Results. The most common Gram-negative organisms were Klebsiella pneumoniae and Escherichia coli. Extended-spectrum β-lactamase (ESBL) producing E. coli and K. pneumoniae were common (Figure 1). The average rates of ESBL E. coli and K. pneumoniae were 55% and 64%. The total average DDD/1,000 was 83. The average DDD/1,000 per drug is graphed in Figure 2.

Figure 1. Percentage of ESBL producing EC and KP.

Conclusion. Ceftriaxone and cefazolin were the most commonly prescribed antimicrobials. Rates of ESBL-producing EC and KP are high at HGIPS, with average rates above 50%. This differs greatly from reported prevalence in the United States. Thus, local treatment guidelines need to be established and may differ from Infectious Diseases Society of America guidelines. Further studies are needed to identify the clinical characteristics and risk factors of patients with ESBL in the DR. This will help local ASP programs identify and advise carbapenem use for patients at risk. Our experience at HGIPS suggests that assessing local antimicrobial susceptibilities and usage is a key initial step for understanding local needs toward ASP development in resource limited settings.

Disclosures. All authors: No reported disclosures.

1780. Impact of an Antimicrobial Stewardship Intervention in India: Evaluation of Post Prescription Review and Feedback as a Method of Promoting Optimal Antimicrobial Use Priscilla Rupali, MD1; Marcus J. Zerve, MD2 and Christian Medical College Hospital Antimicrobial Stewardship Team; Infectious Diseases, Christian Medical College, Vellore, India; Infectious Disease, Henry Ford Health System, Detroit, Michigan

Session: 216. Antimicrobial Stewardship: Global Perspectives
Saturday, October 6, 2018: 12:30 PM

Background. Antimicrobial stewardship programs (AMSP) are effective in developed countries. This study assessed the effectiveness of an AMSP in a low middle-income country like India.

An Infectious Diseases (ID) physician-driven prospective audit and feedback strategy to evaluate the effectiveness of an AMSP in two intensive care settings of a tertiary care hospital was performed from January 2016 to July 2017 in three phases: baseline, intervention and follow-up. Each consisting of 6 months. In the baseline and follow-up phases, relevant data were collected. In the intervention phase a patient on antibiotics for >48 hours was assessed by an ID physician and recommendations made. Primary outcome was days on antimicrobial therapy (DOT) and other secondary outcomes were assessed.

Results. A total of 401, 381, and 379 patients were recruited in the baseline, intervention, and follow-up phases. Baseline characteristics of the three groups were similar. Antimicrobial use decreased from 831.5 during baseline to 717 DOT per 1,000 patient days in the intervention (P < 0.0001) and the effect was sustained in the follow-up period (713.4, DOT per 1,000 patient-days). Among the study antimicrobials, DOTs were significantly lower in the intervention vs. baseline phase for Quinolones (21.5 vs. 33.3), Carbapenems (340.2 vs. 426.0) and Colistin (131.5 vs. 155.9) (P < 0.0001).

De-escalation according to culture susceptibility was significantly higher in the intervention group compared with the baseline (42.7% vs. 33.6%; P < 0.0001). Compliance to hospital-based antibiotic guidelines significantly improved in intervention and follow-up phases compared with the baseline (19.5%, 21.8%, 33.2%; P < 0.0001). We found that 73.3% of antibiotic prescriptions were inappropriate and commonly occurred in the absence of an appropriate clinical indication. Recommendations by the ID team were accepted in 66.7% of the cases. All-cause in hospital mortality rates were 22.4% and 27.6% in the baseline and intervention phases respectively (P = 0.093).

Conclusion. An ID physician-driven antimicrobial stewardship program was successful in reducing antibiotic utilization without compromising patient safety in low-middle-income countries; however, this needs further validation.

Disclosures. P. Rupali, Merck Foundation: Grant Investigator, Grant recipient.
M. J. Zerve, MedImmune, Merck Foundation: Consultant, Grant recipient.

