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# **Research Advances in Kidney Diseases and Sepsis**

Guest Editor:

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### Message from the Guest Editor

Sepsis and kidney diseases have a strong interrelationship, as they mutually increase the risk of one another. Kidney disease can contribute to the development of sepsis, particularly in individuals undergoing dialysis who possess a vascular access site such as a catheter, graft or fistula beneath their skin and within a blood vessel. This access point provides an avenue for pathogens to directly enter the bloodstream. Furthermore, chronic kidney disease can compromise the immune system's functionality, thereby elevating susceptibility to severe infections. Additionally, certain medications utilized post-kidney transplant surgery (such as anti-rejection drugs) may weaken the immune response. Infections can arise from kidney stones and potentially disseminate throughout the body, leading to sepsis. Sepsis can lead to systemic dysfunction, resulting in multi-organ failure, often initiating with renal impairment. Hypotension may ensue, leading to compromised perfusion of oxygen and nutrients to the kidneys. Additionally, intravascular coagulation can impede renal oxygenation.









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### Message from the Editor-in-Chief

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