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Notes from the Field: Norovirus Infections Associated with Frozen Raw Oysters — Washington, 2011

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On October 19, 2011, Public Health – Seattle & King County was contacted regarding a woman who had experienced acute gastroenteritis after dining at a local restaurant with friends. Staff members interviewed the diners and confirmed that three of the seven in the party had consumed a raw oyster dish. Within 18–36 hours after consumption, the three had onsets of aches, nausea, and nonbloody diarrhea lasting 24–48 hours. One ill diner also reported vomiting. The four diners who had not eaten the raw oysters did not become ill.

An inspection of a walk-in freezer at the restaurant revealed eight 3-pound bags of frozen raw oysters, which the restaurant indicated had been an ingredient of the dish consumed by the ill diners. The oysters had been imported from South Korea by company A and shipped to a local vendor, which sold them to the restaurant. All eight bags were sent to the Food and Drug Administration's Gulf Coast Seafood Laboratory for norovirus testing and characterization by real-time reverse transcription–polymerase chain reaction (rRT-PCR).

A stool specimen from one of two ill diners collected 17 days after symptom onset tested positive for norovirus; sequence analysis identified GI.1 and GII.17 strains. Sequence analysis of the oysters identified a GII.3 strain. Because oysters can harbor multiple norovirus strains that are unequally amplified by rRT-PCR, discordance between stool specimens and food samples in shellfish-associated norovirus outbreaks is common and does not rule out an association. On November 4, 2011, company A recalled its frozen raw oysters.*

The frozen oysters implicated in this outbreak were distributed internationally and had a 2-year shelf-life. Contamination of similar products has been implicated previously in international norovirus transmissions (*1*). Such contamination has potential for exposing persons widely dispersed in space and time, making cases difficult to identify or link through traditional complaint-based surveillance. To facilitate investigation of foodborne norovirus outbreaks, CDC recently implemented CaliciNet, the national electronic norovirus outbreak surveillance network (*2*). During suspected norovirus outbreaks, CDC recommends collection of stool specimens to confirm the diagnosis, characterize norovirus strains, and upload sequence results into CaliciNet. Additionally, all suspected and confirmed norovirus outbreaks should be reported to CDC by state and local health departments through the National Outbreak Reporting System (*3*).

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References

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2. Vega E, Barclay L, Gregoricus N, Williams K, Lee D, Vinjé J. Novel surveillance network for norovirus gastroenteritis outbreaks, United States. Emerg Infect Dis 2011;17:1389–95.
3. CDC. Updated norovirus outbreak management and disease prevention guidelines. MMWR 2011;60(No. RR-3).

* Additional information available at http://www.fda.gov/food/foodsafety/corenetwork/ucm279170.htm.

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