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**Diagnostic accuracy of procalcitonin and presepsin for infectious disease in patients with acute kidney injury**

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Procalcitonin (PCT) and presepsin (PSEP) are sepsis markers, but their diagnostic accuracy may be compromised in acute kidney injury (AKI). We evaluated their diagnostic accuracy in patients with/without AKI. This retrospective study comprised 91 patients with at least one criterion of systematic inflammatory response syndrome. AKI markers plasma neutrophil gelatinase-associated lipocalin (NGAL), plasma cystatin C (CysC), and estimated glomerular filtration rate (eGFR) were measured upon hospital admission and on days 1, 3, 5, and 7. Patients were divided into non-AKI and AKI groups. APACHE II severity scores were determined. PCT and PSEP levels were increased significantly in non-AKI and AKI patients with infection. NGAL, CysC, and eGFR in patients with infection were associated with PCT, PSEP, and APACHE II score, and levels of PCT and PSEP were correlated significantly with disease severity. PCT and PSEP are useful markers of bacterial infections in AKI but different thresholds should be applied.

**Пограничные уровни прокальцитонина (PCT) и пресепсина (PSEP) для диагностики сепсиса:**

- у пациентов острым повреждением почек (AKI - Acute Kidney Injury) и
- у пациентов без ОПП (non-AKI)

Наличие ОПП определялось согласно значениям маркеров NGAL и CysC (Цистатин С) и значениям СКФ (сыв. креатинин).

AUC Погран. уровень Чувствительность Специфичность

**Table 2** Cut-off values of PCT and PSEP for diagnosing sepsis in non-AKI and AKI patients

			AUC	Cut-off	Sensitivity	Specificity
NGAL	Non-AKI	PCT	0.67	0.85 ng/ml	0.68	0.58
		PSEP	0.75	694 pg/m	0.69	0.81
	AKI	PCT	0.72	2.01 ng/m	0.57	0.81
		PSEP	0.83*	828 pg/m	0.81	0.71
CysC	Non-AKI	PCT	0.67	0.85 ng/m	0.42	0.83
		PSEP	0.77**	684 pg/m	0.63	0.88
	AKI	PCT	0.82	0.94 ng/m	0.69	0.79
		PSEP	0.85	891 pg/m	0.83	0.69
eGFR	Non-AKI	PCT	0.69	0.86 ng/m	0.45	0.85
		PSEP	0.79*	694 pg/m	0.66	0.87
	AKI	PCT	0.81	1.14 ng/m	0.69	0.79
		PSEP	0.84	891 pg/m	0.86	0.62

AUC, area under curve. \*  $p < 0.05$  vs PCT, \*\*  $p < 0.01$  vs PCT