

## **Abstract**

CD14 is present in macrophage, monocyte, and granulocyte cells and their cell membranes, and it is said to be responsible for intracellular transduction of endotoxin signals. Its soluble fraction is present in blood and is thought to be produced in association with infections. It is called presepsin (soluble CD14-subtype). presepsin appears quite promising due to its reported correlation with the septic process. Recently, highly sensitive, and fully automated PATHFAST Presepsin assay system have been developed based on the chemiluminescent enzyme immunoassay (CLEIA) principle. The presepsin values were in normal, 116.5 (108.25-126.75) pg/ml; systemic inflammatory response syndrome, 200 (122 - 210) pg/ml and sepsis, 1228.5 (694-1819.5) pg/ml. The presepsin values were significantly higher in patients with sepsis, than in patients with SIRS. In a comparative study with other diagnostic markers of sepsis based on ROC curves, the area under the curve (AUC) of presepsin was 1 , and greater than the AUC of C reactive protein (CRP, 0.763), or lactate (lactate, 0.829 ). In addition, there were significant positive correlations between the SOFA and APACHE II scores and the three presepsin levels; on admission and on days 2 and 4. In this study the presepsin levels on admission and on days 2 and 4 are predictors for survival. They were significantly higher in non-survivors than in survivors.

**Keywords :** Sepsis \_ SIRS \_ Soluble CD14-subtype \_ Presepsin