

PREVALENCE OF CHRONIC KIDNEY DISEASE (CKD) IN THE HOSPITAL SETTING

Arie Barlev¹, Sidney Thornton², John Holmen², Anthony G. Bower¹.

¹Amgen Inc., Thousand Oaks, CA, USA, ²Intermountain Healthcare, Salt Lake City, UT, USA.

Available data suggest that CKD is under-diagnosed. Patients with CKD often have comorbid conditions, such as diabetes and cardiovascular conditions, which contribute to higher hospitalization rates compared with the general population. Given their increased chance of hospitalization, the hospital may be a unique venue to identify patients with CKD that may otherwise go undiagnosed. The purpose of this analysis was to utilize longitudinal electronic health records to establish the prevalence of CKD in hospitalized patients.

A population of unique adults with ≥ 1 admission to any of the Intermountain Healthcare hospitals from 1/2003 to 12/2003 was identified. From this cohort, all eGFR and relevant ICD-9 diagnosis/procedure codes from 1/2000 to 7/2007 were retrieved for every known inpatient and outpatient historical encounter. Patients were subsequently profiled according to diagnoses of dialysis, kidney transplant, CKD, or reduced kidney function.

A total of 83,190 unique patients were admitted between 1/2003 and 12/2003. Of the total admissions, 54% ($n = 45,258$) had an eGFR measurement within 72 hours of admission, of which 23% ($n = 10,473$) had an eGFR <60 mL/min/1.73m². Of the group with an eGFR <60 mL/min/1.73m² within 72 hours of admission, 41% ($n = 4,317$) had a confirmed CKD diagnosis prior to hospitalization, of those patients, 43% ($n = 1,837$) had CKD diagnosis based on ICD-9 codes, and 57% ($n = 2,480$) had CKD based on 2 consecutive eGFR measurements of <60 mL/min/1.73m² taken at least 3 months apart, but were not yet formally diagnosed.

The results of this analysis indicate that at least 9.5% ($4,317/45,258$) of patients admitted to a hospital and have an eGFR measurement have CKD, and over half of those are not yet diagnosed. Given that at least one in ten patients has CKD in the hospital, identification and diagnosis of this patient population during hospitalization may provide an opportunity to improve disease management, and an earlier referral to nephrologists if appropriate.