average 7.4 days of renal replacement. Three patients experienced encephalopathy with seizures and were managed with levetiracetam and corticosteroids for Stx-induced cerebral edema. One patient received eculizumab, a terminal complement inhibitor approved for atypical HUS, with resolution of seizures and return to his neurocognitive baseline but with persistent electroencephalographic abnormalities. There were no deaths, and all recruits had recovery of renal function.

***Conclusion.*** This case series represents the largest STEC-HUS outbreak affecting a military population. Rates of HUS and mortality were lower than seen in prior outbreaks, in part due to a high level of baseline health and early detection and management of suspect cases. Early volume expansion and close monitoring of cases may have reduced the risk for HUS progression and long-term renal sequelae.

***Disclosures.*** **All authors:** No reported disclosures.

**1099. Antibiotic Prescriptions for Acute Gastroenteritis during Office and Emergency Department Visits–United States, 2006–2015**

Jennifer P. Collins, MD, MSc[1]; Louise Francois Watkins, MD, MPH[1]; Laura M. King, MPH[2]; Monina Bartoces, PhD[3]; Katherine Fleming-Dutra, MD[4] and Cindy Friedman, MD[1]; [1]Division of Foodborne, Waterborne, and Environmental Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia, [2]Centers for Disease Control and Prevention, Atlanta, Georgia, [3]Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia, [4]CDC, Atlanta, Georgia

**Session:** 133. Enteric Infections
*Friday, October 5, 2018: 12:30 PM*

***Background.*** Acute gastroenteritis (AGE) is a major cause of office and emergency department (ED) visits in the United States. Most patients can be managed with supportive care alone, although some require antibiotics. Limiting unnecessary antibiotic use can minimize side effects and the development of resistance. We used national data to assess antibiotic prescribing for AGE to target areas for stewardship efforts.

***Methods.*** We used the 2006–2015 National Hospital Ambulatory Medical Care Survey of EDs and National Ambulatory Medical Care Survey to describe antibiotic prescribing for AGE. An AGE visit was defined as one with a new problem (<3 months) as the main visit indication and an ICD-9 code for bacterial or viral gastrointestinal infection or AGE symptoms (nausea, vomiting, and/or diarrhea). We excluded visits with ICD-9 codes for *Clostridium difficile* or an infection usually requiring antibiotics (e.g., pneumonia). We calculated national annual percentage estimates based on weights of sampled visits and used an α level of 0.01, recommended for these data.

***Results.*** Of the 12,191 sampled AGE visits, 13% (99% CI: 11–15%) resulted in antibiotic prescriptions, equating to an estimated 1.3 million AGE visits with antibiotic prescriptions annually. Antibiotics were more likely to be prescribed in office AGE visits (16%, 99% CI: 12–20%) compared with ED AGE visits (11%, 99% CI: 9–12%; $P < 0.01$). Among AGE visits with antibiotic prescriptions, the most frequently prescribed were fluoroquinolones (29%, 99% CI: 21–36%), metronidazole (18%, 99% CI: 13–24%), and penicillins (18%, 99% CI: 11–24%). Antibiotics were prescribed for 25% (99% CI: 8–42%) of visits for bacterial AGE, 16% (99% CI: 12–21%) for diarrhea without nausea or vomiting, and 11% (99% CI: 8–15%) for nausea, vomiting, or both without diarrhea. Among AGE visits with fever ($T \geq 100.9^{o}F$) at the visit, 21% (99% CI: 11–31%) resulted in antibiotic prescriptions.

***Conclusion.*** Patients treated for AGE in office settings were significantly more likely to receive prescriptions for antibiotics compared with those seen in an ED, despite likely lower acuity. Antibiotic prescribing was also high for visits for nausea or vomiting, conditions that usually do not require antibiotics. Antimicrobial stewardship for AGE is needed, especially in office settings.

