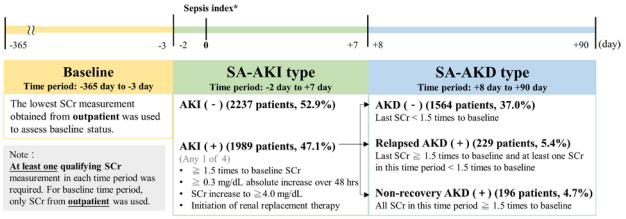
Figure 2. Definitions of sepsis associated-acute kidney injury (SA-AKI) and sepsis associated-acute kidney disease (SA-AKD).



*Sepsis index date was the date of blood culture of the first-time sepsis event.

(AKD, acute kidney disease; AKI, acute kidney injury; SA, sepsis-associated; SCr, serum creatinine)

Results. Of 4,226 eligible sepsis inpatient survivors, 47.1% developed SA-AKI and 10.1% progressed to SA-AKD (5.4% relapsed and 4.7% nonrecovery). Patient with AKI and non-recovered AKD had the worst baseline renal function (SCr, 1.3 mg/dL) (**Table 1**). The multivariable analyses revealed that SA-relapsed AKD was significantly associated with increased risk of all-cause mortality for 1-year (aHR 1.67; 95% CI 1.25, 2.24), 3-year (aHR 1.38; 95% CI 1.11, 1.71), and overall (aHR 1.35; 95% CI 1.12, 1.61), compared with SA-AKI(-). SA-relapsed AKD and SA-nonrecovery AKD were both significantly associated with 1-year, 3-year, and overall ESRD, with the risk of about 4-fold or higher than SA-AKI(-) (**Table 2**).

Table 1. Baseline characteristics and outcomes among adult sepsis survivors, by different SA-AKI/AKD subtypes.

