

Norovirus Gastroenteritis Associated with a Soccer Banquet at a Country Club

November

Dakota County

On November 9, 2011, a country club in Eagan, Minnesota, contacted their local Minnesota Department of Health (MDH) sanitarian to report a complaint of gastrointestinal illness in a patron. The complainant had attended a banquet for a high school girls' soccer team at the facility on Sunday, November 6. Approximately 50 people attended the banquet. One of the event organizers was contacted by MDH and reported multiple illnesses in banquet attendees. MDH sanitarians were notified and an investigation was initiated.

MDH obtained a list of banquet attendees and interviewed them about food consumption and illness history. A case was defined as a person who attended the banquet and subsequently developed vomiting and/or diarrhea (≥ 3 loose stools in a 24-hour period). Stool specimens were submitted to the MDH Public Health Laboratory for bacterial and viral testing.

On November 15, MDH sanitarians visited the country club to evaluate food preparation and handling procedures and to interview food workers about illness history and work duties.

Thirty-seven banquet attendees were interviewed, and eight (22%) met the case definition. Of the eight cases, six (75%) reported vomiting, five (63%) reported cramps, four (50%) reported diarrhea, three (38%) reported fever, and none reported bloody stools. The median incubation period from the banquet meal was 33.5 hours (range, 11 to 46.5 hours). The median illness duration was 74 hours (range, 8 to 114 hours). No cases visited a medical provider or were hospitalized.

Food items served at the banquet included Caesar salad, mixed fresh fruit (strawberries, pineapple, cantaloupe, honeydew, grapes, watermelon), antipasto platter (olives, artichoke, zucchini), lasagna, penne pasta, fettuccine pasta, Italian meatballs, marinara sauce, alfredo sauce, bread sticks, butter, lemonade, coffee, iced tea, soda, water, and ice cream cake. All food items served at the banquet were

prepared by the country club, except the ice cream cakes, which were purchased from restaurant and supplied by the parent organizers. The cakes were cut and served by the banquet servers. All of the foods were self-serve on a buffet line.

By univariate analysis, consuming fresh fruit was significantly associated with illness (7 of 7 cases vs. 21 of 29 controls; odds ratio [OR], undefined; 95% confidence interval, undefined; $p = 0.03$). No other foods were associated with illness.

Illness histories and job duty information were obtained from the country club food workers and banquet servers who helped with the event. No employees reported having had gastrointestinal illness previous to or on the implicated meal date. Two banquet servers became ill after the event (one with vomiting, one with both vomiting and diarrhea) with illness onset on November 9. One of the servers reported that she had family members who were ill with diarrhea 2 weeks prior to the event, but was unable to recall specific dates or times. The two servers helped bring food items to the buffet line, served ice cream cake to the tables, and cleared away dirty dishes. Leftovers from the soccer banquet were served as employee meals for the 2 days following the event. One of the ill servers recalled eating leftover antipasto platter, lasagna, penne pasta, alfredo sauce, and breadsticks. The other server who became ill could not recall eating any leftovers from the soccer banquet.

Stool specimens from the two ill banquet servers were submitted to MDH. One of the specimens tested positive for norovirus GII, and the other specimen tested negative for norovirus. Both specimens tested negative for *Campylobacter*, *Salmonella*, Shiga toxin-producing *E. coli*, *Shigella*, and *Yersinia*. The second specimen was collected approximately three weeks after illness onset, and the delay in collection could explain the negative norovirus test results.

There were no reports of vomiting at the event. Of the 37 banquet attendees interviewed, no one reported being ill during or prior to the event. One of the cases who became ill after the event had a shorter incubation period (11 hours) than the other cases (range, 31 to 47 hours). It is plausible that the person with the shorter incubation period may have contaminated food and/or utensils on the buffet line during the incubation stage of illness. However, this could not be confirmed.

MDH sanitarians stressed the importance of proper handling of food and beverages, use of gloves when handling ready-to-eat foods, good handwashing, thorough cleaning and disinfection, and exclusion of ill food handlers to the employees of the country club.

This was a foodborne outbreak of norovirus gastroenteritis associated with eating at a soccer banquet dinner. Fresh-cut fruit was identified as a vehicle of illness. Foods and serving utensils may have been contaminated by a banquet attendee who was in the incubation stage of illness. However, this was not confirmed.