Table 2. *Staphylococcus aureus* Bacteremia Characteristics

	Total (n=248) N (%)	IDU (n=70, 28.2%) N (%)	Non-IDU (n=178, 71.8%) N (%)	P-value
Characteristics				
Duration of Bacteremia				
▪ Median (in days)	3.0 (IQR 1.8 -5.5)*	4.3 (IQR 2.4-7.5)	2.7 (IQR 1.7-4.9) *	**0.001**
▪ <3 Days	123 (50.0) *	23 (32.9)	100 (56.8) *	**0.001**
▪ >3 Days	121 (49.2) *	46 (65.7)	75 (42.6) *	**0.001**
▪ >5 Days	69 (28.0) *	28 (40.0) *	41 (23.3) *	**0.009**
▪ Median excluding proven and possible endocarditis (in days)	2.6 (IQR 1.6-4.3)	2.7 (IQR=1.6-4.5)	2.5 (IQR=1.7-4.2)	0.784
Organism				
▪ MSSA	152 (61.3)	31 (44.3)	121 (68.0)	**0.001**
▪ MRSA	96 (38.7)	39 (55.7)	57 (32.0)	**0.001**
▪ Polymicrobial	27 (11.0) *	7 (10.0)	20 (11.4) *	0.641
SAB Complications				
▪ Definite endocarditis[a]	37 (15.0) •	22 (31.4)	15 (8.5) •	**<0.001**
▪ Definite and possible endocarditis[a]	70 (28.3) •	33 (47.1)	37 (20.9) •	**<0.001**
▪ Spinal epidural abscess and/or spinal osteomyelitis/discitis	43 (17.4) •	18 (25.7)	25 (14.1) •	**0.03**
▪ SSTI	45 (18.4) ^	19 (27.5) •	26 (14.8) *	**0.02**
▪ Extra-axial osteomyelitis	26 (10.5) •	6 (8.6)	20 (11.3) •	0.529
▪ Septic arthritis	32 (13.0) •	13 (18.6)	19 (10.7) •	0.098
▪ Intracranial infection	12 (4.9) •	5 (7.1)	7 (4.0) •	0.294
▪ DVT/SVT	42 (17.0) •	12 (17.1)	30 (16.9) •	0.971
▪ Endovascular graft/intracardiac device infection [b]	12 (4.9) +	3 (4.3)	9 (5.2) +	0.772
▪ CVC infection	48 (19.7) +	1 (1.4) •	47 (26.9) ^	**<0.001**
▪ Pleural empyema	10 (4.0) •	4 (5.7)	6 (3.4) •	0.404
▪ Pneumonia	18 (7.3) •	4 (5.7)	14 (7.9) •	0.550

MSSA= Methicillin-sensitive *Staphylococcus aureus*/ MRSA=Methicillin-resistant *Staphylococcus aureus*/ SSTI= Skin and soft tissue infection/ DVT= Deep vein thrombosis/ SVT= Superficial vein thrombosis/ CVC= Central venous catheter

Number of cases with unknown data for each variable on chart review: •1 *2 ^3 +4

[a] Definite and possible endocarditis based on modified Duke criteria (excluding fever and injection drug use as minor criteria)

[b] Excluding cardiac ventricular assist devices

Table 3. *Staphylococcus aureus* Bacteremia Standards of Care and Outcomes

	Total (n=248) N (%)	IDU (n=70, 28.2%) N (%)	Non-IDU (n=178, 71.8%) N (%)	P-value
Standards of Care				
Repeat blood cultures until clearance proved	246 (99.2)	70 (100.0)	176 (98.9)	0.373
Appropriate antibiotic choice and duration [a]	207 (84.1) *	62 (89.9) •	145 (81.9) •	0.246
Treatment duration in weeks (median)	6.0 (IQR 4-6.0) #~	6.0 (IQR: 4.0-6.0) ^	4.0 (IQR 2.0-6.0)	0.198
Treatment duration in weeks (mean)	4.8 (σ=2.2) &^	5.3 (σ=2.3) ^	4.6 (σ=2.0) &	**0.023**
Completed therapy	192 (79.7) ~	47 (68.1) •	145 (84.3) #	**0.013**
TTE performed	212 (85.5)	66 (94.3)	146 (82.0)	**0.014**
TEE performed	24 (9.7)	8 (11.4)	16 (9.0)	0.559
TEE performed in those with blood cultures positive for > 5 days	15/69 (21.7)	2/28 (7.1)	13/41 (31.7)	**0.015**
Days to first source control procedure (median) [b]	2.0 (IQR 1.0-5.0)	2.5 (IQR 0.8-8.3)	2.0 (IQR 1.0-4.0)	0.470
ID consult	227 (91.5)	65 (92.9)	162 (91.0)	0.638
Outcomes				
Length of stay in days (median)	15.0 (IQR 9.0-27)	21.5 (IQR 13.0-36.8)	14 (IQR 8.0-22.3)	**0.001**
Left AMA	20 (8.1)	18 (25.7)	2 (1.1)	**<0.001**
Inpatient mortality	20 (8.1)	3 (4.3)	17 (9.6)	0.17
90 day mortality	37 (15.0) •	4 (5.7)	33 (18.6) •	**0.010**
SAB recurrence within 90 days [c]	18/222 (8.1)	8/66 (12.1)	10/156 (6.4)	0.154
Readmitted within 90 days [d]	95/228 (41.7)	31/67 (46.3)	64/161 (39.8)	0.363

