Introduction: This study aimed to determine the epidemiology of the Health care associated infections (HCAIs) in a pediatric intensive care unit (PICU) in a developing country and to define the risk factors associated with HCAIs.

Methods: PICU HCAI Study Group (n = 50 hospitals) participated in a point-prevalence survey on September 27, 2012. Data collected for all PICU in patients included demographics, infections, therapeutic interventions, and outcomes.

Results: There were 327 patients in 50 PICUs. The median age was 48 ± 57 months (range 1-216 months). One hundred twenty two patients had 1 or more HCAIs corresponding to a prevalence of %37. The most frequently reported sites were lower respiratory tract (n=77, 23.5% ), blood-stream (n=38, 11.6%) and urinary tract (n=10, 3%). The most frequent pathogens were Pseudomonas aeruginosa (in 30 infections, 42%), Acinetobacter spp. (in 18 infections, 25%) and Candida spp. (in 9 infections, 12%). Hospital type (research and education or university hospital were found to be independent risk factor for HCAIs. Most frequently administered antimicrobials were third generation cephalosporins (19%), carbapenems (14%) and glycopeptides (9%). According to a 4-weeks follow up, 43 (13%) patients died, 28 (8%) of whom died from healthcare-associated infections. Mechanic ventilation and development of HCAIs were found to be independent risk factors for death.

Conclusion: This national multicenter study documented the high prevalence of healthcare associated infections. Preventing these infections should be a national priority.