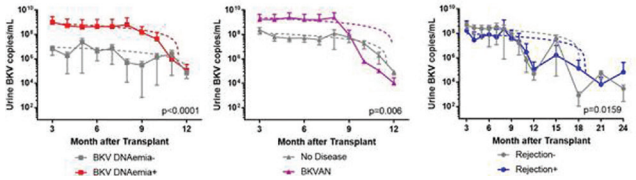
Methods. Medical records of 82 children who underwent first, isolated KTx between January 1, 2008 and December 31, 2014 at our institution were retrospectively reviewed. Children who underwent second KTx or nonrenal Tx, lost to follow-up, and had insufficient data were excluded. Clinical and microbiological data before December 12, 2017 were obtained. Plasma and urine BKV loads have been monitored per clinical protocol, typically every 4–8 weeks within first year after KTx, and quarterly after. Longitudinal data of first 36 months after KTx was collected and further analyzed by linear model with P value < 0.05 being significant.

Results. There were four children developed BKVAN (5%), 25 developed BKV DNAemia (30%) and 42 developed rejection (51%). Urine BKV loads were significantly higher in children who developed BKVAN and BKV DNAemia as compared with KTx recipients without BKVAN or BKV DNAemia (P < 0.0001 and 0.006, respectively). Conversely, urine BKV loads were lower in children with rejection compared with the ones without rejection (P = 0.016).

Conclusion. High level of urine BKV loads in asymptomatic KTx children was associated with subsequent disease development in our cohort. The lower urine BKV loads in rejection group may reflect the lower level of immunosuppression, although other clinical factors need to be evaluated as covariates. Urine BKV load monitoring may provide predictive value of disease progression of BKV along with risk assessment for rejection in pediatric KTx recipients.

Differences of urine BKV load kinetics with clinical outcome



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

1545. Gram-Negative Bacteremia in Neutropenic Patients: Risk Factors for Mortality in the Era of Multiresistance

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Background. Gram-negative bacteremia (GNB) in neutropenic patients is a major cause of infection-related mortality. Our objective was to identify factors associated with 7-day and 30-day mortality during GNB episodes in neutropenic patients.

Methods. Prospective multicenter study. Episodes of GNB in adult neutropenic cancer and hematopoietic stem cell transplant (HSCT) patients were included in 10 centers of Argentina, from May 2014 to January 2018. To identify factors associated with 7-day and 30-day mortality, variables with P < 0.05 in univariate analysis were included in a logistic regression model for multivariate analysis.

Results. Four hundred and seventy-six episodes of GNB were included. From these, 68.06% had hematological malignancies, 22.90% HSCT and 9.03% solid tumors. Seven-day and 30-day mortality were 19.53 and 26.47%, respectively. In multivariate analysis, factors independently associated with 7-day mortality were: Meropenem-resistant GNB (OR 8.60, 95% CI 3.06–24.14, $P \leq 0.0001$), respiratory source (OR 3.67, 95% CI 1.21–11.10, P = 0.021), skin and soft tissue source (OR 3.89, 95% CI 1.01–14.94, P = 0.048), Charlson score > 4 (OR 2.76, 95% CI 1.06–7.19, P = 0.037) and shock (OR 7.13, 95% CI 2.50–20.33, $P \leq 0.0001$). Independent factors for 30-day mortality were: Meropenem-resistant GNB (OR 7.06, 95% CI 2.83–17.64, $P \leq 0.0001$), respiratory source (OR 4.41, 95% CI 1.53–12.73, P = 0.006), skin and soft tissue source (OR 3.66, 95% CI 1.00–13.42, P = 0.049), Charlson score > 4 (OR 3.81, 95% CI 1.62–8.91, P = 0.002), intensive care unit requirement (OR 2.46, 95% CI 1.00–6.04, P = 0.049), shock (OR 10.90, 95% CI 4.12–29.85, $P \leq 0.0001$) and refractory cancer (OR 4.30, 95% CI 1.57–11.78, P = 0.005).

Conclusion. The identification of certain prognostic factors would allow the stratification of neutropenic patients at high risk for mortality during GNB episodes. The appropriate medical intervention of a multidisciplinary team on these factors could improve the outcome of these patients. Since Meropenem-resistant GNB is one of strongest prognostic factors, it is essential to identify the patients at risk and treat them appropriately.

