HOSPITALIZATIONS FOR HEART FAILURE INCREASE KIDNEY DISEASE PATIENTS’ RISK OF KIDNEY FAILURE, PREMATURE DEATH

*Studies needed to determine whether preventive measures could reduce risk*

**Highlight**
- Among patients with chronic kidney disease, the risks of developing kidney failure or dying prematurely increased markedly in a step-wise fashion after each successive hospitalization for heart failure.

60 million people globally have chronic kidney disease.

**Washington, DC (September 4, 2014) —** Being hospitalized for heart failure increases kidney disease patients’ risks of developing kidney failure or dying prematurely, according to a study appearing in an upcoming issue of the *Journal of the American Society of Nephrology* (JASN). The findings indicate that coordinated care between heart and kidney specialists and primary care physicians is especially important in patients with chronic kidney disease (CKD) who have experienced one or more hospitalizations for heart failure.

Both CKD and congestive heart failure are becoming increasingly prevalent as the general population ages and contributing conditions such as diabetes, hypertension, and vascular disease become more widespread. Patients with the combination of CKD and heart failure pose management challenges for both heart and kidney specialists. For example, it can be difficult to find the right balance of diuretic therapy to reduce the frequency of hospitalizations for heart failure without further worsening a patient’s kidney function.

To look at the relationship of heart failure and CKD, Maneesh Sud, MD, David M.J. Naimark, MD, MSc (University of Toronto) and their colleagues examined how multiple heart failure hospitalizations affect CKD patients’ risk of developing kidney failure or dying prematurely. The researchers retrospectively studied 2887 CKD patients referred between 2001 and 2008 to a nephrology clinic in Toronto.

The team found that the risks of both outcomes—kidney failure and premature death—increased markedly in a step-wise fashion after each successive heart failure.
hospitalization. Compared with no heart failure hospitalizations, one, two, or three or more heart failure hospitalizations increased the risk of developing kidney failure by 5-, 10-, and 14-fold, respectively. They increased the risk of dying before developing kidney failure by 3-, 4-, and 7-fold, respectively.

“The clinical implications of the work are that heart failure hospitalization is frequent in CKD patients, that the presence and number of prior hospitalizations affect both mortality and kidney failure risk, and that the existence of multiple prior hospitalizations may have a bearing on decisions regarding dialysis or kidney transplantation,” said Dr. Naimark. “Whether enhanced secondary prevention strategies among CKD patients who have experienced multiple heart failure hospitalizations would mitigate these risks is an important question for future research,” he added.

Study co-authors include Navdeep Tangri, MD, PhD, Melania Pintilie, MSc, and Andrew Levey, MD.

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The article, entitled “ESRD and Death after Heart Failure in CKD,” will appear online at http://jasn.asnjournals.org/ on September 4, 2014.

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*craig.duhamel@sunnybrook.ca or marie.sanderson@sunnybrook.ca