

Suspected Norovirus Gastroenteritis Associated with a Restaurant

December

Hennepin County

On December 22 and 23, 2017, the Minnesota Department of Health (MDH) received information on four independent complaints of gastrointestinal illness that had been made to a restaurant. All four complainants reported eating at the Edina location of a chain restaurant, with meal dates from December 16 to December 19.

Hennepin County Human Services and Public Health (HCPH) Epidemiology and City of Edina Health Department (EHD) Environmental Health were contacted, and an investigation was initiated.

EHD sanitarians visited the restaurant on December 28 to evaluate food preparation and handling procedures, check the employee illness log, and interview employees. MDH staff acquired a list of online orders from the same meal dates reported by the original complainants, and interviewed patrons who placed those orders.

A case was defined as a restaurant patron who developed vomiting and/or diarrhea (≥ 3 stools in a 24-hour period) after eating food from the restaurant.

A total of 24 patrons were interviewed. Six individuals (25%) met the case definition, including three of the original complainants and three patrons from the online orders. One patron was excluded from further analyses because the illness did not meet the case definition; another was excluded because the illness was possibly secondary to another household case. All six cases reported diarrhea, 2 of 4 (50%) vomiting, 2 of 4 (50%) abdominal cramps, and 1 of 4 (25%) fever. One case visited an emergency room, but none were admitted to a hospital or died. The median incubation period for cases was 36 hours (range, 23 to 50 hours). The median duration of illness for the three cases who had recovered by the time of interview was 15 hours (range, 14 to 58 hours). No stool specimens were submitted to MDH.

In the univariate analysis, consumption of a burrito bowl (4 of 6 cases vs. 3 of 16 controls; odds ratio [OR], 8.7; 95% confidence interval [CI], 1.0 to 71.6; $p = 0.05$) approached statistical significance and consumption of chicken (4 of 5 cases vs. 6 of 16 controls; OR, 6.7; 95% CI, 0.6 to 74.5; $p = 0.15$) had an elevated odds ratio.

Beginning on December 23, the restaurant chain corporate Safety, Security, and Risk Department had placed the restaurant on 3 days of its Norwalk Prevention Protocol. This process included screening employees for illness before starting their shift, requiring employees to wash their hands every 30 minutes while at work, and daily cleaning of the facility with a 6% bleach sanitizer effective against norovirus.

EHD sanitarians and MDH staff interviewed 23 of the restaurant's 31 employees. Three employees reported recent gastrointestinal illness; all three employees denied working while ill. One employee

reported becoming ill with vomiting and diarrhea on December 5 and was excluded from work until December 9. Another had vomiting on December 4 and was excluded until December 8. One employee reported leaving work early on December 14 due to acid reflux and returned to work on December 18. An employee reported that a fellow employee had posted on social media around December 18 that they were ill with “stomach flu”, although no employees reported gastrointestinal symptoms around that date. The facility’s illness log for December contained only one entry, a report of vomiting by one employee on December 6. The facility was instructed to continue using the daily employee illness screening form and 72-hour exclusion policy that had already been put into place prior to the start of the investigation. The sanitarian did not note any problems with bare-hand contact with ready-to-eat foods or issues with handwashing.

This was a foodborne outbreak of gastroenteritis associated with the Edina location of a chain restaurant. While an etiology was not confirmed, the incubation periods and symptoms of the cases were characteristic of norovirus gastroenteritis. A specific vehicle was not identified. An ill or recently ill food worker was the most likely source of illness.