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1546. Incidence of Carbapenemase-Producing *Klebsiella pneumoniae* Colonization in Hematopoietic Stem Cell Transplant Recipients in King Chulalongkorn Memorial Hospital (KCMH), Thailand

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Background. Carbapenemase-producing *Klebsiella pneumoniae* (CPKP) is an emerging pathogen which had the serious clinical infections, high mortality and difficult to control. Hematopoietic stem cell transplantation (HSCT) patients are particularly susceptible to multidrug-resistant bacteria especially carbapenemase-producing *Enterobacteriacae.* CPKP infections are an emerging cause of death after HSCT and the mortality rate was reported up to 60%. The major risk factors of CPKP infections were colonization these organism before transplantation. However, in Thailand, the incidence rate of CPKP colonization and clinical outcome in HSCT was limited.

Objectives. To determine the incidence rate of CPKP colonizationand risk factors of 30-day-hospital mortality in HSCT patients at King Chulalongkorn Memorial Hospital.

Methods. A prospective study was conducted in total of 96 consecutive HSCT patients at King Chulalongkorn Memorial Hospital, Bangkok, Thailand, from July 2016 to March 31, 2018.

Results. Incidence rate of CPKP colonizationin HSCT patients was 22.2% (18/96 patients) and incidence rate of CPKP infections was 5.2% (5/96 patients). Both $bla_{\text{OXA-48}}$ and bla_{NDM} were the most common carbapenemase gene (50%). Patients with CPKP infection were more likely in ICU setting than colonization group. CPKP colonization was more significantly found in urinary specimens (P = 0.029) whereas CPKP infections were common found in respiratory tract, but not significantly (P = 0.583). In CPKP infection group, the 30-day mortality rate was significantly higher than colonization group; 80% (4/5) vs. 23% (3/13), P = 0.047). Using univariable analysis, ICU setting was associated with CPKP infection (RR = 6.27 95% CI, 0.87–45.34) and had a worse outcome.The risk factor associated with 30-day mortality was CPKP infection (RR = 3.47 95% CI 1.17–10.26).

Conclusion. In our study, the incidence of CPKP colonization in HSCT patients was 22.2%. The incidence of CPKP infections found only 5.2% in HSCT patients, but there was significantly associated with increased 30-day-hospital mortality.

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1547. BK Virus Reactivation in Solitary Heart Transplant Recipients: Prevalence and Relationship to Kidney Dysfunction

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Background. Polyomavirus-associated nephropathy has been reported in non-renal solid-organ transplant in recent years, including seven cases in heart transplant (HT) recipients. Of these, two are from our institution. We sought to better understand the prevalence of BK virus (BKV) in our HT population on contemporary immunosuppression, identify potential predictors of BKV reactivation, and explore its relationship to glomerular filtration rate (GFR) following HT.

Methods. We performed a cross-sectional analysis of 101 adult HT recipients who presented to care between 3 months and 5 years post-transplant. Dual heart-kidney transplant and dialysis-dependent patients were excluded. Consented patients submitted simultaneous urine sample for BKV PCR and serum sample for BKV PCR, creatinine, glucose and lymphocyte count. Variables collected from the electronic medical record included demographics, time since transplant, immunosuppression, comorbidities, rejection, and cytomegalovirus (CMV) infection.

Results. Of 96 patients included in the study, 29 (30%) had viruria. Eleven of 96 (12%) were viremic (including two who were viremic without viruria). The majority of viremic patients (64%) were between 3 and 12 months post-transplant. Three viremic patients had greater than 10,000 copies of virus detectable in serum. Compared with negative patients, viremic patients tended to be male (73%), White (100%), older than age 55 (73%), to have ischemic heart disease (45.5%), to be on prednisone (73%), and to have a slightly higher mean serum glucose (154 mg/dL), although none of these differences were statistically significant. Nearly, all participants were on tacrolimus and 88% of the total cohort was on mycophenolate. There were no significant differences in number of rejection episodes, treatment with anti-thymocyte globulin, CMV infection, lymphopenia, GFR, or decline in GFR since transplant.

Conclusion. We observed higher rates of BKV replication in both urine and serum than previously reported. There was no difference in GFR at the time of random screening and no clear predictors of viremia. Longitudinal studies are needed to assess the effect of BK viremia in HT recipients.

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