

Norovirus Gastroenteritis Associated with a Wedding Reception

October

St. Louis County

On October 29, 2013, the Minnesota Department of Health (MDH) foodborne illness hotline received a complaint of gastrointestinal illness among attendees of a wedding reception held at a resort restaurant in Duluth, Minnesota on October 26. The complainant reported that approximately 30 of 100 attendees had become ill after the event. Sanitarians from MDH Food, Pools, and Lodging Services (FPLS) were notified, and an investigation was initiated.

A list of wedding attendees was provided by the bride's mother. Epidemiologists from MDH interviewed wedding reception attendees to obtain information on food/beverage consumption and illness history. A case was defined as a wedding reception attendee who subsequently developed vomiting and/or diarrhea (≥ 3 loose stools in a 24-hour period). Stool specimens were obtained from three attendees and submitted to the MDH Public Health Laboratory (PHL) for bacterial and viral testing.

MDH sanitarians visited the restaurant to evaluate food preparation and handling procedures and to interview staff regarding recent illness and job duties. Employees reporting recent gastrointestinal illness were also asked to submit stool specimens to MDH PHL for bacterial and viral testing.

Illness histories and exposures were obtained from 32 wedding attendees. Seventeen (53%) met the case definition. Four people reported gastrointestinal symptoms but did not meet the case definition and consequently were excluded from the analysis.

Of the 17 cases, 16 (94%) reported diarrhea, 11 (64%) reported vomiting, 12 (80%) of 15 reported fever, and 9 (60%) of 15 reported cramps. The median incubation period was 37 hours (range, 15 to 59 hours). The median illness duration was 40.5 hours (range, 25 to 70 hours) for the six cases with known recovery date times. All three stool samples collected from cases were positive for norovirus GII. Nucleic acid sequencing was conducted on the three samples, and the sequences were identical.

The meal at the reception was served buffet style, consisting of: carved beef; chicken; red potatoes; Waldorf salad; a vegetable medley with sugar pea pods, mushrooms, and carrots; a vegetable tray with carrots, celery, radishes, jicama, cauliflower, broccoli, tomatoes, ranch dip, and dill dip; a relish tray with pickles and green and black olives; bread; and butter. Beverages served included coffee, lemonade, and drinks from the bar. In addition to the food prepared by the restaurant, cupcakes and cookies purchased from a local retailer were plated by the wait staff. The limited menu resulted in cases and controls eating almost all of the available food items served; no food item was significantly associated with illness. Wedding attendees reported no other events in common, such as a rehearsal dinner or gift opening.

On October 30, an MDH sanitarian visited the restaurant. Three of six employees were interviewed, and none reported recent gastrointestinal illness. The restaurant reported that no additional events occurred at the facility the weekend of the wedding. Food handling practices could not be observed because no other events occurred at the facility that week. The facility was in the process of changing management at the time of inspection and could not locate the employee illness log.

This was a foodborne outbreak of norovirus gastroenteritis associated with a wedding reception. A specific food vehicle and source of contamination were not identified; however, only half of the restaurant employees were interviewed. As a result of this outbreak, the facility was instructed to institute an employee illness log.