Table 2. Changes in antibiotics-related perceptions among students before and after clinical practice in infectious diseases

	Students participated in the parenteral to oral conversion program		
	Pre (n=41)	Post (n=41)	*P*
Demographic data			
Age	23.68±1.90		-
Male sex	29 (70.7)		-
Perception of oral antibiotics			
Patients will likely have a lot of complaints if oral antibiotics are used for inpatients	2.37±0.73	2.61±1.05	0.127
I am familiar with which patients can be given oral antibiotics	**3.02±0.72**	**3.90±0.58**	**<0.001**
Parenteral antibiotics are more effective than oral antibiotics if it is the same antibiotics	**3.15±1.11**	**2.17±0.86**	**<0.001**
Parenteral antibiotics have a faster effect than oral antibiotics if it is the same antibiotics	4.07±0.61	4.10±0.74	0.868
The price of parenteral antibiotics and oral antibiotics is almost the same if it is the same antibiotics	**2.24±0.70**	**1.78±0.85**	**0.005**
Parenteral antibiotics have similar or fewer side effects than oral antibiotics if it is the same antibiotics	2.05±0.84	2.10±0.77	0.822
When oral antibiotics are available, oral antibiotics are beneficial to patients compared to parenteral antibiotics	4.00±0.81	4.22±0.61	0.136
Perception on conversion of parenteral to per oral antibiotics			
Patients should be able to swallow oral drugs	4.51±0.51	4.59±0.59	0.491
There should be no structural abnormality in the patient's gastrointestinal tract	4.32±0.69	4.39±0.74	0.665
Chronic diseases such as diabetes mellitus or hypertension should not exist	2.41±0.74	2.20±0.68	0.101
Oral antibiotics with the same ingredients as parenteral antibiotics must be present	**2.95±1.09**	**3.88±1.00**	**<0.001**
The causative bacteria of infection and antibiotic susceptibility results must exist	**4.07±0.82**	**3.54±1.05**	**0.016**
Fever must not exist for more than 24 hours	**3.29±0.87**	**4.00±0.87**	**<0.001**
Inflammatory markers such as white blood cell count and CRP should be normalized	**2.95±0.95**	**3.78±1.04**	**<0.001**
Vital signs such as pulse rate, respiratory rate, and blood pressure etc. should be normalized	**3.54±0.87**	**3.90±0.77**	**0.034**

Data are presented as number (%) or mean ± standard deviation.

These were collected and analyzed 'Strongly disagree' as 1 point, 'Disagree' as 2 points, 'Neutral' as 3 points, 'Agree' as 4 points, 'Strongly agree' as 5 points.

Abbreviations: CRP, c-reactive protein

Through this program, students have gained a better perception of oral antibiotics. **Conclusions:** This parenteral-to-oral conversion program showed a 24.2% acceptance rate of oral antibiotics conversions in the hospital, and it had significant educational effects on medical students regarding an appropriate perception of oral antibiotics.

Funding: None
Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2022;2(Suppl. S1):s3–s4
doi:10.1017/ash.2022.60

Presentation Type:
Poster Presentation - Top Poster Award
Subject Category: Antibiotic Stewardship

Qualitative Evaluation of an automated nationwide benchmarking antimicrobial utilization dashboard for the VHA

DeShauna Jones; Alexandre Marra; Daniel Livorsi; Eli Perencevich and Michihiko Goto

Background: Antimicrobial stewardship programs (ASPs) are advised to audit antimicrobial consumption as a metric to feedback to clinicians. However, many ASPs lack the tools necessary for appropriate risk adjustment and standardized data collection, which are critical for peer-program benchmarking. We evaluated the impact of the dashboard deployment that displays these metrics and its acceptance among ASP members and antimicrobial prescribers. **Materials/methods:** We conducted semistructured interviews of ASP stewards and antimicrobial prescribers before and after implementation of a web-based ASP information dashboard (Fig. 1) implemented in the VA Midwest Health Care Network (VISN23). The dashboard provides risk-adjusted benchmarking, longitudinal trends, and analysis of antimicrobial usage patterns at each facility. Risk-adjusted benchmarking was based on an observed-to-expected comparison of antimicrobial days of therapy at each facility, after adjusting for differences in patient case mix and facility-level variables. Respondents were asked to evaluate several aspects of the dashboard, including its ease of use, applicability to ongoing ASP activities, perceived validity and reliability, and advantages compared to other ASP monitoring systems. All interviews were digitally recorded and transcribed verbatim. The analysis was conducted using MaxQDA 2020.4 and the Consolidated Framework for Implementation Research (CFIR) constructs. **Results:** We completed 4 preimplementation interviews and 11 postimplementation interviews with ASP champions and antimicrobial prescribers from 6 medical centers. We derived 4 key themes from the data that map onto CFIR constructs. These themes were interconnected so that implementation of the dashboard (ie, adapting and adopting) was influenced by respondents' perception of a facility's size, patient population, and priority placed on stewardship (ie, structural and cultural context), the availability of dedicated stewardship staff and training needed to implement the dashboard (ie, resources needed), and how the dashboard compared to established stewardship activities (ie, relative advantage). ASP champions and antimicrobial prescribers indicated that dashboard metrics were useful for identifying antimicrobial usage and for comparing metrics among similar facilities. Respondents also specified barriers to acceptance of the risk-adjusted metric, such as disagreement regarding how antimicrobials were grouped by the current NHSN protocol, uncertainty of factors involved in risk adjustments, and difficulty developing a clear interpretation of hospital rankings. **Conclusions:** Given the limited resources for antimicrobial stewardship personnel, automated, risk-adjusted, antimicrobial-use dashboards provided by ASPs are an attractive method to both facilitate compliance and improve efficiency. To increase the uptake of surveillance systems in antimicrobial stewardship, our study highlights the need for clear descriptions of methods and metrics.

