

**Outbreak of Suspected *Pseudomonas* spp. Dermatitis Associated with a Motel Pool
and Hot Tub — Sedgwick County, March 2010**



Background

On March 22, 2010, the Kansas Department of Health and Environment Bureau of Surveillance and Epidemiology (KDHE-BSE) was notified by the Meade County Health Department (MCHD) that some children who belonged to a church group had developed rashes and painful hands after swimming in a Sedgwick County motel pool and hot tub on March 19th and 20th. In response to this complaint, an outbreak investigation was initiated by staff from KDHE-BSE, MCHD, Sedgwick County Health Department (SCHD) and the Wichita Environmental Services Department (WESD).

Methods

Staff at MCHD conducted telephone interviews with the church group members to collect demographic, symptomology, and exposure information. The motel management voluntarily drained the pool and hot tub after being notified of the rash illness. The WESD conducted an environmental inspection of the pool and hot tub on March 29th.

Results

Twenty-six (76%) of the 34 people interviewed reported a rash after swimming. Seventeen (65.4%) individuals reported having a rash on the trunk of the body, 11 (42.3%) reported ear pain, and 8 (30.8%) reported rash on the extremities (Table 1). Of the 26 symptomatic individuals, 13 (50%) were male. The median age was 11, with a range from six months to 38 years. The incubation period ranged from 29 to 77 hours, with a median of 47 hours for 13 of the ill individuals. Nineteen (73.1%) reported seeking care from a physician. Based on the clinical symptoms, a physician visually diagnosed *Pseudomonas* dermatitis and hot hand syndrome for two of the affected individuals.

Table 1: Clinical Information of Cases (n=26)

Symptom	# with symptoms / # of respondents (%)
Rash on the trunk	17/26 (65.4%)
Ear pain	11/26 (42.3%)
Rash on extremities	8/26 (30.8%)
Hand pain	4/26 (15.4%)
Headaches	3/26 (11.5%)
Eye pain	3/26 (11.5%)
Rash on entire body	3/26 (11.5%)
Ear pain	3/26 (11.5%)
Rash on neck	2/26 (7.7%)
Nipple tenderness	1/26 (3.8%)
Rash in armpits	1/26 (3.8%)
Rash on feet	1/26 (3.8%)
Lethargic	1/26 (3.8%)

No violations were found and disinfectant levels were in the appropriate range during the environmental inspection on March 29th. No additional rash illnesses have been reported since the March 22nd incident.

Conclusion

This was a waterborne outbreak of suspected *Pseudomonas* spp. dermatitis associated with a motel swimming pool and hot tub. Heavy bather load, inadequate pool or hot tub care, and prolonged water exposure have all been associated with *Pseudomonas* outbreaks¹. Future outbreaks potentially associated with *Pseudomonas* can be prevented through proper maintenance and disinfection of pools, hot tubs, and other recreational water systems.

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As the state's environmental protection and public health agency, KDHE promotes responsible choices to protect the health and environment for all Kansans.

Through education, direct services, and the assessment of data and trends, coupled with policy development and enforcement, KDHE will improve health and quality of

life. We prevent injuries, illness, and foster a safe and sustainable environment for the people of Kansas.

References:

1 Toner CB and Krivda SJ. Pseudomonas Folliculitis <http://emedicine.medscape.com/article/1053170-print> [3/24/2010].