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Authors

Wittbrodt, E
James, G
Kumar, S
[et al.](#)

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PUK6**COST AND HEALTHCARE RESOURCE USE IN PATIENTS WITH ANEMIA IN CKD USING LINKED US CLAIMS AND ELECTRONIC HEALTH RECORDS**

Wittbrodt E,¹ James G,² Kumar S,³ Garcia Sanchez JJ,² Chen H,³ Sloand JA,³ Kalantar-Zadeh K⁴

¹AstraZeneca, Wilmington, DE, USA, ²AstraZeneca, Cambridge, MD, UK,

³AstraZeneca, Gaithersburg, MD, USA, ⁴University of California - Irvine, Irvine, CA, USA

Objectives: Anemia is a routinely occurring complication in patients with chronic kidney disease (CKD), but current data regarding its economic impact are lacking. This study described direct costs and healthcare resource utilization in non-dialysis CKD patients with and without baseline anemia in real-world practice. **Methods:** This retrospective analysis of the integrated Limited Claims and Electronic Health Record (IBM Health, Armonk, NY) spanned Jan 1, 2012 to Sep 30, 2018. Patients were aged ≥ 18 y with ≥ 2 eGFR measures < 60 mL/min/1.73 m² ≥ 90 days apart. Anemia was defined as any hemoglobin (Hb) < 10 g/dL observed ± 6 months of confirmatory eGFR (baseline period). Total and site-specific costs and selected healthcare resource utilization were analyzed and stratified by presence of baseline anemia, Hb range, CKD stage, sex, and insurance type. **Results:** Of 22,720 patients, 23% (n=5283) had baseline anemia, 77% (17,437) did not, and females accounted for 60% and 56%, mean ages (\pm SD) were 70 (14) and 70 (12) y, and median follow-up times were 2.9 and 3.8 y, respectively. Baseline anemia prevalence by CKD stage was 18% (3a), 25% (3b), 41% (4), and 73% (5). Median per patient total costs were \$49012 and \$31667, total hospitalization costs were \$33479 and \$22695, and total ER costs were \$2232 and \$1891, respectively. Median annual number of transfusions doubled (2 vs 1) and annual transfusion cost was 50% greater in patients with vs without baseline anemia, respectively. Slightly increased costs were associated with male sex and were markedly increased by advancing CKD stage ($>3a$), baseline Hb < 10 , and supplemental Medicare and non-capitated insurance coverage. **Conclusions:** Anemia is associated with substantially added direct cost and healthcare resource utilization experienced by patients with non-dialysis CKD, in both early and advanced stages and with lower Hb. Effective management of anemia in CKD offers an opportunity to address this ongoing burden.