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**Title:** Biomarkers in community-acquired pneumonia (CAP)

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**Body:** Introduction: Many investigators have tried to identify a simple blood test or predicting rules that can help physicians to make more rational decisions to identify patients who are at risk for adverse outcomes or death. Aim: The aim of this study was to investigate the prognostic value of plasma D-dimer, CRP and some other biomarkers levels in patients with CAP. Materials and Methods: In this study were enrolled 72 patients admitted on Sept - Dec 2011 with clinical and radiological evidence of CAP. Within 24 hours after admission and on the 4-th day blood samples were taken for analysis. CURB-65 and PSI severity scores were calculated at admission. Statistical analysis is made with SPSS 19.0. Results: Mean age  $62.7 \pm 16.6$  years (range 25-92). Mean D-dimer on the first day resulted 2621 ng/ml (range 296-9000), on the 4-th day 2585 ng/ml (range 120-9000). Mean CRP on the first day resulted 198 mg/l (range 0.76 - 743), on the 4-th day 72 mg/l (range 0.10 - 316). On admission mean value of fibrinogen was 811 mg/dl (range 279-1780); APTT- 37.39 sec (range 17- 100); leukocyte -15363 (range 1900- 47200); ESR-28 mm/hr (range 2-68); fever -  $37.8^{\circ}\text{C}$  (range 36.4- 41). Mean hospitalization 9.65 days (range 0- 35). Mean values of D-dimer and CRP resulted in correlation with complications events. Even though mean values of D-dimer and CRP are higher, no significant correlations resulted between them and CURB-65 and PSI score. Significantly mean values of D-dimer and CRP are higher on groups of patients with complicated CAP ( $p < 0.004$ ). Conclusion: D-dimer and CRP level cannot replace CURB-65 or PSI scoring for assessment in CAP patients, but are useful to predict clinical outcome, especially complications in patients with CAP.