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Editorial

Acute Renal Replacement Therapy

Achim Jörres,[1] Wim van Biesen,[2] Andrew Davenport,[3] and Michael Oppert[1]

[1] *Department of Nephrology and Medical Intensive Care, Charité University Hospital, 133 53 Berlin, Germany*
[2] *Renal Divison, University Hospital Ghent, De Pintelaan 185, 9000 Ghent, Belgium*
[3] *Centre for Nephrology, University College London Medical School, Royal Free Campus, Pond Street, London NW3 2QG, UK*

Correspondence should be addressed to Achim Jörres, achim.joerres@charite.de

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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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Achim Jörres
Wim van Biesen
Andrew Davenport
Michael Oppert