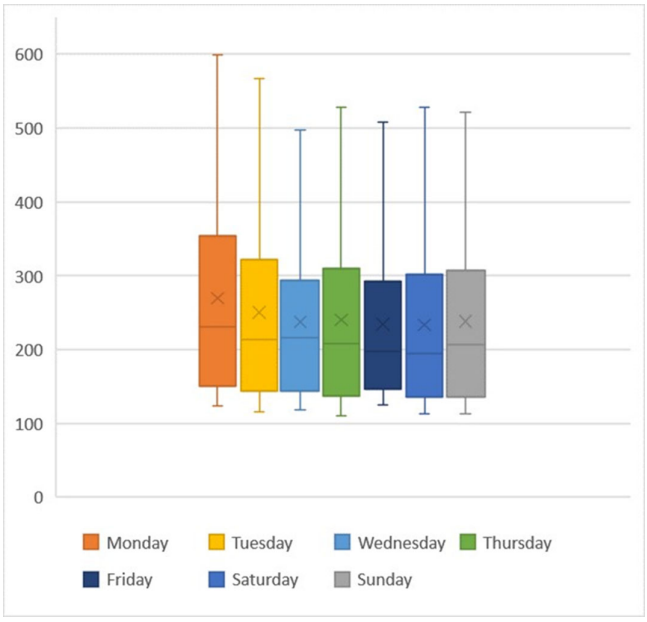

Figure 1.

were subsequently admitted to an inpatient unit (84%; range, 73%–89%). Higher BCURs were observed in intensive care and oncology units. The proportion of first blood cultures drawn after initiation of antibiotics was 6% (range, 3%–9%. Mondays had higher BCURs than other days of the week (Figure 1). The average BCUR by month was 176.1 (range, 164.3–181.4) with no seasonal patterns observed. Overall, 7.7% (range, 4.5%–9.1%) of blood cultures identified a likely pathogen and 2.1% (range, 1.3%–3.2%) identified a likely contaminant. The 3 hospitals with BCURs >200 also had contaminant rates >2% and >60% ED cultures. **Conclusions:** Blood culture utilization varied by hospital, unit, and day of the week. We observed higher rates of likely contaminants among hospitals with higher BCURs and ED culture rates. Comparisons may assist in identifying opportunities to optimize practice around blood-culture ordering and collection.

Funding: No
Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2021;1(Suppl. S1):s34–s35
doi:10.1017/ash.2021.64

Presentation Type:
Poster Presentation
Subject Category: Antibiotic Stewardship

Outpatient Antibiotic Use for Common Infectious Diagnoses: Patterns in Telehealth During the Emergence of COVID-19

Brigid Wilson; Taissa Bej; Sunah Song; Janet M Briggs; Richard Banks; Robin Jump; Federico Perez and Ukwen Akpoji

Background: The influence of increased use of telehealth during the emergence of COVID-19 on antibiotic prescriptions in outpatient settings is unknown. The VA Northeast Ohio Healthcare System has 13 community-based outpatient clinics (CBOCs) that provide primary and preventive care. We assessed changes in antibiotic prescriptions that occurred as care shifted from in-person to telehealth visits. **Methods:** Using VHA administrative databases, we identified all primary care CBOC visits between January 1, 2019, and December 31, 2020, that included a diagnosis for an acute respiratory infection (ARI), a urinary tract infection (UTI), or a skin or soft-tissue infection (SSTI), excluding visits with >1 of these diagnoses or with additional infectious diagnoses (eg, pneumonia, influenza). We summarized the proportion of telehealth visits and the proportion of patients prescribed antibiotics at quarterly intervals. We specifically assessed outpatient visits from April to December 2019 compared to the same months in 2020 to account for seasonality while analyzing diagnosis and antibiotic trends in the emergence of the COVID-19 pandemic. **Results:** The patients receiving care in April–December 2019 compared to April–December 2020 were similar (Table 1). From April through December 2019, 90% of CBOC primary care visits with a diagnosis for

Table 1: Patient Characteristics, Visit Types and Proportion with Antibiotic Prescriptions from April – December 2019 *vs.* 2020.