1782. Guideline-Discordant Carbapenem Prescribing Policies at a Large, Urban Hospital in Manila, Philippines
Katlin Mitchell, PhD1; Nasta Saldar, MD, PhD2; and Cybele Lara Abad, MD, FIDSA2,1

1Department of Population Health Sciences, University of Wisconsin-Madison, Madison, Wisconsin, 2Medicine, University of Wisconsin, Madison, Wisconsin, 3Internal Medicine Section of Infectious Diseases, The Medical City, Pasig City, Philippines

Session: 216. Antimicrobial Stewardship: Global Perspectives
Saturday, October 6, 2018: 12:30 PM

Background. Hospital antimicrobial stewardship programs are critical in countries such as the Philippines, where antibiotic-resistant infections are highly prevalent. At our institution, a Prior Antimicrobial Restriction Approval (PARA) is required for noninfectious disease specialists to prescribe carbapenem. PARA request forms include specification of empiric or definitive therapy based on diagnostic tests. Recommended duration of therapy is typically 3 days for empiric use and 7 days for definitive, with possible extension upon specialist approval.

Methods. The study took place at an 800-bed tertiary hospital in Manila, Philippines. Using retrospective chart review, patients with a PARA request for carbapenem were identified. Information on patient demographics, hospital stay, infection, treatment, and outcomes was collected using the hospital’s online record system. Carbapenem use was scored as concordant or discordant based on guidelines of the Infectious Diseases Society of America: de-escalation based on culture data, length of carbapenem therapy, and/or consultation with an Infectious Disease Specialist.

Results. Of 183 patients on carbapenem therapy, 56 (31%) were classified as definitive and 127 (69%) were empiric (Table 1). In addition, 56 (44%) of the patients received antibiotic therapy were found to be guideline-discordant. The primary reason for discordance was failure to de-escalate the carbapenem following culture results (80% of cases withempiric prescriptions).

Conclusion. Patients who were prescribed carbapenems empirically were more likely to have overall discordant antibiotic therapy, which was often due to unnecessarily long antibiotic courses or failure to review treatment based on laboratory data. Interventions
that focus on drug de-escalation and incorporation of laboratory data into prescription choice should be implemented.

Table 1: Characteristics of patient cases with requests for carbapenem therapy

| Cases with PARA requests | Total | Definitive, n = 183 | Empiric, n = 56 | Pvalue |
|--------------------------|-------|---------------------|----------------|--------|
| Age (median, years)      | 75.5  | 78.4                | 72.7           | 0.09   |
| Gender (% male)          | 44.8  | 53.6                | 40.9           | 0.11   |
| Duration of carbapenem therapy (days) | 6.5   | 70                   | 5.0            | 0.13   |
| Mortality (% deceased)   | 23.0  | 17.9                | 25.2           | 0.28   |
| Recurrent infection %    | 765   | 3.5                  | 9.7            | 0.17   |
| Guideline-based carbapenem therapy (% concordant) | 59.0   | 69.6               | 54.3           | 0.05   |

Disclosures. All authors: No reported disclosures.

1785. Implementation of New Strategy for Real-time Antimicrobial Stewardship Program (ASP) in a Secondary Healthcare Hospital, in Mexico City
Alberto Diaz-Romero, MD1, Arturo Ortiz-Alvarez, MD2; Juan Pablo Ramirez-Hinojosa, MD3; Sofia Vera-Olguin, MD3; Salvador Medrano-Ahumada, MD3; César Emmanuel Lopez-Vejar, MD3; Ariel Cruz-Tuñuello, Pharmaco-Biological Chemist1; David Moncada-Barron, Pharmacaco-Biological Chemist1; Andrea Cardenas-Ortega, MD3; Jonathan Mendoza Barragán, MD3; Blanca Aguilar-Rodea, MD4 and Patricia Rodriguez-Zúñiga, MD2; Infectious Diseases, Instituto Nacional de Cancerología, Mexico City, Mexico; Infectious Diseases, Hospital General Dr. Manuel Gea González, Mexico City, Mexico; Hospital Pharmacy, Hospital General Dr. Manuel Gea González, Mexico City, Mexico; Microbiology Laboratory, Hospital General Dr. Manuel Gea González, Mexico City, Mexico; Hospital Pharmacy, Hospital Universidad Benito Juárez, Mexico City, Mexico; Hospital Pharmacy, Hospital General, Mexico City, Mexico
Session: 216. Antimicrobial Stewardship: Global Perspectives
Saturday, October 6, 2018: 12:30 PM