ID= Infectious Diseases

Number of cases with unknown data for each variable: •1 *2 ^3 #6 ~7 &10

[a] Appropriate antibiotics defined as cefazolin, nafcillin/oxacillin (or if allergy, vancomycin or daptomycin) for MSSA and vancomycin, daptomycin, linezolid, or ceftaroline for MRSA

[b] Date of first source control procedure minus date first positive blood culture was drawn. 146 of the total 248 patients received a source control procedure (34 in the IDU group and 112 in the non-IDU group)

[c] Recurrence defined as positive blood culture after ≥ 72 hours of negative blood cultures with same organism. Excluding patients who died during index hospitalization and cases with unknown 90 day recurrence data

[d] Excluding patients who died during index hospitalization and cases with unknown 90 day readmission data

Conclusion: There was no difference in adherence to SAB quality of care metrics between groups with and without IDU. Despite the IDU group being younger with fewer comorbidities, 90-day readmissions were not different between groups. This bears further analysis but may represent the influence of therapy completion, AMA discharges, and unmeasured social determinants of health.

Disclosures: **All Authors**: No reported disclosures

258. A Comparison of Cefprozil and Fluoroquinolones for Gram-Negative Bacteremia

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Session: P-9. Bacteremia

Background: Beta lactams and fluoroquinolones (FQ) have been evaluated as step-down therapy options for Gram-negative bacteremia (GNB), but the preferred oral step-down antibiotic remains unclear.

Methods: This retrospective, non-inferiority, cohort study included adult patients who received oral step-down therapy with cefprozil or FQ (ciprofloxacin, levofloxacin) for GNB caused by *Proteus* spp, *Klebsiella* spp, or *E. coli* at SSM Health St. Louis between 1/1/2016 and 2/28/2020. The primary outcome was treatment failure, defined as all-cause mortality or recurrent infection within 30 days of initial bacteremia episode. Assuming an 85% success rate, to achieve 80% power with a noninferiority margin of 15%, 71 patients were required in each arm. Multivariate logistic regression was used to evaluate factors for treatment failure. Factors evaluated for inclusion in the multivariate model were oral antibiotic, age >65 years, urinary source, Pitt bacteremia score >2, ICU admission, and IV antibiotics for >5 days prior to step-down.

Results: A total of 174 patients were included— 103 received cefprozil and 71 received FQ. Most baseline characteristics were similar between groups. Patients in the cefprozil group had more ICU admissions (21.3% vs. 7%; p=0.01), had a higher mean Pitt bacteremia score (1.6 vs 0.7; p< 0.001), and received a longer duration (days) of IV antibiotics prior to step-down therapy (5.2 vs 4.1; p< 0.001). Mean total treatment duration (days) was similar between groups (13.1 vs 13.2; p=0.75). Cefprozil 500 mg PO BID was administered in 84.5% of cefprozil patients. Treatment failure occurred in 3.88% (4/103) of cefprozil patients compared to 1.41% (1/71) of FQ patients (mean difference -2.47%; 95% CI -7.52% to 2.58%). The rate of adverse drug reactions was significantly higher in the FQ arm (2.9% vs 12.6%; p=0.016). In the univariate model, *E. coli* bacteremia, Pitt bacteremia score >2, and IV antibiotic duration >5 days met pre-defined criteria (p< 0.2) for inclusion in the multivariate model. In the multivariate analysis, these factors were not found to be significant.