Characteristics [a]	(1) SA-AKI(-) (N=2237, 52.9%)	SA-AKI(+) (2) AKD(-) (N=1564, 37.0%)	(3) Relapsed AKD(+) (N=229, 5.4%)	(4) Non-recovery AKD(+) (N=196, 4.7%)	P-value [b]	P-value 1 vs 2	P-value 1 vs 3	P-value 1 vs 4
Age	71.0 (57.0, 80.0)	72.0 (59.0, 80.0)	67.0 (57.0, 79.0)	65.0 (52.0, 77.0)	<.001	0.393	0.180	<.001
Female	917 (41.0)	729 (46.6)	130 (56.8)	106 (54.1)	<.001	<.001	<.001	<.001
Comorbidities [c]								
Diabetes mellitus	940 (42.0)	785 (50.2)	145 (63.3)	115 (58.7)	<.001	<.001	<.001	<.001
Hypertension	1733 (77.5)	1304 (83.4)	196 (85.6)	172 (87.8)	<.001	<.001	0.005	<.001
Liver cirrhosis	241 (10.8)	140 (9.0)	49 (21.4)	27 (13.8)	<.001	0.066	<.001	0.198
Connective tissue disease	336 (15.0)	400 (25.6)	71 (31.0)	88 (44.9)	<.001	<.001	<.001	<.001
Baseline renal function [d]								
eGFR, mL/min/1.73m^2	74.4 (52.9, 92.7)	66.2 (43.6, 89.5)	73.6 (44.5, 94.5)	52.3 (30.1, 85.4)	<.001	<.001	0.244	<.001
Serum creatinine, mg/dL	1.0 (0.8, 1.2)	1.0 (0.8, 1.4)	0.9 (0.7, 1.4)	1.3 (0.8, 2.1)	<.001	<.001	0.945	<.001
CKD stage 3, 4, 5	725 (32.4)	666 (42.6)	91 (39.7)	113 (57.7)	<.001	<.001	0.025	<.001
Baseline biochemical profiles [e]								
BUN, mg/dL	17.0 (12.0, 25.0)	36.0 (21.0, 56.0)	37.0 (19.0, 63.0)	48.0 (31.0, 78.5)	<.001	<.001	<.001	<.001
Hemoglobin, g/dL	12.0 (10.3, 13.6)	11.6 (9.8, 13.2)	10.3 (9.1, 12.0)	9.8 (8.5, 11.9)	<.001	<.001	<.001	<.001
Serum albumin, g/dL	3.2 (2.8, 3.7)	3.1 (2.7, 3.6)	3.1 (2.6, 3.5)	2.9 (2.6, 3.5)	<.001	<.001	0.001	<.001
Platelet, x 10^3 per uL	179 (124, 247)	178 (118, 250)	162.5 (92, 252)	173 (99, 235)	0.033	0.606	0.016	0.054
Potassium, mmol/L	3.8 (3.4, 4.1)	3.9 (3.4, 4.4)	4.0 (3.6, 4.6)	4.0 (3.6, 4.6)	<.001	<.001	<.001	<.001
Total CO_2, mmol/L	23.9 (20.7, 27.3)	21.6 (18.0, 25.1)	21.3 (17.5, 25.6)	21.1 (16.8, 24.7)	<.001	<.001	<.001	<.001
WBC, x 10^3 per uL	10.7 (7.5, 14.8)	12.1 (8.1, 16.9)	11.0 (7.0, 15.4)	12.0 (8.2, 17.1)	<.001	<.001	0.841	0.004
hs-CRP, mg/dL	4.3 (1.1, 12.4)	8.0 (2.1, 19.1)	7.3 (1.2, 17.9)	6.5 (1.7, 17.4)	<.001	<.001	0.002	<.001
Lactate, mmol/L	2.3 (1.5, 3.3)	2.6 (1.6, 4.2)	2.2 (1.2, 3.9)	2.1 (1.2, 3.5)	<.001	<.001	0.604	0.182
Medication history [f]								
NSAIDs	509 (22.8)	366 (23.4)	47 (20.5)	33 (16.8)	0.180	0.641	0.442	0.056
Contrast	471 (21.1)	254 (16.2)	57 (24.9)	29 (14.8)	<.001	<.001	0.178	0.038
KDIGO AKI stage [g]					<.001	<.001	<.001	<.001
0 (No AKI)	2237 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)				
1	0 (0.0)	728 (46.6)	76 (33.2)	31 (15.8)				
2	0 (0.0)	384 (24.6)	65 (28.4)	43 (21.9)				
3	0 (0.0)	452 (28.9)	88 (38.4)	122 (62.2)				
Sepsis severity								
qSOFA [h] >= 2	681 (39.1)	518 (40.6)	84 (45.9)	56 (35.4)	0.186	0.400	0.071	0.373
Mechanical ventilation use [i]	1070 (47.8)	694 (44.4)	129 (56.3)	99 (50.5)	0.003	0.035	0.014	0.472
Vasopressor use [i]	862 (38.5)	730 (46.7)	132 (57.6)	99 (50.5)	<.001	<.001	<.001	0.001
Mortality outcome								
1-year all-cause mortality	342 (15.3)	232 (14.8)	57 (24.9)	37 (18.9)	<.001	0.700	<.001	0.184
3-year all-cause mortality	723 (32.3)	542 (34.7)	100 (43.7)	74 (37.8)	0.003	0.133	<.001	0.120
Follow up until 2018/12/31	1149 (51.4)	876 (56.0)	146 (63.8)	110 (56.1)	<.001	0.005	<.001	0.201
ESRD outcome								
1-year ESRD	3 (0.1)	9 (0.6)	5 (2.2)	23 (11.7)	<.001	<.001	<.001	<.001
3-year ESRD	10 (0.5)	23 (1.5)	10 (4.4)	32 (16.3)	<.001	<.001	<.001	<.001
Follow up until 2018/12/31	15 (0.7)	48 (3.1)	12 (5.2)	34 (17.4)	<.001	0.035	<.001	<.001

