of the T2 and BC in Tx and non-Tx patients were compared. BC obtained within 7 days before or after the T2 test were included in the analysis. TAT, sensitivity, specificity, PPV and NPV were calculated using positive BC as the standard. Differences between groups were assessed using two sample proportions testing at $\alpha = 0.05$.

Results. A total of 1,272 patients with suspected candidemia had T2 done: 1,162 (91%) non-Tx and 110 (9%) Tx patients. Average TAT for T2 was 13 hours (5–41) vs. 34 hours (21–109) to initial positive BC result and 4 days (3–13) to species-specific BC result. In four non-Tx patients with negative T2, *C. lusitaniae*, *C. dubliniensis*, and *C. kefyr* were isolated in BC. Performance characteristics of T2 and BC in the two groups is shown (Table 1). Of the T2+/BC– cases (n = 102), 9% had retinitis and 9% had invasive candidiasis.

Conclusion. The rapid TAT, good sensitivity, and high NPV of T2 in Tx patients has clinical implications and can help support antifungal stewardship efforts in this population. The clinical significance of T2 positivity in the presence of negative BC needs further investigation.

Table1: Performance Characteristics of T2 Compared with BC (N = 1,272)

	Tx (n = 110)	Non-Tx (n = 1162)	P-value
T2 + and blood culture +	5 (4.5%)	35 (3.01%)	0.3917
T2 + and blood culture –	19 (17.3%)	86 (7.4%)	0.0003
T2 - and blood culture +	1 (0.9%)	41 (3.5%)	0.1431
Sensitivity	83.3%	46.1%	
Specificity	81.9%	92.4%	
PPV	20.8%	28.9%	
NPV	98.8%	96.2%	

Disclosures. **G. Alangaden**, T2 Biosystems: Speaker's Bureau, Educational grant and Speaker honorarium.

1135. Strongyloides Stercolaris Serology in Transplant Patients: To Test or Not?

Karla Rivera Rivera, MD[1]; Tulsi Shah, MBBS[2]; Julia Garcia-Diaz, MD, FIDSA[2] and Jonathan Hand, MD[2]; [1]Infectious Diseases, Ochsner Clinic Foundation, Covington, Louisiana, [2]Infectious Diseases, Ochsner Clinic Foundation, New Orleans, Louisiana

Session: 134. Fungi and Parasites in Immunocompromised Patients
Friday, October 5, 2018: 12:30 PM

Background. *Strongyloides stercoralis* is an intestinal nematode endemic to the tropics, subtropics, and to a limited extent the United States and Europe. The global estimates of strongyloidiasis are reported to range from 3 to 100 million infected worldwide; however, the true US prevalence is unclear. The seroprevalence of infection in solid-organ transplant candidates and recipients in the New Orleans, Louisiana region is also unknown. The purpose of this study was to identify the prevalence of *Strongyloides* seropositivity within transplant candidates at Ochsner Medical Center (OMC).

Methods. Patients were identified using EPIC-CLARITY with ICD-9 and ICD-10 codes for any solid-organ transplant at OMC from July 2012 to December 2016. Inclusion criteria were age 18 or older, patients evaluated for solid-organ transplant, and *Strongyloides* IgG testing. Patients were excluded if they had other immunocompromising conditions or exposures including but not limited to steroids, TNF-alpha, or biologic agent use. The primary outcome was the overall prevalence rate of strongyloidiasis at OMC. Secondary outcome was the comparison of prevalence between January 1, 2012 to July 31, 2016 (when testing was ordered based on risk stratification) vs. August 1, 2016 to December 31, 2016 (when routine testing was implemented).

Results. We analyzed a total of 1,047 patients which had 1,128 tests ordered for S*trongyloides*. Of those, 985 were unique patients (62 patients had multiple serological tests resulting in 81 repeat tests). During July 1, 2012 to July 31, 2016 testing yielded a total of 822 tests. From August 1, 2016 to December 31, 2016 testing yielded 306 tests.

Overall, 43/1,128 (3.8%) tests were positive for *Strongyloides*. The remaining 1,085/1,128 (96.2%) tested negative. For our secondary outcome, we found that testing based on risk stratification yielded 22/822 (2.7%) positives while testing for all patients we had 21/306 (6.9%) positives.

Conclusion. Our data suggest that testing based on risk stratification yielded a lower prevalence rate as compared with generalized testing, underestimating the true incidence of disease (2.7% vs. 6.9%). Testing all patients being evaluated for transplantation will capture a greater number of patients with positive serology.

