

Suspected Bacterial Intoxications Associated with a Wedding Reception

August

Washington County

On August 29, 2011, the Minnesota Department of Health (MDH) foodborne illness hotline received an illness complaint associated with a wedding reception held at a restaurant in Stillwater, Minnesota on August 26. The complainant reported learning of numerous reception attendees becoming ill with gastrointestinal symptoms within 24 hours of the wedding. Washington County Public Health & Environment (WCPHE) was notified, and an investigation was initiated on August 30.

WCPHE sanitarians visited the restaurant on August 30 to evaluate food preparation practices, interview and assess employee hygiene and food handling practices, and review employee work schedules and illness logs. The initial complainant was re-interviewed by WCPHE staff, following which the bride was contacted to better describe wedding event activities and associated food and beverage menus, catering and bakery services, guest invitation list and contact information, and recent personal health history. A case was defined as a wedding reception attendee who developed vomiting or diarrhea (≥ 3 loose stools in a 24-hour period) after eating or drinking at the reception.

Illness histories and exposure information were obtained from 68 (39%) of the 175 wedding guests. Twelve (18%) individuals met the case definition. Of the 12 cases, 11 (92%) reported diarrhea, 6 (50%) reported cramps, 3 (25%) reported vomiting, and 3 (25%) reported low grade fever. The median incubation period was 7 hours (range, 3.5 to 14 hours). The median duration of illness was 35 hours

(range, 27 to 53 hours). Due to delayed receipt of the wedding guest list and contact information, cases were unwilling to provide stool samples for analysis.

All wedding guests were served the same plated meals, which included Caesar salad and dinner roll, grilled chicken breast with pesto cream sauce, garlic mashed potatoes, green beans and carrots, and a catered wedding cake. No food or beverages items were statistically associated with illness.

At the conclusion of the wedding reception, employees who had worked the event were allowed to consume any of the remaining food items. A total of 212 plated meals for the reception were ordered and 37 servings were leftover.

Illness history and food worker duties were obtained from the 20 individuals employed by the event site. All employees had worked on August 26. No ill food workers or associated household members were identified. In addition, the wedding cake catering service was contacted, and no ill individuals were identified. No stool specimens were collected from food workers.

During an August 30 and 31 environmental health investigation, the walk-in and reach-in refrigeration units and corresponding stored food products were found to be out of appropriate temperature range. Various food items stored in these cooling units were at unacceptable temperatures and were discarded (shredded pork, 59° F; diced chicken, 52° F; salads and salad dressing, 50-52° F). Orders were written for repair or replacement of refrigeration units.

Based on a review of food preparation practices with the restaurant's head chef and general manager, the grilled chicken breasts served at the August 26 wedding reception were prepared as follows: chicken was seared on flat top grill on August 26 at 0600 hours and placed on sheet trays on a speed rack and placed in the walk-in cooler. At 1800 hours the seared chicken breasts were placed in 2-inch hotel pans with white wine and chicken stock and cooked in the oven to 180° F. Chicken was plated from the oven.

This was a foodborne outbreak associated with a wedding reception held at a restaurant. Illnesses were most compatible with a bacterial intoxication; however, the etiology of the outbreak could not be confirmed. The outbreak most likely resulted from improper and prolonged cold holding at an inadequate temperature due to malfunctioning refrigeration equipment, creating a favorable environment for proliferation and survival of bacteria.