[a] Categorical variables are presented as frequency (%) and continuous variables are presented as median (IQR), if not otherwise specified. [b] P-values are calculated by Kruskal-Wallis test for continuous variables and Chi-square test for categorical variables. [c] Comorbidities were defined based on ICD-9 or ICD-10 coding records at outpatient service within one year before index date. [d] The lowest outpatient serum creatinine within one year before index date was used to define baseline renal function. [e] Baseline biochemical data were collected within 48 hours before or after and closest to the index date. [f] Medication use within 3 months before index date. [g] AKI stage was defined by the KDIGO criteria: Stage 1, SCr was 1.5-1.9 times higher than baseline or ≥ 0.3 mg/dL absolute increase during any 48-hour time frame; stage 2, SCr was 2.0-2.9 times higher than baseline; and stage 3, SCr was ≥ 3.0 times higher than baseline or SCr was ≥ 4.0 mg/dL or initiation of renal replacement therapy. Baseline SCr was defined as the lowest measurement obtained from outpatient during -365 to -3 days of sepsis index date. [h] The worst qSOFA score within 48 hours before or after the index date was collected. [i] Data collected within 90 days after index date. (ALT; alanine aminotransferase, BUN; blood urea nitrogen; CKD, chronic kidney disease; ESRD, end-stage renal disease; hs-CRP, highly sensitive C reactive protein; SA-AKD, sepsis-associated acute kidney disease; SA-AKI, sepsis-associated acute kidney injury; WBC, white blood cell count)

Table 2. Risk of all-cause mortality and end stage renal disease (ESRD) among adult sepsis survivors.

	N	Death	Mortality (%)	Crude HRs (95% CI)	Adjusted HRs (95% CI)[a]
1-year all-cause mortality					
SA-AKI(-)	2237	342	15.3	Ref	Ref
SA-AKD(-)	1564	232	14.8	0.97 (0.82, 1.14)	0.94 (0.79, 1.11)
SA-relapsed AKD(+)	229	57	24.9	**1.75 (1.32, 2.32)**	**1.67 (1.25, 2.24)**
SA-non-recovery AKD(+)	196	37	18.9	1.28 (0.91, 1.79)	1.27 (0.89, 1.82)
3-year all-cause mortality					
SA-AKI(-)	2237	723	32.3	Ref	Ref
SA-AKD(-)	1564	542	34.7	1.08 (0.97, 1.21)	1.02 (0.91, 1.14)
SA-relapsed AKD(+)	229	100	43.7	**1.51 (1.22, 1.86)**	**1.38 (1.11, 1.71)**
SA-non-recovery AKD(+)	196	74	37.8	1.22 (0.96, 1.55)	1.18 (0.92, 1.52)
Overall all-cause mortality					
SA-AKI(-)	2237	1149	51.4	Ref	Ref
SA-AKD(-)	1564	876	56.0	1.09 (0.99, 1.19)	1.03 (0.94, 1.12)
SA-relapsed AKD(+)	229	146	63.8	**1.40 (1.18, 1.66)**	**1.35 (1.12, 1.61)**
SA-non-recovery AKD(+)	196	110	56.1	1.09 (0.90, 1.33)	1.10 (0.89, 1.35)
1-year ESRD					
SA-AKI(-)	2237	3	0.1	Ref	Ref
SA-AKD(-)	1564	9	0.6	**4.29 (1.16, 15.85)**	**2.20 (1.04, 4.63)**
SA-relapsed AKD(+)	229	5	2.2	**17.22 (4.11, 72.04)**	**4.40 (1.70, 11.35)**
SA-non-recovery AKD(+)	196	23	11.7	**95.28 (28.60, 317.35)**	**24.57 (12.69, 47.55)**
3-year ESRD					
SA-AKI(-)	2237	10	0.4	Ref	Ref
SA-AKD(-)	1564	23	1.5	**3.32 (1.58, 6.98)**	1.94 (0.91, 4.15)
SA-relapsed AKD(+)	229	10	4.4	**10.95 (4.56, 26.30)**	**4.47 (1.74, 11.47)**
SA-non-recovery AKD(+)	196	32	16.3	**41.91 (20.60, 85.27)**	**13.89 (6.07, 31.78)**
Overall ESRD					
SA-AKI(-)	2237	15	0.7	Ref	Ref
SA-AKD(-)	1564	48	3.1	**4.61 (2.58, 8.22)**	**2.96 (1.64, 5.34)**
SA-relapsed AKD(+)	229	12	5.2	**8.92 (4.18, 19.07)**	**3.94 (1.76, 8.83)**
SA-non-recovery AKD(+)	196	34	17.3	**28.72 (15.64, 52.74)**	**9.71 (4.79, 19.68)**

