Figure 2: Structure and Process of Antibiotic Case Finding

Line listing tools used	Count [n/(%)]
Facility-developed Excel line list	58 (59.2%)
Externally developed Excel line list	10 (10.2%)
EHR-embedded line list	23 (23.5%)
Stand-alone infection control software line list	6 (6.1%)
Paper line list	38 (38.8%)
Other	2 (2.0%)
Average hours per week NH devoted to collecting information on antibiotic events by bed size	Mean (SE of mean
All facilities	9.82 (0.79)
Facility size < 50 beds	6.72 (1.47)
Facility size 50 - 60 beds	8.56 (1.44)
Facility size 61 - 100 beds	8.96 (1.08)
Facility size > 100 beds	15.47 (1.90)
Average hours per month NH spent developing and disseminating antibiotic reports by bed size	Mean (SE of mean)
All facilities	17.99 (3.62)
Less than 50 beds	12.27 (2.73)
50 to 60 beds	17.44 (5.52
61 to 100 beds	16.00 (3.64
Greater than 100 beds	26.29 (13.86)

Figure 3: Antibiotic Utilization Measure Reporting

Tools used for generating antibiotic reports	Count [n/(%)]
Facility-develop Excel spreadsheet	59 (60.2%)
Externally-developed Excel spreadsheet	10 (10.2%)
EHR-embedded reporting tool	25 (25.5%)
Stand-alone infection control software tool	4 (4.1%)
Another tool	2 (2.0%)
None of the above	16 (16.3%)
Antibiotic initiation	
Facilities reporting at least one initiation measure	82 (83.7%)
Facilities that rate adjust reported initiation measure(s)	75 (76.5%)
Facilities that stratify reported initiation measure(s) by indication	82 (83.7%)
Facilities that stratify reported initiation measure(s) by appropriateness	79 (80.6%)
Types of initiation measures reported	
Antibiotic starts: A measure that counts each unique antibiotic prescription as a new	49 (50.0%)
start, regardless of whether that antibiotic was prescribed for a single infection.	
Antibiotic treatments: A measure that counts the number of infections that were treated with an antibiotic regardless of the number of antibiotics used either at the same time or consecutively to treat a single infection.	21 (21.4%)
Antibiotic courses: A measure that counts the number of distinct antibiotics that were utilized for a single infection regardless of changes in dose, duration, or start.	13 (13.3%)
Other	1 (1.0%)
None	13 (13.3%)
Antibiotic duration	
Facilities reporting at least one antibiotic duration measure	38 (38.8%)

received, of which 98 completed the instrument in its entirety for a final response rate of approximately 30%. Figure 1 details NH characteristics, including size and information system employed by responding facilities. Responding NHs reported devoting approximately 10 hours per week doing line listing activities and 18 hours per month in developing and disseminating reports (Figure 2). Paper and facility-developed Excel-based tools were used to conduct line listing activities in a majority of NHs, and 32 NHs employed more than one tool for this purpose (Figure 2). A majority, approximately 84%, of NHs reported at least one measure of antibiotic initiation although there was variation in whether facilities employed starts, courses, and treatment measures (Figure 3). Nineteen NHs utilize one or more report tools. A majority of NHs employed rate adjustment and stratification of their initiation measure by indication as well as appropriateness in their reports (Figure 3). In contrast a minority, 39%, of NHs reported a treatment duration measure (Figure 3). Conclusions: Wisconsin NHs devote a considerable amount of time to

tracking and reporting of AU and employ a variety of low-tech tools for this purpose. There is considerable variability in the types of AU measures monitored in NHs with a majority focused on antibiotic initiation measures and lesser focus on measuring duration of therapy. These results suggest a need for standardization of AU measures in NHs as well as information systems that improve the efficiency of their collection and reporting.

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## Presentation Type:

Poster Presentation

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Impact of Infectious Diseases Consultation for Patients with Enterococcal Bacteremia: a Retrospective Cohort Study

Conor Vinaixa<sup>1</sup> and Haley Pritchard<sup>2</sup>

<sup>1</sup>Indiana University School of Medicine and <sup>2</sup>Indiana University School of Medicine

