BSI. Meticulous aseptic technique for invasive procedures, device and wound care may help prevent *C. auris* BSI in colonized patients.

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

2040. Clinical Application of *Aspergillus* Lateral Flow Device (*Asp*LFD) in Bronchoalveolar Lavage (BAL) Fluid of Patients with Classic Risk Factors for Invasive Pulmonary Aspergillosis (IPA)

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Session: 230. Diagnostics: Mycology
Saturday, October 6, 2018: 12:30 PM

Background. IPA causes high morbidity and mortality in immunocompromised patients, but diagnosis remains challenging. A newly formatted *Asp*LFD targets specific *Aspergillus* antigen JF5, but reported results for this test are variable. We evaluated the performance characteristics of this new *Asp*LFD in BAL fluid of patients with IPA.

Methods. Samples tested were from patients with classic risk factors for IPA defined by EORTC/MSG criteria and that had been prospectively banked in our BAL repository. Each case of IPA identified was matched to two high-risk control patientst without IPA or other invasive fungal infection. Samples were thawed, vortexed, centrifuged, and 100 µL of supernatant was applied to the *Asp*LFD. Results were interpreted at 15 minutes as +, ++, +++, or negative by three independent, blinded observers. Test characteristics, including sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) were calculated.

Results. Samples from 14 patients with proven/probable IPA by EORTC/MSG criteria and 28 control patients without IPA were tested. Median age was 58 (range 22–87); 28 were men. Age and gender distribution were similar between cases and controls. Among IPA cases, 9 were on T cell depleting agents, 4 on high-dose steroids, and 3 had prolonged neutropenia. Among non-IPA controls, risk factors were T-cell depleting agents (17), high-dose steroids (11), and stem cell transplant (2). Of the 14 patients with IPA, *Asp*LFD was positive in 3, negative in 9; in 2, the internal control line did not display and these were considered invalid. Of 6 patients receiving an azole, three had a positive *Asp*LFD test. *Asp*LFD was negative for all 28 BAL in the non-IPA group. *Asp*LFD showed low sensitivity (25%) and high specificity (100%); PPV was 100% and NPV was 75%. Accuracy of the test was 77.5%.

Conclusion. A positive *Asp*LFD test in BAL of patients with classic risk factors for IPA could be useful for ruling in proven/probable IPA because of its high specificity. However, the use of *Asp*LFD as a screening test for IPA is limited by its poor sensitivity.

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

2041. Impact of T2 *Candida* Panel on Species Specific Anti-fungal De-escalation

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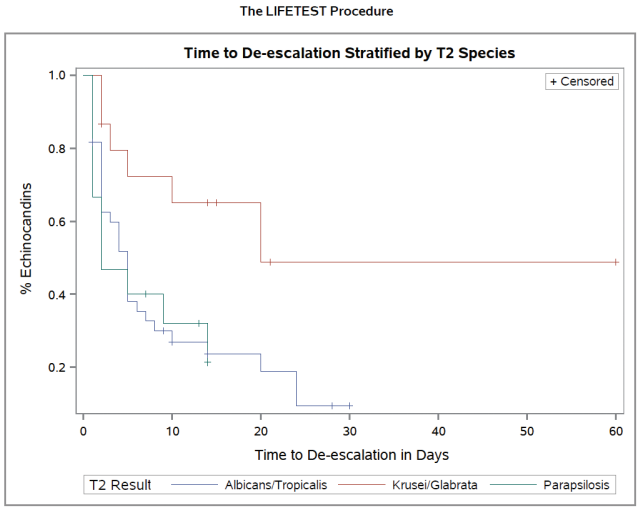
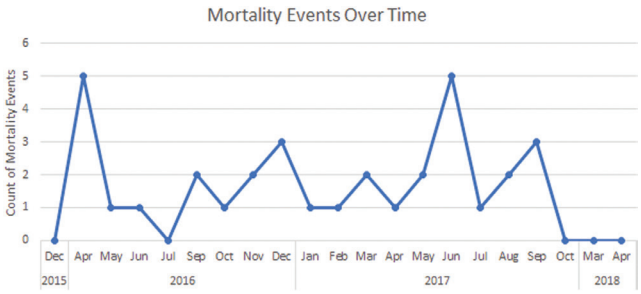
Background. Empiric antifungal treatment is recommended in patients with suspected candidemia given the 20–40% associated mortality. T2Candida Panel (T2) is approved for the rapid detection directly on a blood sample of candidemia caused by *C. albicans/C. tropicalis (CA/CT), C. parapsilosis (CP), C. glabrata/C. krusei (CG/CK).* Our hospital implemented a candidemia management protocol utilizing T2 to identify candidemia in high-risk patients. We examine the potential for antifungal stewardship by analyzing T2 species-specific result-based antifungal de-escalation.

