Disclosures. **All authors:** No reported disclosures.**1009. Measuring the quality of fluoroquinolone prescribing in hospitals: results from the Emerging Infections Program Hospital Prevalence Survey Antimicrobial Quality Assessment**

Shelley S. Magill, MD, PhD[1]; Erin O'Leary, MPH[1]; Joelle Nadle, MPH[2]; Helen Johnston, MPH[3]; Sarah J. Janelle, MPH[4]; Meghan Maloney, MPH[5]; Susan Ray, MD[6]; Lucy E. Wilson, MD, ScM[7]; Ruth Lynfield, MD[8]; Jean Rainbow, MPH, RN[8]; Marla M. Sievers, MPH[9]; Ghinwa Dumyati, MD[10]; Valerie Ocampo, RN, MPH[11]; Monika Samper, RN[11]; Alexia Y. Zhang, MPH[12]; Christopher D. Evans, PharmD[13]; Marion A. Kainer, MBBS, MPH, FRACP, FSHEA[13]; Jonathan R. Edwards, MStat[1]; Nora Chea, MD and MSc[14]; Melinda M. Neuhauser, PharmD, MPH[1]; [1]Centers for Disease Control and Prevention, Atlanta, Georgia; [2]California Emerging Infections Program, Oakland, California; [3]Colorado Department of Public Health and Environment, Denver, Colorado; [4]Colorado Department of Public Health and Environment, Denver, Colorado; [5]Connecticut Department of Health, Hartford, Connecticut; [6]Emory University School of Medicine, Atlanta, Georgia; [7]University of Maryland Baltimore County, Baltimore, Maryland; [8]Minnesota Department of Health, Saint Paul, Minnesota; [9]New Mexico Department of Health, Santa Fe, New Mexico; [10]New York Rochester Emerging Infections Program at the University of Rochester Medical Center, Rochester, New York; [11]Oregon Health Authority, Portland, Oregon; [12]Oregon Public Health Division-Acute and Communicable Disease Prevention, Portland, Oregon; [13]Tennessee Department of Health, Nashville, Tennessee; [14]Center for Disease Control and Prevention, Atlanta, Georgia,

Session: 130. Antibiotic Stewardship: Antibiotic Utilization
Friday, October 4, 2019: 12:15 PM

Background. Improving antimicrobial use is a key component of controlling antimicrobial resistance. Multiple factors influence inpatient provider antimicrobial prescribing decisions, making it challenging to develop standard methods to evaluate prescribing quality in hospitals. In 2015, CDC's Emerging Infections Program (EIP) conducted a hospital antimicrobial use prevalence survey and collected data to assess prescribing quality in selected scenarios, including fluoroquinolone (FQ) treatment.

Methods. EIP sites (CA, CO, CT, GA, MD, MN, NM, NY, OR, TN) each recruited up to 25 hospitals for the survey. Each hospital selected a survey date during May–September 2015. Among randomly selected inpatients on the survey date, EIP staff identified those ≥18 years old who received FQ treatment on the survey date or the day prior and reviewed medical records to gather data on underlying conditions, infections, and diagnostic tests. We used these data to update a previously developed prescribing quality assessment pathway that categorized FQ treatment as supported or unsupported based on medical record documentation.

Results. Among 12,299 patients in 199 hospitals, 1084 (8.7%) received FQ treatment; 756 (70%) were treated for a single infection type during their hospitalization and were ≥18 years old. The pathway categorized FQ treatment as supported for 646 (85.4%) and unsupported for 110 patients (14.6%) (figure). Almost half of unsupported treatment was due to a lack of compatible signs or symptoms of infection in a patient from whom an organism susceptible or likely susceptible to an FQ was identified from a nonsterile site (49/110 patients, 44.5%), suggesting colonization.

Conclusion. Utilization of a pathway that incorporates detailed clinical data enabled us to apply a standard approach to assess FQ prescribing quality in hospitals. A high percentage of FQ treatment was supported, possibly reflecting efforts in recent years to reduce inappropriate use. Our assessment approach also identified opportunities for further improvements in inpatient FQ stewardship. Incorporation of additional elements in the pathway, such as the availability of other antibiotic choices in clinical scenarios where FQ use is currently supported (e.g., pneumonia) could further enhance the pathway's performance.

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

1010. Exploring Antimicrobial Prescriptions in a National Audit of Hematology/Oncology Inpatients Compared with the General Inpatient Population: Targeted Analysis Highlights Key Areas for Targeted Intervention

Abby Douglas, MBBS[1]; Lisa Hall, PhD[2]; Rodney James, MBBS[3]; Leon Worth, MBBS, PhD[1]; Monica Slavin, MBBS,MD[1]; Karin Thursky, MBBS, MD[1]; [1]National Centre for Infections in Cancer, Peter MacCallum Cancer Centre, Melbourne, Victoria, Australia; [2]University of Queensland, Brisbane, Queensland, Australia; [3]National Centre for Antimicrobial Stewardship, Peter Doherty Institute for Infection and Immunity, Melbourne, Victoria, Australia

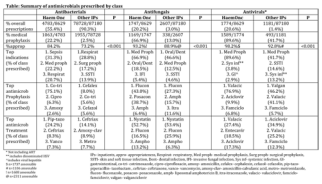
Session: 130. Antibiotic Stewardship: Antibiotic Utilization
Friday, October 4, 2019: 12:15 PM

Background. Little is known about the antimicrobial prescribing practices in hematology and oncology (haemonc) populations. We aimed to explore antimicrobial prescribing practices in haemonc patients compared with other acute inpatients, in order to target areas for intervention.

