have succeeded, decreasing missed vaccination opportunities will help with further improvement.  

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

1069. Human Papillomavirus (HPV) Knowledge, Vaccine Acceptability and Acceptability of Text Message Reminders for Vaccine Doses in Adolescents Presenting to an Urban Emergency Department (ED)  

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Session: 140. Assorted Pediatric Vaccines  
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**Background.** HPV vaccination has been shown to reduce the incidence of high grade cervical abnormalities in girls under 18 years old and the incidence of genital warts in young men aged 13–17 years, 33.4% and 6.8% respectively had completed the three dose HPV vaccine. It has been suggested that opportunities for HPV vaccination in less traditional health care settings and using reminder and recall systems may improve HPV vaccine uptake.

**Methods.** Adolescents aged 13–18 years old were recruited prospectively from two pediatric EDs in New York City. Recruited patients took part in a researcher-ad- ministered questionnaire based on the validated Carolina HPV Attitudes and Beliefs Scale. Demographic information was also collected. Patients were recruited between 8 am and 8 pm and approached consecutively within 4-hour time blocks. Standard descriptive statistics were used to summarize response data.

**Results.** Between September 21, 2016 and May 31, 2017, 117 adolescents were interviewed (70 females, 47 males). 76 (65%) had never had their parent or anyone else talk to them about the HPV vaccine. 71 (61%) of adolescents knew the HPV vaccine was not for girls only 83 (71%) thought that the HPV vaccine was safe. Only 10 (8.5%) of parents thought they were too young to get the vaccine. 35 (30%) answered yes when asked if they had ever had sex but only 14 (12%) thought that the HPV vaccine was only for people who are sexually active. 83 (71%) of adolescents would agree, if their parent agreed, to have the HPV vaccine in the ED on the day they were interviewed. 104 (89%) interviewed adolescents had a mobile phone and 88 (75%) stated they would have no problem with receiving a text message reminder for a vaccine shot.

**Conclusion.** Adolescents find it acceptable to receive HPV vaccination in these EDs and text message reminders for subsequent vaccine doses. Exploration of initial HPV vaccination of unvaccinated adolescents in the ED, with follow up doses in more traditional health care settings and using reminder and recall systems may improve HPV vaccine uptake. Though a challenging care environment, the ED should not be ignored as a potential site for public health interventions such as HPV vaccination in adolescents.

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

1070. Perception of Japanese Physicians about Human Papillomavirus Vaccine  

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**Background.** Current vaccination coverage of Human Papillomavirus vaccine (HPV) in Japan is less than 1% because the Ministry of Health, Labour and Welfare (MHLW) suspended its proactive recommendations for HPVV in 2013 after some uncertainty. HPV vaccination of unvaccinated adolescents in the ED, with follow up doses in more traditional health care settings and using reminder and recall systems may improve HPV vaccine uptake.

**Methods.** Adolescents aged 13–18 years old were recruited prospectively from two pediatric EDs in New York City. Recruited patients took part in a researcher-ad- ministered questionnaire based on the validated Carolina HPV Attitudes and Beliefs Scale. Demographic information was also collected. Patients were recruited between 8 am and 8 pm and approached consecutively within 4-hour time blocks. standard descriptive statistics were used to summarize response data.

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**Conclusion.** Adolescents find it acceptable to receive HPV vaccination in these EDs and text message reminders for subsequent vaccine doses. Exploration of initial HPV vaccination of unvaccinated adolescents in the ED, with follow up doses in more traditional health care settings and using reminder and recall systems may improve HPV vaccine uptake. Though a challenging care environment, the ED should not be ignored as a potential site for public health interventions such as HPV vaccination in adolescents.

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

1072. Fixed vs. Free-text Documentation of Indication for Antibiotic Orders  

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**Background.** Requiring indications for antimicrobial orders can allow stewardship programs to evaluate adherence to guidelines and assess outcomes. We extracted indication data from our institution’s EPIC system and found that in a 29-month time frame there were 12,218 uniquely entered indications. Only 136 of these were standardized drop-down (fixed) menu options; the rest were entered manually (free-text). Enormous variation in these uniquely typed entries emphasizes the value and necessity of fixed indication options to allow for better evaluation of stewardship program outcomes.

**Methods.** We evaluated the 718 most commonly used indications accounting for a total of 113,741 unique antibiotic orders for 42,665 patients. We excluded indications used for less than 36 orders during the study period. We analyzed the characteristics of these orders to identify opportunities for improvement in indication documentation and developed a new list of less than 200 indications that could account for nearly all of the various indications entered.

**Results.** 66,404 (58%) orders were placed using fixed options available in the menus (Figure 1). 32,427 (29%) orders were placed with no indication listed. The remaining 14,910 (13%) orders were documented with free-text indications. Within these manual entries, 59% were identical or nearly identical to an option that was available in the drop down menu. 37% of free-text indications could not be appropriately placed in the fixed option available in the menu. We tested the association of an indication with its modified free-text entry. For example, the menu contained a fixed option for “Severe C. difficile infection” forcing all non-severe cases to be entered as fixed or free-text alternatives (Figures 2 and 3).

**Conclusion.** In our sample, use of fixed menu options was high but robust evaluation of proper antimicrobial use was substantially limited by failure to document indication and free-text entry by providers. Free-text entry and blank fields can be
used as quality metrics, with high use indicating poor quality. We recommend that standard comprehensive indication lists are developed, providers are encouraged and empowered to utilize menu options consistently, and computerized order systems are programmed to prevent orders from being placed without an indication listed.

**Methods.** A retrospective prescription review from a Shanghai hospital outpatient electronic health records system was conducted from 1 January 2016 to 30 December 2016. Records were included for adult patients. The microbial resistance seasonal data in 2016 were extracted. Chi-squared and multivariable logistic regression and adjusted odd ratio (aOR) were used to assess the relationships between demographic characteristics and antibiotic prescribing.

