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**Title:** Prognostic value of urokinase plasminogen activator receptor (uPAR) and neutrophil CD64 expression in acute respiratory distress syndrome patients

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**Body:** The outcome of acute respiratory distress syndrome (ARDS) may vary from complete recovery to multiorgan failure and death. The current study evaluates the prognostic performance of plasma uPAR and Neutrophil expression of CD64 in patients with ARDS of different etiologies and tests the possible correlation with other prognostic markers, namely APACHE-II score and serum CRP. The current study included 2 groups: 68 patients with ARDS and 25 age- and sex-matched, randomly selected, healthy control subjects. Blood samples were taken for routine laboratory tests on admission to ICU. Plasma uPAR was measured using a commercially available ELISA kit, and neutrophil CD64 expression was measured using flow cytometry. Plasma uPar was significantly higher in bacteremic ARDS patients than those without bacteremia. There was also a significant increase in plasma uPAR in ARDS survivors than in those who died. CD64 expression showed a similar pattern of increase in bacteremic ARDS. Using ROC curves plasma uPAR outperformed CD64 expression and CRP as a prognostic indicator in the studied ARDS patients. A cut-off value for plasma uPAR which almost always predicted mortality was 15.1ng/ml with PPV of 100% and NPV 97%. Plasma uPAR is significantly elevated in ARDS patients and has a superior prognostic value to both neutrophil CD64 expression and serum CRP in ARDS patients. A plasma uPAR cutoff value of 15.1ng/ml has a PPV of 100% and NPV of 97% in predicting mortality in the ARDS patient included in the current study.