

Norovirus Gastroenteritis Associated with a Restaurant

March

Wilkin County

On March 12, 2012, the Minnesota Department of Health (MDH) foodborne illness hotline received a complaint of gastrointestinal illness among four of six meal companions from three households who had eaten at a restaurant Rothsay, Minnesota on March 9. Incubation periods ranged from 20 to 53 hours. The complainants from separate households claimed they did not have any other common meals in the 5 days prior to illness onset. An investigation was initiated.

MDH sanitarians visited the restaurant on March 12 to evaluate food preparation and handling procedures, interview employees, and obtain credit card receipts from March 9. MDH staff interviewed restaurant patrons to obtain information on food/beverage consumption and illness history using contact information from the credit card receipts.

A case was defined as a restaurant patron who subsequently developed vomiting and/or diarrhea (≥ 3 stools in a 24-hour period). A secondary case was defined as an individual who lived in the same household as a primary case and developed vomiting and/or diarrhea (≥ 3 stools in a 24-hour period) at least 24 hours after the primary case. Stool samples were submitted to the MDH Public Health Laboratory (PHL) for bacterial and viral testing.

A total of 18 patrons were interviewed: 12 identified from credit card receipts, and 6 from the original complaint. Three (17%) primary cases were identified, all from the original complaint, and represented three households. In addition, one secondary case was identified, also a person from the original complaint, and was excluded from further analyses. The median incubation for cases was 29 hours (range, 20 to 34 hours). One case had recovered at the time of interview and had an illness duration of 40 hours. All three cases reported stomach cramps, two (67%) each reported diarrhea, vomiting, and fever (maximum temperatures measured were 102° F and 100.4° F), and none reported bloody stools. No cases sought medical attention. The median age of cases was 31 years (range, 27 to 58 years), and two (67%) were female. Three stool samples tested positive for norovirus GII.4 New Orleans with identical nucleic acid sequences at the MDH PHL. Two of the specimens were from primary cases from different households, and the third specimen was from the secondary case who lived in the same household as a norovirus-positive primary case.

The three primary cases all reported consuming different menu items, which included: seafood alfredo; beef nachos; pasta with shrimp, sausage, pepper, and white sauce; and a burger with lettuce, onion, cheese, tomato, and onion rings. The 14 controls reported eating a variety of menu items. The small number of cases precluded a meaningful statistical analysis.

Twelve (92%) of the restaurant's 13 employees were interviewed. All denied recent gastrointestinal illness in themselves and their household members.

During the March 12 visit, sanitarians noted that the restaurant was in general need of cleaning. Hand sinks were stocked with soap and paper towels, but no handwashing was observed during the inspection. Food preparation was not observed as the restaurant had just opened for the day at the time of the inspection, but it was noted that employees do not use gloves to handle food; all food contact is with bare hands. The restaurant did not maintain an employee illness log. Sanitarians instructed the restaurant to clean and sanitize, and use gloves when handling ready-to-eat foods. Management staff was given an employee illness log and instructed to use it.

This was an outbreak of norovirus gastroenteritis associated with a restaurant in Rothsay, Minnesota. The source and vehicle of the outbreak were not identified. No ill employees were identified; however, bare-hand contact with ready-to-eat foods at the restaurant may have contributed to the outbreak as employees never wore gloves when handling food.