Background: Gram-positive bacteremia is a challenging cause of morbidity and mortality. Past publications have shown improved patient outcomes and increased adherence to recommended standards of care with infectious disease consultation (IDC) for Staphylococcus aureus bacteremia1. Enterococcus species are another common cause of gram-positive bacteremia with significant morbidity and mortality. This study aims to assess the impact of IDC on the care of patients with Enterococcal bacteremia. Methods: A retrospective chart review was performed on 227 inpatients with at least one blood culture growing an Enterococcus species between June 2022 and November 2023. Patient characteristics collected included age, Charlson Comorbidity index, presence of endocarditis, source of bacteremia, and consultation of the inpatient ID service. Outcomes assessed included in-hospital and 30-day mortality, 30-day re-admission rate, acquisition of repeat blood cultures to document clearance of bacteremia, transthoracic (TTE) and/or transesophageal echocardiography (TEE), and anti-Enterococcal antibiotic duration. Categorical variables were compared with Chi-square or Fisher's exact tests. Continuous variables were compared with independent t-tests or Mann-Whitney U nonparametric tests. Results: Of 227 patients, 195 (85.8%) received IDC while 32 (14.2%) did not. Patients in both groups had similar Charlson comorbidity indices. 23 (11.7%) patients had Enterococcal endocarditis, all of whom received IDC (Table 1). Patients with IDC had a significantly higher rate of acquisition of clearance blood cultures (98.96% vs. 83.87%, p 76.80% vs. 56.25%, p = .014), and TEE (20.21% vs 0.0%, P = .005)

Table 1. Patient Characteristics

	No ID Consult (N=32)	ID Consult (N=195)	All Patients (N=227)	p-value
Median age, years (range)	70 (28-95)	65 (18-94)	66.00 (18-95)	0.072
Ampicillin resistance	4 (12.50%)	49 (25.13%)	53 (23.35%)	0.118
Vancomycin resistance	6 (18.75%)	46 (23.59%)	52 (22.91%)	0.546
Endocarditis	0	23 (11.7%)	23 (10.1%)	0.052
Median Charlson comorbidity index (range)	5.72 (0-12)	5.18 (0-13)	5.26 (0-13)	0.410
Source				0.254
Intraabdominal	10 (41.67%)	63 (38.18%)	73 (38.62%)	
Urinary	9 (37.50%)	35 (21.21%)	44 (23.28%)	
Vascular Device	2 (8.33%)	37 (22.42%)	39 (20.63%)	
Musculoskeletal	1 (4.17%)	7 (4.24%)	8 (4.23%)	
Pulmonary	1 (4.17%)	4 (2.42%)	5 (2.65%)	
Skin/Soft Tissue	1 (4.17%)	19 (11.52%)	20 (10.58%)	

Table 2. Patient Outcomes

	No ID Consult (N=32)	ID Consult (N=195)	Overall (N=227)	p-value
Clearance blood cultures				< 0.001
Unknown	1	2	3	
No	5 (16.1%)	2 (1%)	7 (3.1%)	
Yes	26 (83.9%)	191 (99%)	217 (96.9%)	
Transthoracic echocardiogram				0.014
Unknown	0	1	1	
No	14 (43.8%)	45 (23.20%)	59 (26.11%)	
Yes	18 (56.2%)	149 (76.80%)	167 (73.89%)	
Transesophageal echocardiogram				0.005
Unknown	0	2	2	
No	32 (100%)	154 (79.8%)	186 (82.7%)	
Yes	0	39 (20.2%)	39 (17.3%)	
Antibiotic-related adverse event				0.550
Unknown	0	8	8	
No	31 (96.9%)	183 (97.9%)	214 (97.7%)	
Yes	1 (3.12%)	4 (2.1%)	5 (2.3%)	
In-hospital death				0.651
No	27 (84.4%)	158 (81%)	185 (81.5%)	
Yes	5 (15.6%)	37 (19%)	42 (18.5%)	
30-day mortality				0.643
Unknown	5	38	43	
No	25 (92.6%)	149 (94.9%)	174 (94.6%)	
Yes	2 (7.4%)	8 (5.1%)	10 (5.4%)	
30-day readmission				0.402
Unknown	6	47	53	
No	21 (80.8%)	108 (73%)	129 (74.1%)	
Yes	5 (19.2%)	40 (27%)	45 (25.9%)	
Median duration of therapy – endocarditis (range)	N/A	42 (3-59)	42 (3-59)	N/A
Median duration of therapy – no endocarditis (range)	14 (5-24)	14 (0-55)	14 (0-55)	0.444

(Table 2). There were no significant differences in in-hospital mortality, 30-day mortality, 30-day re-admission rate, or duration of anti-Enterococcal antibiotics. **Conclusions:** These results support the conclusion that patients with Enterococcal bacteremia who received IDC were more likely to be managed according to currently recommended standards of care. In this cohort, IDC did not have a statistically significant association with differences in mortality, re-admission rate, or antibiotic duration. Patients with Enterococcal bacteremia are likely to benefit from IDC, especially as they frequently have significant life-limiting co-morbidities complicating their care. **References:** Vogel M, Schmitz RP, Hagel S, Pletz MW, Gagelmann N, Scherag A, Schlattmann P, Brunkhorst FM. Infectious disease consultation for Staphylococcus aureus bacteremia - A systematic review and meta-analysis. J Infect. 2016 Jan;72(1):19-28. doi: 10.1016/j.jinf.2015.09.037. Epub 2015 Oct 9. PMID: 26453841.

