ISPOR Abstract

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Title: A USRDS Retrospective Cohort Study: Epidemiology, Treatment Modalities, and Burden of End-Stage Kidney Disease Attributed to Immunoglobulin A Nephropathy

Authors: Bensink ME[1], Goldschmidt D[2], Taiji R[2], Zhou J[2], Wang K[1], Lieblich R[3], Bunke M[1]

[1]Travere Therapeutics, San Diego, CA, USA
[2]Analysis Group, Boston, MA, USA
[3]VJA Consulting, Walnut Creek, CA, USA

Objectives: Characterized by increased production of inflammatory cytokines that damage the glomerular filtration barrier resulting in proteinuria and hematuria, immunoglobulin A nephropathy (IgAN) leads to end-stage kidney disease (ESKD). This study describes epidemiology, treatment modalities, resource burden, and mortality of ESKD attributed to IgAN in the United States (US).

Methods: We used United States Renal Data System (USRDS) data which includes all patients receiving dialysis or kidney transplant. Patients registered in USRDS in 2008-2018 with IgAN as the primary ESKD cause were included (USRDS registration date as index date). Annual prevalence and incidence of ESKD-attributed IgAN were evaluated. Patient characteristics and treatment modalities during the 12-months after index (follow-up) were described. For the subgroup with Medicare at index and during follow-up, healthcare resource utilization during follow-up was described.

Results: From 2008-2018, an average of 920 IgAN patients progressed to ESKD annually, with approximately 12,400 IgAN patients requiring ESKD care annually (average incidence and period prevalence rates of 2.9 and 39.3 per million US population, respectively). Of 10,101 patients in the final cohort, median age at index was 47 years, 66% male, 76% white, 14% Asian, and 54% employed 6 months prior. 85% started on dialysis, mostly in-center hemodialysis; 15% received a kidney transplant at ESKD registration. During 12-month follow-up, an additional 13% received a kidney transplant. Among 1,510 patients with Medicare coverage, resource burden was high, with 72% requiring hospitalization and 64% visiting an emergency room (ER). Five-year survival for the final cohort was 83% (95% Confidence Interval: 82% to 84%).

Conclusion: Although rare, IgAN-attributed ESKD in the US is associated with substantial burden to patients and the healthcare system. Safe, effective, and approved therapies for IgAN would significantly improve the lives of patients and reduce substantial burden to the healthcare system.