

Norovirus Gastroenteritis Associated with a Restaurant

December

Hennepin County

On December 16, 2011, Hennepin County Human Services and Public Health Department (HSPHD) epidemiology unit (Epi) received a foodborne illness complaint about a restaurant in Plymouth from the Minnesota Department of Health (MDH). The complainants had eaten at the restaurant on December 6. HSPHD-Epi notified HSPHD-environmental health unit (EH) about the complaint. An outbreak investigation was initiated on December 16.

After the investigation was initiated, HSPHD-EH learned that the restaurant had received four additional illness complaints from patrons who had dined there on December 6; these complaints had not been forwarded on to HSPHD-EH. Another illness complaint was received by the restaurant on December 20 from a person who had eaten there on December 16. This complaint was forwarded to HSPHD-Epi on December 20.

On December 16, HSPHD-EH spoke with a restaurant manager and requested names from the reservation lists for December 6. HSPHD-Epi interviewed restaurant patrons identified from the complaints and the reservation lists to obtain information on food/beverage consumption and illness history. A case was defined as a person who ate at the restaurant and subsequently became ill with vomiting and/or diarrhea (≥ 3 loose stools in a 24-hour period). The reservation lists received did not include any lunch patrons, only those who had eaten there late in the afternoon or evening of December 6. The only lunch patrons from December 6 who were interviewed were part of the complainant groups. No stools specimens were requested from persons who had eaten on December 6 because of the time period between illness and interviews. A stool specimen was collected from the complainant who had

eaten at the restaurant on December 16 and tested for viral and bacterial pathogens at the MDH Public Health Laboratory.

On December 16, HSPHD-EH conducted an inspection of the facility and interviewed the food workers regarding illness history and job duties.

Illness histories and exposure information were obtained from 20 patrons who had eaten on December 6. Six (30%) cases were identified from this meal date. Five cases (83%) reported diarrhea, vomiting, and/or abdominal cramps, and one (17%) reported fever. The median incubation period was 33 hours (range, 27 to 36 hours). The median duration of illness was 77 hours (range, 56 to 114 hours) for the five cases who had recovered from their symptoms at the time of the interview.

One case was identified who dined at the restaurant on December 16. This case had a 20-hour incubation and reported vomiting, diarrhea, cramps, and fever. The person was still having symptoms when interviewed 96 hours after illness onset. This person submitted a stool specimen that tested positive for norovirus GII.

Cases all reported eating a variety of salads, but no food items were statistically significant in the univariate analysis.

Illnesses histories and job duty information were obtained from 38 restaurant employees. Seven employees reported having had a recent gastrointestinal illness. Six had vomiting and/or diarrhea with illness onset dates ranging from December 7 to December 9. Of the six, three were servers, one was a bartender, and two were kitchen staff. The seventh person (kitchen staff) reported cramps only on December 11. Two of the kitchen workers reported that family members had been ill with vomiting and/or diarrhea in the week prior to their symptoms; one of these workers prepared salads. Four of the ill employees reported eating salads or lettuce on December 6.

During the inspection of the restaurant, several critical violations were noted including bare-hand contact with ready-to-eat foods (breadsticks), and the fact that management had received four customer complaints but had not notified the health department.

Immediate action was taken by management to correct critical violations. Tongs were provided for handling breadsticks, and the phone number to report illness to the health department was added to customer complaint form that the restaurant uses. Additional spot-check inspections were conducted on December 19 and December 21 to meet with management, verify continued compliance, and answer questions.

This was a foodborne outbreak of gastroenteritis associated with a restaurant. Transmission on December 6 was solidly documented. Although the etiology of illnesses associated with the restaurant on December 6 was not confirmed, the distribution of symptoms and incubations were characteristic of norovirus gastroenteritis. In addition, a stool specimen from a case who dined at the restaurant on December 16 did test positive for norovirus. A specific food vehicle was not confirmed, but salads were eaten by all of the cases. The likely source of contamination was an infected food worker.