

IN THIS ISSUE: Increased Acute Gastroenteritis among Children in Washoe County

INCREASED ACUTE GASTROENTERITIS AMONG YOUNG CHILDREN

INTRODUCTION

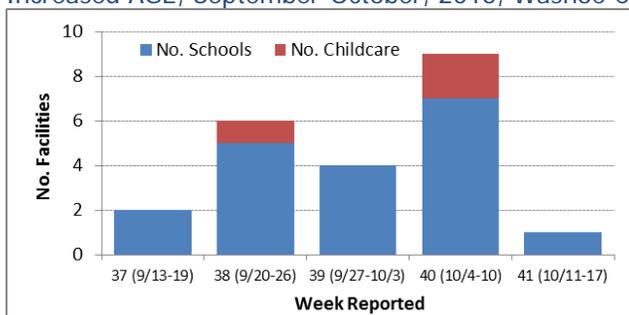
On September 16, 2015, the Washoe County Health District (WCHD) received the first report of increased illness with predominant vomiting or diarrhea among students of local school A. From September 16 through October 15, WCHD has received reports of increased acute gastroenteritis (AGE) from 22 schools or childcare centers. Of these, 18 are public schools; one is a charter school; and three are childcare centers. There have been over 1,330 illnesses reported as of October 14, 2015. The purposes of this article are: 1) to provide an overview of the current situation and primary findings; 2) to provide recommendations to healthcare providers in the community to assist the WCHD in its efforts to control the spread of AGE.

PRIMARY FINDINGS

Highlights of outbreak investigations are described as follows:

1. Over 1,330 cases (94% students and 6% staff members) from 21 facilities (Figure 1) were reported. Data for the 22nd facility were not available at the time of writing. Investigations are ongoing. Therefore, the number of cases reported may underestimate the true magnitude of illness.
2. The predominant symptoms are vomiting and/or diarrhea. Some other symptoms include nausea, abdominal cramps, headache, and fever.
3. Two of eight stool specimens collected were positive for norovirus (NoV) GII by RT-PCR.

Figure 1. Numbers of Schools/Childcare Centers with Increased AGE, September-October, 2015, Washoe County



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. Both systems did not show significant anomalies in September or October; however, the ED visits due to GI illness showed a peak on September 13 but still within threshold. A further analysis by age group showed the peak of ED visits due to GI illness for school aged children occurred on September

4th and September 27th for childcare age groups (unpublished data).

Outbreak investigations and syndromic surveillance system findings demonstrated the increased GI illness occurred in school-aged children first and subsequently transmitted from person-to-person or from contaminated environmental surfaces or fomites to person. The source of the outbreak is unknown at this time.

NoV is extremely contagious, with an estimated infectious dose as low as 18 viral particle, suggesting that approximately 5 billion infectious doses might be contained in each gram of feces during peak shedding¹. Given the genetic variability of NoV, 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).

RECOMMENDATIONS

Healthcare providers (HCPs) can assist WCHD to control the transmission of this disease by doing as follows:

- ◆ Provide education on appropriate hand washing for your patients.
- ◆ Advise your patient that hand sanitizer cannot substitute for hand washing with soap and water. Although hand sanitizer can quickly reduce the numbers of microorganisms on the hands, it has limited effectiveness for norovirus. Handwashing is critical to preventing this illness.
- ◆ Exclude those ill persons with vomiting and/or diarrhea among those facilities with ongoing outbreaks for 72 hours after their last symptom (i.e., vomiting or diarrhea) resolves. If your patients engage in sensitive duties such as food handlers, healthcare workers, childcare workers, 72 hour exclusion is preferred. Those schools without ongoing outbreaks may use their routine exclusion protocol, which is 24 hour after last symptom resolves.

Please call 775-328-2447 for any questions you may have. Check out the link for WCHD's guidelines for controlling norovirus outbreaks. <http://tinyurl.com/WashoeNoro>

¹Centers for Disease Control and Prevention. Updated Norovirus Outbreak Management and Disease Prevention Guidelines. MMWR 2011;60 (No. 3):[1-15].