Disclosures. **J. Garcia-Diaz**, Astellas Pharma: Speaker's Bureau, Speaker honorarium.

1136. Universal Prophylaxis for Prevention of Invasive Aspergillus in Lung Transplant Recipients

Alexis Guenette, DO[1]; A Adrian Gonzalez, MD[2] and Amir Emtiazjoo, MD[3]; [1]Division of Infectious Disease, University of Florida, Gainesville, Florida, [2]Infectious Disease, University of Florida, Gainesvile, Florida, [3]Division of Pulmonary Disease and Critical Medicine, University of Florida, Gainesville, Florida

Session: 134. Fungi and Parasites in Immunocompromised Patients
Friday, October 5, 2018: 12:30 PM

Background. Invasive aspergillosis (IA) is a significant complication status post lung transplantation with an incidence of 6% to 16%. Because early diagnosis of IA in lung transplant is hampered by the lack of specific clinical signs and by the low sensitivity of culture-based diagnostic methods, the efficacy of bronchoalveolar lavage galactomannan (BAL GM) for early diagnosis is explored in this study.

Methods. A retrospective analysis was performed on 45 consecutive lung transplant recipients between January 2015 and February 2016 at UF Health Shands Hospital. All patients were placed on prophylactic itraconazole post-transplant. Surveillance bronchoscopies were performed at 2 weeks, 1 month, 3 months, 6 months, 9 months, and 12 months post-transplant. During each bronchoscopy, bacterial, fungal, and acid-fast bacterial cultures along with BAL GM [an optical density (OD) index of ≥0.5 considered positive] were obtained. If BAL GM ≥1.0, the patient was switched to voriconazole for further treatment. CT Chest was also evaluated. If BAL GM remained ≤1.0 at the 6 month interval, then prophylaxis was complete. IA was defined using the EORTC/MSG criteria for invasive fungal disease (i.e., patient classified as either having proven, probable or possible IA).

Results. There was a total of 225 observations from the 45 patients. Two patients (4.4%) had proven IA with a mean GM of 4.153 (SE, 0.629) and seven patients (15%) had probable IA with a mean of 2.169 (SE, 0.409). There was no correlation of cold ischemic time (P = 0.88), primary graft dysfunction (PGD, P = 0.38), presence of Candida species (P =0.048) or non-tuberculous mycobacteria (NTM) in bronchoalveolar lavage (P = 0.044), and viral pneumonitis (P = 0.047) with a positive BAL GM. All nine patients with GM >1 were switched to voriconazole from itraconazole which resulted in negative GM levels on follow-up bronchoscopy.

Conclusion. Our data suggest that the implementation of universal antifungal prophylaxis with itraconazole may not be efficacious in preventing IA in lung transplant recipients. On the other hand, surveillance with BAL GM is a strategy that can lead to early detection of IA in patients during the first year after lung transplantation.

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

1137. Implementation of Universal Screening for Strongyloidiasis Among Solid-Organ and Hematopoietic Stem Cell Transplantation Candidates in a Non-endemic Area

Angelica Kottkamp, MD[1] and Sapna Mehta, MD[2]; [1]Department of Medicine, NYU School of Medicine, New York, New York, [2]NYU Transplant Institute, New York, New York

Session: 134. Fungi and Parasites in Immunocompromised Patients
Friday, October 5, 2018: 12:30 PM

Background. Strongyloidiasis can lead to hyperinfection and dissemination after transplantation with significant morbidity and mortality. Treatment for Strongyloidiasis prior to transplantation can reduce the risk of disseminated infection. Targeted screening based on travel history and country of origin incompletely identifies at-risk patients. Data on universal screening prior to solid-organ (SOT) or hematopoietic stem cell transplantation (HSCT) are limited. We implemented universal serology-based screening for strongyloides at our transplant center, located in a metropolitan non-ndemic area.

Methods. We identified patients screened with serum Strongyloides IgG by ELISA during pre-transplant evaluation for SOT or HSCT from August 1, 2017 to April 25, 2018. We reviewed adherence to the screening recommendation by program type and the medical record of seropositive patients for country of origin, history of eosinophilia (>500 cell/μL), Gram-negative bacteremia, ova and parasite (O&P) examination and treatment.

