Session: P-09. Antimicrobial Stewardship: Trends in Antimicrobial Prescribing

Background. A new therapeutic monitoring of vancomycin for serious methicillin-resistant Staphylococcus aureus infections was published in March 2020. The guideline recommends a change in monitoring from trough to AUC/MIC based to improve patient outcomes. The purpose of this study was to determine institutional uptake of vancomycin AUC monitoring 1-year post guideline publication in hospitals across the US.

Methods. An electronic survey was created to assess vancomycin AUC monitoring practices and distributed to the American College of Clinical Pharmacy Infections Diseases Practice and Research Network (ACCP IDprn) and American Society of Health System Pharmacists (ASHP). Initial survey distribution (phase 1) occurred May-June 2020 and aimed to serve as baseline data. The survey was re-distributed (phase 2) to the ACCP IDprn and ASHP one year later, May-June 2021. Prior to re-distribution the survey was updated to assess the impact of COVID-19 on uptake. Results were analyzed and reported using descriptive statistics. Chi-Square tests were used to compare categorical data.

Results. A total of 202 responses to phase 1 and 138 responses to phase 2 were recorded. Significantly more respondents implemented AUC monitoring 1-year post guideline than at baseline (42.8% vs 29.8%, p<0.013). In both phases, 57% of those who had not implemented AUC monitoring had plans to do so over the next year. Additionally, 46.2% phase 2 respondents reported COVID-19 impacted their ability to transition to AUC monitoring citing issues such as lack of time and inadequate resources. The most common AUC monitoring programs utilized at baseline and 1-year post guideline were purchased Bayesian software (38.3% vs. 35.6%) and homemade software (26.1% vs. 23.7%). Perceived challenges to implementing AUC monitoring included cost, difficult use and integration.

Conclusion. Increased uptake of vancomycin AUC monitoring occurred from baseline to 1-year post guideline publication. However, less than half of hospitals implemented this recommendation. Although COVID-19 impacted a large portion respondents’ ability to implement AUC monitoring, majority plans to transition to AUC monitoring over the next year. AUC monitoring should be adapted by all hospitals to optimize vancomycin efficacy and safety.

Disclosures. All Authors: No reported disclosures

176. Topical Antibiotic and Antiseptic Use in the Operating Room: An Opportunity for Antimicrobial Stewardship? Joseph HadiB Nissan, PharmD1; Nina Naeger Murphy, PharmD, BCPS-AQ ID1; Nilm Patel, PharmD2; Mary Borovich, PharmD1; Michelle Hecker, MD2; David Gothard, PhD2,3; The MetroHealth System, Cleveland, Ohio; 4MetroHealth Medical Center, Cleveland, Ohio; 5Metro Health Medical Center, Cleveland, Ohio; 6Metro Health Medical Center, Cleveland, Ohio; 7University of Washington - Center for One Health Research, Seattle, Washington; 8University of Washington, Seattle, WA; 9Quest Diagnostics, Secaucus, New Jersey; 10Quest Diagnostics, Incorporated, Secaucus, New Jersey

Session: P-09. Antimicrobial Stewardship: Trends in Antimicrobial Prescribing

Background. Topical antibiotics were used in 42 (19.2%). Topical antibiotic therapy was more likely to lower use. In the orthopedic subgroup, after exclusions, 218 procedures were evaluated. Use was higher in orthopedics relative to all other surgical specialties while topical antibiotic and antiseptic use during surgical procedures performed in the operating room are not routinely monitored. This study aimed to determine topical antibiotic and antiseptic use during surgical procedures performed in the operating room by 6 surgical specialties at a tertiary care medical center. For the subset of patients undergoing orthopedic surgeries, we evaluated the types of topical antibiotics received and the rates of surgical site infections (SSI) and adverse drug events within 28 days of the procedure.

Methods. An electronic survey was created to assess vancomycin AUC monitoring among 744 surgical procedures reviewed, topical antibiotics were used in 127 (17.1%), topical antiseptics in 71 (9.5%), and both in 18 (2.4%). A total of 202 responses to phase 1 and 138 responses to phase 2 were recorded. Significantly more respondents implemented AUC monitoring 1-year post guideline than at baseline (42.8% vs 29.8%, p<0.013). In both phases, 57% of those who had not implemented AUC monitoring had plans to do so over the next year. Additionally, 46.2% phase 2 respondents reported COVID-19 impacted their ability to transition to AUC monitoring citing issues such as lack of time and inadequate resources. The most common AUC monitoring programs utilized at baseline and 1-year post guideline were purchased Bayesian software (38.3% vs. 35.6%) and homemade software (26.1% vs. 23.7%). Perceived challenges to implementing AUC monitoring included cost, difficult use and integration.