Background. Real-time antimicrobial stewardship programs are associated with improved time to optimal an effective therapies and decreased unnecessary antimicrobial use. However, these programs are often expensive and need special hardware or software for their implementation. Real-time communication technologies based on smartphones and texting media applications have not been used previously as a tool for clinical decision support programs (CDSP). We evaluated the clinical impact of implementing this technologies as fundamental part of an ASP in a Secondary Healthcare Hospital. Preauthorization, prospective audit, and feedback interventions were combined into a texting media group alert, composed by infectious diseases physicians, pharmacists, microbiologist and epidemiology department, which evaluated and decided the best treatment option in a real-time period consisting of 2 hours for each patient. Preauthorization rules included carbapenems, glycopeptides, quinolones, clindamycins, linezolid, and amphotericin.

Methods. We conducted an observational and descriptive study for the total number of interventions in a 3 year period. Data collection included hospital service for application, authorization or restriction, consumption in terms of defined daily dose, economic outcomes, nosocomial bacteria’s resistance patterns, and overall mortality rates.

Results. A total of 8,804 interventions were carried out; only 7.7% (636) were unanswerwed within the 2 hour period. Emergency department (34.35%) and Internal Medicine (24.6%) were the most monitored services. The most restricted ones were Surgery and Intensive Care Unit with at least 25% of prescriptions. The most restricted antibiotics were piperacillin/tazobactam, clindamycin and quinolones, restraining up to 80%. Saving cost represents US$130,000.00 for colistin and US$64,800.00 for carbapenems. The isolates of P aeruginosa and A. baumannii resistant decreased by 75% and the overall mortality rate for nosocomial infections, were not increased.

Conclusion. This is the first report in Mexico of an ASP that incorporates mobile phone technology as a part of real-time surveillance program that emulates CDSP and is able to provide an accurate report of antimicrobial use.

Disclosures. All authors: No reported disclosures.

1784. Impact of a Novel Multidisciplinary Anti-Tubercular Stewardship Program in a Tertiary Care Center in India
Sanjeev Singh, DCH, MD, PhD1; Vidya Menon, MD, FACP2; Binny Pp, MD1; Ananya Dutta, Pharm D1; Akhilesh Kumar, MD1; Fabia Et, MSc3; Keith Kaye, MD, MPH4 and Payal Patel, MD, MPH4; Medical Administration, Amrita Institute of Medical Sciences, Kochi, India; General Medicine, Amrita Institute of Medical Sciences and Research Centre, Kochi, India; Amrita Institute of Medical Sciences, Kochi, India; Medicine, Wayne State University, Detroit, Michigan, USA; IIM-I (Infectious Diseases), Ann Arbor VA, Ann Arbor, Michigan
Session: 216. Antimicrobial Stewardship: Global Perspectives
Saturday, October 6, 2018: 12:30 PM

Background. Inaccurate diagnosis of tuberculosis (TB) and inappropriate antibacterial therapy (ATT) contribute majorly to the emergence of drug-resistant TB in India, particularly in the private healthcare sector. Our study evaluated the appropriateness of ATT as per Revised National TB Control Program at our institution, a large private tertiary center in Kerala, India, after establishment of an Anti-Tubercular Stewardship program (ATTSP).

Methods. The ATTSP was implemented as part of a recently developed Antimicrobial Stewardship Program (ASP). A multidisciplinary team including an administrative physician, pharmacist, pulmonologist, infectious disease specialist, and clinical pharmacists met twice weekly to review all patients initiated on ATT and to assess each case for appropriateness in terms of right indication, right drug, right dose, right frequency, and right duration. For each patient who had an inappropriate ATT prescription, appropriate recommendations based on standard treatment guidelines were filed in the charts and communicated to the primary team via email and phone. Compliance to recommendations was monitored. The clinical pharmacists followed up patients after discharge.

