

Emergence of New Norovirus Strain

Public health authorities in British Columbia have linked a number of recent outbreaks of Norovirus in health care facilities to a new strain of the virus which has not yet been detected in Ontario. The new strain has been identified by a number of national surveillance laboratories around the world and has been responsible for a substantial increase in gastrointestinal illness reports and outbreaks in health care facilities in some jurisdictions.¹

Toronto Public Health has investigated a total of 21 outbreaks of gastrointestinal illness to-date this season, 13 of which have been caused by Norovirus. This is comparable with our experience in recent years. None of the outbreaks have been caused by the new strain of Norovirus. However, in past years the emergence of a new Norovirus strain has led to an increase in outbreaks of Norovirus in health care facilities and in the community.

Health care facilities should be aware and prepare for the arrival of this new virus. Toronto Public Health requests that institutions, including long term care homes and hospitals, remain vigilant so that they can quickly detect any clusters of gastroenteritis and respond with control measures promptly. Outbreaks of gastroenteritis in institutions are immediately reportable to the Medical Officer of Health.

Norovirus infection commonly causes abrupt onset of watery diarrhea, stomach cramps and nausea/vomiting. Symptoms are usually short-lived, resolving in one to three days, most commonly without complications. Illness burden is greatest amongst institutionalized individuals, those with underlying illnesses, and young children.

Toronto Public Health recommends the following:

- Staff, including healthcare workers and food handlers, who have symptoms consistent with Norovirus infection must remain off work until symptom-free for 48 hours.
- Follow established hand hygiene guidelines, and carefully wash hands with soap and water after contact with patients with Norovirus infection. Alcohol-based hand rub (minimum concentration of 70% alcohol) may also be used when hands are not visibly soiled.
- Use gowns and gloves when in contact with or caring for patients with Norovirus
- Routinely clean and disinfect high touch patient surfaces and equipment with products known to be effective against Norovirus. Increase cleaning frequency on units where Norovirus is detected.
- Most quaternary ammonium cation (QUATs) cleaners do not have activity against Norovirus. Some jurisdictions recommend sodium hypochlorite at 1,000 to 5,000 ppm.
- Clean ER/urgent care centre bathrooms at least every four hours, more frequently if needed, preferably using a sporicidal agent.
- Remove and wash contaminated clothing, privacy curtains or linens, as necessary. Allow for sufficient time for cleaning and disinfection of rooms where patients/residents on contact precaution are staying.
- Avoid buffing and vacuuming carpets/floors during outbreaks as this may re-circulate Norovirus.
- Continue precautions on ill patients/residents until 48 hours after resolution of symptoms.

Refer to the following documents from the Provincial Infectious Diseases Advisory Committee (PIDAC) for more information:

- [Routine Practices and Additional Precautions in All Health Care Settings](#)
- [Best Practices for Environmental Cleaning for Prevention and Control of Infections](#)
- [Best Practices for Hand Hygiene in All Healthcare Settings](#)

Call Toronto Public Health's surveillance unit immediately at 416-392-7411 during work hours (8:30am to 4:30pm, Monday to Friday) or at 3-1-1 after hours to report any suspect or confirmed gastrointestinal outbreaks.

¹ Indications for worldwide increased norovirus activity associated with emergence of a new variant of genotype ii.4, late 2012
Eurosurveillance, Volume 18, Issue 1, 03 January 2013. <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20345>