***Disclosures.*** **All authors:** No reported disclosures.

**1100. Characterization of Enteropathogenic *Escherichia coli* (EPEC) in Cancer Patients With Diarrhea**

Pablo Okhuysen, MD, FIDSA; Adilene Olvera, BS MLS (ASCP)CM and Lily Carlin, BS; Infectious Diseases, The University of Texas MD Anderson Cancer Center, Houston, Texas

**Session:** 133. Enteric Infections
*Friday, October 5, 2018: 12:30 PM*

***Background.*** Biofire FilmArray multiplexed nucleic acid amplification tests (NAAT) for bacterial diarrhea include probes specific for EPEC. However, the platform does not differentiate typical EPEC (tEPEC, defined as carrying *eaeA* and *bfp*) which have strong epidemiologic associations with diarrhea from atypical EPEC (aEPEC, carrying *eaeA* but not *bfp*) for which there is a weaker association. Nevertheless, emerging data suggest that aEPEC subsets carrying *efa1/lifA* which encodes for adherence factor 1/lymphocyte inhibitory factor A, are associated with diarrhea. The role of EPEC and its subtypes as agents of bacterial diarrhea have not been well defined in immunosuppressed and cancer patients.

***Methods.*** We characterized EPEC subtypes in stools from healthy individuals with no diarrhea (HI, $N = 21$), cancer patients with diarrhea and negative NAAT (DN, $N = 25$) and patients with diarrhea positive NAAT for EPEC (DP, $N = 54$). EPEC isolated from stool cultures were tested for *eaeA* and *bfp*, *stx* and other *E. coli* pathotypes. We estimated the number of fecal EPEC using a qPCR for *eaeA, efa1/lifA* that detected $5.6 \times 10^1$ to $5 \times 10^7$ cfu/mg of stool.

***Results.*** Demographic characteristics and underlying malignancy were similar between DN and DP groups. DP were more likely to have diarrhea on admission than DN [46/52 (88%) vs. 13/25 (52%), $P < 0.01$]. Stool cultures confirmed EPEC in 24/52 (60%) DP of which 23/24 (96%) were aEPEC. Fecal qPCR for *eaeA* confirmed EPEC in 43/52 (83%) of DP, 0/25 DN and in 3/21 (14%) of HI ($P < 0.001$). DP excreted a higher number of EPEC cfu/mg of stool than HI (median 168 vs. 1.18 cfu/mg, $P < 0.001$) and only DP excreted EPEC *efa1/lifA* (+) [14/52 DP (27%) vs. 0/25 DN and 0/21 HI; $P < 0.001$]. When compared with DP EPEC *efa1/lifA* (-), DP EPEC *efa1/lifA* (+) had a longer median duration of illness (3 days vs. 1 days, $P < 0.05$); more likely to be hematopoietic stem cell transplant recipients [7/14 (50%) vs. 7/38 (18%), $P < 0.05$] and had a higher EPEC *eaeA* fecal burden (median 3885 vs. 84 cfu/mg, $P < 0.05$). Co-infections with other pathogens were equally represented in *efa1/lifA* (–) and *efa1/lifA* (+) DP subgroups [8/14 (57%) vs. 21/38 (55%) $P$ = NS].

***Conclusion.*** Most EPEC in cancer patients with diarrhea are aEPEC acquired in the community and when carrying *efa1/lifA* (+), are associated with more severe disease.

***Disclosures.*** **All authors:** No reported disclosures.

**1101. Comparison of Clinical Characteristics and Demographics of GII.4 vs. Other GII Noroviruses Associated With Sporadic Acute Gastroenteritis in Children in Nashville, TN, 2012–2015**

Einas Batarseh, MD[1]; Lubna Hamdan, MD[1]; Bhinnata Piya, MPH[1]; Laura Stewart, PhD[1]; James D. Chappell, MD, PhD[1]; John Dunn, DVM, PhD[2]; Daniel C. Payne, PhD, MSPH[3]; Mary E. Wikswo, MPH[3]; Jan Vinjé, PhD[4]; Aron J. Hall, DVM, MSPH[4] and Natasha Halasa, MD, MPH[1]; [1]Vanderbilt University Medical Center, Nashville, Tennessee, [2]Division of Communicable and Environmental Diseases and Emergency Preparedness, Tennessee Department of Health, Nashville, Tennessee, [3]Centers for Disease Control and Prevention, Atlanta, Georgia, [4]Division of Viral Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia

**Session:** 133. Enteric Infections
*Friday, October 5, 2018: 12:30 PM*

***Background.*** Norovirus is a leading cause of acute gastroenteritis (AGE) in all age groups. Although at least 28 different genotypes infecting humans have been reported, most outbreaks over the last 15 years have been caused by genogroup II (GII) viruses, of which GII.4 viruses have caused more than 50%. Since clinical differences between different genotypes are poorly understood, we sought to compare clinical characteristics in children infected with GII.4 and non-GII.4 viruses.