	April – December 2019		April – December 2020	
	Without antibiotics (n = 1164 visits)	With antibiotics (n = 1845 visits)	Without antibiotics (n = 633 visits)	With antibiotics (n = 497 visits)
Male sex, No. (%)[a]	1013 (87%)	1576 (85%)	532 (84%)	417 (84%)
Age, mean (± SD)[b]	62.8+/-16.8	61.2+/-15.2	63.2+/-18	61.5+/-16
Race/Ethnicity				
White non-Hispanic	969 (83%)	1534 (83%)	537 (85%)	413 (83%)
Black non-Hispanic	118 (10%)	219 (12%)	64 (10%)	58 (12%)
Hispanic	29 (2%)	21 (1%)	9 (1%)	8 (2%)
Other[c]	48 (4%)	71 (4%)	23 (4%)	18 (4%)
Charlson Comorbidity Index, mean (± SD)[b]	0.9+/-1.4	0.9+/-1.4	1.16+/-1.7	1.09+/-1.7
Infectious Disease ICD10 codes				
ARI (in-person)	687 (59%)	1303 (71%)	61 (10%)	82 (16%)
ARI (telehealth)	99 (9%)	63 (3%)	213 (34%)	153 (31%)
UTI (in-person)	171 (15%)	147 (8%)	46 (7%)	28 (6%)
UTI (telehealth)	53 (5%)	47 (3%)	162 (26%)	99 (20%)
SSTI (in-person)	128 (11%)	260 (14%)	55 (9%)	97 (20%)
SSTI (telehealth)	26 (2%)	25 (1%)	96 (15%)	38 (8%)

[a]All values written as No. (%) unless otherwise indicated;
[b]SD, standard deviation;
[c]For includes patients with race indicated as American Indian, Alaska Native, Asian, Native Hawaiian or Pacific Islander and unknown; and patients with Ethnicity unknown.

Figure 1. The number of in-person (red) and telehealth (blue) outpatient visits associated with diagnoses for ARI, UTI, and SSTI from January 2019 through December 2020.

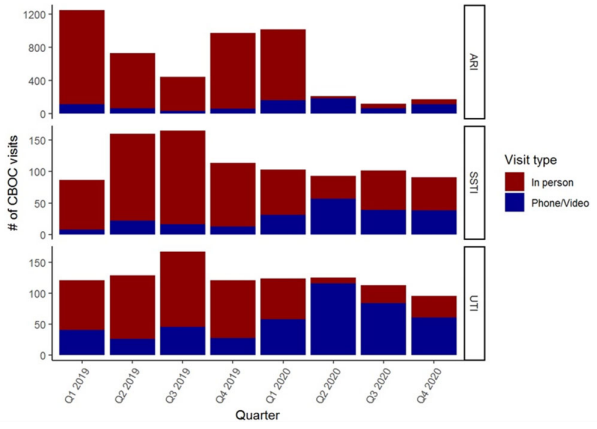

Figure 1.

Figure 2. The proportion of in-person (red) and telehealth (blue) outpatient visits for ARI, UTI, or SSTI that included an antibiotic prescription from January 2019 through December 2020.

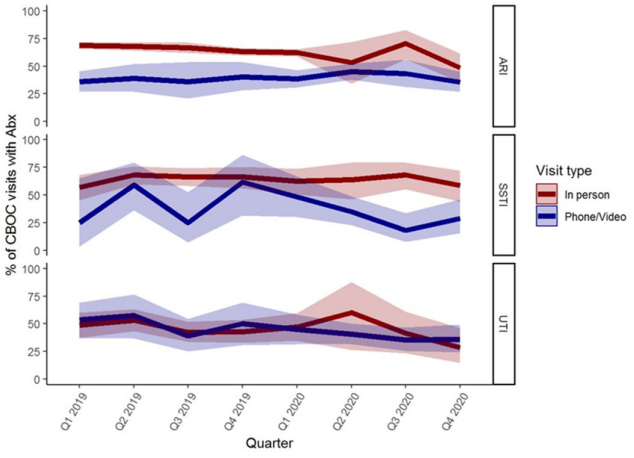

Figure 2.

