

Norovirus Gastroenteritis Associated with a Restaurant

July

Olmsted County

On July 19, 2012, Olmsted County Public Health Services (OCPHS) notified the Minnesota Department of Health (MDH) that they had received a complaint of gastrointestinal illness among several attendees of a small two-company business meeting held on July 11 at an office building. The two companies were meeting about potential future work together and had no other common exposures. Box lunches for the meeting had been catered from a restaurant in Rochester. An investigation was initiated.

OCPHS sanitarians visited the restaurant on July 19 to evaluate food preparation and handling procedures, and interview employees regarding food handling duties and recent illness. OCPHS requested a list of business meeting participants and their contact information from the original complainant. Additional patron information from July 11 could not be obtained; credit card receipts did not include a printed name, credit card signatures were not required for transactions less than \$25, and there were no other catering or faxed orders that day. OCPHS staff interviewed meeting participants with a box lunch-specific interview form to obtain information on food/beverage consumption and illness history.

A case was defined as a restaurant patron who subsequently developed vomiting and/or diarrhea (≥ 3 stools in a 24-hour period). Stool samples from consenting employees and patrons were submitted to the MDH Public Health Laboratory (PHL) for bacterial and viral testing.

A total of 12 box lunches were prepared on July 11 by employee X, who reportedly wore gloves during the process. Box lunch items included a turkey or ham sandwich with lettuce, tomato, and mayo or mustard, and chips, cookie, and beverage. Employee X also prepared an additional sandwich ordered off the regular menu for the courier (from another company) who picked up the sandwiches and delivered them to the business meeting. Ten of the box lunches were eaten at the business meeting, and two were taken home by a secretary who did not attend the meeting.

All 10 meeting participants who consumed a box lunch, and the sandwich courier, were interviewed; nine (82%) met the case definition, including the sandwich courier. All nine cases were male, with a median age of 46 years (range, 34 to 58 years). The median incubation period from the July 11 noon lunch was 34 hours (range, 22 to 46 hours), and the median duration of illness was 38.5 hours (range, 19.5 to 154 hours). All nine cases reported diarrhea, six (67%) reported vomiting, four of six (67%) reported fever, six of eight (75%) reported cramps, and none reported bloody stools. Three patron stool specimens were tested at the MDH PHL; two were positive for norovirus GI.6A with identical region D nucleic acid sequences. All stools were negative for *Salmonella*, *Shigella*, *Campylobacter*, and Shiga toxin-producing *E. coli*.

In a univariate analysis, no box lunch ingredients were significantly associated with illness, but the small number of controls precluded a meaningful statistical analysis.

All 15 restaurant employees were interviewed. Employee X and another employee reported recent gastrointestinal illness; both submitted stool samples to the MDH PHL. Employee X tested positive for norovirus GI.6A with an identical region D nucleic acid sequence to that of the patrons specimens. Employee X's illness onset date was unclear; he had reported stomach cramps without diarrhea and had been diagnosed with gastroesophageal reflux disease (GERD) by a physician on July 14. Other employees reported that employee X had been ill. The second employee's stool sample was negative for norovirus.

During the July 19 restaurant inspection, OCPHS sanitarians directed management to reinforce appropriate handwashing and glove or utensil use for handling ready-to-eat foods, screen employees for vomiting/diarrhea at the start of each shift, and review the employee illness and handwashing policies with staff. The restaurant already had a no bare-hand contact policy, and their illness policy required any ill employees, including those with vomiting and/or diarrhea, to have a doctor's note to return to work. At the time of the assessment, there were no ready-to-eat foods remaining from the July 11 preparation date. Sanitarians instructed the restaurant to perform a deep-clean of the facility and disinfect food contact surfaces with 1,000 ppm chlorine. Handwashing and glove use observed during the July 19 inspection was appropriate.

This was a foodborne outbreak of norovirus gastroenteritis associated with catered boxed lunches. A food worker who prepared the boxed lunches and tested positive for norovirus was the source of contamination.