and/or shingles.

During the second investigation, two laboratory tests were conducted and the specimens collected were skin scrapings.

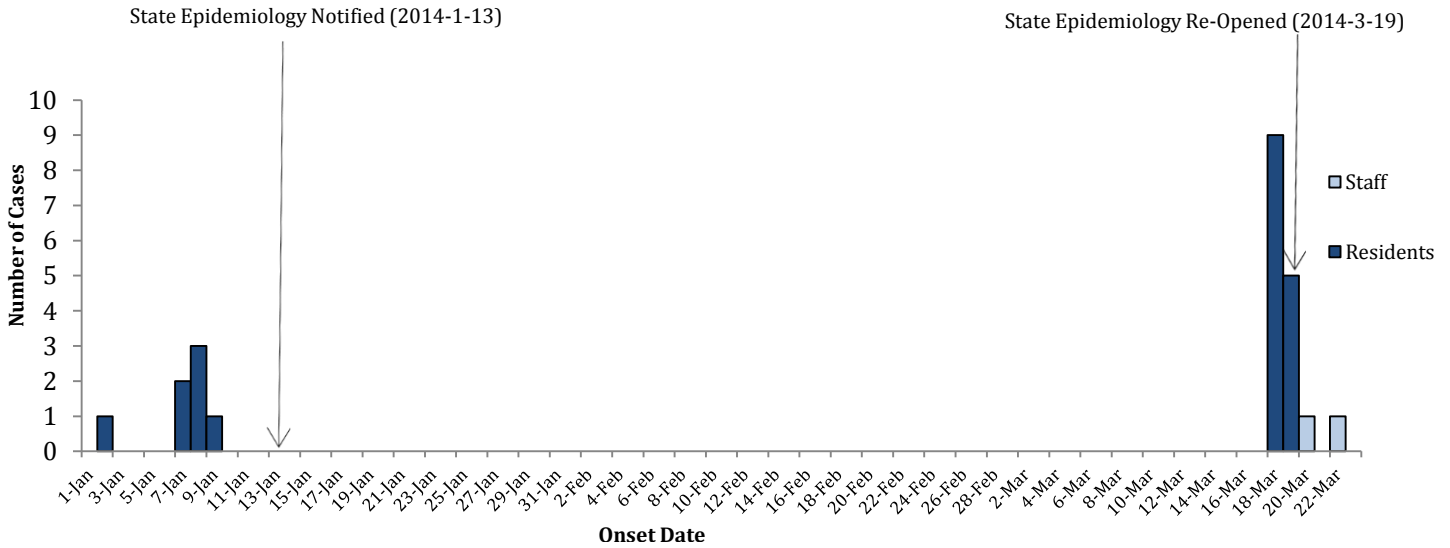


Figure 1. The epidemic curve of a scabies outbreak (n=23) associated with an assisted living facility in Clark County, Nevada from January 2 to March 22, 2014.

Mitigation

Upon reopening the outbreak investigation, the OPHIE Outbreak Response Team disseminated recommendations for the prevention and control of scabies to prevent the further spread of illness in the facility. Topical rash cream was used to treat and reduce rash and any discomfort caused by it.

RESULTS

Epidemiology

A total of 23 cases (21 probable and 2 confirmed) were reported for both investigation periods of the outbreak. Of the cases, 21 were residents and 2 were staff members of Facility “A”. Illness onset occurred between January 2, and March 22, 2014. The epidemic curve is presented in Figure 1 and shows the distribution of illness onset dates.

The peak illness onset date was March 18, 2014. Among the 23 cases, the average age was 86 years old (range 76-94 years). Males comprised 4.3% of the cases.

Symptomatic cases reported rash (87%), itching (13%), and bumps (4.8%). Average duration of illness could not be calculated because information on illness duration was not

reported. The resident attack rate was 40.4%, the staff attack rate was 4.3%, and the overall attack rate was 23.2%

Laboratory

Both specimens tested were positive for scabies. Both positive tests were collected after the outbreak investigation was re-opened in March 2014.

Mitigation

After laboratory tests came back positive for scabies upon re-opening the investigation, DPBH reiterated to the facility the recommendations for preventing and controlling shingles and scabies. Additionally, the facility saw improvements with the use of topical cream throughout the duration of the outbreak.

CONCLUSIONS

A scabies outbreak occurred among residents and staff at Facility “A”, an assisted living facility in Clark County, Nevada from January 2, through March 22, 2014. Test results determined the causative agent to be scabies and the mode of transmission was believed to be person-to-person. In total, 23 persons were classified as cases; 21 residents and 2 staff. Symptoms included rash, itching, and bumps. Residents of the facility had the highest attack rate at 40.4%.

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 March 23, 2014.

RECOMMENDATIONS

To prevent such possible scabies outbreaks in healthcare settings, the following public health measures are recommended:

- Carefully screen and evaluate new patients and employees for any skin conditions that could be compatible with scabies.
- Maintain a high index of suspicion that undiagnosed skin rashes and conditions may be scabies, even if characteristic signs or symptoms of scabies are absent, for instance, no itching.
- Follow appropriate isolation and infection control practices, including gloves, gowns, avoidance of direct skin-to-skin contact, and so on, when providing hands-on care to patients who might have scabies.¹

REFERENCES

1. Centers for Disease Control and Prevention. *Parasites - Scabies*. November 2, 2010. Retrieved January 28, 2014, from:
http://www.cdc.gov/parasites/scabies/health_professionals/prevent.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

Michael J Willden
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



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