

Norovirus Gastroenteritis Associated with a Restaurant

May

Hennepin County

On May 9, 2013, the City of Bloomington received a complaint of illness among people who attended a 2-day conference on May 7 and 8. Approximately 28 people attended the conference, and at least 5 were reported ill on the initial complaint. Conference attendees ate breakfast and lunch at a restaurant in Bloomington both days of the conference. Breakfast was ordered from the menu, lunch on May 7 was a make-your-own sandwich buffet, and on May 8 pasta was served. Attendees ate dinner on their own at different restaurants. An outbreak investigation was initiated on May 9.

City of Bloomington environmental health specialists visited the restaurant on May 9 to evaluate food preparation and handling procedures, check the employee illness log, and interview employees.

City of Bloomington staff interviewed the original complainants. They also obtained a list of conference attendees and interviewed them about food and beverage consumption, and illness history. A case was defined as a conference attendee who developed vomiting and/or diarrhea (≥ 3 stools in a 24-hour period) after eating food from the restaurant during the conference. Stool samples were submitted to the MDH Public Health Laboratory (PHL) for bacterial and viral testing.

Sixteen conference attendees were interviewed; of these, seven met the case definition. Six (86%) cases reported diarrhea, six (86%) reported cramps, five (71%) reported vomiting, and two (33%) reported fever; no cases reported bloody stools. One case sought medical attention for their illness. The median incubation period was 46 hours (range, 30 to 50 hours) from lunch on May 7. The median duration of illness was 13 hours (range, 8 to 34 hours) for the five cases who had recovered by the time of the interview.

In the univariate analysis, no foods were statistically associated with illness, but consumption of white bread served for the lunch sandwich buffet (5 of 7 cases vs. 2 of 9 controls; odds ratio [OR], 8.8; 95% confidence interval [CI], 0.9 to 84.8; $p = 0.06$), and Swiss cheese also served for the lunch buffet (4 of 7 cases vs. 1 of 9 controls; OR, 10.7; CI, 0.8 to 132; $p = 0.06$) approached statistical significance. Neither of the foods were statistically significant in a multivariate analysis model.

All restaurant employees were interviewed. One cook reported mild gastrointestinal illness, a "queasy stomach," while at work on May 6. He went home that day, and returned the next day. This employee plated the meat, cheeses, sliced tomatoes, and onions used for the sandwich buffet line on May 7. Bare-hand contact with ready-to-eat foods was not observed during this investigation, but it had been noted and corrected during previous inspections.

Two stool samples were submitted to the MDH PHL by ill patrons and one by the mildly ill food worker; one patron's and the food worker's specimens were positive for norovirus GII.5, and the sequences were identical.

This was an outbreak of norovirus gastroenteritis associated with eating food from a restaurant during a conference. The vehicle was one or more ready-to-eat food items on a sandwich buffet. A mildly ill food worker was the source of the illnesses, as confirmed by isolating norovirus with the same sequence from the food worker and an ill conference attendee.