

**IN THIS ISSUE: Expect Normal Increases in Gastrointestinal Illness Activity During COVID-19 Outbreak**

**EXPECT NORMAL INCREASES IN GASTROINTESTINAL ILLNESS ACTIVITY IN WASHOE COUNTY DURING COVID-19 OUTBREAK**

**Introduction**

Symptoms of COVID-19 can include nausea, vomiting, and diarrhea or referred to as causing gastrointestinal illness (GI illness). In a recent MMWR publication using a convenience sample of COVID-19 case patients in the US who had experienced symptoms found approximately half reported one or more GI symptom (diarrhea was reported most frequently [38%] and vomiting least frequently [13%]).<sup>1</sup> However, when looking at symptom combinations, only 1% of case patients experienced only GI symptoms, while 57% experienced “typical” symptoms (fever, cough, or shortness of breath) with GI symptoms (57%) and 40% experienced “typical” symptoms without GI symptoms.

Due to continued widespread community transmission of COVID-19 in Washoe County, it is important to recognize while gastrointestinal symptoms can be present in COVID-19 patients, gastrointestinal illness symptoms are more often reported along with other “typical” COVID-like symptoms. It is important for providers and the community to consider alternate etiologies for increased gastrointestinal illness, such as norovirus.

**Gastrointestinal Illness Causes: Norovirus**

Norovirus is a virus that is the most common cause of acute gastroenteritis (diarrhea and vomiting). It is also known as the “stomach flu”. On average 19-21 million people become sick with norovirus each year in the United States. The most common signs and symptoms include vomiting, watery, non-bloody diarrhea, nausea, and abdominal cramps. Other signs and symptoms can include headache, body aches, and low-grade fever. People usually become sick within 12-48 hours of their exposure to norovirus. Illness is typically self-limiting and lasts 1-3 days.

Norovirus is found in the stool and vomit of infected people and has to be swallowed to cause illness. It is highly contagious. It only takes as few as eighteen viral particles to make someone sick.<sup>2</sup> A pea-sized piece of feces may contain billions of viral particles. Norovirus can be found in stool even before someone feels sick and remain in stool for as long as 2-3 weeks after people feel better. Noroviruses can remain infectious on environmental surfaces for many days and are relatively resistant to disinfection, heat, and cold. Given the genetic variability of norovirus, individuals are likely to be repeatedly infected throughout their lifetime.

Reverse transcriptase polymerase chain reaction (RT-PCR) can be used to identify the organism in the stool. This test is available at commercial laboratories (LabCorp, Quest) and the Nevada State Public Health Laboratory (NSPHL).

Incidence of norovirus in the population cannot be measured because individual cases of norovirus are not reportable to the Washoe County Health District (WCHD), only those cases associated with an outbreak are considered reportable.

**Current Gastrointestinal Illness Activity**

To date in 2020, a total of eight (8) gastrointestinal illness outbreaks have been reported to WCHD. Notably, these outbreaks were reported through March of 2020 and no other outbreaks have been reported after the shutdown of schools and business occurred. Since such time, WCHD has been using syndromic surveillance systems which monitor the real-time OTC sales for anti-diarrhea medications and Emergency Department (ED) visits for gastrointestinal (GI) illness for our community. At this time, there have been no aberrations yet detected by these systems across all age groups in Washoe County.

**A Review: 2019 Outbreaks in Washoe County**

In 2019 a total of seventeen (17) gastrointestinal illness outbreaks were reported to WCHD. Of the seventeen (17), 47% (8) were caused by norovirus, followed by 41% (7) of unknown etiology, 6% (1) caused by campylobacter, and 6% (1) by astrovirus. Of the seventeen (17) total gastroenteritis outbreaks reported, 47% (8/17) occurred in a school setting, 41% (7/18) occurred in a childcare setting, one (1) was in a household, and one (1) was in a casino/resort. The median number of reported ill persons per outbreak was 19 (range: 4 - 164 reported ill persons per outbreak). A total of 640 persons were reported as ill of which 563 met the case definition. Less than 2% (n=14) of cases reported in these outbreaks who met case definition was confirmed by laboratory testing.

Of the 640 reported ill persons, 75% (n=481) were associated with norovirus as the confirmed outbreak cause, 21% (n=136) had no confirmed cause of the gastrointestinal outbreak, 3% (n=19) were associated with astrovirus as the confirmed outbreak cause, and 1% (n=4) were associated with campylobacter as the confirmed outbreak cause. The transmission modes were primarily person-to-person.

Of note, 41% (7/17) of the gastroenteritis outbreaks occurred between January 1, 2019 and June 30, 2019. These seven (7)

outbreaks included 129 individuals who were reported ill. The majority (59%) of gastroenteritis outbreaks occurred between August 1, 2019 and December 31<sup>st</sup>, 2019. There were 434 individuals reported ill in association with the late summer through end of year outbreaks.

## Reporting

Individual or sporadic cases of norovirus are not reportable in Nevada. However, if an outbreak of norovirus is suspected or confirmed, then those illnesses are reportable under Nevada law. **Report suspected or confirmed outbreaks IMMEDIATELY to the Washoe County Health District at 775-328-2447.**

**If you are reporting an outbreak in a long-term care facility or another facility that is licensed by the state, please call the Nevada Department of Health and Human Services, Confidential Disease Reporting line at 775-684-5911.**

## Educate

Education is critical for prevention. WCHD highly recommends that healthcare providers DO assist by providing the following messages to their patients. To protect themselves from norovirus patients should do the following:

- Wash hands for 20 seconds with soap and water, especially after using the toilet or changing diapers and before eating, preparing, or handling food. **Hand sanitizers are not as effective as soap and water against norovirus.**
- Wash fruits and vegetables before preparing and eating them.
- Cook oysters and other shellfish thoroughly before eating them.

- Do not prepare food or care for others while sick or during the two days after recovering from norovirus. In the presence of outbreaks, this length may extend to three days. It is important to note that during norovirus and gastroenteritis outbreaks, WCHD requests that childcare facilities and schools exclude all ill students and employees with vomiting and/or diarrhea until 72 hours after symptoms stop. During that time period, a physician's note cannot be used as an exception to the exclusion requirement. **Note, if COVID-19 exposure has been determined or COVID-19 is being evaluated for, this exclusion may extend beyond 72 hours.**
- Clean and disinfect contaminated surfaces after vomiting or having diarrhea. Noroviruses are relatively resistant to disinfection; therefore, if norovirus is suspected the contaminated surface should be cleaned with a freshly-made bleach solution using ½ cup of bleach plus one gallon of water (1000ppm). Another option is a disinfectant registered as effective against norovirus by the Environmental Protection Agency (EPA), [https://www.epa.gov/sites/production/files/2018-04/documents/list\\_g\\_disinfectant\\_list\\_3\\_15\\_18.pdf](https://www.epa.gov/sites/production/files/2018-04/documents/list_g_disinfectant_list_3_15_18.pdf)
- Wash clothes or other linens that may be contaminated with diarrhea or vomit. Wash the items with detergent at the maximum available cycle length and machine dry. Wear gloves while handling contaminated linens.

## References

1. Burke RM, Killerby ME, Newton S, et al. Symptom Profiles of a Convenience Sample of Patients with COVID-19 — United States, January–April 2020. MMWR Morb Mortal Wkly Rep 2020;69:904–908. DOI: <http://dx.doi.org/10.15585/mmwr.mm6928a2external> icon
2. Centers for Disease Control and Prevention. Updated Norovirus Outbreak Management and Disease Prevention Guidelines. MMWR 2011;60 (No. 3):[1-15].