

Abstract Form

Topic	Post-AKI: follow up, care and outcomes
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Acute kidney injury (AKI) is a commonly encountered medical problem that remains associated with increased all-cause mortality and healthcare utilization. The incidence of AKI requiring dialysis therapy (AKI-D) is increasing by 10% per year in the United States and is now higher than that of end-stage renal disease (ESRD). Patient survival from an episode of AKI has been improved by advances in critical care and renal replacement therapy (RRT) technology; therefore, an increasing number of hospitalized AKI patients who require RRT survive. Recent observational studies including ours have linked the progression of ESRD, mortality, hypertension, coronary events, stroke, and bone fracture to previous episodes of AKI among those who survived to hospital discharge. Despite guidelines published by the Kidney Disease: Improving Global Outcomes (KDIGO) Clinical Practice Guideline recommending that survivors of AKI be followed up by a nephrologist within 90 days, only 8.5- 25% of all patients with severe AKI received follow-up care by a nephrologist after surviving to discharge.

AKI is associated with a risk of ESRD that is 13 times as high as the risk among patients without AKI, and the risk of ESRD is 40 times as high if the patients have both AKI and pre-existing chronic kidney disease (CKD). The consensus of the 16th Acute Dialysis Quality Initiative (ADQI) highlighted the importance of clinical follow-up after AKI, including specific recommendations for re-evaluation of patients 3 months after an AKI occurrence, in regards to the acute kidney disease (AKD) period for resolution, new onset, or progression of CKD. Since AKI is recognized as a risk factor for the development of ESRD, it is crucial to have appropriate protection strategies for the avoidance of further target organ damage and associated mortality in the critical phases of the AKD. Researchers have proposed that the transitional period during AKI-AKD-CKD may be an opportunity to intervene. Interventions like improved blood pressure control, avoidance of nephrotoxins and the initiation of renin-angiotensin-aldosterone system (RAAS) blockade agents may prevent the progression of kidney diseases and related complications. However, it is still a missing puzzle piece in the timely pharmacologic treatment and long-term target organ protection in AKI patients.

Based on the study results of our National Taiwan University Hospital Study Group on Acute Renal Failure (NSARF) and the other independent groups, I would like to discuss the role of RAAS blockade, dipeptidyl peptidase-4 inhibitor, statin, and the other novel treatment in AKD patients and pre-clinical experiments. I would like to share the concept that AKI-CKD continuum should be preventable and treatable, but timely reliable pharmacologic treatments need to be administered to exhibit their optimal therapeutic effects.