Results. Eight (25%) patients were prescribed ATT appropriately among the 153 patients reviewed from July 2017 to April 2018. Ninety-six interventions were recommended for the 73 cases with inappropriate ATT. Of these inappropriate ATT, 16 were for wrong indication, 27 for wrong drug, 52 for wrong dose and 1 for wrong frequency. Among the 137 accurately diagnosed cases of TB, 52% (71) were definite cases of TB while the rest were presumptive. Pulmonary, extra pulmonary and disseminated TB cases accounted for 45% (62), 50% (69) and 4% (6), respectively. ATT was appropriate in 63% (39) of pulmonary TB, and 54% (37) of extra pulmonary TB.

Among 23 pulmonary TB patients with inappropriate ATT, 48% (11) were for wrong drug, 78% (8) for wrong dose and 17(4) for wrong frequency. The 32 inappropriate extra-pulmonary TB cases included 19% (6) for inappropriate drug selection and 81% (26) for inappropriate dose. Compliance to ATTSP recommendations was 34%.

Conclusion. TB in India is a vital target for ATT stewardship (10% of patients in this cohort had an inaccurate diagnosis of TB). ATTSP may be a worth initial target for novel ASPs in India.

Disclosures. K. Kaye, Zavante Therapeutics, Inc: Scientific Advisor, Consulting fee.

1785. Regional Variations of Antimicrobial Use in Japan From 2013 to 2016
Yoshiki Kusama, MD; Masahiro Ishikane, MD, PhD; Chika Tanaka, RPh; Yuko Yamasaki, RPh, MPH; Eriko Yamamura, ME, Kayoko Hayakawa, MD, PhD and Norio Ohmagari, MD, MSc, PhD; AMR Clinical Reference Center, National Center for Global Health and Medicine, Tokyo, Japan
Session: 216. Antimicrobial Stewardship: Global Perspectives
Saturday, October 6, 2018: 12:30 PM

Background. Since antimicrobial resistance (AMR) is a global threat, judicious antimicrobial usage is required. Compared with European countries, antimicrobial use (AMU) is relatively low in Japan; however, the use of oral broad-spectrum antimicrobials is relatively high. Although the Japanese national action plan on AMR targets a 50% reduction in use of these oral broad-spectrum antimicrobials by 2020 from the level in 2013, regional variation in AMU in Japan is not well known.

Methods. National antimicrobial sales data from 2013 to 2016 was obtained from IQVIA Japan (Tokyo, Japan), which captures 99% of total sales in Japan. Antimicrobials were classified by the World Health Organization (WHO) defined Anatomical Therapeutic Chemicals (ATC) classification. WHO measures the number of antimicrobial use by Defined Daily Dose per 1,000 inhabitant-days (DID). From 2013 to 2016, the difference in DID amongst each prefecture was analyzed, and comparison amongst the three major regions of East, Central, and West Japan was performed using Mann–Whitney U test.

Results. From 2013 to 2016, the median (min, max) AMU (DID) change was −0.4 (2.8, −1.6). During the study period, 34 prefectures showed increasing trends and 13 prefectures showed decreasing trends. Median (max, min) AMU (DID) for total antimicrobials, oral cephalosporins, macrolides, and quinolones in 2016 was 14.4 (18.7, 11.2), 3.5 (6.9, 2.5), 4.5 (6.3, 3.2), and 2.8 (3.7, 1.9), respectively. The median total AMU (DID) in East, Central, and West Japan in 2016 was 13.2, 14.4, and 15.8, respectively. Median oral cephalosporins AMU (DID) in Central Japan (3.69) was significantly higher than that in East Japan (3.33) (P = 0.025). Median oral macrolides AMU (DID) in East Japan (4.11) was significantly smaller than that in Central (4.61) and West Japan (4.70) (P < 0.01). Median oral quinolones AMU (DID) in West Japan (3.28) was significantly higher than that in Central (2.99) and Central Japan (2.73) (P = 0.011) figure

Conclusion. From 2013 to 2016, significant regional variations of oral AMU were observed in Japan. Further studies are needed to specify the appropriate targets of antimicrobial stewardship intervention to reduce oral broad-spectrum AMU in Japan.