**Results.** Ten RCTs were selected involving 2654 pts. Our results showed fluconazole is statistically inferior to other agents that include voriconazole, micafungin, and itraconazole with regards to the endpoint of a lower incidence of IFI (RR: 1.05; 95%CI: 1.02, 1.08; p=0.0002, I²=5%). However, subgroup analysis showed no statistical difference between fluconazole vs. other agents to prevent breakthrough proven IFI (HR: 0.69; 95%CI: 0.47, 1.3; p=0.27, I²=0%). Our subgroup analysis further showed that other agent’s group might have a superior role in preventing aspergillus compared with fluconazole (HR: 0.64; 95%CI: 0.44, 0.94; p=0.02, I²=0%), but no significant advantages over fluconazole for candidiasis (HR: 0.96; 95%CI: 0.45, 2.07; p=0.92, I²=0%).

**Successful Rate Without Incidence of IFI**

![Figure 1. Successful Rate Without Incidence of IFI Proven IFI vs. Suspected IFI](image1)

**Proven IFI vs. Suspected IFI**

| Study Group | DCF | SE | Weight | N (Total) |
|-------------|-----|----|--------|-----------|
| Proven IFI  | 0.169 | 0.108 | 0.7 | 636 (502, 126) |
| Suspected IFI| 0.183 | 0.102 | 1.4 | 415 (171, 244) |

**Candidiasis vs. Aspergillus**

![Figure 2. Proven IFI vs. Suspected IFI Candidiasis vs. Aspergillus](image2)

**Conclusion.** This meta-analysis yield data that suggests fluconazole might be inferior to other agents in preventing IFI in all intent to treat patients undergoing HSCT. However, fluconazole is non-inferior in preventing proven IFI and candidiasis IFI based on our results. Thus, we continue to recommend fluconazole in selected patients who require anti-fungal prophylaxis. More RCTs are needed in the future to demonstrate the drug of choice for anti-fungal prophylaxis and address patient selection characteristics.

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

**Session: P-26. Care Strategies for Transplant Patients**

**Background.** Antimicrobials are widely used in solid organ transplant recipients (SOT). Yet, antimicrobial utilization in the transplant (TP) population is not well characterized. National Healthcare Safety Network antimicrobial use (NHSN-AU) does not provide data specific to SOTs. This study sought to describe inpatient antibiotic use among SOTs up to 1-year post-TP.

**Methods.** A cross-sectional study was performed of all SOTs who received a TP between January 2015 to December 2016. Demographics, TP type, antibiotic use variables, hospital days, and *Closidiodes difficile* infection (CDI) were described. Inpatient antibiotic administration was measured for 365 days starting from date of TP surgery. Automated data generated for NHSN-AU reporting was utilized, and SOTs data was abstracted by cross-matching with the transplant database. Transplant-patient days was used as the denominator for metrics. Variables included duration of therapy (DOT), DOT/1000 patient days, antimicrobial free days (inpatient days no antimicrobials were administered), and NHSN-AU reporting targets of anti methicillin resistant S. aureus (MRSA), broad spectrum, and high-risk CDI agents. Data was analyzed using descriptive statistics via Microsoft Excel.

**Results.** A total of 530 SOTs were analyzed. Baseline characteristics are shown in Table 1. Median age was 61, male gender 64%, median Charlson Comorbidity Index was 5. Kidney TP (43%), liver TP (32%), lung (9%) and heart (8%) were most common TP types. Among these four TP types: Lung TP had the highest median DOT (13 days), DOT/1000 patient days (6.6) and ratio of DOT/total patient (1.9) (Table 2). Liver TP had the most antimicrobial free days (3%). Proportionally, anti-MRSA agents use was highest in thoracic TP (lung/heart), broad-spectrum agent use was common in all but kidney TPs, and high-risk CDI agents use was highest among kidney TP (Table 3). A total of 34 SOT had CDL, 76% in kidney/liver TPs.

| Table 1. Baseline Demographics of 530 SOT Recipients |
| Variable | N (%) | Value |
|----------|-------|-------|
| Age, year | 61 | 52 – 60 |
| Sex, male | 337 | 63.6 |
| Race | | |
| Asian | 12 | 2.3 |
| Black | 157 | 29.6 |
| Other | 25 | 4.7 |
| White | 336 | 63.4 |

**Candidiasis vs. Aspergillus**

![Figure 3. Candidiasis vs. Aspergillus](image3)

