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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, Department of Medicine, Michael E. DeBakey VA Medical Center, Houston, Texas; 2Infectious Diseases Section, Baylor College of Medicine, Houston, Texas; 3Oak Ridge Institute for Science and Education, Oak Ridge, Tennessee; 4Rollins School of Public Health, Emory University, Atlanta, Georgia; 5Section of Infectious Diseases, Michael E. DeBakey VA Medical Center, Houston, Texas; 6Section of Infectious Diseases, Baylor College of Medicine, Houston, Texas

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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 disease among US adults are needed to inform assessment of potential norovirus vaccines, which are currently in development.

Methods. We conducted active surveillance for AGE at the Michael E. DeBakey VA Medical Center, Houston, Texas, from February to December 2015. Patients were included if they had at least one AGE symptom and one AGE-coded encounter in the electronic medical record within 7 days of symptom onset. Demographic and illness characteristics were collected for enrolled subjects, and stool samples were collected and tested using the FilmArray gastrointestinal panel. Norovirus-positive specimens were confirmed by real-time RT-PCR and genotyped after sequencing of conventional PCR products.

Results. From November 1, 2015–November 30, 2016, 130 inpatient and 85 outpatient AGE cases were identified. Our estimates of the norovirus disease burden among US adults are needed to inform assessment of potential norovirus vaccines, which are currently in development.

Conclusion. This robust, active surveillance platform employed screening and enrollment of patients in a VA population meeting a standardized AGE case definition, as well as symptomatic controls. Data from this study may help to better understand the burden of norovirus in adults and importance of a norovirus vaccine.

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1045. Norovirus, Astrovirus, and Sapovirus in a Tertiary Care Research Hospital

Shelby Daniel-Wayman, MD1; Gary Fable, MT, SM2; Tara Palmore, MD3; Kim Green, PhD4; and D. Rebecca Prevots, PhD, MPH5

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%) 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 with norovirus, 16 (33%) 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 and was taking immunosuppressive medications. No patients with sapovirus had evidence of chronic excretion. Overall, 20 (31%) patients additionally tested positive for another gastrointestinal pathogen, most commonly enteropathogenic E. coli and C. difficile.

Conclusion. 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 Gryzda, MPH4; Hannah Browne, BS5; Nikail Collins, BS5; Blanca Vergas, BS5; Maria Rodriguez-Barradas, MD4; and David Beenhouwer, MD4

Methods. This research was supported by the Intramural Research Program of the NIH, NIAID, and the NIH CC.

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1047. WU Polyomavirus Associated with Severe Respiratory Failure in Children

Kazuriko Uda, MD1; Kenseiku Shoji, MD2; Chisato Wakai-Koyama, PSc3; and Tsao Miyairi, 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%) 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 with norovirus, 16 (33%) 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 and was taking immunosuppressive medications. No patients with sapovirus had evidence of chronic excretion. Overall, 20 (31%) patients additionally tested positive for another gastrointestinal pathogen, most commonly enteropathogenic E. coli and C. difficile.

Conclusion. 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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