Results. A total of 812 patients were evaluated for transplant during the study period: 484 for kidney, 152 for liver, 12 for liver/kidney transplant, 40 for heart, 24 for lung, and 100 for HSCT. 201 (24.7%) of the 812 patients were screened for Strongyloides; 107 (17%) evaluated for abdominal transplant, 32 (50%) for thoracic transplant, and 62 (60%) for HSCT. Seventeen (8.4%) of 201 patients screened tested positive: nine evaluated for kidney transplant, four for heart, one for liver, and three for HSCT. Nine of 17 patients (53%) were treated with Ivermectin or referred to Infectious Diseases clinic prior to our review. Ten (59%) seropositive patients were from the United States and 70% had no documented travel to endemic areas; six patients were from countries other than the United States; and one from Puerto Rico. Two patients with Strongyloidiasis had eosinophilia, one had history of *Klebsiella pneumoniae* bacteremia and one had stool O&P examination. Screening was higher when using an electronic order set (57% vs. 17%).

Conclusion. Universal screening for Strongyloidiasis identified individuals with latent infection who did not have epidemiological or clinical findings suggestive of Strongyloidiasis. Screening for Strongyloidiasis was higher in transplant programs that incorporated the recommendation into an electronic order set.

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

1138. Retrospective Cohort Analysis of Amphotericin B Nephrotoxicity in Kidney Transplant Recipients

Mariam Assi, MD[1]; Dominic Engracia, BS[2]; Idris Yakubu, PharmD[3]; Gaurav Gupta, MD[4]; Nargiza Kurbanova, RN, BSN, BA[3] and Oveimar De La Cruz, MD[5]; [1]Internal Medicine, Virginia Commonwealth University Health System, Richmond, Virginia, [2]School of Medicine, Virginia Commonwealth University, Richmond, Virginia, [3]Virginia Commonwealth University Health System, Richmond, Virginia, [4]Nephrology, Virginia Commonwealth University Health System, Richmond, Virginia, [5]Infectious Diseases, Virginia Commonwealth University Health System, Richmond, Virginia

Session: 134. Fungi and Parasites in Immunocompromised Patients
Friday, October 5, 2018: 12:30 PM

Background. Treatment of invasive fungal infections with amphotericin B is a concern in kidney transplant patients due to fear of allograft loss. Reluctance to use amphotericin B may lead to suboptimal therapy and poor treatment outcomes. The risk of amphotericin B-related nephrotoxicity and allograft dysfunction has not been studied in kidney transplant patients. Our aim was to study the association between amphotericin B and acute kidney injury (AKI) as defined by the Acute Kidney Injury Network classification, allograft loss and patient mortality in kidney transplant recipients.

Methods. We used SPSS to conduct a descriptive analysis of a retrospective cohort of 30 adult kidney transplant recipients who were admitted to Virginia Commonwealth University Medical Center and received treatment with amphotericin B from 2005 to 2015.

Results. The median age in our cohort was 57. 40% were female, 60% were male. 60% had received a kidney transplant from a deceased donor; 13.3% from a living related donor; 13.3% from a living unrelated donor; and 13.3% had received a combined kidney–pancreas transplant. 63.3% of patients had received liposomal amphotericin B; 33.3% had received lipid-complex amphotericin B; 3.3% had received conventional amphotericin B. We found an association between cumulative amphotericin B doses above 5,000 mg and AKI, whereby 64.7% of patients exposed to less than 5,000 mg of amphotericin B developed AKI and 100% of patients exposed to more than 5,000 mg of amphotericin B developed AKI (P = 0.017). We did not find an association between cumulative amphotericin B doses above 5,000 mg and return to dialysis at 3 months and 12 months post-exposure (P = 0.436 and 0.288, respectively). We also did not find an association between such doses of amphotericin B and mortality at 30 and 90 days (P = 0.869 and 0.193, respectively).

Conclusion. In the first descriptive analysis of a retrospective cohort of kidney transplant patients exposed to amphotericin B, our results suggest that the risk of nephrotoxicity may be significantly increased when a cumulative dose of 5,000 milligrams is exceeded. Our results also suggest that amphotericin B doses associated with nephrotoxicity in kidney transplant patients may not have an effect on allograft survival and patient mortality.

