Kansas Department of Health and Environment

Outbreak of Campylobacteriosis Associated with a Restaurant in Anderson County, August 2023

Background

On August 9, 2023, the Infectious Disease Epidemiology and Response section at the Kansas Department of Health and Environment (KDHE) was notified by the Southeast Kansas Multi-County Health Department (SEKMCHD) of an ill employee with campylobacteriosis at a restaurant in Anderson County, Kansas. On August 14, 2023 the SEKMCHD notified KDHE of a second case of campylobacteriosis in a patron who ate at the restaurant and subsequently experienced gastrointestinal illness. An outbreak investigation was initiated on August 14, 2023 to determine the scope of illness and initiate appropriate measures for control and prevention. A survey was developed and disseminated in a press release on August 17, 2023.

Key Investigation Findings

- Ill persons were asked to complete an outbreak specific survey to determine exposure, symptoms, incubation period, and duration of illness.
- A total of 10 respondents completed the full survey. An additional 6 respondents submitted partial surveys that were also used in this report.
- Demographics of respondents:
    - 44% female, 19% male, 38% of respondents missing sex
    - Median age: 40.5 years (range 23 years – 69 years), 6 respondents missing age
- Respondents were asked to select "Yes" or "No" to experiencing a symptom. Only those that selected "Yes" or "No" for a given symptom were included in the data presented in Table 1. Fields that were left blank were not included and therefore not counted in the "*# Respondents Reporting*" column.
- The most common symptom reported by respondents was the presence of nausea (100%), followed by stomach cramps (94%) and diarrhea (88%) (Table 1).

Table 1: Symptoms Reported among Survey Respondents

Clinical Information	***# Respondents with Symptom***	***# Respondents Reporting***	***% Respondents with Symptom***
Nausea	13	13	100
Stomach cramps	15	16	94
Diarrhea	14	16	88
Headache	11	13	85
Muscle aches	10	14	71
Fever	5	13	38
Vomiting	5	14	36
Bloody diarrhea	3	13	23

- A case of campylobacteriosis was defined as having bloody diarrhea or having diarrhea with fever within 24-120 hours of consuming food from the restaurant between July 14, 2023 and August 9, 2023.
- Two survey respondents met the case definition for campylobacteriosis. One was the laboratory-positive restaurant patron SEKMCHD had already identified, and one had not been previously known.
- The incubation period for 6/16 (38%) of respondents could not be calculated because they did not answer survey questions regarding the date they ate at the restaurant or the date of symptom onset. Therefore, it could not be determined if they met the case definition.
- All other survey respondents did not meet criteria for a case of campylobacteriosis.
- The two laboratory positive individuals were tested using a culture-independent diagnostic test. Both specimens tested positive for *Campylobacter* DNA by PCR. KDHE arranged for the stool specimens to be shipped to the KDHE Laboratories for further analysis. However, bacterial culture was unsuccessful for each specimen, so no further testing could be conducted.
- The restaurant was visited by the Kansas Department of Agriculture (KDA) on August 15, 2023 to ensure they were following proper food safety practices and procedures.
- The ill employee was also laboratory-positive for norovirus. They were excluded from food handling activities until they were no longer positive for *Campylobacter* and until at least 48 hours after vomiting and diarrhea resolved per KAR 28-1-6 and Kansas Food Codes 2-201.11, 2-201.12, and 2-201.13.

Conclusions and Recommendations

This outbreak investigation was in response to campylobacteriosis illnesses associated with a restaurant in Anderson County, Kansas. In addition to the two previously known laboratory-positive cases, one individual who responded to the survey met the case definition for campylobacteriosis. No single food item or date could be associated with illness.

The restaurant was inspected by KDA, and education was provided to the restaurant by KDA and SEKMCHD concerning campylobacteriosis and norovirus symptoms, transmission, importance of hand washing, and work restrictions for ill food handlers.

Campylobacteriosis is an infectious disease caused by *Campylobacter* bacteria. Most *Campylobacter* infections are associated with eating raw or undercooked poultry. *Campylobacter* does not usually spread from one person to another but can when an infected person does not wash their hands with soap and water appropriately after using the restroom or before preparing food. People with campylobacteriosis usually have diarrhea (often bloody) and fever. These symptoms usually start within 2-5 days after exposure, and people recover without specific treatment.

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