Conclusion: Cefprozil was non-inferior to FQ in regard to treatment failure. Cefprozil is an efficacious alternative to FQ for oral step-down treatment of GNB and was associated with significantly fewer adverse effects.

Disclosures: **All Authors**: No reported disclosures

259. A Prospective, Stewardship-Driven IV to PO Conversion in Uncomplicated Bacteremia

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Session: P-9. Bacteremia

Background: Recent data has shown a transition to oral (PO) antibiotics (ABX) for definitive treatment of uncomplicated bacteremia has similar efficacy compared to continuation of intravenous (IV) ABX, and reduces hospital length of stay (LOS). The purpose of this study was to evaluate the safety and efficacy of an antimicrobial stewardship pharmacist-driven, IV to PO ABX transition in clinically stable patients with uncomplicated bacteremia, and to determine the impact on hospital LOS.

Methods: This was a prospective, interventional study with concurrent controls, conducted at Cedars-Sinai Medical Center between November 2019 and April 2020. For patient recruitment, a report of all positive inpatient blood cultures was reviewed daily. For patients meeting study criteria, the treating provider was contacted to recommend an IV to PO ABX transition. The treating provider was responsible for making the final determination on ABX therapy. Patients continuing IV ABX served as the comparator group to those transitioning to PO.

The primary outcome of interest was a composite of: 30-day, all-cause mortality, 30-day readmission due to infectious- or ABX-related complications, or 30-day recurrent infection with the same organism recovered. The second outcome of interest was overall hospital LOS and hospital LOS after the definitive ABX regimen was established.

Results: A total of 117 patients were evaluated; 69 patients met criteria for inclusion in the study (46 PO ABX / 23 IV ABX). Overall, baseline characteristics were similar between the groups. No difference was observed in the 30-day composite

outcome (1 in each group), but the median, overall hospital LOS was three days shorter in the PO group. Furthermore, hospital LOS after the definitive ABX regimen was established was four days shorter in the PO group. Based on the differences in hospital LOS observed, the intervention was estimated to have resulted in approximately $819,200 cost-avoidance during the study period.

Conclusion: Similar to prior studies, our findings support the safety and effectiveness of an IV to PO ABX transition in clinically stable patients with uncomplicated bacteremia. Antimicrobial stewardship pharmacists can be leveraged to facilitate such a transition.

Disclosures: **All Authors**: No reported disclosures

260. A Rare Case of Severe Group B *Streptococcal* Infection with Toxic Shock-like Syndrome and Diffuse Metastatic Infection.

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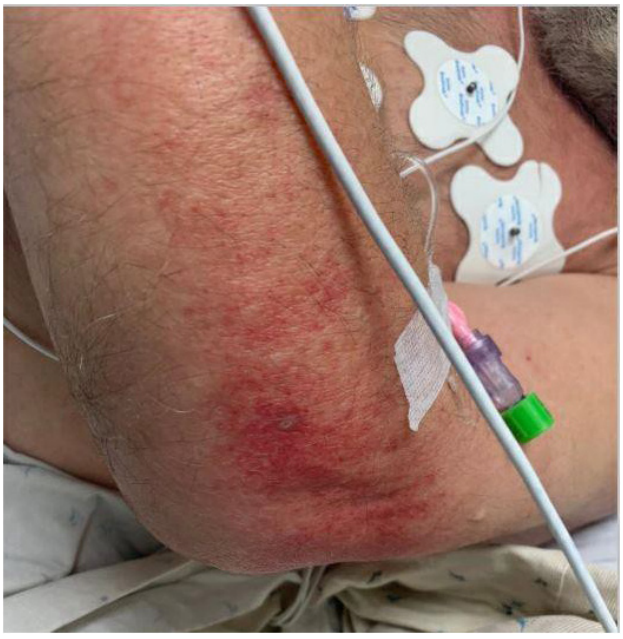
Session: P-9. Bacteremia

Background: The incidence of invasive Group B *streptococcal* (GBS) infection has been increasing in the past decade and is currently at 10.9 cases per 100,000 population. GBS toxic shock-like syndrome is rare, with few cases reported over the past decade. The presumed etiology is the production of an uncharacterized pyrogenic toxin by certain strains.

