

Norovirus Gastroenteritis Associated with a Restaurant

December

Blue Earth County

On December 18, 2012, the Minnesota Department of Health (MDH) foodborne illness hotline received a complaint of gastrointestinal illness among three of four meal companions from separate households who ate lunch at a restaurant in Mankato, Minnesota on December 14. All three ill patrons reported onset of vomiting and diarrhea on December 15. Two of the three ill patrons also reported attendance at a work holiday party on December 13. However, the lunch on December 14 was the only meal that all three ill individuals shared. MDH Environmental Health staff were notified on December 18 and an investigation was initiated.

MDH Environmental Health sanitarians visited the facility on December 18 to conduct an environmental health assessment and interview employees regarding job duties and illness histories. An employee contact list and work schedule was provided so that additional employees could be contacted via telephone by MDH staff. All four patrons from the original complaint were interviewed about food and beverage consumption at the restaurant and illness history. Contact information for additional restaurant patrons was not available.

A case was defined as a patron who developed vomiting and/or diarrhea (≥ 3 stools in a 24-hour period) after eating at the restaurant. Stool samples from consenting patrons and employees were submitted to the MDH Public Health Laboratory (PHL) for bacterial and viral testing.

Three of four (75%) patrons who were interviewed by MDH staff met the case definition. The median incubation was 27.5 hours (range, 27.5 to 31 hours). The median duration of illness was 37 hours (range, 21.5 to 66.5 hours). All three cases reported diarrhea and vomiting, two (67%) reported cramping, and none reported fever or bloody stools. No cases were hospitalized or sought medical attention. One patron stool sample was submitted to the MDH PHL. The specimen tested positive for norovirus GII and negative for *Campylobacter*, *Salmonella*, Shiga toxin-producing *E. coli*, and *Shigella*.

All three cases reported consuming a pasta dish served with parmesan chicken. The patron who was not ill reported consuming a pasta dish without chicken and a Rice Krispie bar. Meaningful statistical analysis of food items could not be performed because additional controls could not be recruited.

Interviews were completed for 27 (96%) of 28 food workers. Eight (30%) food workers reported recent illness. Employee illness onsets ranged from November 28 to December 18. Two ill employees reported illness onset before the implicated meal date, on November 28 and December 7, with recoveries on November 29 and December 8, respectively; three reported illness onset on December 14, with recoveries on December 14, 15, and 18, respectively; two reported illness onset on December 15, with recoveries that same day; and one employee reported illness onset on December 18 and recovery that same day. One employee reported working as a sauté cook while experiencing gastrointestinal illness on December 16 and 17. Additionally, five employees reported returning to work within 24 hours of symptom resolution on the following dates: November 29, December 15, and December 16. Employees who reported recent illness reported performing a variety of food preparation and handling tasks. Four of these employees reported their primary job responsibility as cooking; three reported taking orders, garnishing and serving plates; and one reported washing dishes.

Stool samples were submitted by three recently ill food workers to the MDH PHL; all three tested positive for norovirus GII. Nucleic acid sequencing was conducted on norovirus positive samples from patrons and food workers; the nucleic acid sequences were identical.

An MDH Environmental Health sanitarian visited the facility on December 18. Although no violations were found, it was observed that the facility was lax in maintaining the employee illness log. Since employee illness was reported before and after the implicated meal date, an employee illness screening log was put into place on December 18, ill employees were excluded for 72 hours following the resolution of symptoms, and all ready-to-eat foods that were prepared by ill or recently ill employees were discarded. Employees were also advised on proper handwashing and glove use.

This was a foodborne outbreak of norovirus gastroenteritis associated a restaurant in Mankato, Minnesota. A specific food vehicle could be not identified because statistical analysis could not be performed. Based on the evidence, an ill or recently ill food worker was the likely source of contamination.