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Multistate *Salmonella* Poona Outbreak Linked to Cucumbers — Alaska 2015

Background

On August 18, 2015, the Centers for Disease Control and Prevention (CDC) launched an investigation regarding a cluster of 32 cases of *Salmonella* Poona (*S. Poona*) infection affecting multiple states, including one case in Alaska. Clinical isolates from the 32 cases matched by pulsed field gel electrophoresis (PFGE). Subsequently, numerous additional cases were identified nationally and in Alaska.^{1,2} The outbreak was linked to consumption of raw cucumbers imported from Baja, Mexico. This *Bulletin* features a *S. Poona* outbreak at a daycare center, summarizes the Alaska cases, and recaps response efforts undertaken to control the daycare center outbreak and prevent additional cases in the wider community.

Alaska Daycare Center Outbreak

On August 24, the Section of Epidemiology (SOE) received a report from a local daycare center (DCC) of two children diagnosed with salmonellosis. On August 26, four additional cases were reported (two of whom were family members of the DCC cases). SOE initiated an investigation in collaboration with Municipality of Anchorage (MOA) staff to determine the cause of the outbreak. On August 28, the Alaska State Public Health Laboratory (ASPHL) reported that all six patients tested positive for *S. Poona* with matching PFGE patterns. Additional case finding efforts identified a total of seven laboratory-confirmed cases and three probable cases.

MOA Public Health Nurses joined DCC staff to interview ill persons for risk factors associated with salmonellosis. Meals were served at the DCC; no food safety violations or ill kitchen staff were reported. As the national outbreak evolved and cucumbers were suspected, investigators discovered that cucumbers had been served at the DCC. Therefore, on August 28, DCC staff were advised to immediately throw away all cucumbers.

Summary of All Identified Alaska Cases

In total, 17 laboratory-confirmed and five probable *S. Poona* cases were identified in Alaska with onset dates ranging from July 28 to October 6 (Figure); 77% (17/22) of the patients were female. Patient ages ranged from 3 months to 75 years; 77% (17/22) were aged <18 years. Cucumber consumption was explicitly reported by 13 of the 17 lab-confirmed patients, including the ill children at the DCC. Cucumber consumption was not explicitly reported by any of the five probable cases, nor any of the cases with illness onset after September 1, suggesting that person-to-person (P2P) spread was likely to have occurred. Five ill persons were hospitalized; none died.

Traceback

The Alaska Department of Environmental Conservation (DEC) initiated a traceback investigation on August 31, and determined that cucumbers consumed by Alaska patients in all the different venues were sourced from the same local produce distributor, who obtained them from a California distributor-- Andrew & Williamson (A&W) Fresh Produce. A&W was the

sole U.S. distributor of cucumbers grown by Rancho Don Juanito de R.L. de C.V., the farm in Baja, Mexico that was implicated by CDC as the source of the contaminated cucumbers. DEC disseminated the recall notices as per usual protocol to all Alaska retailers.

Discussion

This outbreak serves as a reminder that raw produce remains an important source of human *Salmonella* infections. Two recalls of cucumbers were announced as a result of this investigation (Figure). On September 4, 2015, A&W voluntarily recalled all cucumbers sold under the “Limited Edition” brand label during the period from August 1, 2015 through September 3, 2015. On September 11, 2015, Custom Produce Sales voluntarily recalled all cucumbers sold after August 1, 2015 under the Fat Boy label. As of November 18, 2015, CDC reported a total of 838 cases of *S. Poona* infection from 38 states, resulting in 165 hospitalizations and four deaths.² Additional cases are expected to be attributed to the national outbreak as secondary cases continue to be identified. A greater proportion of Alaska cases were aged <18 years versus nationally, 77% vs. 50% respectively,² which reflects the DCC population.

The Alaska DCC investigation and traceback work resulted in a) rapid identification of the cause the outbreak, b) prompt implementation of a definitive control measure (i.e., removing cucumbers from the facility), and c) a strengthening of the cucumber association in the multistate outbreak investigation.

Recommendations

1. For a current list of food recalls that affect Alaska, refer to: <http://dec.alaska.gov/eh/fss/recallsalerts.html>
2. Salmonellosis risk can be reduced by properly cooking foods, washing fresh foods, and paying strict attention to hygiene when ill or when caring for others who are ill.³
3. Salmonellosis is a condition reportable by both health care providers and laboratories. See reporting details at: <http://dhss.alaska.gov/dph/Epi/Pages/pubs/conditions>
4. Providers should obtain stool culture for bacterial and viral testing in patients with acute diarrheal illness.

Acknowledgements

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References

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2. CDC. Multistate Outbreak of *Salmonella* Poona Infections Linked to Imported Cucumbers. Available at: <http://www.cdc.gov/salmonella/poona-09-15/> (Accessed November 19, 2015)
3. CDC. *Salmonella*: Prevention. Available at: <http://www.cdc.gov/salmonella/general/prevention.html>

