

## **In hospitalized pediatric patients with CRBSI, presepsin may be a helpful rapid marker in early diagnosis” Tanır Basaranoglu et al (2017).**

### Abstract:

**BACKGROUND:** Catheter related blood stream infections (CRBSI) are mostly preventable hospital-acquired conditions. We aimed to investigate the value of presepsin in detection of CRBSI in hospitalized children.

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**METHODS:** Hospitalized pediatric patients who had clinical suspicion of CRBSI were followed. Results of peripheral blood cultures and blood cultures from central venous catheters, procalcitonin (PCT), C-reactive protein (CRP), total white blood cell (WBC) counts were recorded. Serum samples for presepsin were studied at the same time with the samples of healthy controls. The patients with positive blood cultures were defined as proven CRBSI and with negative cultures as suspected CRBSI.

**RESULTS:** Fifty-eight patients and 80 healthy controls were included in the study. Proven CRBSI group consisted of 36 patients (62%) with positive blood cultures and compared with the suspected CRBSI group (n = 22, 36%) with negative culture results. There was no difference between proven and suspected CRBSI groups concerning WBC, PCT, CRP and presepsin. Presepsin was significantly higher in patient groups when compared with healthy controls. The receiver operating characteristic curve area under the curve was 0.98 (%95 CI: 0.97-1) and best cut-off value was 990 pg/ml.

**CONCLUSION:** In hospitalized pediatric patients with CRBSI, presepsin may be a helpful rapid marker in early diagnosis.

### Reference:

Tanır Basaranoglu, S., Karadag-Oncel, E., Aykac, K., Ozsurekci, Y., Aycan, A.E., Cengiz, A.B., Kara, A. and Ceyhan, M. (2017) Presepsin: A new marker of catheter related blood stream infections in pediatric patients. *Journal of Infection and Chemotherapy*. September 14th. .

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Presepsin may be a helpful rapid marker in early diagnosis of CRBSI  
in children | 2

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