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

1139. Novel Formulation SUBA-Itraconazole Prophylaxis in Patients With Hematological Malignancy or Undergoing Allogeneic Stem Cell Transplantation: Follow-up Survival Data

Julian Lindsay, BPharm(Hons), MClinPharm[1]; Indy Sandaradura, MD[2]; Kelly Wong, PhD[1]; Chris Arthur, MBBS[1]; William Stevenson, MBBS, PhD[1]; Ian Kerridge, MBBS[1]; Keith Fay, MBBS[1]; Luke Coyle, MBBS[1] and Matthew Greenwood, MBBS[1]; [1]Royal North Shore Hospital, Sydney, Australia, [2]St. Vincents Hospital, Sydney, Australia

Session: 134. Fungi and Parasites in Immunocompromised Patients
Friday, October 5, 2018: 12:30 PM

Background. Despite the advantageous spectrum of activity of itraconazole, it is rarely used as a prophylactic agent due to limited bioavailability and intolerance of the conventional formulation. After the development of a novel formulation SUBA-itraconazole* (SUper BioAvailability), we undertook a study to assess therapeutic levels, safety, tolerability, and IFI rates of this novel formulation when compared with the conventional itraconazole liquid in patients undergoing allogeneic hematopoietic stem cell transplantation or in hematological malignancy patients.

Methods. Following a single-centre, prospective study of SUBA–itraconazole 200 mg BID vs. conventional liquid itraconazole 200 mg BID, the SUBA–itraconazole group was assessed 1-year postallogeneic stem cell transplant for incidence of IFI and survival.

Results. A total of 57 patients (29 SUBA–itraconazole and 30 liquid-itraconazole) were assessed. Therapeutic concentrations were achieved significantly more quickly in the SUBA–itraconazole group; median of 6 days vs. 14 (P < 0.0001). At day 10, therapeutic concentrations were achieved in 69% of the SUBA–itraconazole group vs. 21% (P < 0.0001). The mean trough serum concentrations at steady state of SUBA–itraconazole were significantly higher, with less interpatient variability (1,577 ng/mL, CV 35%) vs. (1,218 ng/mL, CV 60%) (P < 0.001). There were 2 (7.5%) treatment failures in the SUBA–itraconazole group, both due to cessation of therapy for mucositis, compared with 7 (23.3%) treatment failures in the liquid-itraconazole group, due to subtherapeutic levels (five), mucositis (one), and gastrointestinal intolerance (one) (P = 0.096). There was one confirmed IFI in the SUBA–itraconazole treatment failure group defined by a blood culture that yielded yeast; however, this was after the cessation of SUBA–itraconazole for mucositis. No other probable/possible IFIs were observed. After 1 year postallogeneic stem cell transplant in the SUBA–itraconazole group, there were two deaths (10%) due to disease progression and no further IFIs were reported.

Conclusion. The use of the SUBA–itraconazole formulation was a safe and effective prophylactic agent. It was associated with more rapid attainment of therapeutic levels with less interpatient variability when compared with conventional liquid itraconazole.

Disclosures. **J. Lindsay**, Mayne Pharma: Consultant, Consulting fee.

1140. GATA2 Mutations Are Frequently Identified Among Patients With Myeloid Malignancies Who Develop Invasive Aspergillosis

Tyler D. Bold, MD, PhD[1]; Matthew P. Cheng, MD[2]; Rahul S. Vedula, MD[3]; Francisco M Marty, MD[2] and R. Coleman Lindsley Jr., MD, PhD[3]; [1]Brigham and Women's Hospital/Harvard School of Public Health, Boston, Massachusetts, [2]Division of Infectious Diseases, Brigham and Women's Hospital, Boston, Massachusetts, [3]Dana Farber Cancer Institute, Boston, Massachusetts

Session: 134. Fungi and Parasites in Immunocompromised Patients
Friday, October 5, 2018: 12:30 PM

Background. Patients with myeloid malignancies are at risk of invasive aspergillosis (IA), a cause of significant morbidity and mortality. Identification of patients at higher risk for IA may help optimize prophylactic or preemptive treatment decisions. Molecular genetic testing used to risk-stratify and guide therapy for hematologic malignancies may also have applicability toward predicting infectious outcomes. The purpose of this study was to identify mutations that may increase risk for IA among patients with myeloid malignancies.

Methods. We identified patients cared for at Dana-Farber/Brigham and Women's Cancer Center between March 1, 2015 and January 31, 2018 who were diagnosed with probable or proven IA during the treatment of myeloid malignancies including acute myeloid leukemia (AML) or myelodysplastic syndrome (MDS). We reviewed pathogenic mutations detected by the Rapid Heme Panel (RHP), a clinical targeted next-generation sequencing panel of 95 recurrently mutated genes in hematologic malignancies.