**Table 1. Antimicrobial usage and SOT - ID Week 2021**

| Organ | Total DOT | DOT, median [IQR] | DOT/1,000 Patient Days | DOT / Hospital Days | Antimicrobial Free Days, N (%) |
|-------|-----------|-------------------|-------------------------|---------------------|-------------------------------|
| Heart | 3,184 | 5 (1-17) | 3.2 | 1.4 | 713 (31.9) |
| Kidney | 3,827 | 4 (2-7) | 3.8 | 1.2 | 525 (56.4) |
| Liver | 5,569 | 4 (1-12) | 5.6 | 1.3 | 1,463 (33.9) |
| Lung | 6,371 | 33 (2-56) | 6.6 | 1.9 | 1,134 (33.3) |
| Multivisceral | 2,403 | 7 (1-38) | 2.4 | 1.6 | 377 (51.6) |
| Pancreas | 41 | 4 (2-12) | 0.1 | 1.0 | 29 (70.8) |
| Small Bowel | 1,147 | 32 (2-31) | 1.1 | 1.9 | 130 (20.1) |
| Total | 22,782 | 5 (1-17) | 22.8 | 1.5 | 4,504 (28) |

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

592. Antimicrobial Utilization in Solid Organ Transplant Recipients 12-Months Post-Transplantation

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| Table 2. Antimicrobial Use by Transplant Type for 530 SOT Recipients |
|---------------|------------------|-----------------|-----------------|-----------------|
| Organ | Total DOT | DOT, median [IQR] | DOT/1,000 Patient Days | DOT / Hospital Days | Antimicrobial Free Days, N (%) |
| Heart | 3,184 | 5 (1-17) | 3.2 | 1.4 | 713 (31.9) |
| Kidney | 3,827 | 4 (2-7) | 3.8 | 1.2 | 525 (56.4) |
| Liver | 5,569 | 4 (1-12) | 5.6 | 1.3 | 1,463 (33.9) |
| Lung | 6,371 | 33 (2-56) | 6.6 | 1.9 | 1,134 (33.3) |
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| Small Bowel | 1,147 | 32 (2-31) | 1.1 | 1.9 | 130 (20.1) |
| Total | 22,782 | 5 (1-17) | 22.8 | 1.5 | 4,504 (28) |

**Table 2. Antimicrobial usage and SOT - ID Week 2021**
Table 3. Antimicrobial usage and SOT - ID Week 2021

Conclusion. Our study provides preliminary and important data of inpatient antibiotic utilization specifically in SOT, 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)

Table 3. Antimicrobial Positivity and Management Change per Surveillance Bronchoscopy

Study Performed Rate per bronchoscopy n=449

| Study performed          | Rate | Change |
|--------------------------|------|--------|
| Bacterial Culture and Stain | 96.88% | 435 |
| Fungal Culture and Stain  | 95.32% | 428 |
| AFB Culture and Stain     | 95.10% | 427 |
| Total PCR [Antigen + PCR] | 86.41% | 388 |
| Total CMV [Culture + PCR] | 76.84% | 345 |
| Total Respiratory Viral Culture + PCR | 73.72% | 311 |
| Respiratory Viral Culture  | 55.46% | 262 |
| CMV Culture               | 51.44% | 231 |
| BAL Galactomannan         | 45.88% | 206 |
| PCP Antigen               | 46.65% | 205 |
| PCP PCR                   | 40.76% | 183 |
| CMV PCR                   | 25.39% | 114 |
| Respiratory Viral Culture | 18.26% | 82 |

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

Table 3. Rate of Microbiologic Testing per Surveillance Bronchoscopy

| Variable                  | LTR n=107 | LTR n=107 |
|---------------------------|-----------|-----------|
| Age in Years - Median (IQR) | 63 (10)   | 67.29% (72) |
| Gender (%)                | Male      | Female    |
| Gender (%)                | 57.77% (63) | 42.23% |
| Race (%)                  | White     | Black     | Asian    | Other     |
| Race (%)                  | 77.57% (83) | 19.63% (21) | 9% (0) | 3% (0) |
| CMV Status (%)            | CMV +/−    | CMV +/−    | CMV +/−    | CMV +/−    |
| CMV Status (%)            | 22.43% (24) | 21.50% (23) | 21.50% (23) | 21.50% (23) |
| CMV +/−                   | 21.50% (23) | 21.50% (23) | 21.50% (23) | 21.50% (23) |
| CMV +/−                   | 21.50% (23) | 21.50% (23) | 21.50% (23) | 21.50% (23) |
| CMV +/−                   | 21.50% (23) | 21.50% (23) | 21.50% (23) | 21.50% (23) |
| CCI – Average (Range)     | 4.8 (1 - 12) |
| Transplant Type (%)       | Double Lung | Single Lung |
| Dual Transplant    | 15.86% (92) | 13.08% (14) |
| Single Transplant | 23.80% (135) | 13.08% (14) |
| Single Transplant | 15.86% (92) | 13.08% (14) |
| Single Transplant | 23.80% (135) | 13.08% (14) |
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| Single Transplant | 23.80% (135) | 13.08% (14) |

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