

Norovirus

General Information

Norovirus (genus *Norovirus*, family *Caliciviridae*) is a small non-enveloped (not easy to kill) virus. Norovirus is resistant to heat (up to 140 degrees) and freezing temperatures. The virus can cause acute gastroenteritis. Gastroenteritis is an inflammation of the lining of the stomach and intestines, the onset of severe vomiting and diarrhea can occur. This pathogen is estimated to be the causative agent in over 21 million gastroenteritis cases each year in the United States, representing approximately 60% of all acute gastroenteritis cases. The illness is usually brief for those individuals who are otherwise healthy. Young children, the elderly, and others who suffer from medical illnesses are most at risk for severe or prolonged infection of the virus.

Symptoms

The symptoms of norovirus can usually include nausea, vomiting, diarrhea, stomach cramps, headache, and malaise. The onset of symptoms occur within 12 to 48 hours after exposure. People may suddenly feel very sick; vomiting and diarrhea may occur frequently. Diarrhea is more common in children and vomiting with adults. The symptoms can last 1 to 2 days and have no long-term health effects related to the individual's illness.

Transmission

Norovirus is transmitted primarily through the fecal oral route by direct person-to-person contact or through fecal contaminated food or water. It can also spread via a droplet route from vomitus. This virus is relatively stable in the environment, surviving 2-3 weeks outside the body. Norovirus is highly contagious, with as few as 18 virus particles thought to be sufficient in causing infection. In healthcare facilities, transmission can occur by hand contact with contaminated materials and environmental surfaces. It is the leading cause of outbreaks in healthcare. Healthcare facilities and other institutional settings (e.g., daycare centers, schools, etc.) are particularly at-risk for outbreaks because of increased person-to-person contact.

Outbreaks are most common between November through April. 3 out of 4 outbreaks occur in Long Term Care facilities. Outbreaks can also occur on cruise ships, within restaurants, schools and other institutions.



Prevention

In a healthcare facility, patients and residents with suspected norovirus should be placed in a private room on Contact Precautions. Two patients/residents with the same disease can share a room (cohort). Additional prevention measures in healthcare facilities can decrease the chance of contracting norovirus:

- Follow **hand-hygiene guidelines**. Carefully wash hands with soap and water. Alcohol based hand sanitizer can be used in addition to soap and water, but not replaced.
- Use **gowns and gloves** when in contact with patients who are symptomatic.
- Remove and wash contaminated clothing and/or linens.
- Healthcare workers consistent with norovirus symptoms should be excluded from work.
- Healthcare workers with signs and symptoms should not be allowed back to work until they are without symptoms for ~ 48 hours.
- During an outbreak, utilize an EPA registered disinfectant with a Norovirus claim. See Diversey product recommendations below.

*Guideline for the Prevention and Control of Norovirus Gastroenteritis Outbreaks in Healthcare Settings.

<https://www.cdc.gov/norovirus/preventing-infection.html>

















<https://www.epa.gov/>

Cleaning and Disinfection:

During an outbreak, increased cleaning is recommended to twice a day for general areas and three times per day for high touch surfaces.



Norovirus is a non-enveloped virus, susceptible to the following Diversey disinfectants:

Product	Oxivir®1 RTU / Wipes	Oxivir® Tb RTU / Wipes	Oxivir® Five 16	Avert™ Sporidical Disinfectant Cleaner/Wipes	Virex® Plus	Virex® Tb	MoonBeam®3 UV Disinfection
Contact Time (Min)	1	1	5	1	5 @ 1:128	3	3
							
Product	Oxivir® Tb RTU / Wipes	Oxivir® Plus (Concentrate)	Virox® 5 Concentrate	Virox® 5 (RTU & Wipes)	Percept™(TM/MC) (Concentrate, RTU & Wipes)	Avert™ Disinfectant Cleaner	MoonBeam®3 UV Disinfection
Contact Time (Min)	1	5	5	5	5	1	3
							

References:

1. CDC.gov
2. Ready Reference for Microbes, K. Brooks, R.N., PhD., C.P.H.Q.; 3rd Edition, pg. 75

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