Conclusion. Increased uptake of vancomycin AUC monitoring occurred from baseline to 1-year post guideline publication. However, less than half of hospitals implemented this recommendation. Although COVID-19 impacted a large portion respondents’ ability to implement AUC monitoring, majority plans to transition to AUC monitoring over the next year. AUC monitoring should be adapted by all hospitals to optimize vancomycin efficacy and safety.

Disclosures. All Authors: No reported disclosures

177. User Preferences for Visualization of Antibiogram Data in Clinical Practice for Empiric Prescription of Antibiotics

Alexandra R. Vingino, MPH1; Peter Rabnowitz, MD, MPH2; Hema Kapoor, MD3; David Gotham, PhD4; Vickie Ramirez, MA1; Ann Salm, M (ASCP), MSc, PhD5; University of Washington - Center for One Health Research, Seattle, Washington; 6University of Washington, Seattle, WA; 7Quest Diagnostics, Secaucus, New Jersey; 8Quest Diagnostics, Incorporated, Secaucus, New Jersey

Session: P-09. Antimicrobial Stewardship: Trends in Antimicrobial Prescribing

Background. Antibiotics are widely used to prevent antibiotic susceptibility data, but user preferences for data visualization have received little attention. We report on a qualitative research study designed to gauge preferences for presenting antibiotic resistance data, with the goals of improving speed and effectiveness of prescribing empiric antibiotics in out-patient practices to meaningfully influence antibiotic stewardship programs.

Methods. Criteria for online focus groups included having the ability to prescribe antibiotics, practice in Washington state, and familiarity with antibiogram usage. A preliminary survey (Fig. 1) was sent to selected participants to understand their role in healthcare and their current attitudes towards antibiograms. During focus groups, we presented examples of 3 antibiograms: standard (Fig. 2A), color-coded for % susceptible (Fig. 2B), and color-coded for change in % susceptible from 2013 to 2016 (Fig. 2C).

Figure 1. Preliminary Survey via RedCap

Confidential
Antibiotic General Use (Preliminary Survey)

Please complete the survey below.

Thank you for your time! If you have any questions before our meeting, please feel free to email me at avingino@uw.edu

Name (Last, first) __________________________

Name of your facility __________________________

Job title __________________________

Do you have an administrative role in infection prevention or antimicrobial stewardship? Yes No

Do you see patients at this clinic? Yes No

Does your clinic have inpatient care, outpatient care, or both? Inpatient care Outpatient care Other

Other __________________________

Do you prescribe antibiotics for urinary tract infections? Yes No

What resources do you use for empiric antibiotic choices in urinary tract infections? Contact Guide Up-to-Date Antibiogram data Other

Other __________________________

Do you use antibiogram data to help make antibiotic choices? Yes No

If yes, how do you use antibiogram data to make antibiotic choices? __________________________

If no, why not? __________________________

A preliminary survey via RedCap was sent all focus group participants to capture current attitudes towards antibiograms and antibiotic resistance data.
Although they are often considered contaminants, coagulase
Among 128 patients identified during the study period, 98 met inclu

tance of bacteremia due to lack of evidence on the value of FUBCs for GNB bacteremia. Session:
Kanagawa, Japan

Follow-up Blood Cultures for Gram-negative Bacilli Bacteremia Were
This abstract has been withdrawn.

Antibiograms can be useful for visualization of empirical data but
can become a more useful tool if they can be interpreted and simplified for guiding
efforts for antibiotic stewardship related to antibiogram use. All focus group partici-
ting Figures 2A-C as examples of antibiograms. Key ideas included discussion of the
data source and content, arrangement of the table, usability during clinical days, and
efforts for antibiotic stewardship related to antibiogram use. All focus group particip-
ents (n=9) favored the feature of color-coding cells and found the data in the Fig. 2B
user friendly. Consensus across all groups was that antibiogram tables would not be
useful for daily practice. Clinicians would rather receive simplified therapy suggestions
either in the patient laboratory report or in the electronic health system.

Conclusion. Antibiograms can be useful for visualization of empirical data but
can become a more useful tool if they can be interpreted and simplified for guiding empiric prescribing in daily out-patient practice.

Disclosures. Hema Kapoor, MD; D(ABMM) Quest Diagnostics (Employee, I am an employee of Quest Diagnostics and receive its stock as part of my employment.)

Methods. We conducted a retrospective, multicenter observational study at 4 acute care hospitals to examine if FUBCs are associated with length of hospital stay, duration of antibiotic treatment, and mortality of hospitalized patients with GNB bacteremia. Participants included adult patients who were hospitalized between January 2017 and December 2018 with GNB bacteremia. Patients with and without FUBCs were propensity score-matched with a 1:1. The primary outcomes were in-hospital mortality, length of hospital stay, and duration of antibiotic treatment during the hospital stay.