Methods. In Australia, facilities nationwide participate in an annual point-prevalence survey of antimicrobial prescribing in hospitalized patients (Hospital National Antimicrobial Prescribing Survey (Hospital NAPS)). The results for adult inpatients from 2015–2018 were analyzed. Assessments of appropriateness were undertaken by local antimicrobial stewardship teams according to a structured algorithm, and defined as: 1 (optimal); 2 (adequate); 3 (suboptimal); 4 (inadequate); 5 (not assessable). A score of 1 or 2 is considered to be"appropriate' and 3 or 4 'inappropriate'; those not assessable were excluded. Antimicrobial class, indication and appropriateness were compared between haemonc and other acute inpatient populations. Using logistic regression analysis, factors associated with appropriate prescribing of antibacterials were explored.

Results. The survey comprised 95809 antibiotic prescriptions for 63668 adult inpatients (4097 haemonc, 59571 other inpatients) in 423 acute facilities. The top treatment and prophylactic indications for all classes of antimicrobials were highly disparate between haemonc and other inpatients (table). Of note in the haemonc group, vancomycin use was high, and amphotericin B was used frequently for antifungal treatment. In multivariate analysis, haemonc patients were strongly associated with antibacterial appropriateness compared with other inpatients (adjusted OR 1.72, 95% CI 1.59–1.87, $P < 0.001$); factors associated with inappropriate prescription included antibiotic allergies and prophylactic indications.

Conclusion. Haemonc patients were more likely to receive appropriate antimicrobials compared with other inpatients. However, we have identified key areas for targeted interventions (prophylaxis use, antimicrobial allergy labels, vancomycin and amphotericin B treatment). Separate analysis of haemonc populations is necessary to identify key areas of concern specific to this patient group.



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

1011. Hospital Antibiogram Variation within a Veterans Affairs (VA) Regional Network

Macy Ho, PharmD[1]; Elizabeth R. Armstrong, PharmD, BCPS[2]; Christopher J. Graber, MD, MPH[3]; Tony T. Chau, Doctor of Pharmacy[4]; Scott T. Johns, PharmD[5]; Rocsanna Namdar, PharmD, BCPS, FCCP[6]; Andrew S. Varker, PharmD, BCPS[7]; Ariel Ma, PharmD[8]; Matthew B. Goetz, MD[9]; [1]VA Long Beach Healthcare System, Manhattan Beach, California; [2]VA San Diego Healthcare System, San Marcos, California; [3]VA Greater Los Angeles Healthcare System/UCLA, Los Angeles, California; [4]Veteran Affairs Healthcare Systems, Loma Linda, California; [5]San Diego VA Healthcare System, San Diego, California; [6]New Mexico Veterans Administration Health Care System, Albuquerque, New Mexico; [7]Phoenix VA Health Care System, GIlbert, AZ; [8]VA San Diego Medical Center, San Diego, California; [9]VA Greater Los Angeles Healthcare System and David Geffen School of Medicine at UCLA, VA-CDC Practice-Based Research Network, Los Angeles, California,

Session: 130. Antibiotic Stewardship: Antibiotic Utilization
Friday, October 4, 2019: 12:15 PM

Background. VISN 22 is comprised of eight VA hospitals serving Southern California, Arizona, and New Mexico. The VISN 22 Antimicrobial Stewardship Workgroup formed in November 2018 with the purpose of sharing strong practices and program strategies. We compared antibiogram compilation strategies and antimicrobial susceptibilities and correlated antimicrobial susceptibilities for *Pseudomonas aeruginosa* and *Escherichia coli* with inpatient and outpatient antibiotic use.

Methods. 2018 antibiograms were collected from each hospital. Antibiotic utilization rates (antibiotic days per 1000 patient-days present) were extracted from VA Corporate Data Warehouse data. Pearson correlation coefficients were calculated between 2018 utilization of specific agents and *P. aeruginosa* and *E. coli* susceptibilities to those agents at each facility.

Results. Antibiograms varied according to authorship (microbiology and/or infectious diseases), reporting frequency, rules regarding isolate reporting, and location and specimen specificity (Table 1). Facilities reported at least 90% susceptibility to a median of 3 antibiotics (range 1 to 5) for *P. aeruginosa* and 5 antibiotics (range 1 to 7) for *E. coli.*

The strongest negative correlations between antimicrobial use and susceptibility were observed for meropenem/imipenem (-0.43) and piperacillin–tazobactam (-0.41) with *P. aeruginosa* and piperacillin–tazobactam (-0.23) and fluoroquinolones (-0.21) with *E. coli*. A moderate negative correlation was observed between outpatient fluoroquinolone prescriptions per 1000 patients and *E. coli* susceptibility (-0.24).

Conclusion. Antibiogram composition is variable across VISN 22; not all reporting is consistent with CLSI recommendations. There was a modest correlation between some categories of antimicrobial use and resistance in *P. aeruginosa* and *E. coli*. Sharing antibiogram and antibiotic utilization data are helpful in developing antimicrobial stewardship strategies especially as we examine those hospitals with lower rates of resistance and antibiotic use.