[a] Model were adjusted by age, gender, body mass index, baseline comorbidities, baseline eGFR, initial CKD stages, proteinuria groups, and medications. (CKD, chronic kidney disease; CI, confidence interval; ESRD, end-stage renal disease; HR, hazard ratios; SA-AKD, sepsis-associated acute kidney disease; SA-AKI, sepsis-associated acute kidney injury)

Conclusion. Sepsis survivors who initially had AKI and developed relapsed or nonrecovery AKD tended to have worse outcomes of all-cause and ESRD, compared with those without AKI. Unexpectedly, patients with non-recovered AKD did not have a higher mortality risk, possibly because we have selected those who survived the first 90 days of sepsis. We will develop two-stage prediction models to identify sepsis patients at risk of developing AKI and SA-AKI patients at risk of developing different types of AKD.

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

9. The Skip Phenomenon in *Staphylococcus aureus* Bacteremia: Clinical Associations

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Session: O-02. Blood Stream Infections and Sepsis

Background. Serial blood cultures are integral in managing *Staphylococcus aureus* bacteremia (SAB) as clinicians rely on the results to determine infectious complication risks and antibiotic duration. Current IDSA guidelines suggest a single set of negative blood cultures is adequate evidence of SAB clearance. Several studies, however, have identified the skip phenomenon (SP), which is the occurrence of intermittent negative blood cultures, and have recommended obtaining additional blood cultures to document bacterial clearance (Table 1). We therefore examined patients who manifested the SP to determine its clinical significance and to study this, associations were tested for SP in relation to various baseline factors as well as clinical outcomes.

Table 1. Profile of the skip phenomenon among published investigations

Author, Design, Time Period	Hospital, Region	Sample Size, # with Skip, %	Mean†/Median Age [IQR] of Skip Patients	Median Duration of SAB [IQR], w/ Skip vs w/o Skip	Identified Risk Factors and Associations	Outcomes	Recommendation/s
Fiala J, et al., Nested case-control 7/2006-6/2011	Mayo Clinic, Rochester, MN, USA	757 (29, 4%)	69.4 [58.7-80.5]	10 [7-12] vs 8 [6-10]	1. Prolonged SAB* 2. Immunosupression 3. Male sex 4. Older age	No difference in hospital LOS and in-hospital mortality	Serial negative blood cultures (2 sets drawn at least 48h after the first negative blood culture) should be obtained to document clearance in immunocompromised males over 65 years old with prolonged SAB
Stewart J, et al., Retrospective cohort 1/2013-10/2018	Monash Health, Melbourne, Australia	1022 (136, 13.3%)	55.7†	5 [5] vs 1 [2]	1. Prolonged SAB* 2. MRSA infection* 3. Recurrent SAB*	Not compared	Multiple negative blood cultures should be obtained to document clearance in patients with prolonged SAB, MRSA infections, and in patients with recurrent SAB
Cardenas-Comfort C, et al., Retrospective cohort 1/2018-12/2018	Texas Children's Hospital, Houston, TX, USA	122 (6, 4.9%)	4.3 [3.0-8.4]	5.5 [3-7] vs 1 [1-2]	1. Prolonged SAB* 2. Longer time to initiation of appropriate antibiotic* 3. Deep-seated infection (IE and OM)	Not compared	Two negative follow up blood cultures (24 hours apart) are sufficient to document clearance in well-appearing patients
Go JR, et al., Retrospective cohort 1/2019-12/2019	Mayo Clinic Arizona, Florida, Rochester and MCHS	534 (25, 5.05%)	61.2 [36.7-71.8]	3.2 [2.3-5.4] vs 1.90 [1.2-2.9]	1. Prolonged SAB* 2. Presence of AICD* 3. High-grade BSI*	No difference in hospital LOS, mortality, and relapse rate	Serial negative blood cultures are needed to document clearance of SAB

