Multivariate regression analyses were used to adjust for demographic variables and Charlson Comorbidity Index.

**Results.** A total of 26,415 patients underwent LT in the study period, of which 180 had MSSA and 160 had MRSA infection reported. The mean age was 51.5 years and 35.6% were female. Patients with MSSA and MRSA displayed significantly higher inpatient mortality rates (11.1% and 9.4%, respectively) compared with non-MSSA/MRSA patients (3.4%) who underwent LT (P < 0.01). After adjusting for confounders, patients with MSSA infection displayed higher mortality odds (aOR: 4.45; P < 0.01), while patients with MRSA infection had non-statistically significant higher inpatient mortality odds (aOR: 3.10; P = 0.12) compared with patients without MSSA/MRSA infection. Both MSSA and MRSA cohorts displayed higher mortality odds if the infection resulted in sepsis (aOR: 9.92 and 5.70, respectively; P < 0.01).

**Conclusion.** There is a direct correlation between *S. aureus* bacteremia and increased mortality rates and incidence of sepsis and shock in LT recipients. Patients with *S. aureus* bacteremia spent more days in hospital and had higher cost of health care. Preventing and aggressively treating *S. aureus* infections in the immediate post-LT setting is key to reducing mortality, morbidity and resource utilization in patients undergoing LT.

### Table 1 - Unadjusted and adjusted mortality rates of recipients who did not have associated MSSA or MRSA infection

| Infection Type | Unadjusted Mortality Rate | Adjusted Mortality Rate |
|----------------|---------------------------|------------------------|
| MSSA           | 6.7%                      | 10.9%                  |
| MRSA           | 5.4%                      | 6.7%                   |

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

228. Early Recurrent Postoperative Bloodstream infections in Living-Donor Liver Transplant Recipients

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**Session:** 38. Transplant ID: Bloodsteam Infections

**Thursday, October 3, 2019: 12:15 PM**

**Background.** Bloodstream infections (BSIs) represent a poor prognosis in living-donor liver transplant recipients (LDLT-Rs). Some patients develop recurrent BSIs. We evaluated the impacts of ER-BSIs on outcomes in LDLT-Rs.

**Methods.** All LDLT-Rs with follow-up data between January 2008 and December 2016 were included. Early BSIs (E-BSIs) defined as BSI events within 2 months after LDLT. ER-BSI was defined as new-onset BSI within 2 months due to another pathogen ≥1-week interval with negative cultures in between. Logistic regression model was used to analyze risk factors for ER-BSI. We evaluated the impacts of ER-BSIs on outcomes in LDLT-Rs.

**Results.** Among 727 LDLT-Rs, 108 patients had 149 events with 170 isolated pathogens of E-BSI. ER-BSI was defined as new-onset BSI within 2 months due to another pathogen ≥1-week interval with negative cultures in between. Logistic regression model was used to analyze risk factors for 1-year mortality. An associated factor of E-BSI and ER-BSI were also evaluated.

**Conclusion.** Among 727 LDLT-Rs, 108 patients had 149 events with 170 isolated pathogens of E-BSI. Twenty-eight patients (25.9%, 28/108) experienced ER-BSI. *Enterococcus* (37.6%) was the most common pathogen. Intra-abdominal infection was the most common focus in the first episode of E-BSI and even significantly more common (59.3% vs. 82.9%, P = 0.007). Intra-abdominal and/or biliary complications were risk factors for both E-BSI and ER-BSI. Whereas high MELD score, longer cold ischemic time and longer recipient operative time were associated with E-BSI, longer post-transplant intensive care unit stay and longer donor operative time was associated with ER-BSI. 1-year survival rates of patients with or without single event of E-BSI were 81.3% and 92.4%, respectively. Patients having ER-BSI showed significantly low 1-year survival rates of 28.6% (Figure 1). ER-BSI was the most relevant risk factor for 1-year mortality (adjusted OR = 8.26; 95% CI: 4.30–15.88).