**Results.** In total, there were 16,565 prescriptions, 16,060 prescriptions were included in the final analysis after excluding the follow up visits. There were 12,131 (76%) prescriptions with antibiotics prescribed. 5505 (45%) of the antibiotics prescribed were injectable. Of the antibiotics prescribed, levofloxacin was the most frequent (85%), followed by various cephalosporins (14%). Of the cephalosporin prescriptions, third-generation products were the most common (97%). Treatment with oral rehydration salts (ORS) was prescribed 34 (0.2%) times, probiotics were prescribed 3414 (21%) times and smectite was prescribed 2209 (14%) times. Multivariable regression analysis showed that those more likely to receive antibiotics were age 31–50 (aOR 1.3, 95% CI 1.1–1.5), P < 0.001, evaluated in the late evening (11pm-7am) aOR 2.6 (2.2–3.0), P < 0.001, in the early evening (6pm-11pm) aOR 2.0 (1.8–2.2) P < 0.001, in the summer (June-August) aOR 1.7 (1.5–1.9) P < 0.001. At the same time, the Gram-positive and Gram-negative resistance rates to levofloxacin exceeded 40%, including 50% of E. coli isolates.

**Conclusion.** High rates of antibiotic use were observed for acute diarrhea in this hospital. Given the inappropriateness of antibiotics for acute diarrhea and the nonsensical high rates of of intravenous levofloxacin use and the concurrent high rates of the levofloxacin resistance, a more effective antibiotic stewardship program is needed to improve patient outcomes, reduce costs, reinforce policy and address the underlying causes of antibiotic abuse.

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

1073. Antibiotic Prescription Patterns for Acute Diarrhea in a Hospital in Shanghai in 2016: A Cross-sectional Study

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**Background.** Unnecessary antibiotic use increases the risk for antibiotic resistance. The rates of antibiotic use for upper respiratory infections are high in hospitals in China. Although most guidelines advise against the use of antibiotics for acute diarrhea, little is known about antibiotic use practices for acute diarrhea in China.

**Methods.** A retrospective prescription review from a Shanghai hospital outpatient electronic health records system was conducted from 1 January 2016 to 30 December 2016. Records were included for adult patients. The microbial resistance seasonal data in 2016 were extracted. Chi-squared and multivariable logistic regression and adjusted odd ratio (aOR) were used to assess the relationships between demographic characteristics and antibiotic prescribing.

**Results.** In total, there were 16,565 prescriptions, 16,060 prescriptions were included in the final analysis after excluding the follow up visits. There were 12,131 (76%) prescriptions with antibiotics prescribed. 5505 (45%) of the antibiotics prescribed were injectable. Of the antibiotics prescribed, levofloxacin was the most frequent (85%), followed by various cephalosporins (14%). Of the cephalosporin prescriptions, third-generation products were the most common (97%). Treatment with oral rehydration salts (ORS) was prescribed 34 (0.2%) times, probiotics were prescribed 3414 (21%) times and smectite was prescribed 2209 (14%) times. Multivariable regression analysis showed that those more likely to receive antibiotics were age 31–50 (aOR 1.3, 95% CI 1.1–1.5), P < 0.001, evaluated in the late evening (11pm-7am) aOR 2.6 (2.2–3.0), P < 0.001, in the early evening (6pm-11pm) aOR 2.0 (1.8–2.2) P < 0.001, in the summer (June-August) aOR 1.7 (1.5–1.9) P < 0.001. At the same time, the Gram-positive and Gram-negative resistance rates to levofloxacin exceeded 40%, including 50% of E. coli isolates.

**Conclusion.** High rates of antibiotic use were observed for acute diarrhea in this hospital. Given the inappropriateness of antibiotics for acute diarrhea and the nonsensical high rates of of intravenous levofloxacin use and the concurrent high rates of the levofloxacin resistance, a more effective antibiotic stewardship program is needed to improve patient outcomes, reduce costs, reinforce policy and address the underlying causes of antibiotic abuse.

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

1074. Causal Conditions Supporting Antibiotic Stewardship Information Dashboards

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**Background.** Antibiotic stewardship is key to minimizing antibiotic resistance. To assist antibiotic stewards in dissecting population-level antibiotic use patterns, our study group developed a dashboard that displays consolidated patterns, supports data exploration, and compares facility-level antibiotic use to others. We report fuzzy set qualitative comparative analyses (QCA) of interviews designed to elicit user experiences to uncover different combinations of causal conditions supporting dashboard use.

**Methods.** Dashboards were iteratively designed based upon longitudinal feedback from stewards. Views include antibiotic use stratified by diagnoses and duration of therapy. Eight VAMCs, each with 0.5 to 2.0 FTE stewards, used the dashboard. One to 2 stewards from each site were interviewed using a structured script that focused on: 1) structure (i.e., program FTE) and functions of the local stewardship program; 2) critical incident or usage story; and 3) perceived knowledge and efficacy.

**Results.** Qualitative codes were developed from the interviews and were scaled in a fuzzy logic framework (i.e., between 0 and 1) to reflect the degree to which the qualitative theme was present in the stewardship program at participating clinical sites. The scaling was assigned using prior knowledge external to the data. The most parsimonious QCA solution identified just the absence of program structure (program FTE) a sufficient causal configuration of dashboard use (coverage = 0.612, consistency = 0.813). Intermediate solutions added stewardship activities, dashboard self-efficacy, and trust in the data (coverage = 0.502, consistency = 0.952) as sufficient conditions. The coverage for both solutions exceeded 0.75, which was the lower bound of acceptability.

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