Funding: None
Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2022;2(Suppl. S1):s4
doi:10.1017/ash.2022.61

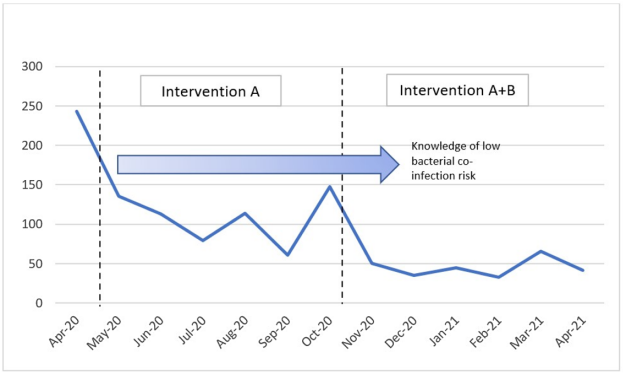
Presentation Type:
Poster Presentation - Top Poster Award
Subject Category: Antibiotic Stewardship

A little education goes a long way: Decreasing antibiotics for community-acquired pneumonia in COVID-19 patients

Ravi Tripathi; Rohini Dave; Elizabeth Eden and Jacqueline Bork

Background: Antibiotic use was common in patients with suspected or confirmed COVID-19 infection; however, data emerged demonstrating low rates of bacterial coinfection (6%–10%). Antimicrobial stewardship best practice was challenged during this time, requiring new strategies and education to limit the inappropriate use of antibiotics. At the Veterans' Affairs Maryland Healthcare System, we evaluated the use of community acquired pneumonia (CAP) specific antibiotics in COVID-19–positive patients after successive interventions. **Methods:** We conducted a pre–post evaluation of common CAP antibiotics (ceftriaxone IV/IM, cefpodoxime PO, azithromycin PO/IV, ampicillin/sulbactam IV, amoxicillin-clavulanate PO, levofloxacin) during the COVID-19 pandemic. The preintervention period was April–October 2020 and the postintervention period was November 2020–April 2021. During the preintervention period, intervention A was carried out as follows: (1) inpatient weekly virtual interdisciplinary COVID-19 rounds were led by an antimicrobial stewardship champion, (2) χprocalcitonin was implemented in clinical decision making, and (3) inpatient audit and feedback of active antibiotics was conducted by the antimicrobial stewardship team. In the postintervention period, intervention B was added as follows: (1) weekly educational COVID-19 virtual seminars were conducted for providers, and (2) targeted education was provided to emergency department and hospitalist directors. Comparisons of the proportions of antibiotics prescribed were made between the pre- and postintervention periods using X^2 statistic, and data were stratified by location. The rates of CAP antibiotic prescription per 100 COVID-19–positive patients were also compared

Figure 1. Community-acquired pneumonia antibiotics per 100 COVID-19 positive patients



using Poisson distribution. **Results:** During the study period, 814 unique patients had COVID-19 infection: 182 (22.4%) patients admitted to the acute-care center, 66 (8.1%) long-term care residents, and 566 (69.5%) were managed outside the hospital. Of these 814 patients, 211 (25%) were prescribed a CAP antibiotic. Of the antibiotics prescribed, 223 (61%) were ceftriaxone, cefpodoxime, amoxicillin-clavulanate, or ampicillin-sulbactam; 123 (34%) were azithromycin; and 16 (4.4%) were levofloxacin. We observed a decrease in the frequency of all antibiotic prescriptions after intervention B was added: 32% (86 of 273) vs 23% (125 of 541) (P = .01). Decreases in antibiotic prescriptions were observed in all locations: acute care (57% vs 44%), long-term care (53% vs 41%) and outpatient care (19% vs 15%). The rates of CAP antibiotic prescribing per 100 COVID-19–positive patients were 114 in the preintervention period and 45 in the postintervention period, a rate difference of −70 antibiotics per 100 COVID-19–positive patients (p **Conclusions:** Curbing antibiotic use for CAP indication during the COVID-19 pandemic was a challenge. A multifaceted approach focusing on education was an impactful intervention leading to significant decreases in antibiotic prescribing despite COVID-19 cases increasing.

