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Session Name: KSN-KSCCM Joint Symposium (Korean Society of Critical Care Medicine)

Session Topic: Integrating Nephrology and Critical Care: Innovations in AKI and CRRT Management

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## **Sepsis Associated AKI**

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Sepsis-associated acute kidney injury (AKI) is a common but potentially lethal complication of sepsis. AKI increases the risk of morbidity, mortality, and the progression to end stage renal disease. In contrast to 'traditional' AKI where ischemia is the common cause, reported causes of sepsis-associated AKI include inflammation, dysregulated immune response, microcirculatory dysfunction, and hemodynamic instability. There are no separate criteria for diagnosing sepsis-associated AKI and the KDIGO criteria for AKI is often used. Relatively novel biomarkers such as neutrophil gelatinase-associated lipocalin (NGAL) has been suggested in aiding the diagnosis of sepsis-associated AKI. However, wide-spread use of novel biomarkers has not gained popularity. Fundamentals of managing sepsis-associated AKI include control of the source causing the sepsis and early use of antibiotics, which are the pillars of sepsis treatment. Hemodynamic stability through fluid resuscitation and vasopressors, avoiding additional nephrotoxicity, and (if required) renal replacement therapy are important for improving long term outcome.

**Keywords:** sepsis, acute kidney injury, fluid resuscitation, vasopressors, nephrotoxicity