

Norovirus Gastroenteritis Associated with a Restaurant

March

Dakota County

On March 14, 2010, the Minnesota Department of Health (MDH) foodborne illness hotline received a complaint of gastrointestinal illness among a group of four individuals who ate lunch at a restaurant in Eagan on March 10. An investigation was initiated immediately.

MDH Environmental Health Services sanitarians visited the restaurant on March 14 to evaluate food preparation and handling procedures, interview food workers, and collect credit card receipts for additional patrons. MDH staff interviewed patrons identified from credit card receipts about food consumption and illness history. A case was defined as a restaurant patron who developed vomiting or diarrhea (≥ 3 loose stools in a 24-hour period) after eating at the restaurant. Stool samples collected from consenting restaurant patrons were submitted to the MDH Public Health Laboratory for bacterial and viral testing.

Twenty-one restaurant patrons were interviewed; five met the case definition (including three from the original complaint and two identified through credit card receipts). Four additional patrons reported illness that did not meet the case definition and were excluded from analysis. The median incubation period for the cases was 34 hours (range, 30.5 to 44 hours). The median duration of illness was 53 hours (range, 20 to 94 hours). All five cases reported diarrhea and vomiting, two (40%) reported cramps and fever, and none reported bloody stools. Stool samples submitted by five ill patrons tested positive for norovirus GII. Nucleic acid sequencing was conducted on all five positive norovirus samples; the nucleic acid sequences were identical.

By univariate analysis, consuming parmesan artichoke dip was significantly associated with illness (3 of 5 cases vs. 0 of 11 controls; odds ratio, undefined; 95% confidence interval, undefined; $p = 0.02$).

MDH EHS sanitarians interviewed 36 restaurant employees, and six reported recent gastrointestinal illness. Employees reported becoming ill on March 9 ($n=3$) and March 14 ($n=2$). One employee reported not knowing their illness onset date. Of the three employees who became ill on March 9, a manager and a server reported working on March 10. All employees with vomiting and/or diarrhea were excluded from work until 72 hours after the resolution of symptoms. The sanitarian observed bare-hand contact with ready-to-eat foods. During the investigation sanitarians and restaurant management established a screening protocol for employee illness. The sanitarian also discussed the importance of handwashing for the prevention of norovirus transmission.

This was a foodborne outbreak of norovirus gastroenteritis associated with a restaurant in Eagan. Artichoke dip was identified as a vehicle. The source of the contamination was likely an ill food worker.