



Williamson County & Cities Health District 2011 Norovirus Update

IMPORTANT NOTE: ALL DATA FOUND IN WCCHD CURRENT YEAR UPDATES ARE PROVISIONAL. STATISTICS AND CLASSIFICATION OF CASES MAY CHANGE AFTER INTERNAL REVIEW OR REVIEW BY DSHS OR THE CDC.

Update as of 11/15/2011

Three laboratory confirmed cases of norovirus were reported to WCCHD in late September. Since that time, reports of gastroenteritis outbreaks have been received from schools and nursing homes. One outbreak in a long-term facility was confirmed with multiple individuals (staff and residents) testing positive for norovirus. Symptoms and incubation periods reported for the other outbreaks are highly suggestive of norovirus. Several residents from two long-term care facilities needed to be hospitalized and required IV rehydration.

Reporting Requirements and Response Recommendations

While sporadic cases of norovirus or gastroenteritis are not notifiable conditions, reporting of outbreaks of either condition are required by statute. All outbreaks, whether or not a cause is known, are immediately reportable to the WCCHD at (512) 943-3660.

Gastroenteritis while usually self-limited can be extremely debilitating in fragile elderly populations. If a facility has a case of acute gastroenteritis, whether it is a resident or staff-member, it is vital that control measures be implemented quickly and sustained in order to prevent ongoing transmission.

Persons with symptoms of acute gastroenteritis should be brought to the attention of their healthcare provider. Clinical specimens should be submitted for laboratory testing as soon as possible to confirm the cause of the illness.

Response Resources

WCCHD Outbreak Response guidelines:

<http://www.wcchd.org/Services/DiseaseMgmt/DiseaseReporting.htm>

CDC Norovirus Site: <http://www.cdc.gov/ncidod/dvrd/revb/gastro/norovirus.htm>

DSHS Gastroenteritis Site: <http://www.dshs.state.tx.us/idcu/disease/gastroenteritis/>

Public health departments and other government agencies work to limit the impact of norovirus in many different ways:

- Maintain surveillance systems for gastroenteritis to identify outbreaks quickly
- Respond aggressively to outbreaks to limit secondary and tertiary transmission
 - Assist long-term care facilities as needed to implement control measures
 - Work with food establishments to immediately implement control measures
- Raise awareness of norovirus in the long-term care community, food establishments, and the general public
 - Send annual letter to long-term care facilities each Fall reiterating the importance of early detection and laboratory confirmation
 - During periods of increased incidence, inform the public through news releases and media outlets of the potential seriousness of norovirus infections for the elderly, the immunocompromised, and others with underlying medical conditions
 - Encourage personal cleanliness and hand washing habits
- Ensure restaurants and other food establishments follow basic food safety requirements
- Ensure the safety of municipal water supplies, and effectiveness of sewage treatment

About Norovirus

Noroviruses (formerly known as Norwalk-like viruses) are members of the virus family Caliciviridae. Noroviruses are non-enveloped, making them difficult to eliminate (most disinfectants target an envelope which is missing in these viruses). There are many different strains of circulating Noroviruses. Because of this variability, individuals are likely to be repeatedly infected throughout their lifetimes. Unfortunately, natural immunity is not protective between circulating strains. There are currently no vaccines that offer protection against norovirus.

Illness Signs and Symptoms

Illness begins between one to two days following exposure to a person who is ill or incubating the infection. Unless complicated by underlying illness, age, or dehydration, the illness is generally mild and of short duration (1-2 days). Some individuals may continue to feel weak. The main symptoms are vomiting and diarrhea. Vomiting, often projectile, is usually a prominent symptom and may be present in at least half of those ill. Diarrhea tends to be watery, short-lived and less severe than diarrhea caused by bacteria. Bloody diarrhea is not a hallmark of Norovirus infection. Other symptoms may also include nausea, headache, fever (usually low-grade), chills, and abdominal cramps.

How is Norovirus Spread?

Noroviruses are spread when material contaminated by stool or vomitus from an infected person is ingested. Noroviruses are extremely infectious. Excretion of virus in stool begins a few hours before the onset of symptoms and reaches a maximum 24 - 72 hours after exposure. The viruses can continue to be present in the stool of infected persons for a week or more, even after they recover or even if they never developed symptoms. Noroviruses can remain infectious on environmental surfaces for many days and are relatively resistant to disinfection, heat, and cold. Modes of transmission include person-to-person (fecal/oral, vomit/oral-vomiting will also suspend viral particles in the air resulting in contamination of the environment), fomites (contaminated surfaces), foodborne, and waterborne.

Norovirus Outbreaks

Outbreaks of gastroenteritis in long term care facilities, correctional facilities, and restaurants are not uncommon in Texas or the United States. Noroviruses are most often the culprit and, due to the highly contagious nature of the virus, require immediate attention to prevent prolonged spread of the virus. The Centers for Disease Control and Prevention estimates that 23 million cases of acute gastroenteritis are due to norovirus infection, and that at least 50% of all foodborne outbreaks of gastroenteritis can be attributed to norovirus. Because there are many different circulating Noroviruses and immunity is not protective between circulating strains, Norovirus outbreaks may occur multiple times in the same facility. Norovirus-associated gastroenteritis outbreaks can be detected early by recognizing the typical symptoms of illness, and can be controlled by taking specific infection control steps to prevent the virus from being transmitted from person-to-person. Norovirus outbreaks can be difficult to control because the virus is hardy, multiple modes of transmission may be involved, the infectious dose is low, and decontaminating affected environmental surfaces may be difficult.

For more information contact the WCCHD Communicable Disease Management Program at (512) 943-3660 or email Mindy Powell, RN (mpowell@wcchd.org), Program Lead.