

Suspected Norovirus Gastroenteritis Associated with a Restaurant

May

Kandiyohi County

On May 31, 2011, the Minnesota Department of Health (MDH) received a call from the owner of a restaurant in Raymond, Minnesota to report gastrointestinal illness among 20 to 30 people who had eaten at the restaurant on May 28, 2011. An investigation was initiated.

A list of names and phone numbers of people who had become ill was provided by the owner. Cases and healthy meal-companion controls were interviewed by phone about illness history and food/beverage

consumption at the restaurant. Cases were defined as patrons who developed vomiting and/or diarrhea (≥ 3 loose stools in a 24-hour period) after eating at the restaurant on May 28. MDH staff and Kandiyohi County sanitarians interviewed all food service employees. A case-control analysis was performed to assess the risk of illness associated with specific food items. Cases with incubation periods of >48 hours were excluded. This was done to exclude potential secondary cases from the analysis, as many cases were found to be household contacts of other cases.

Of 21 patrons who ate at the restaurant on May 28, 12 met the case definition. Among cases, reported incubation periods ranged from 12 to 80 hours (median, 34 hours). Three cases reported incubation periods >48 hours and had household contact with another case. Among the nine cases with incubation periods ≤ 48 hours, median age was 40 years and seven (78%) were male. Vomiting and diarrhea were reported by all nine (100%), and fever by one (11%). The median duration of illness for the four cases who had recovered at the time of the interview was 38 hours (range, 18 to 42 hours). One patron submitted a stool sample, which was negative for norovirus and bacterial pathogens.

Cases and controls reported consuming a variety of foods and beverages available on the menu. No specific food item was significantly associated with illness.

Five food service employees were interviewed, of whom two reported illness. One employee was ill 6 to 8 days prior to the meal date suspected to be the source of the outbreak, and the other became ill on the day of the suspect meal date. Both employees worked as food servers, and one also wrapped silverware.

The owner closed the restaurant temporarily for cleaning and planned to implement screening of food workers upon return to work to enforce exclusion of ill employees. The owner was instructed to discard all ready-to-eat foods prepared by ill food handlers prior to reopening the restaurant.

This was a foodborne outbreak of gastrointestinal illness associated with a restaurant. Norovirus was suspected to be the etiology based on the distribution of incubation periods and symptoms reported by cases. Based on the identification of two ill employees who had handled food at the restaurant, the source of the outbreak likely was one or more infected food workers.