

Suspected Norovirus Gastroenteritis Associated with a Restaurant

December

Anoka County

On December 1, 2011, the Minnesota Department of Health (MDH) foodborne illness hotline received a complaint of gastrointestinal illness among a party of 10 individuals who had eaten at a restaurant in Ramsey, Minnesota on November 20. The complainant reported eight ill individuals from four different households. The complainant knew of an additional party of four individuals who had eaten at the restaurant on the same date; she did not know if they had become ill but gave the patron the MDH hotline number. Anoka County Environmental Services was notified on December 1, and an investigation was initiated.

MDH interviewed the original complainants, and Anoka County obtained credit card receipts from the establishment for additional patron contact information. A case was defined as a person who ate at the

restaurant on November 20 and subsequently developed vomiting and/or diarrhea (≥ 3 loose stools in a 24-hour period).

On December 2, Anoka County sanitarians visited the restaurant to evaluate food preparation and handling procedures and to ask about employee illness histories. On December 4, MDH staff began interviewing employees, as well as patrons identified from the credit card receipts. On December 5, Anoka County sanitarians continued interviewing food workers about illness history and work duties.

Fourteen patrons were interviewed, and six (43%) met the case definition (all from original complaint). Two patrons (also from the original complaint) reported illness that did not meet the case definition and were excluded from analyses. The median incubation period for the cases was 36 hours (range, 23 to 62 hours). The median duration of illness was 54 hours (range, 38.5 to 65 hours). All six cases reported diarrhea, five (83%) reported vomiting, four (67%) reported cramps, two (33%) reported fever, and none reported bloody stools. No cases visited a medical provider or were hospitalized.

The patrons reported eating a variety of different menu items. In an ingredient-specific univariate analysis, consuming both shredded cheese (6 of 6 cases vs. 2 of 6 controls; odds ratio [OR], undefined; 95% confidence interval [CI], undefined; $p = 0.03$) and chopped lettuce (6 of 6 cases vs. 2 of 6 controls; OR, undefined; 95% CI, undefined; $p = 0.03$) were significantly associated with illness. No other foods were associated with illness.

MDH was able to interview one additional patron from the credit card receipts (the receipts only had signatures, making it difficult to determine the name of the patron or to obtain contact information). The patron reported gastrointestinal illness in all four members of the dining party, but only two individuals met the case definition. The patron reported a meal date of November 27 and illness onset the same day; however, the credit card receipt was for November 20. Therefore, it appears that the patron had difficulty recalling both the meal date and the date of illness onset.

Illness histories and job duty information were obtained from 26 restaurant employees. No employees reported having had gastrointestinal illness previous to or on the implicated meal date; however, the restaurant reported one employee with gastrointestinal illness during November 7-9. One employee became ill after the implicated meal date, with illness (vomiting) onset on November 23, and one employee reported ill family members with illness onset on November 25.

The Anoka County sanitarian stressed the importance of proper handling of food and beverages, use of gloves or utensils when handling ready-to-eat foods, good handwashing, and exclusion of ill food handlers to the employees.

This was a foodborne outbreak associated with eating at a restaurant in Ramsey, Minnesota. The etiologic agent was not identified, but the distribution of incubation periods and symptoms were characteristic of norovirus gastroenteritis. Shredded cheese and lettuce were statistically associated with illness. The most likely source of contamination was an infected food worker, but this was not confirmed.