trough level. There was a significant reduction in the number of babies with high trough amikacin levels after the dose was changed from 12 mg/kg/day to 12 mg/kg every 36 hours. We recommend this dose for use in infants less than 32 weeks gestation with continued monitoring of amikacin levels.

REFERENCES
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PS-219 PREDICTORS OF CLINICAL AND MICROBIOLOGICAL TREATMENT FAILURE IN NEONATAL BACTEREMIA

Aims To identify independent predictors of clinical and microbiological treatment failure and develop a predictive model in neonates with bloodstream infections (BSIs).

Methods A total of 1078 episodes of BSI occurred in 793 neonates in a tertiary-level neonatal intensive care unit (NICU) between 2004 and 2012 were enrolled. Patient demographics, underlying chronic comorbidities, clinical features, antimicrobial susceptibilities of microorganisms causing NI in our Neonatal Intensive Care Unit (NICU).

Results Presences of underlying congenital anomalies (odds ratio [OR] 2.22, 95% confidence interval [CI] 1.15–4.29) and pulmonary hypertension (OR 3.57, 95% CI 1.65–7.70), infections caused by multidrug-resistant gram-negative bacteria (OR 2.84, 95% CI 1.21–6.66), Group B streptococcus (OR 3.08, 95% CI 1.31–7.26), and fungus (OR 4.06, 95% CI 1.97–8.38), a NTISS score of ≥23 (OR 6.61, 95% CI 2.40–26.47), inappropriate antibiotics (OR 2.01, 95% CI 1.31–3.08), and concomitant meningitis (OR 4.35, 95% CI 2.13–8.89) and ventilator-associated pneumonia (OR 2.82, 95% CI 1.26–6.32) were identified as independent risk factors for 28-day treatment failure in neonatal bacteremia. A risk-score model was created by adding points for each independent risk factor, and had a c-statistic of 0.83. Patients with risk scores of 0, 4, 8, 12 and 15 had estimated 28-day treatment failure rates of approximately 3%, 17%, 52%, 85% and 95%, respectively.

Conclusions This predictive model, calculated after documentation of a BSI, reflects spectrum of BSI severity and is associated with subsequent treatment failure through illness severity score and case-mix variables. This simple score could prove useful in clinical and research settings, and practical in estimating the prognosis.

PS-220 LOWER MATERNAL/NEONATAL VITAMIN D LEVELS ARE ASSOCIATED WITH INCREASED RISK OF EARLY ONSET NEONATAL SEPSIS IN TERM INFANTS

Aim We aimed to evaluate nosocomial infection (NI) rate and antimicrobial susceptibilities of microorganisms causing NI in our Neonatal Intensive Care Unit (NICU).

Material and method NI afflicting infants admitted to NICU of Bahcesehir University Goztepe Medicalpark Hospital between January 2012 and December 2012 were assessed using Centre For Disease Control And Prevention (CDC) criteria. Only culture-positive infants were enrolled.

Results Of 328 infants, 49.1% were preterm. Thirty-five nosocomial infections occurred in 19 (6.4%) patients. Incidence density was 6.8/1000 patient-days. Attrac rate per patient was 1.84. Two infants (10.5%) succumbed to death, one with a liver abscess due to Staphylococcus epidermidis, other with Candida albicans sepsis. Ventilator-associated-pneumonia (VAP) rate (n = 4) 2.3/1000, sepsis rate (n = 19) 5.7/1000, UTI rate (n = 10) 1.5/1000, wound infection rate (n = 1) 0.1/1000, catheter infection rate (n = 2) 4/1000 and meningitis rate were (n = 1) 0.1/1000. Of 35 nosocomial agents 22 (62.8%) were gram negative (10 Klebsiella spp, 4 Enterobacter, 3 Acinetobacter, 3 E. coli, 2 Pseudomonas), 10 (28.5%) were gram positive and 3 (8.6%) were Candida spp. All gram negatives were resistant to cephalosporins. Thirty-one percent of gram negative bacteria were resistant to carbapenems. Carbapenem-resistant gram negative agents were named Acinetobacter baumannii complex, Pseudomonas aeruginosa and Enterobacter cloaceae complex. All bacteria were susceptible to colistine.

Conclusions ESBL positive and carbapenem-resistant gram negative bacteria are threats for NICU. It is of vital importance to implement reasonable antibiotic therapy strategies and to propagate standart infection control measures.