

# Plasma Antioxidant Potential at Admission is Associated with Length of ICU Stay in Child with Sepsis: A Pilot Study

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© 2018, © 2018 Taylor & Francis Group, LLC. Objective: To assess the relationship between biomarkers of oxidative stress (OS) and the length of stay in intensive care units (LSICU) in septic children. Methods: Clinical parameters and biomarkers of OS were measured in 16 children admitted for sepsis in an intensive care unit. The associations between biomarkers of OS and the LSICU were assessed by linear correlation. Multiple linear regression models were constructed to adjust other variables. Results: The mean of LSICU was  $7.13 \pm 4.17$  days. LSICU was associated with the catalase activity ( $\rho = 0.56$ ,  $p\text{-value} = 0.024$ ) and the ferric reducing ability of plasma (FRAP,  $r = 0.73$ ,  $p\text{-value} = 0.001$ ). However, only FRAP at ICU admission was independently associated with LSICU, which rose 0.21 days for each 10  $\mu\text{mol/l}$  of increase in the FRAP level. Conclusion: We conclude for first time that FRAP level at ICU admission is independently associated with LSICU in pediatric patients.