

## Post cardiac catheterization acute kidney injury (AKI) causes long-term adverse events

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It is known that chronic kidney disease (CKD) is associated with a greater burden of other health problems including cardiovascular disease (CVD) and premature death. Longitudinal studies have documented that long-term adverse clinical outcomes become increasingly more likely the lower the level of kidney function at the start of observation period.

Longitudinal studies of cohorts with acute kidney injury (AKI) also document an association with long-term adverse clinical outcomes. However it is unclear to what extent the AKI itself contributes to the outcome. Alternate explanations for long-term adverse events include both baseline co-morbidity and the causes and complications of the AKI.

The population undergoing cardiac angiography is an ideal one to study because the incidence of AKI is higher than in many other populations, and the overall rate of long-term adverse clinical events is high. Existing studies of cohorts undergoing cardiac angiography consistently show an association between AKI and long-term adverse events including premature death.

How post angiography AKI might cause the long-term adverse events is controversial. However, there is increasing evidence that AKI leads to CKD and this might be the pathophysiologic pathway to CVD and death. Large epidemiologic databases, observational cohorts, and small prospective randomized trials all support a causal association between AKI and long-term adverse events. This causal pathway makes it imperative to prevent AKI in this setting.

### Biography

Dr. Solomon is the Patrick Professor of Medicine at the University of Vermont College of Medicine and Director of the Division of Nephrology at Fletcher Allen Health Care. He is a recognized authority on AKI and contrast-induced nephropathy (CIN). He is involved in a number of national trials for the prevention of CIN. He has published more than 150 papers and reviews for all that major Nephrology, Cardiology and Radiology journals.

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