Results. Of the 442 hospitalized adult patients with GNB bacteremia, 381 were
included in the study. Of those, FUBCs were performed in 276 patients (72%). After
propensity score matching, we included 87 patients with FUBCs and 87 patients without
FUBCs for comparing outcomes. The median length of stay was longer in patients with
FUBCs (9 days [interquartile range, 6.0–14.0]) compared with patients without FUBCs
(7 days [interquartile range, 4.5–10.5]; P=0.047). The median duration of antibiotic
treatment was also longer in patients with FUBCs (8 days [interquartile range 5.5–13.0])
compared with patients without FUBCs (6 days [interquartile range, 4.0–10.0]; P=0.007).
No statistically significant difference was observed in in-hospital mortality between patients with and without FUBCs (adjusted odds ratio = 0.37; 95% confidence interval, 0.081–1.36).

Conclusion. Performing FUBCs for GNB bacteremia were associated with pro-
longed length of hospital stay and duration of antibiotic treatment but not with mortality.

Disclosures. All Authors: No reported disclosures

180. Duration of Therapy and Clinical Outcomes in Adult Oncology Patients with Uncomplicated Coagulase Negative Staphylococcal Bacteremia
Amanda Fairbanks, Pharmacy Student at University of Washington; Jessica Liu, PharmD; Ania Sweet, PharmD, BCOP; Frank Tverdek, PharmD; Catherine Liu, MD; 1University of Washington, School of Pharmacy, SEATTLE, Washington; 2University of Washington, Department of Pharmacy, Seattle, Wash-
ington; 3Seattle Cancer Care Alliance, University of Washington, Fred Hutch Cancer Research Center; Sammamish, Washington; 4Fred Hutchinson Cancer Research Center, Seattle, Washington; 5Fred Hutchinson Cancer Research Center, Seattle, Washington

Session: P-10. Bacteremia

Background. Although they are often considered contaminants, coagulase negative staphylococci (CoNS) can be pathogens especially in immunocomprom-
ised patients. National and local guidelines recommend treatment durations of 7
to 14 days, depending on specific clinical scenarios. The objective was to char-
acterize the duration of treatment for CoNS bacteremia and clinical outcomes at our cancer center.

Methods. We conducted a retrospective chart review of adult patients 218 years old with ≥1 blood culture with growth of CoNS between 1/1/17 and 12/31/19 at our cancer center. Patients with complicated CoNS bacteremia and polymicrobial infec-
tions were excluded.

Results. Among 128 patients identified during the study period, 98 met inclu-
sion criteria (Figure 1). Most patients (N= 92; 94%) had a hematologic malignancy as the underlying oncologic diagnosis, and 68% (69%) were hematopoietic stem cell transplant recipients. The median total antibiotic duration was 13 days, and me-
dian duration from the date of 1st negative blood culture was 12 days; 29 (30%) patients were treated for a total duration of ≥14 days (Figure 2). The catheter was retained in 67 (68%) and exchanged in 4 (4%) of the cases. Three (3%) patients had recurrence of bacteremia within 30 days of treatment completion, and 8 (8%) patients were transferred to the ICU within 7 days of the index blood culture. The 30-day crude mortality rate was 10%. The most commonly used antibiotic for treatment was vancomycin (N= 95; 97%), and 32 (34%) patients on vancomycin had an increase in serum creatinine of ≥50% from baseline. Five (5%) patients discontinued vancomycin due to nephrotoxicity, and 4 (4%) patients required hemodialysis.

178. Comparing the Incidence of Multidrug Resistant Bacteremia, Fungemia and Hospital-acquired Clostridoides difficile Infection in COVID-19 Versus Non-
COVID-19 Patients: A single Hospital, One-year Observational Study in New Y ork
City
Chia-Yu Chiu, MD; 1Amara Sarwal, MD; 2Michael Widjaja, MD; Addi Feinstein, MD; 3Department of Infectious Disease, The University of Texas Health Science Center at Houston, Houston, Texas; 4Department of Nephrology, University of Utah, Salt Lake City, Utah; 5Lincoln Medical Center, New York City, New York

This abstract has been withdrawn.

179. Follow-up Blood Cultures for Gram-negative Bacilli Bacteremia Were
Associated with Prolonged Length of Hospital Stay and Duration of Antibiotic
Treatment: A Propensity Score-matched Cohort Study
Hayato Mitaka, MD; 1Toshiki Kuno, MD, PhD; 2Shigeki Fujitani, MD, PhD; 3Mount Sinai Beth Israel, New York, New York; 5St. Marianna University, Kawasaki, Kanagawa, Japan

Session: P-10. Bacteremia

Background. It remains unclear if follow-up blood cultures (FUBCs) for Gram-
negative bacilli (GNB) bacteremia should be performed routinely to document clear-
ance of bacteremia due to lack of evidence on the value of FUBCs for GNB bacteremia.