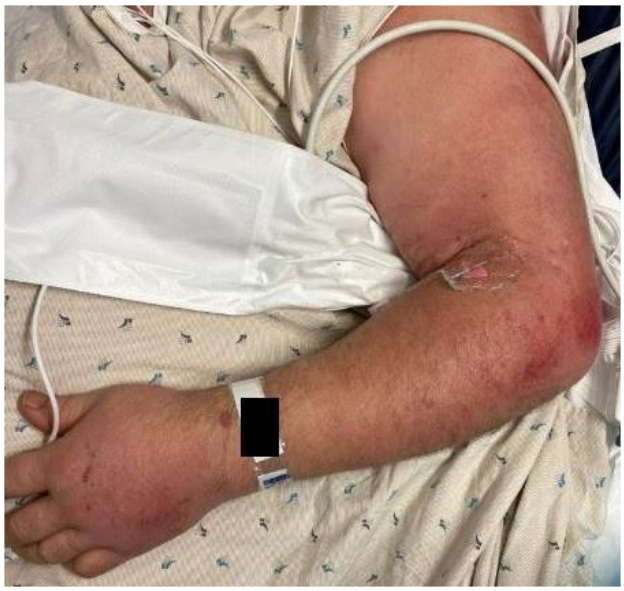
Methods: We present a unique case of invasive GBS infection complicated by severe GBS-mediated toxic shock-like syndrome (TSLS) and diffuse metastatic infection.

Results: A 62-year-old obese male with diabetes mellitus presented with pain, swelling, and redness of the right shoulder and ankle for one week after a fall. Vitals were remarkable for tachycardia to 106 BPM and fever of 101°F with labs showing a leukocytosis to 23,500 u/L. The patient was started on ceftriaxone IV but continued to develop worsening fever, leukocytosis, encephalopathy, diffuse extremity pain, and whole-body macular erythema at 48 hours. Blood cultures grew GBS and TSLS was suspected. Adjunct clindamycin was started. MRI of the extremities demonstrated abscesses of the right levator scapulae, posterior scalene, brachioradialis, and right ankle. MRI of the spine showed epidural abscesses at L3-L5 and septic arthritis of the spinal facets at L4-L5. Operative abscess removal with joint washouts were performed by neurosurgery and orthopedics, and the patient symptomatically improved within 2 weeks on IV ceftriaxone. He was subsequently continued on cefazolin for 10 weeks and did well at follow-up.

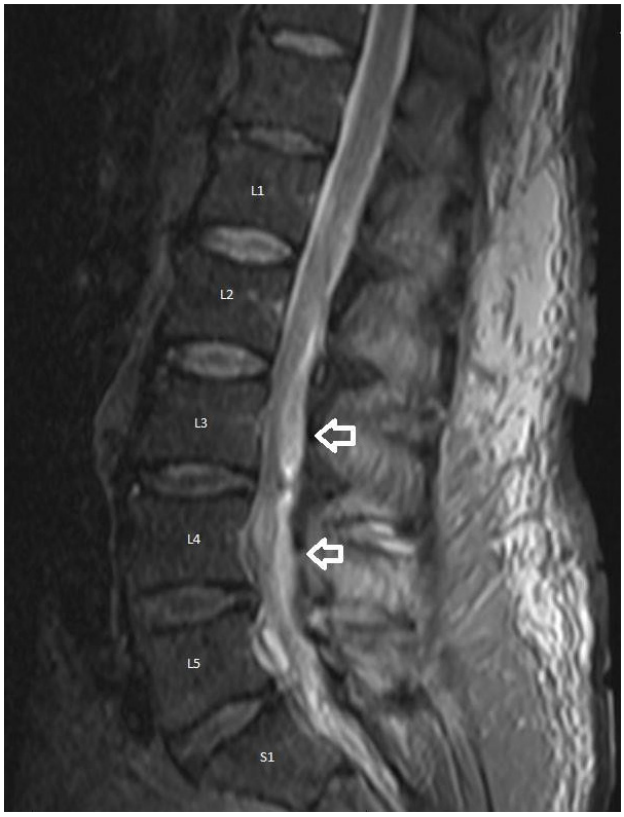
Right elbow showing a characteristic flat, macular erythema of toxic shock-like syndrome.



Left arm with macular erythema.



MRI showing spinal epidural abscesses at L3-L5 spinal levels (arrows).



Conclusion: Invasive metastatic Group B *Streptococcus* infection in non-pregnant adults presenting with TSLS is rare. To our knowledge, there has never been a case of GBS infection causing TSLS with rapidly developing florid metastatic