
Anita Kambhampati, Centers for Disease Control and Prevention
Blanca Vargas, Michael E. DeBakey VA Medical Center
Mahwish Mushtaq, Michael E. DeBakey VA Medical Center
Hannah Browne, Centers for Disease Control and Prevention
Sara Perregaux, Centers for Disease Control and Prevention
Scott Grytdal, Centers for Disease Control and Prevention
Robert L Atmar, Baylor College of Medicine
Jan Vinje, Centers for Disease Control and Prevention
Umesh D. Parashar, Centers for Disease Control and Prevention
Aron J. Hall, Centers for Disease Control and Prevention

Only first 10 authors above; see publication for full author list.

Journal Title: Open Forum Infectious Diseases
Volume: Volume 4, Number suppl_1
Publisher: Oxford University Press (OUP) | 2017-10-04, Pages S317-S317
Type of Work: Article | Final Publisher PDF
Publisher DOI: 10.1093/ofid/ofx163.741
Permanent URL: https://pid.emory.edu/ark:/25593/s6f7h

Final published version: http://dx.doi.org/10.1093/ofid/ofx163.741

Copyright information:
© The Author 2017. Published by Oxford University Press on behalf of Infectious Diseases Society of America. This is an Open Access work distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Accessed October 12, 2019 12:04 AM EDT

Anita Kambhammatti, MPH1; Blanca Vargas, MD2,3; Shalini Bhashish Mushag, MD4; Hannah Browne, BS5; Sara Perregaux, BS6; Scott Gryzda1, MPH7; Robert L. Atmar, MD8; Jan Vinje, PhD3; Umesh D. Parashar, MBBS5; Aroon J. Hall, DVM4; Cristina V. Cardeñiz, MD1,9; Benjamin Lopman, PhD10; and Marla C. Rodriguez-Barradas, MD11

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. Robust estimates of the norovirus disease burden 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, and stool samples were collected from AGE patients admitted to the hospital (patients). Patients without AGE symptoms in the prior 14 days were enrolled as controls. Demographic and illness characteristics were collected from enrolled subjects, and stool samples were collected and tested using the FilmArray gastrointestinal panel. Norovirus positives 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. Robust 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 will help to identify the burden of norovirus in adults and importance of a norovirus vaccine.

Disclosures. R. L. Atmar, Takeda Vaccines, Inc.: Research Support, Research support. B. Lopman, HHS/NIH/NAID: Grant Investigator, Grant recipient. Bill & Melinda Gates Foundation: Grant Investigator, Grant recipient.

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

Shelby Daniel-Wyman, BA1; Gary Fable, MT, SM2; Tara Palmore, MD3; Kim Green, PhD4; and D. Rebecca Prevost, PhD, MPH1

Background. Norovirus, astrovirus, and sapovirus are known to cause acute gastroenteritis (AGE) in children, and these viruses are often co-distributed with chronic viral excretion in stool among immunocompromised patients. Because molecular tools for their detection only recently became widely available, the prevalence and chronic excretion of these viruses has not been well defined. We describe features of these viral infections among patients receiving care at the Clinical Center of the National Institutes of Health (Clinical Center).

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 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 enteropathic 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.

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

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 Gryzda1, MPH7; Hannah Browne, BS5; Nikkil Collins, BS1,2; Blanca Vargas, MD1; Maria Rodriguez-Barradas, MD4; Sheldon Brown, MD5; Cynthia Lacero-Obusan, MD6; Mark Holodniy, MD, FIDSA, FASEA1; Anita Kambhammatti, MPH3; Umesh D. Parashar, MBBS5; Jan Vinje, PhD3; Benjamin Lopman, PhD10; and Aron J. Hall, DVM4,11

Background. 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.

Session: 139. Adult Viral Infection

Poster Abstracts • OFID 2017:4 (Suppl 1) • S317

Downloaded from https://academic.oup.com/ofid/article-abstract/4/suppl_1/S317/4294415 by Eunny University user on 22 November 2017