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## Presentation Type:

Poster Presentation

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Parental Perceptions of Penicillin Allergy Labels: Findings from a Multisite Survey at Two Pediatric Primary Locations

Elizabeth Monsees<sup>1</sup>, Mary Lou Manning<sup>2</sup>, Rana El Feghaly<sup>3</sup>, Eileen Carter<sup>4</sup>, Cliff O'Callahan<sup>5</sup>, Sharon Hwang<sup>6</sup>, Tara Schmidt<sup>7</sup> and Monika Pogorzelska-Maziarz<sup>7</sup>

<sup>1</sup>Children's Mercy Hospital; <sup>2</sup>Thomas Jefferson University; <sup>3</sup>Children's Mercy Kansas City; <sup>4</sup>University of Connecticut School of Nursing; <sup>5</sup>Middlesex Health and University of Connecticut; <sup>6</sup>Nemours Children's Hospital and <sup>7</sup>Villanova University

**Background:** In children, penicillin allergy labels (PALs) are pervasive and persistent, despite linkage to suboptimal antibiotic selection with higher risk of side effects, increased length of hospitalization, and increased risk of harm throughout life. Up to 10% of children are labeled with PALs, yet

over 95% tolerate the medication when tested. Parents might not always know that PALs are over-reported or incorrectly diagnosed. We aimed to examine parent and guardian perceptions of PALs and their attitudes towards delabeling. Method: We invited all English and Spanish-speaking parents of children presenting to two pediatric primary care locations in the northeast U.S to participate in an online, investigator-developed survey. Survey recruitment was passive, with parents discovering the survey through English and Spanish posters in the waiting and examination rooms. The survey included an initial screening question to identify whether a penicillin allergy was present. If the parent answered "yes," they were instructed to proceed with survey completion. The survey consisted of 32 questions (7 reaction history, 9 perceptions, 5 provider interaction, 4 general knowledge, 6 demographics and one open-ended). We used descriptive statistics to analyze the data. Result: After screening, we received 54 completed responses. Most respondents had a college degree or higher (75%). When asked about the reaction, the majority occurred in those ≤ 2 years of life (55%); the predominant symptom reported was rash (92%). Twenty-nine percent of patients were evaluated in an urgent care or emergency room. Parents reported being very concerned by the reaction to penicillin (79%). When asked if their child would have a reaction if re-prescribed penicillin, none disagreed. Only 38% did not think allergies were permanent. Most families had not been offered penicillin testing (82%), although 67% expressed interest in the testing process, and 64% planned to inquire about testing following our survey. The majority (89%) would not agree to removing PALs without testing, citing fear that the child would have an allergic reaction if given penicillin (60%) and needing more information (25%) as the reasons for lack of agreement with PAL removal without testing. Conclusion: Among this highly educated population, parents expressed concerns at the initial reaction, perceived the reaction would reoccur with future penicillin use, and stated interest in testing, but were reluctant to delabel from history alone. Parents are untapped partners in delabeling; interventions are necessary to enhance parental understanding of the impact of PALs and the potential for delabeling with low-risk allergies.

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Implementing a Comprehensive Antimicrobial Stewardship Program in a Global Healthcare Organization: A Phased Approach to Sustainable OI

Yiwei Ng<sup>1</sup> and Keith Lim<sup>2</sup>
<sup>1</sup>IHH Healthcare and <sup>2</sup>IHH Healthcare

Background: Antimicrobial resistance (AMR) is a pressing global public health issue, and the limited development of new antibiotics necessitates robust Antimicrobial Stewardship Programs (ASP). As a global healthcare leader, IHH Healthcare successfully implemented ASP across 80 hospitals in seven countries (Singapore, Malaysia, India, Brunei, Hong Kong, China, and Turkey), aligned with the Centre for Disease Control and Prevention (CDC) Hospital ASP Core Elements, World Health Organization, and national guidelines. Method: A three-phase ASP strategy was developed following a crosswalk analysis of ASP practices across the seven countries (See Table 1): Phase 1 (2023): ASP committee establishment, terms of reference, and adoption of evidence-based guidelines. Phase 2 (2024): Guideline compliance audits, antibiogram development, resistance pattern monitoring, post-prescription audits, therapy optimization, and education. Phase 3 (2025): Antimicrobial preauthorization, infection-based interventions, and antimicrobial timeouts within 48-72 hours of initiation. Quarterly ASP meetings facilitated progress tracking and shared learning. Key metrics included guideline adherence, resistance trends, and antimicrobial utilization. Results: By 2023, all countries have established ASP committees and adopted guidelines for infections and surgical prophylaxis (see Table 2). In 2024, Phase 2 implementation (see Table 3) showed that: Guideline compliance: Regular audits monitored antimicrobial use for