**ASSOCIATION BETWEEN CHRONIC KIDNEY DISEASE AND READMISSION RATE IN PATIENTS HOSPITALIZED WITH HEART FAILURE**

**R. Alreshq**, H. Patel, S. Purga, S. Fein, E. Philbin, M. Torosoff, R. Lyubarova

Albany Medical College, Albany, NY, USA

**Background:** Patients with chronic kidney disease (CKD) tend to have multiple comorbidities which increase the risk of heart failure (HF) readmissions. Despite CKD being independently associated with an increased incidence of HF, there is limited data on the independent effect of CKD on HF readmission rate.

**Hypothesis:** CKD patients admitted with HF have a higher readmission rate independent of other comorbidities.

**Methods:** A retrospective cohort study of 4,260 consecutive patients admitted with HF to a single academic hospital was conducted between 01/01/2007 and 12/31/2016. Patients with prior history of CKD or serum creatinine >2.0 mg/dl were categorized as CKD group. Readmission rate was defined as >1 HF admission. The odds of HF readmission were evaluated using both univariate and multivariate analysis adjusted for other comorbidities.

**Results:** Among the 4,260 patients admitted for heart failure, 19.5% had CKD. In the CKD group (N=829, age 70.1±13.8 years), 64% were men and 77.2% were Caucasians. The non-CKD group (N=3431, age 67.1±15.0 years) consisted of 61% men and 78.6% were Caucasians. CKD patients had higher prevalence of atrial fibrillation/flutter (35.2% vs 25.7%), coronary artery disease (59.7% vs 42.5 %), diabetes mellitus (55% vs 31.4 %), hyperlipidemia (59.3% vs 51.8%), hypertension (80.9% vs 66.5%), and prior HF diagnosis (63.7% vs 42.3%). All p values were <0.001. There was similar prevalence of HF with reduced ejection fraction of <40% (43.1% vs 45.6%, p=0.20).

CKD patients had more HF readmissions than patients without CKD (22.8% vs 17.3%, p<0.001). On multivariate analysis, CKD was not associated with higher HF readmissions (OR 1.14, 95% 0.941-1.384, p=0.20).

**Conclusion:** CKD patients had a higher prevalence of other comorbidities and HF readmission rate. However, CKD as an independent factor was not associated with increased HF readmissions, after adjustment for comorbidities.