EPIDEMIOLOGIC INVESTIGATION SUMMARY

SCABIES OUTBREAK AMONG RESIDENTS OF A LONG TERM CARE FACILITY 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 May 15, 2015, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was first informed by the Infection Preventionist of Facility "A," of a rash illness among residents. The problem was first identified by staff of the facility on April 7, 2015. Initial reported symptomology of the ill residents included a rash that itched. The outbreak investigation began on May 15, 2015.

METHODS

Epidemiology

On May 15, 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 and laboratory testing for dermal illness.

A **confirmed case** was defined as a resident, staff member, or visitor of Facility "A" who is lab confirmed with scabies who has associated symptoms since May 15, 2015.

A **probable case** was defined as a resident, staff member, or visitor of Facility "A" who is not lab confirmed with scabies who has associated symptoms since May 15, 2015.

A **suspect case** was defined as a resident, staff member, or visitor of Facility "A" who is not lab confirmed with scabies but anecdotally has associated symptoms since May 15, 2015.

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 investigation, two laboratory tests were conducted. One of the specimens collected was skin scraping. The other test was a punch biopsy.

Mitigation

At the onset of 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.

Additionally, the Infection Preventionist (IP) isolated an infected patient. The IP also noticed other residents with

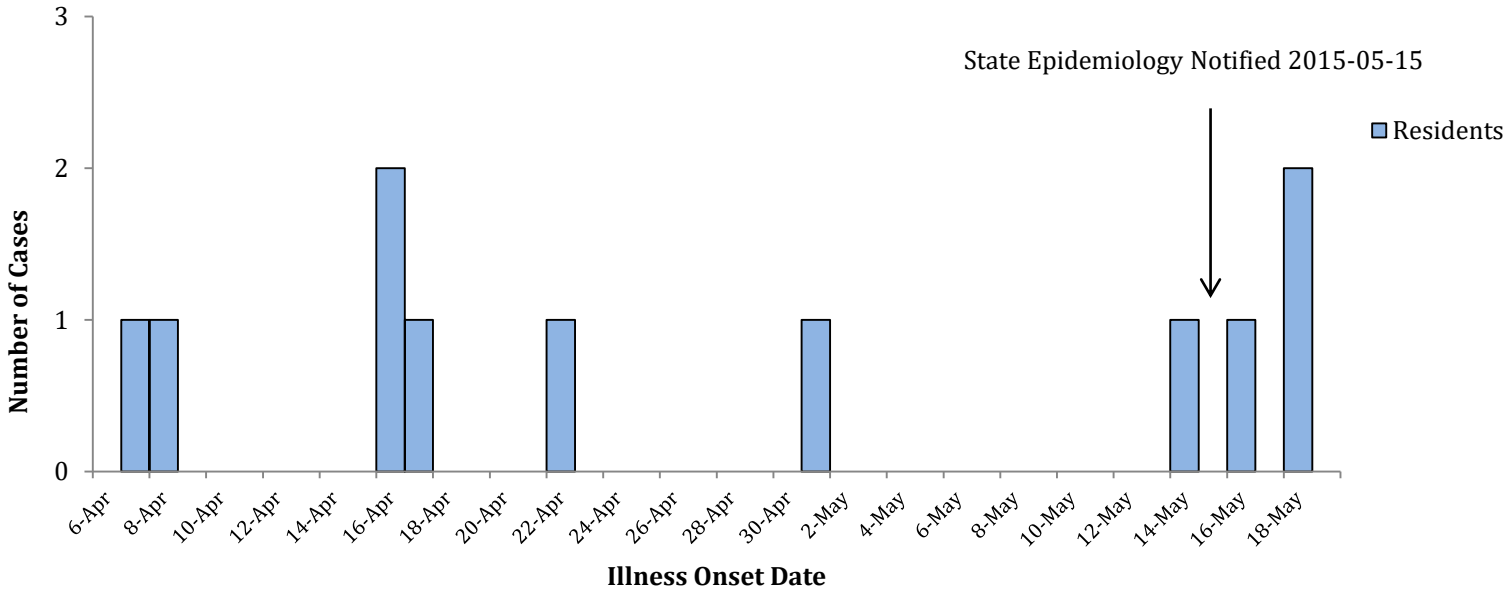

Figure 1. The epidemic curve of a scabies outbreak (n=11) associated with a long term care facility in Clark County, Nevada from April 8 to May 18, 2015.

similar conditions and was instructed to treat them prophylactically. The facility terminally cleaned the rooms, and held all admissions and discharges.

RESULTS

Epidemiology

A total of 11 cases (10 probable and 1 confirmed) were reported for both investigation periods of the outbreak. Of the cases, all of the cases were residents of Facility "A." Illness onset occurred between April 7 and May 18, 2015. The epidemic curve is presented in Figure 1 and shows the distribution of illness onset dates.

The peak illness onset dates were April 16 and May 18, 2015. Among the 11 cases, the average age was 75 years old (range 56-89 years). Males comprised 72.7% of the cases.

Symptomatic cases reported rash (100%) and itching (82%). Average duration of illness was 24 days (range: 2 to 45 days). The resident attack rate was 8.6 and the overall attack rate was 8.6%

Laboratory

The skin scrape test was negative, however the punch biopsy was positive for scabies.

Mitigation

After laboratory tests came back positive for scabies, 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 April 7 through May 18, 2015. Test results determined the causative agent to be scabies and the mode of transmission was believed to be person-to-person.

In total, 11 persons were classified as cases; all of whom were residents. Symptoms included rash and itching. Residents of the facility had an attack rate of 8.6%. The

epidemiological link between cases was believed to be the facility in which the residents lived.

The outbreak ceased as of May 19, 2015.

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.

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