**Conclusion.** LDLT-Rs with ER-BSI showed very low survival rates accompanying with intra-abdominal and/or biliary complications. Clinicians should aware to prevent recurrence of BSI focusing on intra-abdominal complications in order to improve clinical outcomes of LDLT-R.

229. Molecular Typing by RAPD, Characterization and Antibiotic Resistance Profile of ESBL Producing and Non-ESBL Producing Klebsiella Species Isolated From Diarrheal Stool and Environmental Samples

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**Session:** 39. Diagnostics: Sequencing and Typing

**Thursday, October 3, 2019: 12:15 PM**

**Background.** Extended-spectrum β-lactamase is a major public health problem in hospitals and community that mediate resistance to Penicillin, Cephalosporins, and Monobactams. Data regarding the detection of TEM, CTX-M, and SHV genes by molecular techniques and typing by RAPD in ESBL producing bacteria can be useful in epidemiology and risk factors associated with infections.

**Methods.** Total of 140 samples were collected. Well water (n = 50), Fish effluents (n = 40), and Diarrheal stool samples (n = 50). Antibiotic susceptibility test was done using the Kirby-Bauer disc diffusion method. Phenotypic detection of ESBL enzyme was done by Double disk diffusion test. PCR analysis was carried out for β-lactamase gene. TEM, SHV, and CTX-M. Molecular Typing was done by RAPD.

**Results.** 38 (57.5%) *Klebsiella* spp. isolated from Fish Effluents, 11 (57.8%) from Well water and 15 (18.98%) from Diarrheal stool samples. ESBL producers were 4 (26.66%) from stool and 12 (31.57%) from fish effluents. Stool isolates showed high resistance to Ampicillin (86.7%), Cefuroxime (83.3%), Cefepime (76.7%), and Ceftazidime (70%). Fish effluents were more resistant to Ceftazidime (95.9%), Ampicillin (81.6%) while well water isolates showed high resistance to Ampicillin (94.7%) and Erythromycin (73.7%). Molecular identification showed the presence of more than 2 genes among the isolates. Prevalence of gene bla-TEM was highest, followed by bla-CTX-M and bla-SHV. Genetic relatedness are expressed as percentage similarity and presented as dendogram.

**Conclusion.** The study shows high prevalence of ESBL among Klebsiella isolates mainly rom Fish effluents and diarrheal stool samples. It shows 24% ESBL positive rate. Antibiotic-resistant bacteria from fish effluents highlights the associated human health risk when they enter food chain and become passive carriers. Practice of routine ESBL testing with conventional antibiotic susceptibility testing would be useful for combating multi drug resistance. Present study shows high prevalence of TEM gene among Klebsiella species. RAPD-PCR will help in discriminating isolates and reflecting the genotypes circulating in the settings either hospital or in community.

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230. Molecular Typing of Streptococcus pyogenes Isolates Collected at Mongolian Hospital (Ulaanbaatar, Mongolia)

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**Session:** 39. Diagnostics: Sequencing and Typing

**Thursday, October 3, 2019: 12:15 PM**

**Background.** Streptococcus pyogenes is a significant cause of morbidity and mortality worldwide causing an estimated 1.8 million cases and 517,000 deaths each year. Molecular typing is a fast and effective method to classify bacteria into different genotypes. In this study, 20 S. pyogenes isolates were collected from Mongolian Hospital (Ulaanbaatar, Mongolia) from Well water and 15 (18.98%) from Diarrheal stool samples. ESBL producers were 4 (26.66%) from stool and 12 (31.57%) from fish effluents. Stool isolates showed high resistance to Ampicillin (86.7%), Cefuroxime (83.3%), Cefepime (76.7%), and Ceftazidime (70%). Fish effluents were more resistant to Ceftazidime (95.9%), Ampicillin (81.6%) while well water isolates showed high resistance to Ampicillin (94.7%) and Erythromycin (73.7%). Molecular identification showed the presence of more than 2 genes among the isolates. Prevalence of gene bla-TEM was highest, followed by bla-CTX-M and bla-SHV. Genetic relatedness are expressed as percentage similarity and presented as dendogram.