†: mean. *: statistically significant. **IQR**: interquartile range. **BSI**: bloodstream infection. **TTP**: time to positivity. **SAB**: *Staphylococcus aureus* bacteremia. **IE**: Infective endocarditis. **OM**: osteomyelitis. **LOS**: length of stay. **CIED**: cardiovascular implantable electronic device

Methods. We performed a retrospective, multicenter study of all patients with a positive blood culture for *S. aureus* from January 2019 to December 2019 using data collected from electronic health records and the clinical microbiology laboratory.

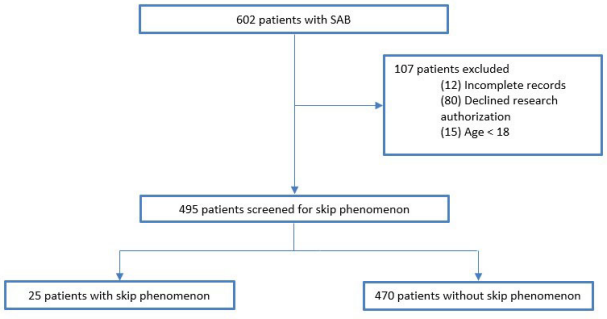

Figure 1. Study Population

Results. A total of 602 patients with SAB were identified and 495 patients were included in the investigation (Figure 1). Overall, 25 (5.1%) patients had the SP. Significant differences between those who did and did not manifest the SP included higher rates of injection drug use, automatic implantable cardioverter defibrillator, and community onset of infection in the SP cohort (Table 2). Moreover, the median duration of SAB was longer (3.2 [2.3-5.4] vs 1.90 [1.2-2.9] days, p=0.002), and high-grade SAB, (88.0% vs 58.7%, p=0.004), complicated bacteremia (92.0% vs 67.9%, p=0.011) and IE diagnosis (28.0% vs 11.3%, p=0.013) were all more common in the SP group. In unadjusted outcome analyses, association of SP with hospital length of stay was not significant, although a higher risk of in-hospital mortality among SP patients approached statistical significance (p=0.055). Analysis of 435 hospital survivors revealed no significant differences in rates of 1-year mortality or 90-day relapse between the two groups (Table 3).

Table 2: Baseline Demographic and Characteristics of Patients with and without the Skip Phenomenon (n =495)

Characteristic	w/ Skip (n = 25)	w/o Skip (n = 470)	p-value
Age, years, median [IQR]	61.2 [36.7-71.8]	66.8 [54.8-75.8]	**0.021**
Female, n (%)	5 (20.0)	181 (38.5)	0.063
Body mass index, kg/m², median [IQR]	27.0 [24.7-29.4]	28 [23.4-33.3]	0.648
Charlson comorbidity index, median [IQR]	4 [2.0-6.0]	5 [3.0-7.0]	**0.027**
Comorbidities, n (%)			
Intravenous drug use	6 (24.0)	20 (4.3)	**<0.001**
Myocardial infarction	5 (20.0)	138 (29.4)	0.314
Congestive heart failure	7 (28.0)	151 (32.1)	0.666
Peripheral vascular disease	1 (4.0)	63 (13.4)	0.172
Chronic obstructive pulmonary disease	2 (8.0)	57 (12.1)	0.535
Connective tissue disease	3 (12.0)	50 (10.6)	0.830
Liver disease	1 (4.0)	44 (9.4)	0.364
Diabetes mellitus	9 (36.0)	169 (36.0)	0.997
Moderate to severe chronic kidney disease‡	6 (24.0)	107 (22.8)	0.886
Malignancy	4 (16.0)	122 (26.0)	0.265
Cardiac prosthetic device	7 (28.0)	66 (14.0)	0.055
Prosthetic valve	3 (12.0)	20 (4.3)	0.073
Permanent pacemaker	1 (4.0)	36 (7.7)	0.498
AICD	4 (16.0)	11 (2.3)	**<0.001**
CRT	0 (0.0)	4 (0.9)	0.643
VAD	1 (4.0)	5 (1.1)	0.191
MRSA	7 (28.0)	131 (27.9)	0.989
Community onset infection, n (%)	16 (64.0)	165 (35.1)	**0.003**
ICU admission	11 (44.0)	126 (26.8)	0.061
Duration of symptoms, > 7 days, n (%)	17 (68.0)	193 (41.1)	**0.008**
Duration of BSI, median	3.2 [2.3-5.4]	1.9 [1.2-2.9]	**0.002**
High grade BSI, n (%)	22 (88.0)	276 (58.7)	**0.004**
Time to positivity, median hours [IQR]	11.0 [9.0-16.0]	15.0 [12.0-18.0]	**0.014**
PREDICT score day 1	2.0 [2.0-2.0]	1.0 [1.0-2.0]	**<0.001**
PREDICT score day 5	3.0 [2.0-4.0]	2.0 [1.0-3.0]	**<0.001**
Complicated bacteremia, n (%)	23 (92.0)	318 (67.9)	**0.011**
Infective endocarditis	7 (28.0)	53 (11.3)	**0.013**
Osteomyelitis	5 (20.0)	74 (15.7)	0.571
Inpatient IV antimicrobial duration, median days [IQR]	13.0 [10.0-17.0]	8.0 [5.0-13.0]	**0.002**
Outpatient IV antimicrobial duration, median days [IQR]	35 [24.0-37.0]	23.0 [11.0-36.0]	**0.036**
Total antibiotic duration, median days [IQR]	45.0 [28.0-51.0]	27.0 [14.0-43.0]	**0.002**