ARI, UTI, or SSTI were in-person, and antibiotics were prescribed at 63%, 46%, and 65% of visits in either modality, respectively (Figure 1). From April through December 2020, only 33% of CBOC primary care visits for ARI, UTI, and SSTI were in person, and antibiotics were prescribed at 46%, 38%, and 47% of visits in either modality, respectively. Comparing April–December in 2019 and 2020, the number of CBOC visits for ARI fell by 76% (2,152 visits to 509 visits), with a more modest decline of 20% and 35% observed for UTI and SSTI visits. In-person visits for ARIs and SSTIs were more likely than telehealth visits to result in an antibiotic prescription (Figure 2). **Conclusions:** Among the CBOCs at our healthcare system, an increase in the proportion of telehealth visits and a reduction in ARI diagnoses occurred after the emergence of COVID-19. In this setting, we observed a reduction in the proportion of visits for ARIs, UTIs, and SSTIs that included an antibiotic prescription.

Funding: Merck

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2021;1(Suppl. S1):s35–s36
doi:10.1017/ash.2021.65

Presentation Type:
Poster Presentation
Subject Category: Antibiotic Stewardship

Antimicrobial Stewardship Standards and Patient Safety: A Case Study in Blood Culture Contamination

Connie Schaefer

Background: Blood culture is a crucial diagnostic tool for healthcare systems, but false-positive results drain clinical resources, imperil patients with an increased length of stay (and associated hospital-acquired infection risk), and undermine global health initiatives when broad-spectrum antibiotics are administered unnecessarily. Considering emerging technologies that mitigate human error factors, we questioned historically acceptable rates of blood culture contamination, which prompted a need to promote and trial these technologies further. In a 3-month trial, 3 emergency departments in a midwestern healthcare system utilized an initial specimen diversion device (ISDD) to draw blood cultures to bring their blood culture contamination rate (4.4% prior to intervention) below the 3% benchmark recommended by the Clinical & Laboratory Standards Institute. **Methods:** All emergency department nursing staff received operational training on the ISDD for blood culture sample acquisition. From June through August 2019, 1,847 blood cultures were drawn via the ISDD, and 862 were drawn via the standard method. **Results:** In total, 16 contamination events occurred when utilizing the ISDD (0.9%) and 37 contamination events occurred when utilizing the standard method (4.3%). ISDD utilization resulted in an 80% reduction in blood culture contamination from the rate of 4.4% rate held prior to intervention. **Conclusions:** A midwestern healthcare system experienced a dramatic reduction in blood culture contamination across 3 emergency departments while pilot testing an ISDD, conserving laboratory and therapeutic resources while minimizing patient exposure to unnecessary risks and procedures. If the results obtained here were sustained and the ISDD utilized for all blood culture draws, nearly 400 contamination events could be avoided annually in this system. Reducing unnecessary antibiotic use in this manner will lower rates of associated adverse events such as acute kidney injury and allergic reaction, which are possible topics for further investigation. The COVID-19 pandemic has recently highlighted both the importance of keeping hospital beds available and the rampant carelessness with which broad-spectrum antibiotics are administered (escalating the threat posed by multidrug-resistant organisms). As more ambitious healthcare benchmarks become attainable, promoting and adhering to higher standards for patient care will be critical to furthering an antimicrobial stewardship agenda and to reducing treatment inequity in the field.

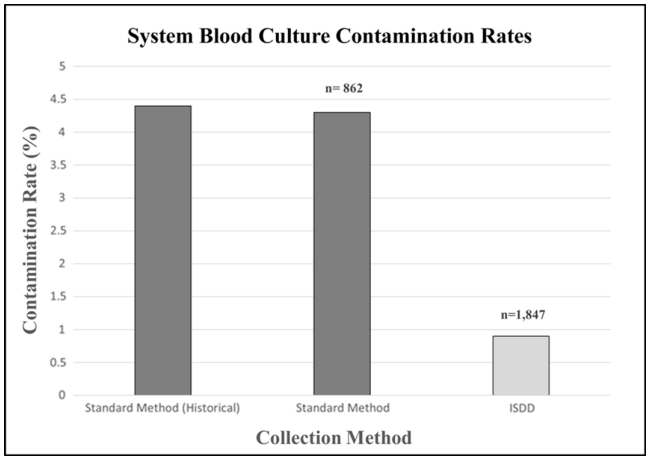

Figure 1.

