Incidence, co-morbidity burden and resource utilization of psoriasis hospitalization has increased in the last decade: A 11-year longitudinal study of the national inpatient sample

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This study aims to study longitudinal trends of psoriasis hospitalizations over time in the United States (US) using national population data. Data were obtained from the National Inpatient Sample (NIS) database. We performed a retrospective 11-year longitudinal trend analysis of NIS 2008-2018 databases. We searched for index hospitalizations for any principal or secondary diagnosis of HS using ICD codes for the corresponding year. The proportion of whites decreased from 46.6% in 2008 to 38.5% in 2018 (adjusted p-trend <0.001), while that of blacks increased from 42.6% in 2008 to 47.7% in 2018 (adjusted p-trend<0.014). The proportion of Hispanics and Asians also increased from 7.1% & 0.5% in 2008 to 9.9% & 1.1% in 2018 (adjusted p-trend<0.001 & 0.036) respectively.

The proportion of patients with Charleston co-morbidity index (CCI) score of 0 decreased from 88.9% in 2008 to 76.2% in 2018, while those with CCI score of ≥ 3 increased from 11.0% in 2010 to 11.5% in 2018, with a peak of 13.6% in 2016 (adjusted p-trend=0.028). The incidence of adult HS hospitalizations in the US was 6,569.17 per 100,000 persons in 2008 vs 7,483.68 in 2018 (adjusted p-trend<0.001), with an increase of 13.4% over time (annual mean increase=0.3). Multivariate logistic and linear regression was used to calculate adjusted p-trend for categorical and continuous outcomes, respectively.

30-day readmission rate increased over time, from 11.1% in 2008 to 23.8% in 2018 (adjusted p-trend=0.001). Overall, our study suggests that systemic immunomodulation may reduce cancer risk and related hospitalization burden. This study could be of interest to dermatologists and healthcare providers.