

E0283 **Frequency of vancomycin-associated acute kidney injury and healthcare utilization among Veterans' Affairs patients with skin and skin structure infections**

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Background: Studies have described an increased risk of acute kidney injury with vancomycin (V) use. However, there are scant data of the risk of vancomycin-associated acute kidney injury (V-A AKI) among hospitalized adults with skin and skin structure (SSSI) infections. This study quantified the incidence of V-A AKI and characterize healthcare utilization among patients with SSSIs receiving V.

Materials/methods: A retrospective cohort study was performed among hospitalized Veterans' Affairs patients between 2009 and 2015. Inclusion criteria: age ≥ 18 ; V ≥ 48 h; V within 2 days of admission; serum creatinine (SCr) data (pre-V and on-treatment with V). Exclusion: chronic dialysis; osteomyelitis; life-threatening skin infections. Outcomes: VA-AKI, defined as 0.5g/L increase in SCr or 50% decline in creatinine clearance (CrCl) from baseline. Secondary outcomes were total length of stay (LOS), need for specialty physician consultation (infectious diseases or nephrology) and acute dialysis after experiencing V-A AKI.

Results: Among 218 patients, 207 (95%) were male with a mean \pm standard deviation (SD) age of 65.2 ± 12.0 years. Most (75.2%) patients had cellulitis. Median (interquartile range, IQR) baseline CrCl was 76.6 (58.1 – 97.4) ml/min. Among the 191 patients with V concentrations, median (IQR) V concentration was 11.7 (9.3 – 15.7) mg/mL. Concomitant nephrotoxic medication use was 3.2%. The overall incidence of VA-AKI was 9.2%. Median (IQR) time to V-A AKI was 5 (4 – 6) days. Of the patients with V-A AKI, 25% required a specialty physician consultation after occurrence of post V-A AKI occurrence and 15% required acute dialysis. Median (IQR) LOS was significantly long for patients with V-A AKI vs those with no V-A AKI (12 (7 – 17) versus 7 (5 – 10) days, respectively, $p = 0.001$).

Conclusions: Among patients with SSSIs, V-A AKI incidence was 9.2%. LOS was significantly longer for patients V-A AKI. Many patients with V-A AKI had a specialty physician consultation and required acute dialysis.