Table 3. Antimicrobial Categories by Transplant Type for 530 SOT Recipients

Organ	MRSA Antimicrobials, N (%) *	Broad Spectrum Antimicrobials, N (%) *	High Risk CDI Antimicrobials, N (%) *
Heart	815 (25.6)	768 (24.1)	522 (16.4)
Kidney	409 (10.7)	430 (11.2)	850 (22.2)
Liver	881 (15.8)	1,211 (21.7)	764 (13.7)
Lung	1,235 (18.8)	1,266 (19.3)	624 (9.5)
Multi-visceral	311 (12.9)	545 (22.7)	370 (15.4)
Pancreas	3 (3.7)	25 (30.9)	23 (28.4)
Small Bowel	225 (19.6)	249 (21.7)	136 (11.9)
Total	3,879 (17)	4,494 (19.7)	3,289 (14.4)

Abbreviations: SOT, solid organ transplant; MRSA, methicillin resistant *Staphylococcus aureus*; CDI, Clostridioides difficile infection. * Antimicrobial DOT per total DOT per organ type

Table 3. Antimicrobial usage and SOT - ID Week 2021

Conclusion. Our study provides preliminary and important data of inpatient antibiotic utilization specifically in SOTr, generated using automated NHSN-AU data cross-matched to transplant database. These metrics can be utilized to promote antimicrobial stewardship efforts directed to specific TP types.

Disclosures. **Rachel Kenney, PharmD**, **Medtronic, Inc.** (Other Financial or Material Support, spouse is an employee and shareholder)

593. Utility of Microbiologic Testing Obtained via Bronchoalveolar Lavage on Asymptomatic Lung Transplant Recipients: A Quality Improvement Study

William Dillon, DO; Tommy J. Parraga Acosta, MD; Andrew J. Failla, MD; Julio Corrales, MD; Ramesh Mayur, MD; George J. Alangaden, MD; Henry Ford Hospital, Detroit, Michigan

Session: P-26. Care Strategies for Transplant Patients

Background. The utility of surveillance bronchoscopy (SB) in asymptomatic lung transplant recipients (LTR) is controversial. Guidelines regarding the timing of SB and diagnostic testing varies across centers. Studies evaluating the role of microbiologic testing are lacking. Our transplant institute currently performs SB at week 1, and months 1, 3, 6, 9, 12, and 24 post-transplant. We evaluated if routine microbiologic testing obtained during SB impacted clinical management.

Methods. This observational cohort study was performed at Henry Ford Hospital, Detroit, MI and included all LTR done from August 2014 to August 2019. Clinical and laboratory data was abstracted from the electronic medical record Pre/post-SB. Bronchoscopies performed for new or worsening respiratory symptoms, decline in forced expiratory volume at one second ≥10%, new radiographic abnormalities and follow up bronchoscopies to assess stents or recent acute rejection were excluded. Microbiologic tests assessed are shown in Table 2. Management change was defined as reduction in immunosuppression or prescription of antimicrobials. Rate of change in clinical management based on microbiologic test positivity was the primary outcome. Data were analyzed with descriptive statistics.

Results. 449 SB in 107 LTR were evaluated. Median age was 63 years, 68% were male. The average number of SB performed per patient was 4.2 (Table 1). The most common microbiologic tests performed were bacterial (435), mycobacterial (427), and fungal including *Pneumocystis jirovecii* (1022) (Table 2). The rate of test positivity and resultant change in management are shown in Table 3. The rate of test positivity was highest for bacterial (54%), fungal (27%) and viral tests (6%) with management changes in 12%, 2%, and 3% respectively.

Table 1. Patient Demographics

Variable	LTR n=107
Age in Years – Median (IQR)	63 (10)
Gender % (N)	
Male	67.29% (72)
Female	32.71% (35)
Race % (N)	
White	77.57% (83)
Black	19.63% (21)
Asian	0% (0)
Other	2.80% (3)
CMV Status % (N)	
CMV D+/R+	22.43% (24)
CMV D-/R+	21.50% (23)
CMV D-/R-	32.71% (35)
CMV D+/R-	23.36% (25)
CCI – Average (Range)	4.8 (1 – 12)
Transplant Type % (N)	
Double Lung	85.98% (92)
Single Lung	13.08% (14)
Heart and Lung	0.93% (1)
Surveillance Bronchoscopies per patient – Average (Range)	4.20 (1 – 10)

Abbreviations: LTR, Lung Transplant Recipient; IQR, Interquartile Range; CMV, Cytomegalovirus; D, Donor; R, Recipient; CCI, Charlson Comorbidity Index

Table 2. Rate of Microbiologic Testing per Surveillance Bronchoscopy

Study Performed	Rate per bronchoscopy n=449
Bacterial Culture and Stain	96.88% (435)
Fungal Culture and Stain	95.32% (428)
AFB Culture and Stain	95.10% (427)
Total PCP [Antigen + PCR]	86.41% (388)
Total CMV [Culture + PCR]	76.84% (345)
Total Respiratory Viral [Culture + PCR]	73.72% (331)
Respiratory Viral PCR	55.46% (249)
CMV Culture	51.44% (231)
BAL Galactomannan	45.88% (206)
PCP Antigen	45.66% (205)
PCP PCR	40.76% (183)
CMV PCR	25.39% (114)
Respiratory Viral Culture	18.26% (82)

Abbreviations: AFB, Acid Fast Bacilli; PCP, *Pneumocystis jirovecii*; CMV, Cytomegalovirus; PCR, Polymerase Chain Reaction; BAL, bronchial alveolar lavage.

