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

Disclosures. A. S. Monto, sanofi pasteur: Grant Investigator, Research grant.
Novartis: Consultant, Consulting fee. Protein Sciences: Consultant, Consulting fee.
Research grant. Multiparty Group For advice on science: Scientific Advisor, Research
grant.

1044. Active Surveillance to Quantify the Burden of Norovirus in a U.S. Veterans
Anita Kambhampi, MPH1; Tara Palmore, MD2; Blanca Vargas, BS3; George Mashug, MD4; Hannah
Browne, BS1,5; Sara Perregaux, BS1; Scott Grytdal, MPH1; Robert L. Atmar, MD1,6; Jan Vinje, PhD1; Umesh D. Parashar, MBBS1; Aron J. Hall, DVM1; Cristina V. Cardemil, MD4; Benjamin Lopman, PhD1; and Maria C. Rodriguez-Barradas, MD1,7; National Center for Immunization and Respiratory Diseases, Center for Disease Control and Prevention, Atlanta, Georgia, 1; IRC, Inc., Atlanta, Georgia, 2; Infectious Diseases Section, Michael E. DeBakey VA Medical Center, Houston, Texas, 3; Infectious Diseases Section, Baylor College of Medicine, Houston, Texas, 4; Oak Ridge Institute for Science and Education, Oak Ridge, Tennessee, 5; Rollins School of Public Health, Emory University, Atlanta, Georgia, 6; Section of Infectious Diseases, Michael E. DeBakey VA Medical Center, Houston, Texas, 7; Section 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) out-
breaks in the United States; however, little data exist on the burden of endemic noro-
virus infections in the VA adult population. 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, for 130 consecutive months from November 2011–November 2015. Stool specimens were collected from patients presenting to the emergency department or outpatient clinics (outpatients), or who were admitted to the hospital (inpatients). Patients without AGE symptoms in the prior 14 days were enrolled as controls.

Demographic data and illness characteristics were collected from enrolled subjects, and stool samples were collected and tested using the FilmArray gastrointestinal panel. AGE-positive patients 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 out-
patient AGE cases were enrolled. Along with 20 inpatients and 37 outpatient controls, were enrolled and provided a stool specimen. Among cases, 201 (93%) were male, and 94 (44%) were ≥65 years; median duration of illness was 3 days (range, 1–10 days). Norovirus was detected in 12 (9%) inpatient and 15 (18%) outpatient cases; norovirus was not detected in any controls. Incidence of norovirus-associated hospitalization was 15/100,000 population, and was similar in hospitalized cases aged ≥65 years (14/100,000) and <65 years (15/100,000). Of 22 norovirus positive specimens genotyped, 13 (59%) were GII.4 Sydney.

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 quantify the burden of noro-
virus in adults and importance of a norovirus vaccine.

Disclosures. R. L. Atmar, Takeda Vaccines, Inc.: Research Support, Research support. B. Lopman, HHS/NHI/NIAD: 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, SM1; Tara Palmore, MD1; Kim Green, PhD1 and D. Rebecca Prevots, PhD, MPH1; 1Epidemiology Unit, Division of Intramural Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Maryland, 2Department of Laboratory Medicine, Clinical Center, National Institutes of Health, Bethesda, Maryland, 3Hospital Epidemiology Service, National Institutes of Health Clinical Center, Bethesda, Maryland, 4Laboratory of Infectious Disease, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Maryland

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

Background. Norovirus, astrovirus, and sapovirus are known to cause acute gastroenteritis. The VA Medical Center, where approximately 30,000 unique patients were served in 2016. Cases were defined as veterans with symptoms of AGE (≥3 episodes of vomiting or diarrhea) occurring in the previous 10 days, who presented to the emergency department or outpatient clinics (outpatients), or were admitted to the hospital (inpatients). Patients without AGE symptoms in the prior 14 days were enrolled as controls. Demographic data and illness characteristics were collected from enrolled subjects, and stool samples were collected and tested using the FilmArray gastrointestinal panel. AGE-positive patients were confirmed by real-time RT-PCR and genotyped after sequencing of conventional PCR products.

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. In 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 sapovi-
rus 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.

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 Grytdal, MPH1; Hannah Browne, BS1,5; Nikkal Collins, BS2; Blanca Vargas, BS, MD1; Maria C. Rodriguez-Barradas, MD1,7; National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia, 1VA Greater Los Angeles Healthcare System and David Geffen School of Medicine, University of California at Los Angeles, Los Angeles, California, 2Mt Sinai School of Medicine, Bronx, New York, 3Public Health Surveillance, Department of Veterans Affairs, Palo Alto, California, 4Emory University, Atlanta, Georgia

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

Background. In the USA, norovirus is an important cause of epidemic acute gas-
troenteritis (AGE) as well as a leading cause of pediatric AGE. However, the burden of sporadic norovirus disease in US adults has not been well documented. Our objective was to estimate the incidence of outpatient visits and hospitalizations for communi-
ty-acquired norovirus AGE at four Veterans Affairs Medical Centers (VAMCs) and their associated outpatient clinics in Atlanta, GA; Bronx, New York; Houston, TX; and Los Angeles, CA.

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 tested specimens by AGE-codified 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 out-
patient (n = 795) samples (annual range: 3%–10%; range by site: 3%–6%) and 6% of (n = 825) patients from hospitalized patients tested positive for norovirus (annual range: 3%–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 inci-
dence 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 popu-
lation (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 in 45- to 64-year-old outpatients (370/100,000 population), and 65- to 85-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 dis-
tributed 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
Kazuhiko Uda, MD1; Kensuke Shoji, MD2; Chitose Wakisaka-Yokoya, PSc3 and Tsao Miyaars, MD4; 1Office for Infection Control, National Center for Child Health and Development, Setagaya-ku, Tokyo, Japan, 2Infectious Disease, National Center for Child Health and Development, Tokyo, Japan, 3Division of Infectious Diseases, National Center for Child Health and Development, Setagaya-ku, Tokyo, Japan

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

Background. WU polyomavirus (WUPyV) is a relatively new virus associ-
ated with respiratory infections. However, its role is unclear in children with severe