Funding: None
Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2022;2(Suppl. S1):s4–s5
doi:10.1017/ash.2022.62

Presentation Type:
Poster Presentation - Top Poster Award
Subject Category: Antibiotic Stewardship

Impact of different COVID-19 encounter definitions on antibiotic prescribing rates in urgent care

Sharon Onguti; David Ha; Emily Mui; Amy Chang; Eddie Stenehjem; Adam Hersh and Marisa Holubar

Background: Billing data have been used in the outpatient setting to identify targets for antimicrobial stewardship. However, COVID-19 ICD-10 codes are new, and the validity of using COVID-19 ICD-10 codes to accurately identify COVID-19 encounters is unknown. We investigated COVID-19 ICD-10 utilization in our urgent care clinics during the pandemic and the impact of using different COVID-19 encounter definitions on antibiotic prescribing rates (APRs). **Methods:** We included all telemedicine and office visits at 2 academic urgent-care clinics from January 2020 to September 2021. We extracted ICD-10 encounter codes and testing data from the electronic medical record. We compared encounters for which COVID-19 ICD-10 codes were present with encounters for which SARS-CoV-2 nucleic acid amplification testing (NAAT) was performed within 5 days of and up to 2 days after the encounter (Fig. 1). We calculated the sensitivity of the use of COVID-19 ICD-10 codes against a positive NAAT. We calculated the APR as the proportion of encounters in which an antibacterial drug was prescribed. This quality improvement project

Table 1. Overall agreement in use of COVID-19 ICD-10 codes and NAAT

	NAAT positive	NAAT negative	Total
COVID ICD-10 present	1,154 (63%)	159 (1%)	1,313
COVID ICD-10 not present	686 (37%)	12,826 (99%)	12,826
Total	1,840	12,985	14,825

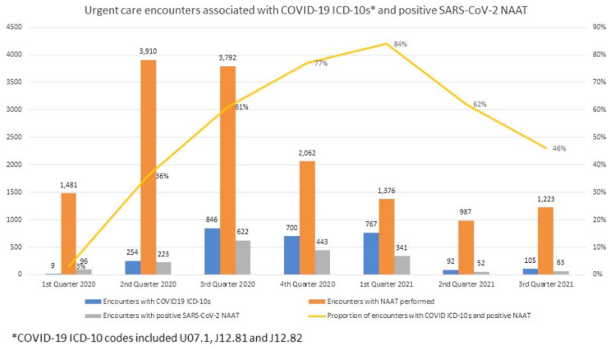
*COVID-19 ICD-10 codes included U07.1, J12.81 and J12.82

Table 2. Antibiotic prescribing rate (APR) for different COVID-19 encounter definitions

Encounters	N	APR n (%)
Z20.822 Contact with and (suspected) exposure to COVID-19	1,211	6 (0.5%)
U07.1 COVID-19	2,773	40 (1.4%)
J12.81 Pneumonia due to SARS-associated coronavirus	0	0
J12.82 Pneumonia due to COVID-19*	117	6 (5.1%)
NAAT performed	14,831	766 (5.1%)
Positive NAAT	1,840	37 (2.0%)
Positive NAAT or U07.1 OR J12.81 OR J12.8	3,459	62 (1.8%)

*All J12.82 encounters also had U07.1

Figure 1



*COVID-19 ICD-10 codes included U07.1, J12.81 and J12.82

was deemed non–human-subjects research by the Stanford Panel on Human Subjects in Medical Research.

Funding: None
Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2022;2(Suppl. S1):s5
doi:10.1017/ash.2022.63

Presentation Type:
Poster Presentation - Top Poster Award
Subject Category: Antibiotic Stewardship

Tier-based antimicrobial stewardship metrics for genitourinary-related antibiotic use in Veterans' Affairs outpatient settings

Matthew Samore; Matthew Goetz; McKenna Nevers; Jacob Crook; Suzette Rovelsky; Ben Brintz; Kelly Echevarria; Melinda Neuhauser; Sharon Tsay; Lauri Hicks and Karl Madaras-Kelly

Background: Tracking antibiotic use is a core element of antimicrobial stewardship. We developed a set of metrics based on electronic health record data to support an outpatient stewardship initiative to improve management of urinary tract infections (UTIs) in Veterans' Affairs (VA) emergency departments (EDs) and primary care clinics. Because UTI diagnostic codes only capture a portion of genitourinary (GU)-related antibiotic use, a tier-based approach was used to evaluate practices. **Methods:** Metrics were developed to target practices related to antibiotic prescribing and diagnostic testing (Table 1). GU conditions were divided into 3 categories: tier 1, conditions for which antibiotics are usually or always indicated; tier 2, conditions for which antibiotics are sometimes indicated; and tier 3, conditions for which antibiotics are rarely or never indicated (eg, benign prostatic hypertrophy with symptoms). Patients with visits related to urological procedures, nontarget providers, and concomitant non-GU