Methods. Retrospective analyses were conducted on 70 T2-positive patients identified in 2016–2017 at our hospital. The primary endpoint is time to de-escalation from echinocandin to fluconazole based on T2 species identified. Secondary endpoints included time to T2 positivity, and identification of risk factors for mortality. Univariate logistic regression was used to determine association between risk factors and mortality. Multivariate logistic regression models were created using forward selection to model the odds of mortality. Time to de-escalation of echinocandins was modeled using Kaplan–Meier estimators.

Results. In T2-positive results for *CA/CT* or *CP*, 50% of patients were de-escalated to fluconazole therapy within 96 hours. In T2-positive result for *CG/CK*, *50%* of patients were de-escalated in 20 days (figure). The turnaround time (TAT) for T2 6 hours (3–12 hours). Overall mortality was 47% in the T2-positive cohort and was unchanged over the study period. Univariate analysis showed statistically significant associations between mortality and sepsis diagnosis, hypotension, abnormal WBC count, and tachycardia ($P < 0.05$). Multivariate analysis showed tachycardia, age, and presence of prosthetic devices, taken together, fit the best model to predict odds of mortality ($P < 0.05$).

Conclusion. T2 proved useful in promoting de-escalation of echinocandin to fluconazole therapy in patients with fluconazole-susceptible *Candida* species. The rapid TAT of T2 promotes timely de-escalation of enchinocandins. Overall mortality in patients with suspected candidemia remains unaffected despite rapid diagnostics and early empiric antifungal therapy.





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2042. Clinical Application of *Asp*ID PCR Alone and in Combination with *Aspergillus* Lateral Flow Device (*Asp*LFD) in Bronchoalveolar Lavage (BAL) Fluid of Patients with Classic Risk Factors for Invasive Pulmonary Aspergillosis (IPA)

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Background. Early diagnosis of IPA is challenging and has a direct impact on mortality. Several diagnostic modalities have been developed with variable performance. *Asp*ID is a new multiplex *Aspergillus* qRT-PCR assay and *Asp*LFD is a rapid test that targets the *Aspergillus* specific antigen JF5; both tests were developed by OLM Diagnostics. We evaluated the performance characteristics of *Asp*ID used alone and in combination with *Asp*LFD on BAL fluid of patients at high risk for IPA.

Methods. Samples had been prospectively banked in our BAL repository. Forty-two samples, 14 from patients with proven/probable IPA by EORTC/MSG criteria and 28 from control patients without IPA, were tested with *Asp*ID and *Asp*LFD. For *Asp*ID, DNA extraction and qRT-PCR were performed per manufacturer instructions. For *Asp*LFD, 100 µL of sample was applied to the device. *Asp*ID and *Asp*LFD results were each read by three different blinded observers. Only patient with a valid result for both tests were included in the analysis. Sensitivity, specificity, and accuracy of *Asp*ID alone and in combination with *Asp*LFD were calculated.

Results. Of the 42 samples, 22 were excluded because the *Asp*ID internal extraction control showed the assay to be invalid and one sample was excluded because the *Asp*LFD internal control line was not visible. Thus, 19 patients were analyzed, eight with IPA and 11 without IPA. Among eight IPA cases, seven were positive by *Asp*ID and one was negative; two tested positive by *Asp*LFD and six were negative. Of the 11 control patients without IPA, four were positive by *Asp*ID and seven were negative; all 11 were negative by *Asp*LFD. *Asp*ID sensitivity was significantly higher than that of *Asp*LFD (87.5% vs. 25%, $P = .0001$), but specificity of *Asp*LFD was superior to that of *Asp*ID (100% vs. 64%, $P = 0.049$). Accuracy was 74% for *Asp*ID and 68% for *Asp*LFD. When deciding whether doing both tests was beneficial for diagnosis, union analysis showed the sensitivity to be 87.5% and the specificity to be 64%. Accuracy was not improved and remained at 74%.