Results. Twenty-four patients with myeloid malignancy (AML 20, MDS 4) were diagnosed with IA, 20 of whom (AML 17, MDS 3) had undergone genetic testing with the *RHP* at the time of their cancer diagnosis. We found that three of 20 patients (15%) had a pathogenic mutation in *GATA2*. All were missense mutations within the functional zinc-finger domains, including one resulting in an R398W amino acid change, one of the spectrum of germline mutations known to cause the primary immunodeficiency MonoMAC. Patients with *GATA2* mutations in our cohort were ages 35–68 and variant allele fraction ranged from 16.3% to 49.7%, raising the possibility that both inherited and acquired *GATA2* dysfunction could incur a similar infectious risk.

Conclusion. Mutations in *GATA2*, a gene associated with MonoMAC syndrome, were common among patients with myeloid malignancy who developed IA. These data suggest that personalized genetic analyses of patients with underlying hematologic malignancy may also be useful for assessment of infectious risk.

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

1141. Microbial Assessment of Healthcare-Associated Pathogens on Various Environmental Sites in Patient Rooms After Terminal Room Disinfection

Hajime Kanamori, MD, PhD, MPH[1,2]; William Rutala, BS, MS, PhD, MPH[3]; Maria Gergen, MT (ASCP)[4]; Emily Sickbert-Bennett, PhD, MS[5]; Deverick J. Anderson, MD, MPH, FIDSA, FSHEA[6]; Daniel Sexton, MD, FIDSA, FSHEA[7]; David Weber, MD, MPH[8] and the CDC Prevention Epicenters Program; [1]Division of Infectious Diseases, University of North Carolina School of Medicine, Chapel Hill, North Carolina, [2]Department of Infection Control and Laboratory Diagnostics, Tohoku University Graduate School of Medicine, Sendai, Japan, [3]Medicine, University of North Carolina, Chapel Hill, North Carolina, [4]Hospital Epidemiology, University of North Carolina Health Care, Chapel Hill, North Carolina, [5]UNC Hospitals, Chapel Hill, North Carolina, [6]Duke Center for Antimicrobial Stewardship and Infection Prevention, Durham, North Carolina, [7]Division of Infectious Diseases, Duke University Medical Center, Durham, North Carolina, [8]Medicine and Pediatrics, University of North Carolina School of Medicine, Chapel Hill, North Carolina

Session: 135. Healthcare Epidemiology: Environmental and Occupational Health
Friday, October 5, 2018: 12:30 PM

Background. Hospital room environmental surfaces can be contaminated with healthcare-associated pathogens even if terminal room cleaning/disinfection is implemented. We examined the microbiological burden on hospital room environmental sites after standard or enhanced terminal room disinfection.

Methods. Microbial data from the Benefits of Enhanced Terminal Room Disinfection Study were utilized. All patient rooms were randomly assigned to standard disinfection (Quaternary ammonium [Quat]) or an enhanced disinfection (Quat/ultraviolet light [UV-C], Bleach, or Bleach/UV-C). Microbiological samples were obtained using Rodac plates (25 cm^2/plate) from 8 of 10 hospital room sites, including bed rail, over-bed table, supply/medicine cart, chair, side counter, linen hamper lid, sink, toilet seat, shower floor, and bathroom floor. The number of colony forming units (CFU) of four target epidemiologically important pathogens (EIP), including multidrug-resistant *Acinetobacter*, *Clostridium difficile*, methicillin-resistant *Staphylococcus aureus*, and vancomycin-resistant enterococci, was counted. A total of 3,680 samples from 736 environmental sites in all 92 patient rooms (21 standard rooms and 71 enhanced rooms) were analyzed.

Results. Overall, the frequency of all environmental sites positive for EIP was 11% (84/736) in all rooms, 21% (36/168) in standard rooms, and 8% (48/568) in enhanced rooms (P < 0.001) (Figure 1). Environmental sites, other than the toilet seat, in standard rooms were likely to be more frequently contaminated with EIP than in enhanced rooms (P = 0.013 for overbed table, P = 0.010 for bed rail, and P > 0.05 for other sites each). Mean CFU of EIP per room was 19.2 in all rooms, 60.8 in standard rooms, and 6.9 in enhanced rooms (P = 0.006) (Figure 2). All sites in standard rooms tended to have higher mean counts than in enhanced rooms (P = 0.001 for overbed table, P = 0.001 for bed rail, P = 0.012 for side counter, and P > 0.05 for other sites each).

Conclusion. Our results demonstrate that an enhanced terminal room disinfection reduced microbial burden of healthcare-associated pathogens on environmental sites better than standard room disinfection. Environmental hygiene of touchable surfaces after terminal room cleaning using Quat needs to be improved.