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Conclusion. Vaccinated individuals were more likely than unvaccinated individuals to benefit from antiviral treatment. This finding warrants confirmation in other populations.


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Methods. We conducted active surveillance for AGE at the Michael E. DeBakey VA Medical Center, Houston, Texas, 1Infectious Diseases Section, Baylor College of Medicine, Houston, Texas, 2Oak Ridge Institute for Science and Education, Oak Ridge, Tennessee, 3Rollins School of Public Health, Emory University, Atlanta, Georgia, 4Section of Infectious Diseases, Michael E. DeBakey VA Medical Center, Houston, Texas, 5Section of Infectious Diseases, Baylor College of Medicine, Houston, Texas

Session: 139. Adult Viral Infection
Friday, October 6, 2017: 12:30 PM

Background. Norovirus is the leading cause of acute gastroenteritis (AGE) outbreaks in the United States; however, little data exist on the burden of endemic norovirus among adults. Robust estimates of the norovirus disease burden among US adults are needed to inform assessment of potential norovirus vaccines, which are currently in development.

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Results. Of 932 samples tested, 102 (11.2%) samples from 48 patients tested positive for norovirus, 15 (2%) samples from 11 patients tested positive for sapovirus, and 16 (2%) samples from 7 patients tested positive for astrovirus. One of these patients had a sample that tested positive for both sapovirus and norovirus, and one tested positive for astrovirus and sapovirus at separate points during the study period. Of the 48 patients, 33 (69%) had evidence of chronic excretion, with a median duration of 189 days (range 72–372). Of these 16, 14 were known or suspected to be immunodeficient, and 4 had hematologic malignancies. Of 7 patients with astrovirus, 1 (14%) had evidence of chronic excretion (132 days). This patient had a hematologic malignancy. Norovirus had evidence of chronic excretion. Overall, 20 (31%) patients additionally tested positive for another gastrointestinal pathogen, most commonly enteropathogenic E. coli and C. difficile.

Conclusions. Norovirus remains common in this immunocompromised patient population, and both sapovirus and astrovirus are present. Additional follow-up in this and other cohorts with new molecular tools will enable more complete description of the prevalence, excretion duration, and clinical features of infection with these enteric viruses.

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Disclosures. All authors: No reported disclosures.

1046. Incidence of Norovirus-Associated Acute Gastroenteritis in Four Veteran’s Affairs Medical Center Populations in the United States, 2011–2015

Scott Grytdal, MPH1; Hannah Browne, BS1; Nikkal Collins, BS1; Blanca Vergas, MD1; Maria C. Rodriguez-Barradas, MD1, 2; Sheldon Brown, MD1; Cynthia Lacero-Obusan, MD1; Mark Holodniy, MD, FIDSA, FSHEA1; Anita Kambhampti, MPH1; Umesh D. Parashar, MBBS1; Jan Vinje, PhD3; Benjamin Lopez, PhD4; Aanil J. Hall, DVM5; and Cristina V. Cardemil, MD6, 7

Methods. From November 2011 to September 2015, stool specimens collected for clinician-requested diagnostic testing within 7 days of AGE symptom onset and with reported vomiting or diarrhea were tested for norovirus by real-time RT-PCR and positive samples were genotyped by Sanger sequencing. Incidence of norovirus-associated outpatient visits and hospitalizations were calculated by multiplying the prevalence of norovirus among test specimens by AGE-coded outpatient encounters and inpatient discharges, and dividing by the unique patients served at each VAMC.

Results. 1,620 stool specimens were tested from all 4 sites. Seven percent of outpatients (n = 795) samples (annual range: 3%–10%; range by site: 3%–6%) and 4% (n = 125) of inpatients (annual range: 4%–8%; range by site: 3%–10%) Forty-four percent of norovirus-positive specimens were typed as GII.4 Sydney. Seventy-four percent of norovirus-positive specimens were collected between November and April. From 2011 to 2015, outpatient norovirus incidence was 250/100,000 population (annual range: 129 to 426/100,000; range by site: 87 to 428/100,000), and the incidence of norovirus hospitalizations was 28/100,000 population (annual range: 19 to 39/100,000; range by site: 14 to 57/100,000). By age group and setting, the highest incidence was observed among 45- to 64-year-old outpatients (307/100,000 population), and 65+ year-old inpatients (63/100,000 population).

Conclusion. This study provides estimates of the incidence of norovirus AGE outpatient visits and hospitalizations across multiple years among a geographically distributed VA population, highlighting the substantial burden of norovirus in US adults.

Disclosures. All authors: No reported disclosures.

1047. WU Polyomavirus Associated with Severe Respiratory Failure in Children

Karishma Uda, MD1; Kensuke Shoji, MD2; Chitose Wakai-Koyama, PSc3; and Isao Miyazaki, MD4

Methods. We identified patients with a positive BioFire FilmArray gastrointestinal panel result for norovirus, astrovirus, or sapovirus from September 15, 2015 through November 30, 2016. We reviewed patient medical records to abstract clinical and microbiologic information. Chronic excretion was defined as more than one positive test for a given virus with more than 30 days between tests.

Results. Of 932 samples tested, 102 (11.2%) samples from 48 patients tested positive for norovirus, 15 (2%) samples from 11 patients tested positive for sapovirus, and 16 (2%) samples from 7 patients tested positive for astrovirus. One of these patients had a sample that tested positive for both sapovirus and norovirus, and one tested positive for astrovirus and sapovirus at separate points during the study period. Of the 48 patients, 33 (69%) had evidence of chronic excretion, with a median duration of 189 days (range 72–372). Of these 16, 14 were known or suspected to be immunodeficient, and 4 had hematologic malignancies. Of 7 patients with astrovirus, 1 (14%) had evidence of chronic excretion (132 days). This patient had a hematologic malignancy. Norovirus had evidence of chronic excretion. Overall, 20 (31%) patients additionally tested positive for another gastrointestinal pathogen, most commonly enteropathogenic E. coli and C. difficile.

Conclusions. Norovirus remains common in this immunocompromised patient population, and both sapovirus and astrovirus are present. Additional follow-up in this and other cohorts with new molecular tools will enable more complete description of the prevalence, excretion duration, and clinical features of infection with these enteric viruses.

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