

## Pharmacoepidemiology

### 1603 RACIAL DIFFERENCES IN PERSISTENT GLUCOCORTICOID USE PATTERNS AMONG MEDICAID BENEFICIARIES WITH INCIDENT SYSTEMIC LUPUS ERYTHEMATOSUS

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10.1136/lupus-2022-lupus21century.98

**Background** Glucocorticoids (“steroids”) are frequently used in systemic lupus erythematosus (SLE) to treat active disease. While effective, steroid use has been associated with increased risk of potentially avoidable adverse events including serious infections, osteoporosis, avascular necrosis, and cardiovascular disease. Prolonged use may contribute to racial/ethnic disparities in these avoidable outcomes and in acute care use. We therefore examined racial/ethnic differences in longitudinal patterns of steroid use and dose in a cohort of beneficiaries of Medicaid, the largest public insurance serving lower income individuals in the U.S.

**Methods** We identified Medicaid beneficiaries from the 29 most populous U.S. states 2000- 2010 who were 18-65 years, had incident SLE ( $\geq 3$  ICD-9 codes for SLE separated by  $\geq 30$  days with no SLE codes in the prior 24 months) and who received steroids for 12 months following the date of the third ICD-9 code (index date). We used group-based trajectory modeling to identify patterns of daily prednisone-equivalent steroid doses over the 12-month follow-up period beginning at the index date. We examined demographic, clinical and healthcare utilization factors, as well as SLE severity markers, during the baseline period and used multinomial logistic regression to estimate the odds of belonging to the higher vs. lowest steroid dose trajectories (Odds Ratio [OR], 95% CI).

**Results** We identified 6,323 individuals with SLE with  $\geq 1$  dispensed steroid prescription. The mean (SD) prednisone-equivalent dose was 7 (23) mg/day for Black, 7 (26) Hispanic, 7 (13) Asian, and 4 (10) for White individuals. We identified four trajectories of steroid dose and use (figure 1). Multinomial models adjusted for demographics, comorbidities, other medication use, healthcare utilization and SLE disease severity demonstrated higher odds of belonging to the highest vs. lowest steroid trajectory for Black (OR 2.06, 95% CI 1.64-2.60), Hispanic (OR 1.82, 95% CI 1.38-2.40), and Asian (OR 2.40, 95% CI 1.52-3.80) vs. White individuals. Having  $>5$  outpatient visits during the baseline period was associated with lower odds of being in the persistently high-dose steroid trajectory (OR 0.78; 95% CI 0.61-1.00).

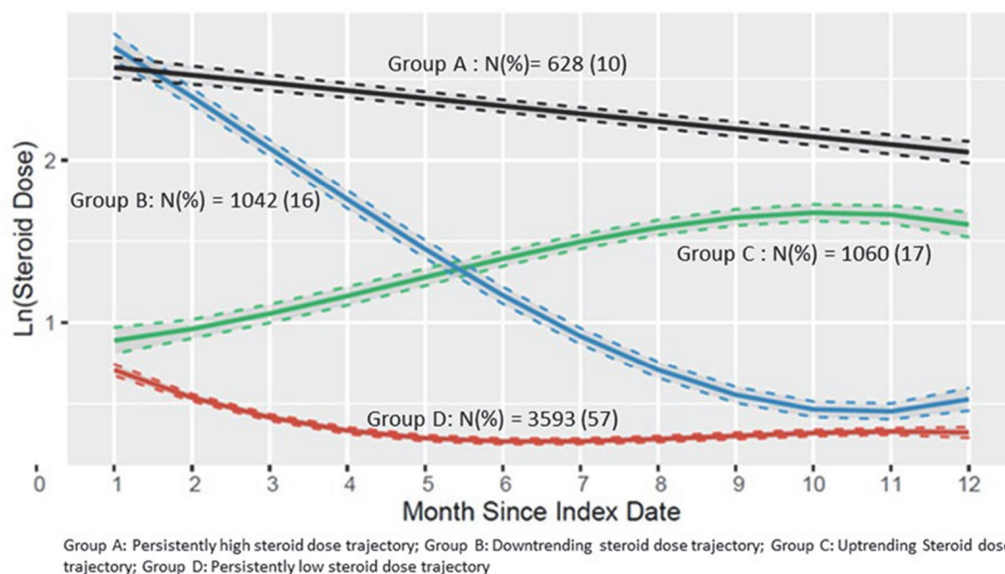
**Conclusion** Black, Hispanic, and Asian (vs. White individuals) had higher odds of persistently high-dose steroid use that remained after adjusting for SLE disease severity markers. Sustained access to outpatient care and the development of standardized steroid-tapering regimens from clinical trials with diverse populations may be targets for intervention to mitigate disparities in steroid-related avoidable adverse outcomes.

### 1604 COMPARATIVE RISKS OF INFECTION WITH BELIMUMAB VERSUS ORAL IMMUNOSUPPRESSANTS IN PATIENTS WITH NON-RENAL SYSTEMIC LUPUS ERYTHEMATOSUS

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10.1136/lupus-2022-lupus21century.99

**Background/Purpose** Belimumab, a biologic B-Lymphocyte stimulator (BLyS) inhibitor, was FDA-approved in 2011 for the treatment of active systemic lupus erythematosus (SLE). Initial phase 3 placebo-controlled trials found no increased risk of infection in patients initiated on belimumab in addition



**Abstract 1603 Figure 1** Group-based trajectory model of 12-month steroid dose and use patterns among Medicaid beneficiaries with incident SLE (N=6,323)