Funding: No

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2021;1(Suppl. S1):s36
doi:10.1017/ash.2021.66

Presentation Type:
Poster Presentation
Subject Category: Antibiotic Stewardship

Minimal Mortality Among Veterans with Urine Cultures Positive for Group B *Streptococcus*

Nicole Mongilardi; Robin Jump; Federico Perez; Taissa Bej; Janet M Briggs; Richard Banks; Brigid Wilson and Sunah Song

Background: Group B *Streptococcus* (GBS) can cause life-threating invasive infections, yet GBS is also a normal component of the intestinal and genitourinary tract. Although it is regarded as a potential urinary pathogen, the morbidity and mortality associated with recovery of GBS from urine cultures of nonpregnant adults is not well understood. We evaluated characteristics and mortality among nonpregnant adults with urine cultures that grew GBS. **Methods:** Using administrative data from the Veterans' Healthcare Administration (VHA), we conducted a retrospective cohort study of VA healthcare system users from January 1, 2008, through

Table 1. Characteristics of VA Healthcare System Users with Monomicrobial Urine Cultures Growing GBS, Stratified by Infection Status.

	All patients (n = 26848)	Colonized (n = 8789)	Infected (n = 2807)	Unclassified (n = 15252)
Age, mean (± SD)[a]	61.8 (±15.3)	59.6 (±15.3)	65.8 (±14.8)	62.4 (±15.1)
Male sex, No. (%)[b]	20199 (75%)	6819 (78%)	2223 (79%)	11157 (73%)
Race, No. (%)				
White	16963 (63%)	5273 (60%)	1871 (67%)	9819 (64%)
Black	6834 (25%)	2512 (29%)	664 (24%)	3658 (24%)
Other[c]	3051 (11%)	1004 (11%)	272 (10%)	1775 (11%)
Ethnicity, No. (%)				
Not Hispanic	22738 (85%)	7278 (83%)	2464 (88%)	12996 (85%)
Hispanic	2703 (10%)	1094 (12%)	231 (8%)	1378 (9%)
Other[c]	1407 (5%)	417 (5%)	112 (4%)	878 (6)%
Charlson Comorbidity Index, mean (± SD)[a]	2.51 (± 2.7)	2.28 (± 2.6)	3.09 (± 3.0)	2.53 (± 2.7)
Comorbidities				
Diabetes Mellitus	11476 (43%)	3634 (41%)	1279 (46%)	6563 (43%)
Chronic Pulmonary Disease	6544 (24%)	1922 (22%)	835 (30%)	3787 (25%)
Chronic Heart Disease	6134 (23%)	1707 (20%)	871 (31%)	3556 (23%)
Cancer	4757 (18%)	1519 (17%)	552 (19%)	2686 (18%)
Renal Disease	3906 (15%)	1010 (11%)	603 (21%)	2293 (15%)
Peripheral Vascular Disease	3359 (13%)	995 (11%)	480 (17%)	1884 (12%)
Liver Disease	2993 (11%)	817 (9%)	418 (15%)	1758 (12%)
HIV	2794 (10%)	931 (10%)	332 (12%)	1531 (10%)
Status at time of urine culture				
Inpatient	2186 (8%)	613 (28%)	407 (19%)	1166 (53%)
Outpatient	24662 (92%)	8176 (33%)	2400 (10%)	14086 (57%)

[a]SD, standard deviation
[b]All values written as No. (%) unless otherwise indicated
[c]For Race includes American Indian, Alaska Native, Asian, Native Hawaiian or Pacific Islander and unknown; for Ethnicity includes unknown