Methods. A retrospective multicenter study involving 10 Houston area hospitals from 2008 to 2016. Data was gathered from 120 adults with culture proven community-acquired bacterial meningitis. An adverse clinical outcome was defined as a Glasgow outcome score of 1–4.

Results. There was a total of 120 patients enrolled; of which, 55% were male. Adjunctive intravenous steroids were administered in 82 (68%) patients with bacterial meningitis. The steroid median duration was 3.8 days. The average age of patients was 55.3 years (range 20–92). There was no difference in Charlson comorbidity score, immunosuppression, presence of sinusitis or otitis, fever, meningeval signs and symptoms, abnormal neurological findings, Gram stain or severity of illness, based on Arosin score (P > 0.05), between patients who received steroids and those that did not. Older patients, age >65, were less likely to receive adjunctive steroids (P = 0.028). The most common organism isolated was Streptococcus pneumoniae, which occurred in 46 (38%) patients. An adverse clinical outcome was seen in 46 (38%) patients with no difference between groups (P = 0.819). Delayed cerebrospinal fluid was seen in a total of 9 (7.5%) patients with bacterial meningitis. Of these, 1 patient (2.6%) did not receive steroids and the remaining 8 (10.9%) patients received steroids (P = 0.158). Five cases of meningitis that were complicated by DCT were caused by Streptococcus pneumoniae, 1 by Listeria monocytogenes, and 2 with Staphylococcus aureus.

Conclusion. Adjunctive steroids are being used in the majority of adults with bacterial meningitis but it is not consistently associated with DCT, a devastating complication.

Disclosures. All authors: No reported disclosures.

127. Retrospective Evaluation of Infants 1-60 Days Evaluated for Meningitis Using the FilmArray Meningitis/Encephalitis (ME) Panel

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Session: 40. Adult Central Nervous System Infection Thursday, October 5, 2017: 10:30 AM

Background. Bacterial meningitis is a serious infection in infants requiring emergent recognition. Viral encephalitis (excluding HSV) are usually self-limited and empirically supportive. Young infants often undergo lumbar puncture to evaluate for infection, but identification of CNS pathogens can take 24–48 hours while they are hospitalized and empirically treated. Our objective was to study the potential effect of a rapid multiplex PCR for meningitis/encephalitis (ME) on the care of young infants.

Methods. A prospective clinical evaluation of the FilmArray ME Panel was conducted from 2/2014 to 9/2014 at 11 sites using residual CSF. FilmArray ME Panel results were compared with clinical reference standards but not shared with providers. In this current study, medical records for infants (1–60 days) enrolled at three sites were reviewed for potential management changes with rapid FilmArray ME Panel results.

Results. A total of 145 infants were reviewed. Median age was 25 days. Most were enrolled to the hospital (123/145 (89%)), received antibiotics (123/145 (85%)) and almost half (71/145 (49%)) received acyclovir. Only one infant had a bacterial pathogen identified by PCR, and no infant had CSF positive for HSV. Of the 145 infants (25%) 36 had a viral pathogen detected; 35 (97%) by FilmArray ME Panel and 1 (2%) by conventional tests (2 by blood cultures only). Four (11%) had a confirmed bacterial infection (UTI 3; bacterial meningitis 1; diagnosed on a prior LP). Twenty infants (56%) had enterovirus detected and 10 (28%) were positive for human parechovirus. Four infants were positive for HHV-6. 33 infants (92%) with a comitant bacterial infection [UTI (3); bacterial meningitis (1; diagnosed on a prior LP)] had a median length of hospital stay of 44 hours [IQR: 32–48] while median length of stay was 72 hours [IQR: 41–109] for those that were virus-positive only retrospectively by FilmArray ME Panel.

Conclusion. The FilmArray ME Panel may play a role in the evaluation of young infants undergoing lumbar puncture to evaluate for infection. Results of rapid PCR may be used to guide management, possibly resulting in decreased LOS for infants with viruses other than HSV detected in CSF.

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128. A single-center, quasi-experimental study to evaluate the impact of a Multiplex Polymerase Chain Reaction System Combined with Antimicrobial Stewardship Intervention on Time to Targeted Therapy in Patients with Suspected Central Nervous System Infection

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Session: 40. Adult Central Nervous System Infection Thursday, October 5, 2017: 10:30 AM

Background. Empirc treatment for central nervous system (CNS) infections consists of coverage with multiple antimicrobial agents that may be continued until a pathogen can be identified. Identification may take significant time to result, leading to extended durations of multiple antimicrobial agents, delays in targeted therapy and subsequent adverse effects, such as nephrotoxicity and Clostridium difficile infection. A multiplex polymerase chain reaction (PCR) system that can identify 14 pathogens responsible for community-acquired CNS infections in 1 hour was recently FDA-approved for cerebrospinal fluid (CSF) analysis. The objective of this study was to determine the effect of this PCR paired with antimicrobial stewardship (AMS) team intervention on the time to targeted therapy.