Values represent median [interquartile range] for continuous variables and frequency (%) for categorical variables.
Abbreviations: BSI, bloodstream infection; IR, interventional radiology; IV, intravenous; MIC, minimal inhibitory concentration; n, number.
‡Moderate = creatinine >3 mg/dL (0.27 mmol/L). Severe = on dialysis, status post kidney transplant, uremia.

Table 3. Association of Skip Phenomenon with Clinical Outcomes

Outcome	Skip: No Skip Hazard Ratio (95% Confidence Interval)	p-value
Hospital stay	1.19 (0.74-1.92)	0.466[1]
In-hospital mortality	2.35 (0.98-5.64)	0.055[1]
Post-discharge 1-year mortality	0.69 (0.25-1.87)	0.463
Post-discharge 90-day relapse	—	0.172[2]

[1] Results obtained from a Cox PH regression model with the skip measure incorporated as a time-dependent covariate.

[2] P-value based on a likelihood ratio test from Cox model due to the paucity of data in the skip group (no relapses within 90 days).

Conclusion. Findings of the current investigation demonstrates an increased risk of SAB complications in patients with the SP and support the notion that serial negative blood cultures are needed to document clearance of SAB.

Disclosures. **Larry M. Baddour, MD**, Boston Scientific (Individual(s) Involved: Self): Consultant; Botanix Pharmaceuticals (Individual(s) Involved: Self): Consultant; Roivant Sciences (Individual(s) Involved: Self): Consultant **Muhammad R. Sohail, MD**, **Medtronic** (Consultant)**Philips** (Consultant)

10. Impact of Infectious Disease Consultation and Theoretical Management Bundle in Patients with Candidemia

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Session: O-02. Blood Stream Infections and Sepsis

Background. Candidemia is associated with significant morbidity and mortality. The impact of infectious diseases consultation (IDC) on clinical outcomes in patients with candidemia is not well established. We evaluated the impact of IDC and a management bundle on clinical outcomes in patients with candidemia.

Methods. A retrospective chart review of adult (age ≥ 18 years) patients with at least 1 blood culture growing *Candida* species identified at Alberta Precision Laboratories between December 1, 2019 to November 30, 2020 and hospitalized at the University of Alberta Hospital, Edmonton, Canada were included. Patients who died within 48 hours and those who left against medical advice within 24 hours of initial positive blood culture result were excluded. Demographics, management, and outcome data were collected. A complete management bundle was defined as having all the following elements performed: IDC, repeat blood cultures, empiric echinocandin therapy, ophthalmology consult, and echocardiogram.