Table 3. Rate of Microbiologic Positivity and Management Change per Surveillance Bronchoscopy

Study Performed	Rate of Positivity	Rate of Management Change n=449
Bacterial Culture and Stain	55.86% (243)	12.25% (55)
Viral Studies	5.77% (39)	2.67% (12)
Respiratory Viral PCR	11.64% (29)	1.78% (8)
Respiratory Viral Culture	0% (0)	0% (0)
CMV PCR	7.02% (8)	0.45% (2)
CMV Culture	0.87% (2)	0.45% (2)
Fungal Tests	27.30% (279)	1.56% (7)
Culture and stain	25.93% (111)	1.56% (7)
BAL Galactomannan	80.58% (166)	0% (0)
PCP antigen/PCR	0.52% (2)	0% (0)
AFB Culture and Stain	0.67% (3)	0% (0)

Abbreviations: AFB, Acid Fast Bacilli; PCP, *Pneumocystis jirovecii*; CMV, Cytomegalovirus; PCR, Polymerase Chain Reaction; BAL, bronchial alveolar lavage.

Conclusion. This is the largest study to specifically evaluate the role of routine microbiologic tests during SB in LTR. Bacterial cultures may be appropriate due to higher rates of management changes. However, routine fungal, AFB, and viral studies are unnecessary due to low true positivity, and consequent low rate of management changes. This represents an important opportunity for diagnostic and antimicrobial stewardship.

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

594. Micafungin Prophylaxis in Acute Myeloid Leukemia Adult Patients Undergoing Induction Chemotherapy

Justine Abella. Ross, PharmD; Jonathan Yong, n/a; Jason Chen, PharmD; Deron Johnson, PharmD; Doreen Pon, PharmD; Sanjeet Dadwal, MD; City of Hope National Medical Center, Duarte, CA

Session: P-26. Care Strategies for Transplant Patients

Background. Patients (pts) with newly diagnosed acute myeloid leukemia (AML) undergoing induction chemotherapy are at increased risk for invasive fungal infections (IFI). Guidelines recommend posaconazole prophylaxis (ppx), but use is precluded by interactions and adverse effects. Micafungin (MCF) is an alternative, but data is limited by small prospective and retrospective studies. Primary objective: describe incidence of probable/proven IFI until neutrophil recovery (ANC ≥ 500 cells/μL) or 28 days after induction start date, whichever occurred first, in pts receiving MCF ppx. Secondary objective: describe incidence of clinical failure to MCF prophylaxis.

Methods. Retrospective review (January 2017 to January 2020) of newly diagnosed AML adult pts undergoing 7 + 3 using idarubicin (7 + 3-ida), 7 + 3 using daunorubicin (7 + 3-dau), venetoclax/decitabine (VEN/DEC), or venetoclax/azacitadine (VEN/AZA) receiving MCF ppx for at least 7 days included. Diagnosis of IFI < 30 days prior to induction, liver function tests (LFT) 5x ULN at start of induction, or evidence of refractory disease after induction excluded. Probable/proven IFI defined by EORTC criteria. Clinical failure: changing to a different antifungal class for any reason until ANC recovery or 28 days after induction start date.

Results. Ninety-five pts included. Baseline characteristics: mean (±SD) age 57.8 (±13.0) years; 53.6% males. 62% (59/95) 7 + 3-ida, 13.7% (13/95) 7 + 3-dau, 15.8% (15/95) VEN/DEC, 8.4% (8/95) VEN/AZA. Mean (±SD): 32.5% (±26) blasts, WBC 13.2 (±23.8), ANC 2.4 (±4.6), ALC 1.9 (±1.6), platelets 92.6 (±123.2). Incidence of probable IFI 2/95 (2.1%). No proven IFI cases identified. Clinical failure occurred in 37/95 (39%): 8 persistent febrile neutropenia, 29 due to suspected IFI. No MCF discontinuation due to adverse events.

Conclusion. Our findings suggest that prophylactic MCF is safe and effective in pts with newly diagnosed AML undergoing induction chemotherapy. Outcomes were similar to those of prophylactic posaconazole studies, indicating MCF may be considered as an alternative when interactions and adverse effects preclude use of posaconazole. Our study was limited by small numbers, retrospective, single-center design. Future opportunities include prospective trials of prophylactic MCF in this setting.

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