Methods. During the intervention (Int) phase (January 25, 2017–April 30, 2017), all PCR results were called to the AMS team, who reviewed clinical data and provided antimicrobial recommendations per pre-determined protocol. Recommendations consisted of de-escalation or addition of therapy. The pre-intervention (PI) group consisted of patients with CSF culture obtained between January 25, 2016 and April 30, 2016.

Results. A total of 138 patients were evaluated; 46 in the Int group and 92 in the PI. Of the 46 patients in the Int group, 25 had a negative PCR result and were never initiated on antimicrobials. One patient required antimicrobial escalation. Twenty patients were started on empiric therapy and were candidates for de-escalation. In the PI group, there were no patients with CSF cultures that required therapy escalation, while 33 patients were initiated on empiric antimicrobials. Results from the subgroup of patients in whom empiric therapy was started as shown in Table 1.

Conclusion. Implementation of a multiplex PCR with AMS intervention resulted in decreased time to targeted therapy.

This project was funded through a competitive stewardship grant provided by Merck & Co.

Table 1.

| Stewardship type | Time to targeted therapy, hours, mean ± SD | Average antimicrobial days of therapy per patient-days admitted | Time to organism identification, hours, mean ± SD |
|------------------|-------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|
| Preintervention  | 30.8 ± 38.2                               | 1.64 ± 1.6                                                  | 119.6 ± 25.0                                  |
| Intervention     | 15.4 ± 13.9                               | 0.52 ± 0.0                                                  | 3.9 ± 1.3                                     |
| p-value          | 0.06                                      | <0.05                                                      | <0.05                                         |

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130. Does Detection of Respiratory Viral Infection in Upper Respiratory Tract (URT) Predict Lower Respiratory Tract (LRT) Disease in Hematopoietic Cell Transplant (HCT) Recipients?

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**Session:** 41. Infections in Transplantation

**Thursday, October 5, 2017: 10:30 AM**

**Background.** HCT recipients are frequently infected with respiratory viruses (RVs) in the URT; however, diagnostic evaluation of the LRT by bronchoalveolar lavage (BAL) is less common. We sought to determine whether the detection of RVs in the URT is predictive of LRT detection and to identify factors that predict discordance between upper and lower RV detection.

**Methods.** HCT recipients with respiratory symptoms and LRT RV testing via multiplex PCR in BAL from July 2009 to October 2016 were included in the study. RV PCR results, including cycle threshold (CT) values, were compared with URT samples obtained within ±3 days. Logistic regression models were used to analyze risk factors for RV discordance between paired samples.

**Results.** Among 1,000 HCT recipients with BAL RV testing, 250 had URT testing within 3 days. In total, 75%(100) sample pairs were concordant for the same RV in both the URT and BAL (P/P); 132 (53%) were negative from both sites. Among 43 discordant pairs, 25 (10%) were only positive by URT but negative by BAL (P/N) and 18 (7%) were positive by BAL but negative by URT (N/P). In pairs with positive RV results in the URT or BAL, discordance was common for HMPV (44%), HRV (33%), and PIV-3 (28%); RSV was almost always concordant (92%) (Figure 1). In a multi-variable model, the risk of discordance (P/N or N/P) was increased in the presence of a solitary node on radiography (OR 6.8; 95% CI 1.2–38.3) and with lymphocyte counts <500 cells/µL (OR 3.1; 95% CI 1.0–9.0). Among P/P pairs, the median difference between CT values between URT and BAL samples was 0 (range –12 to +13), with 33 and 29% of subjects having lower and higher CT values (>4, ~1 log) in the BAL, respectively (Figure 2).

**Conclusion.** In symptomatic HCT recipients with RV PCR testing performed concurrently in the upper and lower tract, discordant results are relatively common, especially for HRV, HMPV, and PIV-3. The presence of a solitary node on imaging and the absence of lymphopenia are associated with discordant results, with BAL results more likely being negative in these situations. More than half of the P/P pairs had a >4 difference in CT values between URT and LRT samples. Taken together, these data suggest that RV testing in BAL can provide useful diagnostic information that may guide management in HCT recipients.

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

131. A Multicenter Study on Clinical Outcomes of Infections within 200 Days of Liver Transplantation among Recipients Age 65 Years and Older

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**Session:** 41. Infections in Transplantation

**Thursday, October 5, 2017: 10:30 AM**

**Background.** Liver transplantation is increasingly performed in patients aged ≥65 years. Per the United Network for Organ Sharing data, infections are the leading primary and contributory cause of death in older liver transplant (LT) recipients. This study aims to describe the epidemiology and outcomes of infections within the first 200 days of LT in older adults.

**Methods.** We performed a retrospective, observational multicenter study of patients aged ≥65 years who underwent primary LT from January 1, 2010 to June 30,