

Changing the paradigms for the treatment of chronic kidney disease



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Chronic kidney disease (CKD) is a worldwide public health problem. Although the relative risk of death for most communicable and noncommunicable diseases has improved worldwide, CKD is among the few disease states that have been associated with worsening mortality since 1990, and is now the 19th leading cause of global years of life lost.¹ Even in developed countries like the United States and United Kingdom, the incidence and prevalence of CKD and end-stage renal disease remain high, and are associated with very high morbidity and mortality, due primarily to complications of cardiovascular disease.^{2–4} Notwithstanding the role of traditional cardiovascular risk factors in patients with CKD and end-stage renal disease, the extremely high rate of cardiovascular complications in these populations cannot be simply ascribed to the effects of more severe hypertension, obesity, or hypercholesterolemia; these are in fact often associated with lower mortality in patients with kidney diseases.^{5–7} CKD and end-stage renal disease are characterized by the progressive development of a multitude of abnormalities, such as electrolyte disorders, mineral and bone disorders, metabolic acidosis, or anemia; all of which have been shown to be associated with adverse outcomes in patients with kidney disease, and that likely contribute (separately or in combination) to the observed cardiovascular morbidity and mortality seen in these patients.⁸ Although CKD is not a curable disease in the vast majority of cases, its metabolic and other complications are typically amenable to therapeutic interventions. Anemia and hyperkalemia represent 2 complications that have been commonly treated by nephrologists for

decades, but with interventions that are not without serious side effects.^{9,10} Recent advancements in our understanding of disease pathophysiology and the development of novel therapeutic agents has led to a renewed emphasis on the treatment of anemia of CKD and hyperkalemia, and may lead to a change on our therapeutic paradigms for these conditions.^{11,12}

This special issue of *Kidney International Supplements* is based on 2 satellite symposiums held at the 2017 International Society of Nephrology World Congress of Nephrology Meeting. The topics included a discussion of emerging treatment options for managing anemia and hyperkalemia in CKD. The speakers are world-known experts in their respective fields and they provided cutting-edge discussions presenting emerging evidence for changing treatment paradigms.

It was our pleasure to organize and serve as moderators for these symposiums and now guest editors for this special supplement. We are grateful for the speakers and their diligent work in creating the content for the symposium and their agreement to provide the content in this supplement. We hope that you find this a valuable resource in understanding the emerging treatment strategies for anemia and hyperkalemia.

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