***Methods.*** Children between 15 days and 17 years who presented with AGE defined as diarrhea (≥3 loose stools in a 24 hour period) or vomiting (≥1 episodes in a 24 hour period) within 10 days duration were recruited in outpatient, emergency, and inpatient settings in Nashville, TN, during 2012–2015. Stool specimens were tested by RT-qPCR for GI and GII norovirus. Norovirus-positive specimens were genotyped by sequencing of a partial region of the capsid gene. In this study, we excluded children infected with GI, mixed GI/GII and non-typeable GII viruses.

***Results.*** Of 3,705 AGE subjects enrolled, 2,892 (78%) specimens were collected, 637 (22%) tested norovirus-positive (567 [89%] GII, 62 [10%] GI, and 8 [1%] mixed GI/GII). Of the 567 GII viruses, 461 (81%) were able to be genotyped and of those 238/461 (51.6%) were typed as GII.4 and 223/461 (48.3%) were typed as other GII genotypes (non-GII.4, primarily GII.3 [65/ 461, 14.1%], GII.6 [48/461, 10.4%] and GII.7 [36/461, 7.8%]). Over three AGE seasons, GII.4 represented 64/117 (54%), 79/178 (44%), and 71/166 (57%), of the GII infections, respectively. Compared with non-GII.4 subjects, GII.4 subjects were more likely to be younger (15.5 vs. 21.3 months, $P < 0.01$), and less likely to attend daycare (23% vs. 39%, $P < 0.01$). GII.4 subjects also were more likely to present with diarrhea (75% vs. 57%, $P < 0.01$) and had higher median modified Vesikari score (7 vs. 6, $P < 0.01$).

***Conclusion.*** Children infected with GII.4 viruses were younger, less likely to attend child care, more likely to present with diarrhea, and had a more severe illness compared with those with non-GII.4 infections. These data provide important information on the genotype distribution of norovirus in children with AGE in Tennessee and highlight GII.4 as the most prevalent strain.

***Disclosures.*** **N. Halasa**, sanofi pasteur: Investigator, Research support. GSK: Consultant, Consulting fee. Moderna: Consultant, Consulting fee.

**1102. Food Insecurity and Reported History of Cholera in Haitian Households: An Analysis of the 2012 Demographic and Health Survey (DHS)**

Aaron Richterman, MD[1]; Molly F. Franke, ScD[2] and Louise C. Ivers, MD, MPH[2]; [1]Medicine, Brigham & Women's Hospital, Boston, Massachusetts, [2]Department of Global Health and Social Medicine, Harvard Medical School, Boston, Massachusetts

**Session:** 133. Enteric Infections
*Friday, October 5, 2018: 12:30 PM*

***Background.*** Food insecurity is defined as a lack of consistent access to food in adequate quantity or quality. Both cholera and food insecurity tend to occur in impoverished communities where poor access to food, inadequate sanitation, and an unsafe water supply often coexist. The relationship between the two, however, has not been previously studied.

***Methods.*** We performed a secondary analysis of household-level data from the 2012 Demographic and Health Survey in Haiti, a nationally and subnationally representative cross-sectional household survey conducted every 5 years. We used multivariable logistic regression to evaluate the relationship between household food insecurity (as measured by the Household Hunger Scale) and (1) reported history of cholera since 2010 by any person in the household and (2) reported death by any person in the household from cholera. We used survey commands to apply sampling probability weights and account for clustering and stratification in sample design. We performed a complete case analysis because there were no missing data on household food insecurity or cholera and <1% for the other covariates of interest.

***Results.*** There were 13,181 households in the survey, 2,104 of which reported at least one household member with history of cholera. Both moderate hunger in the household [adjusted odds ratio (AOR) 1.47, 95% confidence interval (CI) 1.27–1.71;