Editorial

Acute Renal Replacement Therapy

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Acute kidney injury is an important clinical condition particularly in the intensive care unit. It develops in as many as two-thirds of critically ill patients during the course of their illness and constitutes a significant independent risk factor for death. About 5% patients admitted to an ICU will eventually require renal replacement therapy. In these patients, in-hospital mortality is extremely high, exceeding 50%. The adequate delivery of acute renal replacement therapy is a key aspect in the treatment of these patients and a prerequisite for a successful outcome.

In this special issue K. Yong et al. first discuss recent changes in AKI classification and revisit controversies such as the timing of initiation of dialysis, the modalities of renal support, and the dialysis intensity delivered. N. Ansari then focuses on the use of peritoneal dialysis as a renal replacement therapy for AKI. Two further articles discuss technical aspects of extracorporeal techniques for renal replacement therapy. F. Mariano et al. weigh success and limits of citrate anticoagulation strategies, while M. Abe et al. compare sustained hemodiafiltration with acetate-free dialysate with continuous venovenous hemodiafiltration for the treatment of critically ill patients with AKI. In the last part, C. M. Yuan and R. M. Perkins provide an overview of renal replacement therapy in austere environments, that is, the provision of therapy in a setting in which resources are limited, incapacitated, or even nonexistent. Recent earthquakes and flood disasters highlight the actuality of this topic. Finally, S. Grisaru et al. report on their vast experience in the management of children with diarrhea-associated hemolytic uremic syndrome.

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