Results. Thirty-one patients were included for study; mean age was 56 ± 17 years and 65% were male. 14 (45%) cases were admitted under critical care, 7 (23%) surgery, and 10 (32%) medicine. 3/17 (18%) required intensive care unit admission following candidemia diagnosis. *Candida albicans* was identified in more than half the cases. The primary source was intra-abdominal in 12 (39%), central-line associated in 8 (26%), and urinary in 6 (19%). IDC occurred in 27 cases (87%), echocardiogram in 22 (71%), ophthalmology consult in 10 (32%), and follow-up blood cultures in 30 (97%). 20 (65%) patients received empiric echinocandin. Of the remainder who received empiric fluconazole, 4 (36%) grew non *albicans Candida* species.

Higher in-hospital mortality was observed in cases without IDC than those with IDC (4/4, 100% vs 8/27, 29.6%, p=0.016) and in those that did not have a complete bundle (12/25, 48% vs 0/6, p=0.059). However, IDC was not associated with the receipt of individual bundle components nor the complete bundle (p=NS).

Conclusion. In patients with candidemia, lower in-hospital mortality was observed in patients who received IDC. Larger studies are required to confirm our findings and assess whether the implementation of a candidemia management bundle is beneficial.

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11. Electronic Surveillance Criteria for Non-Ventilator HAP: Empiric testing and Chart Review at Veterans Affairs Facilities

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Session: O-03. Building Your Toolkit for HAI Surveillance and Stewardship

Background. Surveillance of Non-Ventilator Hospital-Acquired Pneumonia (NV-HAP) is limited by the ambiguity in diagnosing pneumonia. We implemented electronic surveillance criteria for NV-HAP across the VA healthcare system and tested for reliability, validity and meaning of the electronic criteria vs manual chart review.

Methods. We defined NV-HAP surveillance criteria as oxygen deterioration concurrent with fever or abnormal WBC count, ≥3 days of antibiotics, and orders for chest imaging. We applied these criteria to EHR data from all patients hospitalized ≥3 days at all VA acute care facilities from 1/1/2015-12/31/2020 and calculated NV-HAP incidence and inpatient mortality. Clinician reviewers used a consensus review guide to independently review and adjudicate 47 cases meeting NV-HAP surveillance criteria for 1) clinical deterioration, 2) CDC-NHSN pneumonia criteria, 3) treating clinicians' assessment, and 4) reviewer's diagnosis. All reviewers subsequently adjudicated all cases and conducted an error analysis to identify sources of discordance.

Results. Among 2.3M hospitalizations, 14,023 met NV-HAP surveillance criteria (0.6 per 100 admissions). Inpatient mortality was 26% (vs 2% for non-flagged hospitalizations). Among 47 hospitalizations flagged by surveillance criteria, 45 (97%) had a confirmed clinical deterioration, (the other 2 were immediate post-operative cases), 20 (43%) met CDC-NHSN pneumonia criteria, 21 (47%) had possible pneumonia per treating clinicians, and 25 (53%) had possible or probable NV-HAP per reviewers. Agreement among the 3 reviewers before adjudication was 51% (Fleiss' κ 0.43) for CDC-NHSN and 58% (Fleiss' κ 0.33) for NV-HAP. The most common source of discordance between reviewers was chest imaging classification (15/19 discordant cases).

Conclusion. NV-HAP electronic surveillance criteria demonstrated high precision for identifying clinical deterioration and moderate concordance with CDC-NHSN pneumonia criteria or reviewer diagnosis. Agreement between electronic surveillance criteria vs manual chart review was low but similar to agreement amongst manual reviewers applying NHSN criteria. Electronic surveillance may provide greater consistency than human review while facilitating wide-scale automated surveillance.

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12. Development of Provider-Specific Antibiotic Prescribing Feedback for Inpatient Antibiotic Stewardship Programs in Veterans Affairs (VA) Facilities (ASP)

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Background. Provision of provider-specific outpatient antibiotic prescribing data has resulted in significant decreases in antibiotic use. We describe the development of