Abby Analysis Highlights Key Areas for Targeted Intervention

reduce inappropriate use. Our assessment approach also identified opportunities for further as a nonsterile site (49/110 patients, 44.5%), suggesting colonization.

and were

ment; 756 (70%) were treated for a single infection type during their hospitalization

infections, and diagnostic tests. We used these data to update a previously developed

May–September 2015. Among randomly selected inpatients on the survey date, EIP

to apply a standard approach to assess FQ prescribing quality in hospitals. A high per

prescribing quality in selected scenarios, including fluoroquinolone (FQ) treatment.

in 2015, CDC’s Emerging Infections Program (EIP)

related to treatment outcomes.

Background. Improving antimicrobial use is a key component of controlling

antimicrobial resistance. Multiple factors influence inpatient provider antimicrobial

decision making, 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.

Background. Little is known about the antimicrobial prescribing practices in hematologic and oncologic (haemcon) populations. We aimed to explore antimicrobial prescribing practices in haemcon 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, 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 haemcon and other acute inpatient populations.

Results. The survey comprised 953096 antibiotic prescriptions for 63668 adult inpatients (4097 haemcon, 59571 other inpatients) in 423 acute facilities. The top treatment and prophylactic indications for all classes of antimicrobials were highly dispa-

between haemcon and other inpatients (table). Of note in the haemcon group, vancomycin use was high, and amphotericin B was used frequently for antifungal treatment. In multivariate analysis, haemcon 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. Haemcon 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 haemcon populations is necessary to identify key areas of concern specific to this patient group.

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

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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-specific (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 (-0.25) 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.